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SKELETAL MATERIAL FROM DEIR EL-MEDINA IN THE EGYPTOLOGICAL COLLECTION OF THE HRDLIČKA MUSEUM OF MAN IN PRAGUE

Julie Tomsová[1] – Zuzana Schierová[2]

ABSTRACT: The Egyptological collection of the Hrdlička Museum of Man, part of the Faculty of Science, Charles University in Prague, contains next to some ancient Egyptian artefacts mainly anthropological material, namely skeletal and mummified human remains. The article focuses on the skeletal material from the archeological site of Deir el-Medina. The paper discusses the genesis of the collection, its documentation and anthropological examinations in the 1930s and 1970s and most recently since 2012 to the present days. The paper also presents a complete catalogue of the skeletal material from Deir el-Medina in the Egyptological collection of the Hrdlička Museum of Man and provides a comprehensive bibliography on the topic.

KEY WORDS: Egypt – New Kingdom – Deir el-Medina – Thebes – IFAO – Hrdlička Museum of Man – Skeletal material – Anomalies and pathological changes

1. Introduction

Part of the Egyptological collection of the Hrdlička Museum of Man of the Faculty of Science, Charles University in Prague (hereafter the Hrdlička Museum) currently hold *inter alia*[3] a collection of skeletal remains from the ancient Egyptian site of Deir el-Medina. This collection was donated to the Hrdlička Museum by the French Institute of Oriental Archaeology in Cairo (Institut français d'archéologie

[1] Hrdlička Museum of Man, Faculty of Science, Charles University in Prague, Czech Republic; e-mail: julietomsova@gmail.com.

[2] Hrdlička Museum of Man, Faculty of Science, Charles University in Prague, Czech Republic; Department of Anthropology and Human Genetics, Faculty of Science, Charles University in Prague, Czech Republic; e-mail: zuzana.krupova@natur.cuni.cz.

[3] In addition to Egyptian artefacts, the Egyptological collection of the Hrdlička Museum mainly contains anthropological material, both skeletal and mummified human remains. For more details on mummified material from Deir el-Medina as well as other anthropological material, both skeletal and mummified from other ancient Egyptian sites, in the Egyptological collection of the Hrdlička Museum see the writer's article *"Egyptologická sbírka Hrdličkova muzea člověka PřF UK v Praze"*(Tomsová, 2014b). For the list of antiquities from the Hrdlička Museum see *"Deir el-Medina in the Hrdlička Museum of Man"* (Onderka – Navrátilová 2014).

orientale du Caire, i.e. and hereafter IFAO) through the mediation of Jaroslav Černý (1898–1970) in the interwar period.[4]

2. The Archaeological Site of Deir el-Medina

The workmen's village at Deir el-Medina, along with the workmen's village in Giza, the town in Kahun, and the Southern Village at Tell el-Amarna, is one of the most significant ancient Egyptian settlement sites discovered and archaeologically explored (for the overview of the development of Deir el-Medina cf. for example Toivari-Viitala 2011). Many publications on Deir el-Medina have been published, and numerous personal histories of the village's ancient inhabitants are nowadays well known and documented. Based on written materials discovered at the site, a long genealogical line of up to several generations has been reconstructed for numerous families (for details see Černý 1973 and Davies 1999).

The most extensive archaeological exploration of Deir el-Medina was conducted in the interwar period by the IFAO. The site had been considerably damaged when the French research started and Pierre Lacau (1873–1963), the IFAO's director at that time, decided to empty all the graves, document and localize them precisely (including photographic documentation), register them in the overall plan of the cemetery, and also secure the necropolis against unwelcome visitors. The more important tombs were left open, the less significant ones were sealed again. What was at first planned as a revision of the excavations soon vastly exceeded the original intention and gradually turned into a systematic exploration of the ancient site. The IFAO had visited the site on an annual basis since 1921, and thorough archaeological research had been carried out under the direction of Bernard Bruyère (1879–1971).[5] At first Bruyère worked on the site alone, later he received help from the Swiss ceremicist Georges Nagel (1899–1956), and in 1925, he was joined by the Czech Egyptologist Jaroslav Černý (1898–1970).

3. History of the Egyptological Collection of the Hrdlička Museum

Crucial for the creation of Deir el-Medina's Egyptological collection in the Hrdlička Museum was the meeting between Ludmila Matiegková and Jaroslav Černý in 1926 (Havlůjová 2005: 217). Ludmila Matiegková (1889–1960), the daughter of Jindřich Matiegka (1862–1841), the first curator of the Hrdlička Museum, was among the first generation of Czech Egyptologists.[6] She undertook three study trips to Egypt and the

[4] According to the inventory records of the Museum of Man and the Antropological Institute (Archive of Hrdlička Museum of Man of the Faculty of Science, Charles University), and according present research, the individual items of the collection became a part of the inventory in 1929 and 1933.

[5] The results of archaeological research of the Deir el-Medina site by the IFAO, which was led by Bernard Bruyère, were published in the edition of *Fouilles de l'Institut français d'archéologie orientale du Caire* under the name of *Rapport sur les fouilles de Deir el-Médineh, 1922–1951.*

[6] Ludmila Matiegková graduated in history, geography, and Oriental studies from the Faculty of Arts, Charles University in Prague. She was one of the first students of František Lexa (1876–1960), the founder of Czech Egyptology, and one of the first female scientists in this field. However, she carried out her academic research privately; during the day she worked as a teacher at the girls' grammar school Minerva and at a girls' lyceum in Holešovice. For more details on the life of Ludmila Matiegková, see Havlůjová 2005 and the Archive of the Charles University, Personal Fund of Ludmila Matiegková (still unprocessed).

Near East in 1926, 1927 and 1929.[7] Her father's professional focus strongly influenced her own research, and Matiegková concentrated herself on physical anthropology, demography, pharmacology and anthropology of ancient Egypt with relation to children. The results of her research were formulated in many of her studies (Matiegková 1929, 1933, 1935, 1937). It is also noteworthy that her anthropological and medical approaches to the topic were truly unique, even in the wider, international context.

During her study trips, Matiegková got to know and started to work with Jaroslav Černý, who is rightly considered to be one of the most acclaimed Egyptologists, both in the national and international contexts. Černý built an astounding career in his field and was one of the greatest experts in the linguistics and palaeography of the New Kingdom of Egypt (ca. 1543–1080 BCE[8]), or more precisely in Late Egyptian and hieratic. For the Czechoslovak part of his career, he was a *privatdozent* at the Faculty of Arts, Charles University in Prague, and he simultaneously participated in the IFAO excavations. He studied the life of the royal workmen's community in the village of Deir el-Medina, who were responsible for the construction of the Egyptian pharaohs' tombs in the Valley of the Kings for four hundred years. He knew the genealogies, family relationships, occupations as well as the characteristic features of numerous generations of more than seventy local families.[9]

In 1937, Černý's initiative resulted in the National Museum in Prague acquiring a valuable collection of archaeological findings from Deir el-Medina.[10] The collection was an official donation from the IFAO and Bernand Bruyère, the leading expert in Deir el-Medina research. However, already in 1920s and 1930s, skeletal and mummified remains from Deir el-Medina had found their way to the collections of the Anthropological Institute of the Faculty of Science, the Charles University in Prague (whose head at that time was Jindřich Matiegka as well). The remains sent to Prague for the purpose of anthropological analyses, eventually became part of the Egyptological collection of the Hrdlička Museum.[11]

According to the entry in the *Inventory of the Anthropological Institute*, eight mummified heads, originating in mass graves in the Western Cemetery of Deir el-

[7] For more details on Ludmila Matiegková's visits to Egypt, see Havlůjová 2009. Matiegková's study journeys to Egypt are also described in her vast correspondence which focuses on her impressions and experiences. See the Archives of the National Museum, Personal Fund of Jindřich Matiegka, and the Archive of the Charles University, Personal Fund of Ludmila Matiegková.

[8] The establishment of a reliable chronology is still the subject of open discussion among Egyptologists. Since we find ourselves in a Czech context, we will follow the chronology according to scientists of the Czech Institute of Egyptology at the Faculty of Arts, Charles University in Prague. See Verner 2007.

[9] The most complex description of Jaroslav Černý's life can be found in a study by Růžová 2010, also Strouhal – Bareš 1993 and Žába 1971. For more details on Černý's research in Deir el-Medina see Černý 1973.

[10] Černý donated the valuable collection of ostraca first to the Oriental Institute of the Czech Academy of Sciences, they were later transferred to the Czechoslovak Institute of Egyptology, and eventually to the National Museum – Náprstek Museum of Asian, African and American Cultures in Prague, where they kept the collection to the present day.

[11] *"We have the mummies taken out an examined, whether they don´t have any antiquities on them, and then we bury them in a mass grave, which has already been measured and examined and found otherwise uninteresting. The tomb is then covered. Actually, we used to do this, but now all better mummies and even bones from them travel to the collection of the anthropological institute of Prof. Matiegka at the Faculty of Natural Sciences of the Charles University. I have managed to acquire these mummies as a gift for this institute, where they are anthropologically examined."* (Černý 2007: 29)

Medina site and dated to the New Kingdom, became part of the Egyptological collection of the Anthropological Institute in 1926.[12]

In 1927, three complete mummified bodies were obtained from the IFAO.[13], originating at the same site and dated either to the very end of the New Kingdom, or to the first part of the Third Intermediate Period (ca. 1178–745 BCE).[14] As a later research proved (Strouhal – Vyhnánek 1979: 28–35), they were remains of one woman between 50–60 years of age, and two men aged 40–50, and 50–70.

In 1929, the department acquired the remains of one of the royal workmen, Sennefer, those of his wife Nefertiti, and their supposed offspring, who were discovered in the tomb DM 1159 and are traditionally dated to the 18th Dynasty (ca. 1543–1292 BCE).[15]

The last addition to the Egyptological collection registered in the inventory books was a set of eight skulls originating in tombs of the 18th Dynasty (which the Department acquired in 1933).[16]

The Deir el-Medina collection of the Hrdlička Museum also includes a significant amount of isolated skeletal material – especially paired and unpaired femurs and several other long bones.[17]

In total the skeletal material from Deir el-Medina in the collection of the Hrdlička Museum includes three almost complete skeletons from DM 1159, 20 skulls, five skulls from DM 1137, five skulls from DM 1153, one skull from DM 1160, 29 long bones (two pairs of femurs from DM 1137 and three humeri from DM 1137, the origin of the rest is uncertain), For more details see Table 1.

Table 1. Skeletal material in the Egyptological collection of the Hrdlička Museum.

Inv. number	Localities	Tomb	Bone
70034	Egypt Deir el Medina	1137	skull
70035	Egypt Deir el Medina	1137	skull

[12] *Inventory of the Anthropological Institute*, p. 6, Inv. Nos. 219–226, Archive of Hrdlička Museum of Man of the Faculty of Science, Charles University. The skulls originate mostly in tombs DM 1135 (Bruyère 1929: 9–10) and DM 1137 (Bruyère 1929: 10–12). Six of these heads were anthropologically analysed by Jindřich Matiegka 1927 who published the results in finding reports of the IFAO on Deir el-Medina for 1926.

[13] There were initially four complete mummified bodies in the Egyptological collection of the Anthropological Institute but one of them was transferred to the District Museum of Topolčany (Inv. No. H 90) in 1955, donated by Vojtěch Fetter, second curator of the Hrdlička Museum, with the purpose of completing that institute's collections from the psychical anthropology point of view. For more details see Strouhal – Vyhnánek 1979: 30–31. The mummy is however currently located in the Slovak National Museum – Natural History Museum. The documentation of this transfer requires more detailed research – unfortunately there are almost no records in the Archive of Hrdlička Museum – which is currently being carried out by the staff members of the Hrdlička Museum.

[14] *Inventory of the Anthropological Institute*, p. 7, Inv. Nos. 237–239, Archive of Hrdlička Museum of Man of the Faculty of Science, Charles University.

[15] Inventory of the Anthropological Institute, p. 9, Inv. Nos. 292–294, Archive of Hrdlička Museum of Man of the Faculty of Science of the Charles University.

[16] *Inventory of the Museum of Man*, p. 3, Inv. No. 174, Archive of Hrdlička Museum of Man of the Faculty of Science of the Charles University (with Matiegka's handwritten note about the origin).

[17] Unfortunately, no records in the inventory book of the Anthropological Institute nor the Museum of Man exist on this skeletal material, and the reconstruction of this material's journey to the museum's Egyptological collection and of other objects requires more detailed research.

70036	Egypt Deir el Medina	1137	skull
70037	Egypt Deir el Medina	1137	skull
70038	Egypt Deir el Medina	1137	skull
70039	Egypt Deir el Medina	1153	skull
70040	Egypt Deir el Medina	1153	skull
70041	Egypt Deir el Medina	1153	skull
70042	Egypt Deir el Medina	1153	skull
70043	Egypt Deir el Medina	1160	skull
70044	Egypt Deir el Medina	–	skull
70045	Egypt Deir el Medina	–	skull
70046	Egypt Deir el Medina	1153	skull
70047	Egypt Deir el Medina	–	skull
70048	Egypt Deir el Medina	–	skull
70049	Egypt Deir el Medina	–	skull
70050	Egypt Deir el Medina	–	skull
70051	Egypt Deir el Medina	–	skull
70052	Egypt Deir el Medina	–	skull
70053	Egypt Deir el Medina	–	skull
70001	Egypt Deir el Medina	–	femur
70002	Egypt Deir el Medina	–	femur
70003	Egypt Deir el Medina	–	femur
70005	Egypt Deir el Medina	–	femur
70006	Egypt Deir el Medina	–	femur
70007	Egypt Deir el Medina		femur
70008	Egypt Deir el Medina	–	femur
70009	Egypt Deir el Medina	–	femur
70010	Egypt Deir el Medina	–	femur
70011	Egypt Deir el Medina	–	femur
70012	Egypt Deir el Medina	–	femur
70013	Egypt Deir el Medina	–	femur
70014	–	–	tibia
70015	Egypt Deir el Medina	–	tibia
70016	Egypt Deir el Medina	1159	whole skeleton
70017	Egypt Deir el Medina	–	humerus
70018	Egypt Deir el Medina	1159	whole skeleton
70019	–	–	humerus
70020	–	–	tibia
70021	–	–	tibia
70023	–	–	tibiea

70024	–	–	tibia
70025	–	–	humerus
70026	–	–	humerus
70027	Egypt Deir el Medina	1137	femur
70028	Egypt Deir el Medina	1137	femur
70029	Egypt Deir el Medina	1137	femur
70030	Egypt Deir el Medina	1137	femur
70031	Egypt Deir el Medina	1137	humerus
70032	Egypt Deir el Medina	1137	humerus
70033	Egypt Deir el Medina	1137	humerus
	Egypt Deir el Medina	1159	whole skeleton

Anthropological Examination of the Collection

In the late 1920s and the early 1930s, the Anthropological Institute of the Faculty of Sciences, Charles University in Prague, carried out the anthropological research into the above-mentioned remains from Deir el-Medina.[18] The examination was led by Jindřich Matiegka, who had studied the collection since 1927. His daughter Ludmila Matiegková joined him in the early 1930s. The results of their research were published in *Anthropologie* journal in 1931 under the name "*Hrob Sen Nefera a tělesné znaky staroegyptského lidu za doby XVIII. dynastie*" (Matiegková – Matiegka 1931). The remains of Sennefer, his assumed wife Nefertiti and child are probably the best studied part of the collection. A complete inventorying and revision of the Deir el-Medina's skeletal material of the Hrdlička Museum was performed in 2014. The methodology and results of this revision follow.

4. Catalogue of the skeletal material

The skeletal material in the Hrdlička Museum's collection originates from the upper part of the Western cemetery (Fig. 1), but not all of the bones can be assigned to specific tombs. It is possible that bones labelled only with the name of the site originate from a different part of the necropolis and it is very difficult to date them due to insufficient documentation. Also the origin of some isolated bones cannot be precisely determined.[19]

The collection of skeletal material from Deir el-Medina currently consists of three almost complete skeletons (from tomb DM 1159), 20 skulls without mandibles and a collection of long bones.[20] The common feature of the bones from this site is brownish-yellow colouring, the presence of mummified soft tissue residue and a distinctive development of areas of muscle insertions, both on long bones and on skulls.

[18] Five skulls from the tomb DM 1137 (Bruyère 1929: 10–12), four from the tomb DM 1153 (Bruyère 1929: 29–33) and one from the tomb DM 1160 (Bruyère 1929: 73–74), but also the remains of Sennefer and his family from the tomb DM 1159 (Bruyère 1929: 40–73).

[19] These bones were included in this collection based on their storage location in a depository, characteristic colour and the presence of soft tissue. According to an aspective assessment, we believe that some of these bones (especially tibiae) were presumably among the labelled bones and originally formed part of the skeleton together. Without any photographic documentation and original designation, however, this is only speculation.

[20] Specifically 16 femurs, seven humeri and six tibiae.

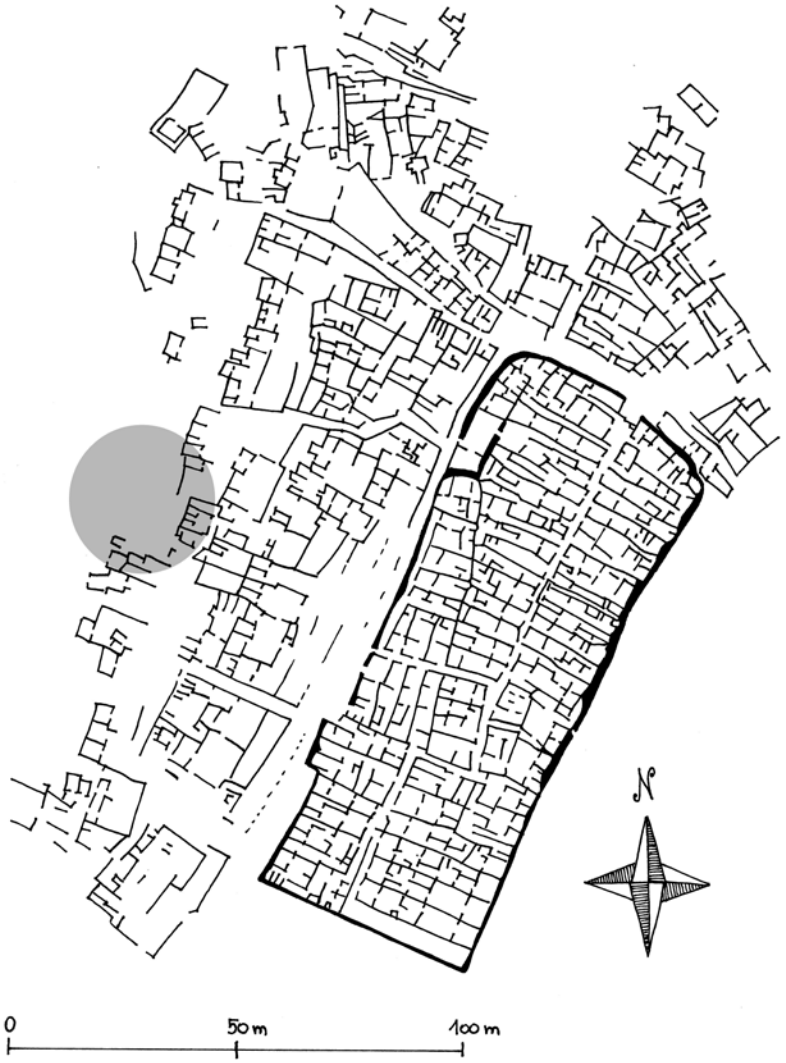


Fig. 1 Deir el-Medina, plan of the workmen´s village and the Western Cemetery. Tombs DM 1137, 1153, 1159 and 1160 are situated in the highlighted part (According to Bruyère 1929 – drawing by Z. Schierová).

The skulls are labelled using the letter A or M plus a number. The letters refer to the Anthropological Institute (A) or the Museum of Man (M). Skulls with the letter M are also marked with the original inventory number. In three cases (M2, M5 and A12) the skulls are not marked with a letter, but can be identified using Matiegka's detailed description (Matiegková – Matiegka 1931: 334) and inventory numbers.

The latest anthropometric measurement data (recorded during between 2014–2015) correspond to the previous conclusions made by Jindřich Matiegka (Matiegková – Matiegka 1931).[21]

[21] The differences between measurements are caused by measurement error and different measuring instruments.

4. 1 Tomb DM 1137

Period: *New Kingdom*
Location: *Upper part of the Western Cemetery*
Bibliography:

BAVAY 2002, pp. 84–85; BRUYÈRE 1929, pp. 10–12; KOENIG 1980, p. 63, Pl. 41; MATIEGKOVÁ – MATIEGKA 1931, pp. 324–337; NAGEL 1938, p. 56; TOMSOVÁ 2014b, pp. 56, 60; WAHLBERG 2012, p. 18.

According to Bruyère's report from the excavations (Bruyère 1929: 10–12) a large number of mummified bodies, five human skulls, a number of long bones, a large number of bricks and ceramics, remains of linen cloth, fragments of a wooden coffin, a wooden cane and a fragment of an offering table were found in tomb DM 1137. The tomb is situated in the western part of the necropolis, approximately 5 m from the entrance to the tomb marked as TT 337 from the reign of Ramesses II, which belonged to the sculptors Neskhons and Qen (Porter–Moss 1964: 406). The structure and composition of the bricks, together with the hieratic inscriptions on the ceramics (  , *ḥ3t-sp 5 ꜥt nt ḫt ipw s3 3ḫy*; Year 5, from the orchard, (of) Ipu, son of Akhy[22]), provide the tomb's dating to the period of the 18th Dynasty of the New Kingdom (c. 1543–1080 BCE), probably to the Thoutmoside period (Bavay 2002: 84–85). It is likely that parts of the cloth found in the tomb were remains of bandages from mummies originally deposited there. According to Bruyère, the discovered skulls belonged to four adult individuals and one child. The report also states that the bones belonging to one of the individuals are more robust and show

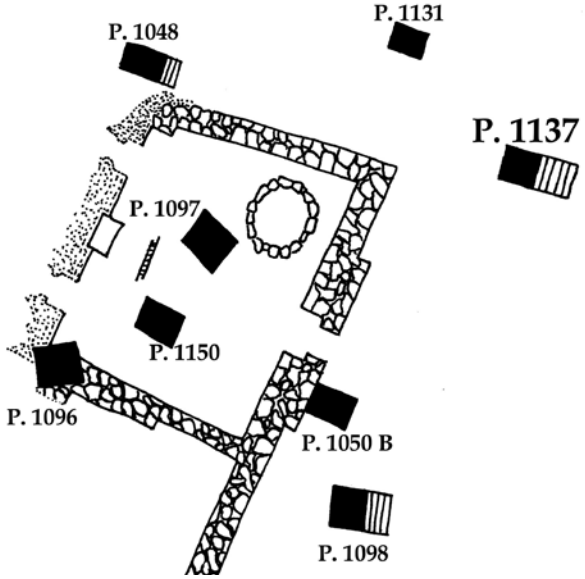


Fig. 2 Tomb DM 1137. (According to Bruyère 1929 – drawing by Z. Schierová).

[22] Bruyère 1929: 11, translation according to Koenig 1980: 63, Pl. 41 and Wahlberg 2012: 18.

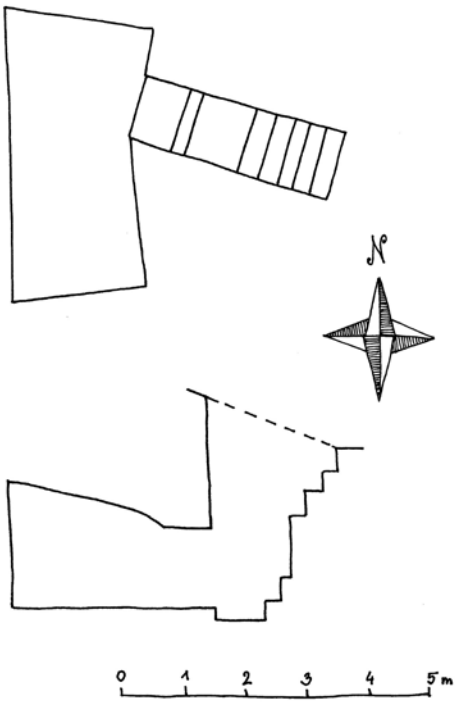


Fig. 3 Plan of the tomb DM 1137 (According to Bruyère 1929 – drawing by Z. Schierová).

distinct dark brown colouration (Bruyère 1929: 10).

The depository of the Hrdlička Museum currently contains five skulls, two pairs of femurs, and three humeri with the original label of DM 1137. All the bones exhibit brownish-yellow colouration and are, with some exceptions, in very good condition. The remains of cartilage tissue are preserved on articular surfaces.

According to Jindřich Matiegka's records the skulls are labelled M2, M4, M5, M8, and A10. The long bones are labelled with the tomb number and some with the original inventory number.[23] Contrary to the original report by Bruyère, all of the skeletal remains belong to adult individuals. All skulls show an apparent closure in the area of synchrondrosis spheno-occipitalis. This part of the skull becomes ossified between 18 and 20 years of age (Čihák 2003: 136) or by 23 at the latest (Stloukal et al. 1999: 271). The individuals thus certainly are adults older than 23. The skulls were preserved without mandibles. In two skulls the viscerocranium is damaged. The skulls labelled as M5, M8 and A10 are female, M4 probably female and skull M8 was identified as probably male.

Table 2. Skulls from the tomb DM 1137.

Skulls						
Inv. number	Tomb	Label	Sex		Measurement / mm	
			1930	**2014**	**lenght**	**width**
70034	1137	M4	male	probably female	182	135
70035	1137	M8	male	female	185	127
70036	1137	A10	female?	female	183	144
70037	1137	M2	male	likely male	197	132
70038	1137	M5	female	female	175	124

[23] Skull and pair of numeri lack the original inventory number.

Table 3. Long bones from the tomb DM 1137.

Long bones				
Inv. number	Tomb	Bone	Laterality	Measurement lenght/mm
70027	1137	femur	left	462
70028	1137	femur	right	460
70029	1137	femur	left	435
70030	1137	femur	right	435
70031	1137	humerus	left	319
70032	1137	humerus	right	309
70033	1137	humerus	left	-

4. 2 Tomb DM 1153

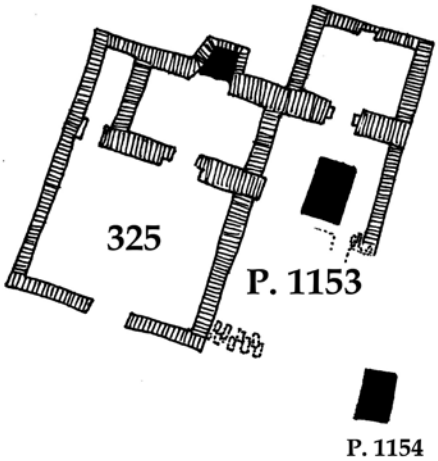
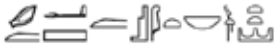


Fig. 4 Tomb DM 1153 (According to Bruyère 1929 – drawing by Z. Schierová).

Period: *New Kingdom*
Location: *Upper part of the Western Cemetery*
Bibliography:

BRUYÈRE 1929, pp. 29–33; MATIEGKOVÁ – MATIEGKA 1931, pp. (320) 324–337; NAGEL 1938, pp. 61–63; TOMSOVÁ 2014b, pp. 56, 60.

The tomb DM 1153 together with tombs DM 1154 and 1155 create a complex of rock-cut tombs with the square sectioned catacombs consisting of four halls. According to Bruyère the tombs are dated to the 18th Dynasty and contained many mummified bodies from the Graeco-Roman Period (ca. 305 BCE–395 CE). The tombs are situated north of the tomb of Semen, marked as.

The mummies were treated with asphalt and wrapped in bandages. In the tomb DM 1153 (Bruyère 1929: 30) an inscribed fragment of the door frame was also found (with the inscription  , *sḏm-ʿš m št mɜʿ.t nb jmnt.t*; the Servant in the Place of Truth, the Lord of the West (i.e. the Osiris) which was subsequently used as a building stone and two funerary cones (with the name  , *šmn-sɜ;* Semen).

The collection of the Hrdlička Museum contains five very well preserved skulls from the tomb DM 1153. The skulls are labelled M3, A1, A4, A5, and A11.

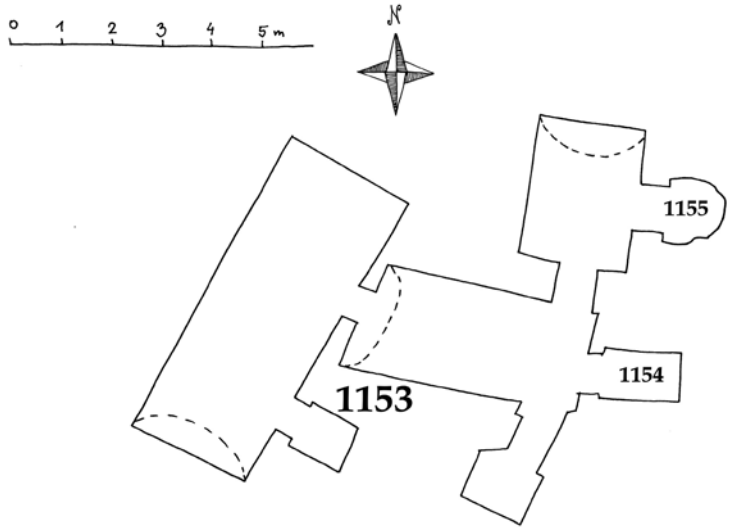


Fig.5 Plan of the tomb DM 1153 (According to Bruyère 1929 – drawing by Z. Schierová).

Table 4. Skulls from the tomb DM 1153.

Skulls						
Inv. number	Tomb	Label	Sex		Measurement / mm	
			1930	2014	lenght	width
70039	1153	M3	?	probably female	187	134
70040	1153	A5	male	likely female	182	130
70041	1153	A1	male	?	185	128
70042	1153	A11	male	likely female	184	141
70046	1153	A4	male?	likely female	184	134

4. 3 Tomb DM 1159

Period: *New Kingdom, 18th Dynasty, Tutankhamun's reign (cca 1339–1329 or 1328–1318 BC)*
Location: *Upper part of the Western Cemetery*
Bibliography:

ANDREU 2002, pp. 38–39; AUBERT 1974, pp. 61–62; BARWIK 1989–1990, pp. 31, 42; BOVOT 1996, pp. 8–13; 2002a, p. 292; 2002b, pp. 59–64; BRIDONNEAU 2002a, pp. 80–81; 2002b, p. 77; 2002c, pp. 157–158; BRUYÈRE 1929, pp. 40–73; 1937, pp. 59–60; CORTEGGIANI 1981, pp. 52–57; ČERNÝ 2007, pp. 20–33; DELANGE – ZIEGLER 1980, p. 55; EL-ENANY 2010, pp. 35–45; JOUGUET 1928, pp. 257–260; LETELLIER 1978, pp. 29, 73, 103; MATIEGKOVÁ – MATIEGKA 1931, pp. 320–337; MALAISE 1978, 64–65, 75, pl. I, VI; MICHAŁOWSKI 1938; 1955, pp. 25, 162; MYNÁŘOVÁ – ONDERKA (eds.) 2007, pp. 282, 285; NAGEL 1938, pp. 66–69, 88, fig. 49, 50, 68; NAVRÁTILOVÁ 2007, pp.

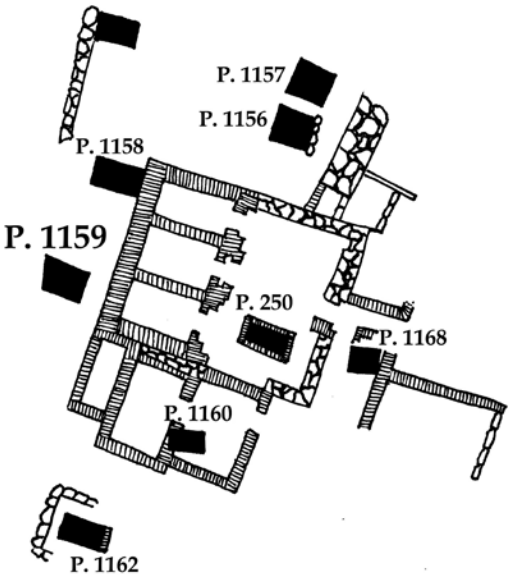


Fig. 6 Tomb DM 1159 (According to Bruyère 1929 – drawing by Z. Schierová).

128–130; NAVRÁTILOVÁ 2014, pp. 45–50; PORTER – MOSS 1964, pp. 686–8; RIGAULT 2002a, pp. 302–303; 2002b, pp. 160–161; 2002c, p. 155; TOMSOVÁ 2014a; 2014b, pp. 56,60–65; VANDIER D'ABBADIE 1972, pp. 112–113; ZIEGLER 1977, nº 63; 1981, pp. 213–217 (&187).

The discovery of the intact burial chamber in a previously already explored ruck-cut tomb of certain Harmose ( ; *ḥr-ms;* Harmose) on 1 February 1928 was quite a surprise for the IFAO team.[24] This was especially so because it was only the third intact tomb found at the site. The discovery itself is very well documented not only in the finding report of the head of the French excavations (Bruyère 1929), but also by Jaroslav Černý (2007: 30). [25]

The intact burial chamber in the tomb DM 1159, which is located in the Western Cemetery, to the south west of the tomb of Neferhotep (tomb TT 250) contained two anthropomorphic coffins with the remains of a man and a woman. The inscription on a square piece of linen cloth with a picture of a man seated at an offering table, which was placed on the male's coffin: "The Osiris (i.e. the deceased), the Servant in the Place of Truth, Sennefer" ( ; *wsjr … sḏm-ᶜš m š.t mɜᶜ.t šn-nfr*; see Bruyère 1929: 42) – together with inscriptions on some other objects of burial equipment suggest that Sennefer was a workman employed in the building of royal tombs in the Valley of the Kings. His family relations remains uncertain, but it can be assumed that the woman who was buried together with him in the tomb named Nefertiti (see Bruyère 1929: 61)[26], from the inscription on her coffin, was either his wife or another close female

[24] Tomb DM 1150 was hollowed in the bedrock and has two storeys (see Bruyère 1929: 37, or Fig. 7).

[25] Pierre Jouguet, the director of the IFAO between 1928–1940, published a report on the discovery of the intact tomb a year before Bruyère (Jouguet 1928: 257–259). The ceramics found in Deir el-Medina tombs, including the tomb of Sennefer, were published by ceramologist Georges Nagel (see Bruyère 1929: 72–73), and also in a separate study (1938).

[26] Bruyère was the first to transliterate the name of Sennefer's supposed wife as *Nefertiti* (Bruyère 1929) and this transcription was later adopted by numerous other researchers including Matiegka and his daughter (Matiegková – Matiegka 1931). In the latest studies, transcription of the name as *Neferit* appears as well (Navrátilová 2007). This article follows the variant of Nefertiti, originally introduced by Bruyère, since this is the name most often used for Sennefer's wife in scholarly publications.

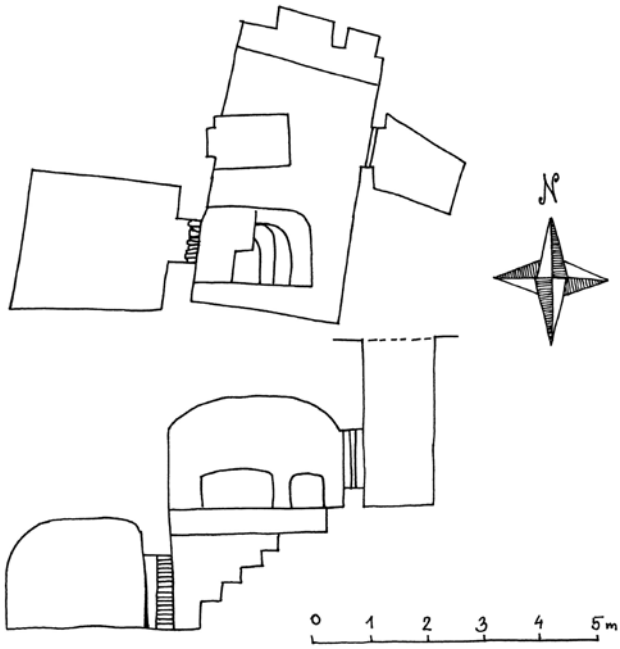


Fig. 7 Plan of the tomb DM 1159 (According to Bruyère 1929 – drawing by Z. Schierová).

relative. The child's body in a small coffin placed at the head of the adult male's and female's coffins may have been that of their offspring. The buried child was probably the couple's only offspring and the tomb, not belonging to any heir, was thus probably assigned eventually to a new owner, Harmose, who might have been their distant relative.[27] Most of the objects of Sennefer's burial equipment found their ways to the Louvre Museum in Paris, Egyptian Museum in Cairo, National Museum in Warsaw and to the National Museum in Prague.[28]

The burial was dated to the very end of the 18th Dynasty, namely to the reign of Tutankhamun. The main argument for the dating of the burial was the tomb's location within the necropolis, stylistic analysis of the painted depiction on the square piece of linen cloth showing the deceased (Valbelle 1985: 14–17; also Dodson 2000: 97), and comparative analysis of the shabti (Aubert – Aubert 1974: 61–62), coffins and the overall style of the burial goods (Dodson 2000: 90–91, 98). A comparative analysis of the equipment of Sennefer's tomb and burial goods proved that Sennefer was a worker employed on the construction of royal tombs in the Valley of the Kings (cf. Navrátilová 2007, Navrátilová 2014).

[27] The perfunctory walling up of the entrance of the burial chamber as well as the small and insignificant burial equipment indicated that the tomb was already violated in antiquity, probably shortly after Sennefer's burial (Bruyère 1929: 45). Bruyère further came to the conclusion that Harmose, who was buried in the upper chamber of the tomb DM 1159, could have usurped some of Sennefer's burial equipment during preparation of his own burial – the main argument is that Sennefer's burial equipment was relatively poor even for a man of Sennefer's position and was also found in a disorganized state. On the contrary Černý 1973: 74 thought that the secondary occupant of the tomb DM 1159 was Sennefer, who made use of Harmose's tomb. For more details on the double burial system in some tombs of the 18th Dynasty and the Ramesside Period in the Theban necropolis see Seyfried 2003.

[28] For more details on Sennefer's burial goods see Tomsová 2014a. For a comprehensive bibliography of major find from DM 1159 see table 5.

Table 5. Major finds from DM 1159

Their brief description, present location, publication(s)[29]

Description	Inventory n°	Publication(s)
Anthropological material		
Hrdlička's Museum of Man (Prague)		
Skeleton of Sennefer	MČ II 292	Bruyère 1929: 58–60 (fig. 30); Matiegka – Matiegková 1931: 322–328, 330, 333
Skeleton of Nefertiti	MČ II 292	Bruyère 1929: 63–64 (fig. 32), pl. IX; Matiegka – Matiegková 1931: 322–328, 333
Skeleton of the Child	MČ II 292	Bruyère 1929: 67, pl. X; Matiegka – Matiegková 1931: 323–324, 327
Archaeological material		
Louvre Museum (Paris)		
Stool Wood (and leather)	E 14002	Bruyère 1929: 67 (fig. 33), 71; Ziegler 1981: 217; Bovot 1996: 9; Bridonneau 2002b: 77
Head rest Wood	E 14003	Bruyère 1929: 58, 69 (fig. 35, pl. IV); Ziegler 1977: n° 63; Delange – Ziegler 1980: 55; Ziegler 1981: 214; Bovot 1996: 10; Bridonneau 2002a: 80–81
Shabtis Painted and gilded wood	E 14004	Bruyère 1929: 70–71 (fig. 35), pl. XII; Aubert – Aubert 1974: 61–62; Letellier 1978: 103; Ziegler 1981: 187, 213; Bovot 2002a: 292; Bovot 2002b: 60
Heart scarab & Necklace Stone & various	E 14005, 14006	Bruyère 1929: 52–55, pl. VII; Malaise 1978: 64–65, 75, pl. I, VI; Ziegler 1981: 216; Rigault 2002b: 160–161 *Only E14006* Letellier 1978: 73
Mask Painted cartonnage	E 14007	Bruyère 1929: 52, pl. V
Pectoral Gilded wood	E 14008	Bruyère 1929: 52–55, pl. VII; Rigault 2002c: 155

[29] Some other finds were mentioned in the Bruyère's finding report (Bruyère 1929: 47–72; pl. VI, VIII, X). Sennefer's coffin stood on a white painted bier and a cloth of white linen (shroud) was placed over it. It contained in addition to above mentioned finds also of garlands, floral wreaths and five vessels made from bronze. In Nefertiti's coffin were found some jewels – namely necklace, bracelet and two rings. Wooden coffer contained of a pair of used sandals and pearls from the necklace. Part of the burial equipment were also two canes, five pieces of ceramics (two of them actually deposited in the Náprstek Museum), stone offering plate and 17 artfully wrought bouquet of leaves and branches.

Cosmetic containers Egyptian alabaster	E 14009, E14010	Bruyère 1929: 68, pl. VIII; Ziegler 1981: 215; Bridonneau 2002c: 157–158 *Only E14009* Vandier d'Abbadie 1972: 112–113; Letellier 1978: 29
Sennefer's coffin Painted wood	E 14026	Bruyère 1929: 47–51, pl. II, IV; Rigault 2002a: 302–303
Fragments of wooden statue Probably of Sennefer (found in the backfill of DM 1323)	E 14686 BIS	Bruyère 1937: 59–60
Egyptian Museum (Cairo)		
Fan handle Wood	JE 54859	Bruyère 1929: 71, pl. VIII; Corteggiani 1981: 57
Cubit rod Wood	JE 54860	Bruyère 1929: 55, pl. VIII; Corteggiani 1981: 56
Dovetails Wood	JE 54861–4	Bruyère 1929: 56–57, pl. VIII
Shabtis Painted and gilded wood	JE 54869	Bruyère 1929: 69–70 (fig. 35), pl. XI; Aubert – Aubert 1974: 61–62; Corteggiani 1981: 54–55
Painted textile square Linen	JE 54885	Bruyère 1929: 47–48, pl. III; Corteggiani 1981: 52–53; El-Enany 2010: 35–45
National Museum (Warsaw)		
Nefertiti's coffin Painted wood	Inv. 138982	Bruyère 1929: 60–64 (fig. 32), pl. II, IX; Michaiłowski 1938: 22; Michałowski 1955: 25, 162; Barwik 1990: 31, 42
National Museum – Náprstek Museum of Asian, African and American Cultures (Prague)		
Amphora Pottery	P 1445	Bruyère 1929: 45 (fig. 29), 72, pl. X; Nagel 1938: 66 (fig. 49, 50, 68); Mynářová – Onderka (eds.) 2007: 282
Bowl Pottery	P 1508	Bruyère 1929: 45 (fig. 29), 72, pl. X; Nagel 1938: 66 (fig. 49, 50); Mynářová – Onderka (eds.) 2007: 285

The original measurements of the wrapped mummies were 166 cm (Sennefer), 160 cm (Nefertiti), and 76 cm (the juvenile individual) (Matiegková – Matiegka 1931). These mummies were probably not originally embalmed and so by the time of the tomb's discovery, the soft tissues were already mostly decomposed. These remains thus became

part of the museum's collections as skeletons with some soft tissues remaining intact (Fig. 8).[30]

Fig. 8 Soft tissue (Photo by Z. Schierová).

4. 3. 1 Skeleton of Sennefer

Sex: *Male*
Age: *Adultus II.*
Archaeological situation:

The body of this man was lying on its back with outstretched arms, with only the palms crossed over the body and was wrapped in a canvas cover. Under this cover were seven layers of bandages, originally impregnated with fragrances. The corpse was not embalmed, and inside the coffin there were dead white worms, that had presumably lived on the decomposing body. The skin of the body was destroyed and inside the thorax there was a black spongy substance – probably remains of lungs, and remains of laryngeal cartilages (loose translation of Matiegková – Matiegka 1931).

Preservation: *Whole skeleton without six cervical and one thoracic vertebrae, right pelvic bone and both clavicles, without soft tissue.*

Anthropological examination in 1931: *Sennefer was an adult (middle-aged) man of smallish stature. The original length of the mummy was 166 cm. His set of teeth was complete, although it showed signs of abrasion, and slight marks of hypertrophy after a rheumatic illness were detected on his bones. His parietal bone was marked by a longitudinal irregular dent, probably an old scar* (loose translation of Matiegková – Matiegka 1931: 322–323, 325–327). The examination did not prove any causes or even intervals between the deaths of the individual family members.

The male skeleton is almost complete, with only the pelvic bones (the right pubic bone is preserved) and both clavicles missing. Based on degenerative changes to the spine and the structure of the pubic bone, the age was estimated at between 35 and 45

[30] Original linen bandages were preserved in the case of the child's skeleton.

years.[31] A significant difference between the lengths of the upper limbs can be observed. The bones of the right upper limb are on average one centimetre longer than the bones on the left side. The height was determined from the measurement of the long bones to be 162–168 cm.[32] The lumbar (L3–L5) and thoracic (Th11–12) vertebrae show a very distinct spinal osteophytosis of the second degree. There is a well-healed fracture with a slight shift in the dorsal direction on the distal end of the radius bone, and a healed fracture can be found on one of the left ribs as well.

The skull shows a noticeable dent on the left parietal bone, located across the sagittal suture.

Table 6. Sennefer´s long bones dimensions.

Bone	Measurement / mm	
	Left side	Right side
humerus	311	321
radius	240	251
ulna	269	277
femur	435	440
tibie	385	382
fibula	371	-

4. 3. 2 Skeleton of Nefertiti

Sex: *Female*
Age: *18–20 years*
Archaeological situation: *The body with crossed palms was wrapped in canvas and bandages, and in the absence of any sign that the abdominal part was cut, it is assumed that it was not embalmed. The bandages and corpse of this woman were damaged, like Sennefer´s, by worms, which were found dead at the bottom of the coffin. The whole skeleton was surrounded by brown dusty remains of muscles and soft tissues. The skin was preserved on the breast and abdomen area. On the skin there were visible red spots which could indicate some infectious disease. Inside the body were remains of the lungs and larynx. Red dust was present in the cranial area – the remains of the brain* (loose translation of Matiegková – Matiegka 1931: 323, 326–327).

Preservation: *Whole skeleton*

Anthropological examination in 1931: *Nefertiti, Sennefer´s wife, was a young woman between 18 and 20 years of age, of smallish stature and slender body. The original length of the mummy was 160 cm. The examination showed neither the causes of death nor the intervals between the deaths of the individual family members* (loose translation of Matiegková – Matiegka 1931: 323, 326–327).

[31] The method for degenerative changes to the spine according to Vyhnánek and Stloukal (Stloukal *et al.* 1999: 296) and the method for the pubic bone according to Krogman and Iscan (Stloukal *et al.* 1999: 286).

[32] The method according to Raxter *et al*. 2008.

The skeletal remains are, like those of the male skeleton, very well preserved; on some of them the remains of mummified soft tissue have even been preserved. The lines in the area of bone epiphysis expansion are visible on the skeleton and some of them are still not fully expanded. Based on these features, the age was estimated at between 18 and 20 years.[33] The dental age was estimated to be 15 ± 3 years.[34] There is a prominent protuberancia occipitalis externa on the skull, forming a 17 mm long wedge. There were no pathological changes discovered.

Table 7. Nefertiti's long bones dimensions.

Bone	Measurement / mm	
	Left side	Right side
humerus	283	284
radius	220	224
ulna	243	249
femur	412	414
tibie	350	350
fibula	–	343

4. 3. 3 Skeleton of a Child

Sex: *Unknown*
Age: *9 ± 3 months*

Archaeological situation: *The bandages of this mummy were also perforated by worms. The arms lay alongside the body and inside its broken skull there was brown dust. On the skeleton there were only small light brown pieces of skin* (loose translation of Matiegková – Matiegka 1931: 323, 327).

Preservation: *Incomplete skeleton without right humerus, right scapula and right ulna. Skull is fragmented.*

Anthropological examination in 1931: *The original length of the mummy was 76 cm. The gender of the juvenile could not be determined; its age was estimated at between 8 and 12 months* (loose translation of Matiegková–Matiegka 1931: 323, 326–327).

The lower part of the body is still tightly wrapped in bandages. Radiographic images taken in 2012 show that almost the complete skeleton of the child's lower limbs can be found under the layer of bandages. The upper part of the child's skeleton was wrapped in loosened mummy bandages (Fig. 09). In addition to children's bones, a large amount of foreign materials of various origin were discovered, including bones of adult individuals, which probably pervaded the mummy over the course of time as a result of unsuitable storage. The age of the child was determined from the long bone measurement[35] to be 12–18 months. The dental age was estimated to be 9 months ± 3.[36] No pathological features were found.

[33] The method according to Ferembach ***et al.*** (Stloukal ***et al***. 1999: 243).

[34] The method according to Ubelaker (Stloukal ***et al***. 1999: 255).

[35] The method according to Stloukal and Hanáková (Stloukal ***et al***. 1999: 251).

[36] The method according to Ubelaker (Stloukal ***et al***. 1999: 255).

Table 8. Child's long bones dimensions.

Bone	Measurement / mm	
	Left side	Right side
humerus	99	-
radius	80	79
ulna	92	-
femur	125	123

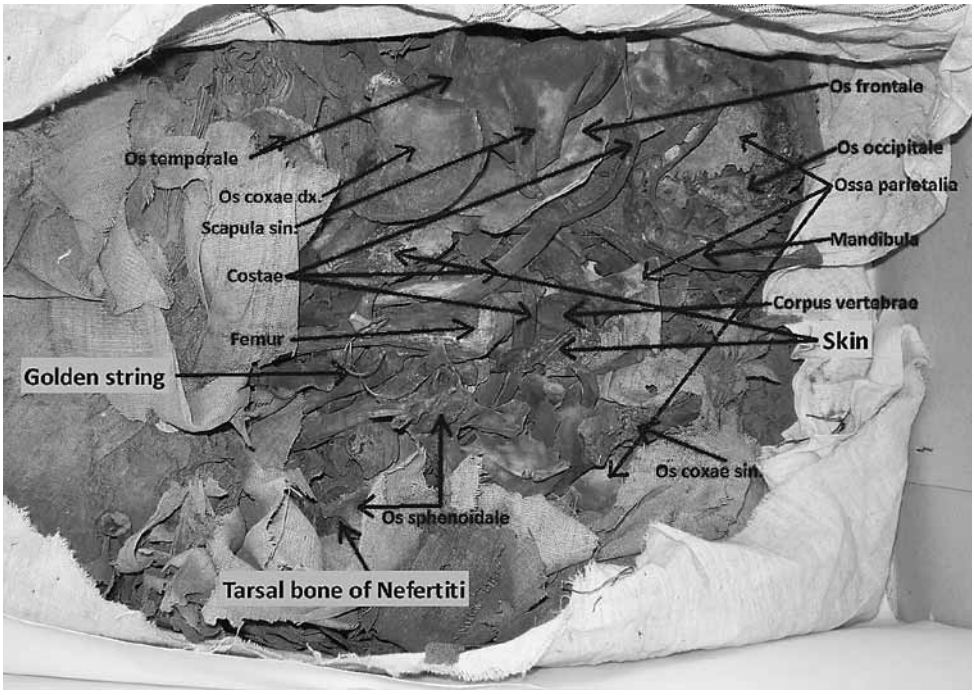


Fig. 9 Skeleton of child (Photo by J. Cvrček).

4. 4 Tomb DM 1160

Period: *New Kingdom*
Location: *Western part of the necropolis*
Bibliography:

BRUYÈRE 1929, pp. 73–74; MATIEGKOVÁ – MATIEGKA 1931, pp. (320)324–337; TOMSOVÁ 2014b, pp. 56, 60.

Tomb DM 1160 is situated south of the tomb of scribe Ramos, numbered TT 250. The rock-cut tomb was found under a brick construction more recent that the tomb itself and its structure corresponds to the tombs of the 18th Dynasty. Two fragments of a calcareous inscribed offering table and one fragment of calcareous ushabti were found inside (Bruyère 1929: 73). Two names are inscribed on the fragments of the offering table – Kasa

( , [*sḏm-ᶜš*] *m s.t mᶜ3.t k3-s3*; [the Servant] in the Place of Truth, Kasa) and Taousert ( [*t*]*3-wsr*(*t*) *mᶜ3*(*.t*)-*ḫrw*; [T]ausret, justified).

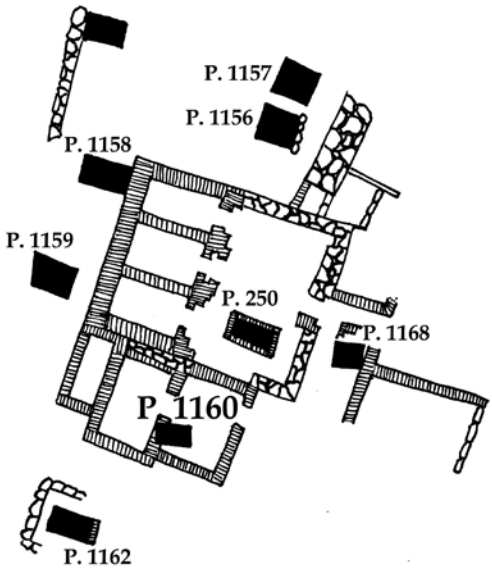


Fig. 10 Tomb DM 1160 (According to Bruyère 1929 – drawing by Z. Schierová).

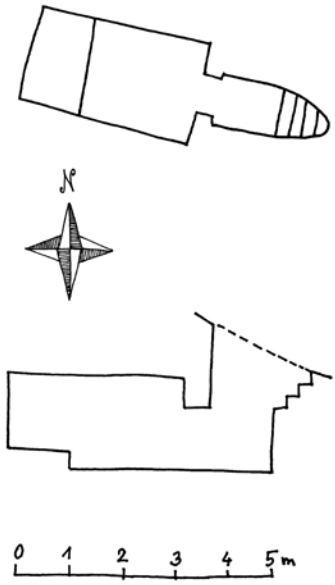


Fig. 11 Plan of the tomb DM 1160 (According to Bruyère 1929 – drawing by Z. Schierová).

A detailed examination revealed that the skull, labelled A7 by Jindřich Matiegka, has the number DM 1160 written on its base. Given the character of the writing and manner of labelling, which is identical to the tomb labelling on other skeletal material, it is likely that this could also be the label of the finding location, i.e. tomb DM 1160.[37] The viscerocranium of the skull is badly damaged, but on the basis of the individual features it is likely to be male.

Table 9. Skull from the tomb DM 1160.

Skull						
Inv. number	Tomb	Label	Sex		Measurement / mm	
			1930	2014	lenght	width
70043	1160	A7	male	probably male	185	141

[37] In the summary report presented in anthropology, the skull labelled A7 is not associated with tomb DM 1160.

4. 5 Other skeletal material

Period: *Uncertain*
Location: *Western part of the necropolis?*
Bibliography: MATIEGKOVÁ – MATIEGKA 1931, pp. 320–337.

The collection further includes nine skulls and 14 long bones[38] which are not attributed to any specific tomb. Further eight long bones[39] were also attributed to this collection, but in their case we cannot determine with certainty that they originated at Deir el-Medina. These bones were included in this collection based on location storage in the depository, characteristic colour and the presence of soft tissue. On the basis of aspective assessment, we believe that some of these bones (especially tibiae) belong to the determined bones and originally formed part of the skeleton. However, without any photographic documentation and original designation available this is only speculation. Like the above-mentioned material, their condition is very good.

Table 10. Skulls without specific tomb designation.

Skulls						
Inv. number	Tomb	Label	Sex		Measurement / mm	
			1930	2014	lenght	width
70044	?	A9	female	female	191	134
70045	?	M7	male	Male	182	135
70047	?	A6	male	Male	179	135
70048	?	M1	female	likely female	170	131
70049	?	M6	male	likely female	190	14
70050	?	A2	female	likely female	183	137
70051	?	A8	female	female	184	132
70052	?	A3	male	likely male	190	133
70053	?	A12	male	likely male	185	147

Table 11. Long bones without specific tomb designation.

Long bones				
Inv. number	Tomb	Bone	Laterality	Measurement lenght / mm
70001	unknown	femur	right	408
70002	unknown	femur	left	448
70003	unknown	femur	left	–
70005	unknown	femur	Right	462

[38] 12 femurs, one tibie,one humerus.

[39] Three humeri, five tibiae.

70006	unknown	femur	Left	411
70007	unknown	femur	Left	398
70008	unknown	femur	Left	430
70009	unknown	femur	Left	474
70010	unknown	femur	Right	423
70011	unknown	femur	Right	462
70012	unknown	femur	Right	416
70013	unknown	femur	Left	413
70015	unknown	tibie	Right	395
70017	unknown	humerus	Right	293

Table 12. Long bones probably from Deir el-Medina.

Long bones				
Inv. number	**Tomb**	**Bone**	**Laterality**	**Measurement lenght / mm**
70014	unknown	tibia	right	401
70019	unknown	humerus	right	–
70020	unknown	tibie	right	217
70021	unknown	tibie	right	412
70023	unknown	tibie	left	
70024	unknown	tibie	right	
70025	unknown	humerus	left	
70026	unknown	humerus	right	

4.6 Anomalies and pathological changes

Pathological changes and anomalies can be found in almost any skeletal collection. The most frequent are traumas and degenerative changes.

Trauma

Trauma is defined as any bodily injury or wound. In this category we include fractures and wounds. Fractures along with degenerative changes are the most frequent pathologies apparent on the skeletal material. The evidence of trauma in a population may reflect the lifestyle of individuals (Roberts – Manchester 2010: 84). The skeleton of Sennefer shows well-healed fractures of the left radius bone and left rib.

Sennefer´s skull also shows a noticeable dent on the left parietal bone, located across the sagittal suture. Similar lessions are also found on parietal bones of skull M2.[40] In both cases these are most likely scars from healed wounds.

[40] Inv. No. 70037.

Fig. 12 Bone lesion caused by meningioma (Photo by Z. Schierová).

Fig. 13 Cribra orbitalia (Photo by Z. Schierová).

Osteoarthritis

These changes develop as a gradual attrition of the articular surface. The development of these degenerative changes can be also related to the type of activity of the afflicted (Horáčková – Strouhal – Vargová 2004: 53). Paired femurs labelled with the number 4[41] show already formed osteophytic spurs[42] on the circumference of the articular surface, under 2 mm in size, which provide evidence that osteoarthritic changes had started to develop. The articulation surface on both bones is without any distinct changes.

Tumours and tumour-like lesions

The skull A12 exhibits a lesion constituting a newly-formed bone with dimensions of 41–45 mm on the right parietal bone by the coronal suture (Fig. 12). Based on the regular arrangement of bone spicules on the cranial vault's surface, and slight groove on the bone's inner surface, it is probably an osseous reaction to a benign meningioma.[43] The skeletal manifestations of this disease can be mistaken for osteosarcoma in certain cases.[44] Only the bones of the neurocranium were preserved from this skull, and the individual's gender cannot be determined owing to the incomplete cranium.

Cribra orbitalia

More than a third of the skulls (M2, A4, A3, A10, M6, M7 and A7) exhibit the presence of cribra orbitalia.This term means a porous lesion in the front part of the orbital roof (Fig. 13). The etiology of this anomaly/disease is not entirely known yet. The most likely cause is malnutrition connected with an iron deficiency in the diet; their development may be also associated with a deficiency of vitamin C (Horáčková – Strouhal – Vargová 2004: 146). The frequency of occurrence of this disease in skeletal collections is around 20%. A higher percentage has been noted in equatorial areas.

Dental abcesses

An abscess may be defined as a cavity created by chronic inflamation, most often created next to the dental root. Two skulls from our collection exhibited the presence of dental abscess: the skull of Sennefer and A7 (Fig. 14). In the case of A7 it resulted in bone tissue penetration into the antrum.

5. Conclusion

The skeletal material from Deir el-Medina is part of the Egyptological collection of the Hrdlička Museum. At present, it consists of three complete skeletons, 20 skulls, 16 femurs, six tibiae and seven humeri.

During inventory-making and revision of the skeletal material we came across some limiting factors – first, the problem of dating, secondly, the original material storage issue, and finally difficulty in determining the sex and the age especially in the case of isolated material.

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[41] Inv. Nos. 70010 and 70008.

[42] Bone accretion at the edge of the articulation surface.

[43] Tumour of soft tissue of cerebral and spinal cord encapsulation.

[44] A malignant tumour typical of juveniles and of young adults up to approximately 30 years of age.

Fig. 14 Chronical dental abscess (Photo by Z. Schierová).

Right at the start of our research, we encountered problems with dating these skeletal remains. In the case of tomb DM 1159 the dating was relatively well established – the comparatively well documented burial of Sennefer and his presumed family enabled us, mostly thanks to the comparative analysis of individual objects found in the tomb, to date of the find to the 18th Dynasty, to the period of Tutankhamun´s reign. With the rest of the material, however, we were faced with much greater difficulty. The tombs DM 1137, 1153 and 1160 can be dated with the help of few fragments of burial equipment, but for the dating of the skeletal material contained in these tombs, this is not entirely reliable. Because of the circumstances of the find valid concerns arise as to whether it was an original burial or a secondary one, from a later period. The possible dating of these skeletal remains is further made difficult by the fact that it is isolated material without broader context, and also the fact that the material is not mummified, which would at least give us some clue as to the technique and corresponding period within comparative analysis.

The second limiting factor is the original deposition of the material. Because the Hrdlička Museum collections have been moved several times, and deposited in various places, we could only identify artifacts with original designations. For the sake of completeness we include all material that was marked neither by locality nor with the tomb number, but its nature and storage corresponds to Deir el-Medina. We are, however, fully aware that without further documentation, the identification can never be certain.

Anthropological data revision showed further limitations concerning somatic gender designation and age estimates. This is especially true of isolated skulls. Most of the skulls designated as female showed more masculine features after further investigation (*protuberacia occipitalis externa*, *processus mastoideus*, etc.). The age of death

estimation of separate skulls was only possible through research into tooth state and abrasion, which may differ from population to population. With respect to the above mentioned, we chose to divide them into two categories – juvenile/adult.

Literature:

ANDREU, Guillemette. *Les artistes de Pharaon: Deir el-Médineh et la Vallée des Rois.* Tournhout: Brepols, 2002.

AUBERT, Jacques – AUBERT, Liliane. *Statuettes égyptiennes: chauabtis, ouchebtis*. Paris: Maisonneuve, 1974.

BARWIK, Miroslaw. Sarkofagi antropoidalne z Deir el-Medina w zbiorach Muzeum narodowego w Warszawie, Rocznik Muzeum narodowego w Warszawie, 1989–1990, pp. 31–44.

BAVAY, Laurent. Céramiques funéraires de l'époque thoutmoside, in: ANDREU, Guillemette. *Les artistes de Pharaon: Deir el-Médineh et la Vallée des Rois.* Tournhout: Brepols, 2002, pp. 84–85.

BOVOT, Jean-Luc. Les Meubles égyptiens du Musée du Louvre, Égypte: Afrique & Orient 3, 1996, pp. 8–13.

BOVOT, Jean-Luc. Chaouabti au nom de Sennefer, in: ANDREU, Guillemette. *Les artistes de Pharaon: Deir el-Médineh et la Vallée des Rois.* Tournhout: Brepols, 2002a, p. 292.

BOVOT, Jean-Luc. Les serviteurs funéraires de Deir el-Médîna, Égypte: Afrique & Orient 25, 2002b, pp. 59–64.

BRIDONNEAU, Catherine. Chevets, in: ANDREU, Guillemette. *Les artistes de Pharaon: Deir el-Médineh et la Vallée des Rois.* Tournhout: Brepols, 2002a, p. 80–81.

BRIDONNEAU, Catherine. Sièges, in: ANDREU, Guillemette. *Les artistes de Pharaon: Deir el-Médineh et la Vallée des Rois.* Tournhout: Brepols, 2002b, p. 77.

BRIDONNEAU, Catherine. Vases à onguents de Sennefer, in: ANDREU, Guillemette. *Les artistes de Pharaon: Deir el-Médineh et la Vallée des Rois.* Tournhout: Brepols, 2002c, p. 157–158.

BRUYÈRE, Bernard. *Rapport sur les fouilles de Deir el-Médineh 1922–1951*. Caire: Institut français d'archéologie orientale [Fouilles de l'Institut français d'archéologie orientale du Caire. Rapports préliminaires], 1922–1951.

CORTEGGIANI, Jean-Pierre. *Centenaire de l'Institut français d'archéologie orientale: Musée du Caire, 8 janvier–8 février 1981.* Caire: Institut français d'archéologie orientale, 1981.

ČERNÝ, Jaroslav. *A Community of Workmen at Thebes in the Ramesside Period*. Caire: Institut français d'archéologie orientale, 1973.

ČERNÝ, Jaroslav. Deset měsíců u výkopů v Egyptě, in: MYNÁŘOVÁ, Jana – ONDERKA, Pavel (eds.). *Théby. Město bohů a faraonů*. Praha: Národní muzeum, 2007, pp. 20–33.

ČIHÁK, Radim. *Anatomie*. Praha: Avicenum, 1987.

DAVIES, Benedict. *Who's who at Deir el-Medina: a prosopographic study of the royal workmen's community*. Leiden: Nederlands Instituut voor het Nabije Oosten, 1999.

DELANGE, Elisabeth – ZIEGLER, Christiane. *La vie au bord du Nilu au temps des pharaons: Calais, Muséé des Beaux-Arts et de la Dentelle, novembre 1980–février 1981.* Calais: Le Musée, 1980.

DODSON, Aidan The late 18th Dynasty necropolis Deir el-Medina and the earliest „yellow" coffin of the New Kingdom, in: DEMARÉE, Robert – EGBERTS, Arno (eds.).

Deir el-Medina in the third millenium AD. Leiden: Nederlands Instituut voor het Nabije Oosten, 2000, pp. 89–100.

EL-ENANY, Khaled. Un carré de lin peint au musée de l'Agriculture du Caire (inv. 893), *BIFAO 110,* 2010, pp. 35–45.

FEREMBACH, Denise – SCHWIDETZKY, Ilse – STLOUKAL, Milan. Recommendations for age and sex diagnoses of skeletons, *Journal of Human Evolution* 9, 1980, pp. 517–549.

HAVLŮJOVÁ, Hana. *Okouzlení Egyptem. Ludmila Matiegková*. Praha: Set Out, 2005.

HAVLŮJOVÁ, Hana. Ludmila Matiegková, česká soukromá badatelka a její studijní pobyty v Egyptě ve 20. letech 20. století, in: JŮNOVÁ MACKOVÁ, Adéla – NAVRÁTILOVÁ, Hana – HAVLŮJOVÁ, Hana – JŮN, Libor (eds.). *Krásný, báječný, nešťastný Egypt! Čeští cestovatelé konce 19. a první poloviny 20. století*. Praha: Libri, 2009, pp. 386–400.

HORÁČKOVÁ, Ladislava – STROUHAL, Eugen – VARGOVÁ, Lenka. *Základy paleopatologie.* Brno: Akademické nakladatelství CERM, 2004.

JOUGUET, Pierre. Rapport sur les travaux de l'Institut français d'archéologie orientale du Caire durant l'année 1928, *Comptes rendus des séances de l'Académie des Inscriptions et Belles-Lettres*, 72e année, N. 3, 1928, pp. 255–269.

KOENIG – Yvan. *Catalogue des étiquettes de jarres hieratiques de Deir el-Médineh II.* DFIFAO XXI/2. Cairo: IFAO, 1980.

KROGMAN, Wilton Marion – IŞCAN, M. Yaşar. *The human skeleton in forensic medicine.* Springfield: Charles C. Thomas Publisher, 1986.

LETELLIER, Bernadette. *La vie quotidienne chez les artisans de Pharaon: le Louvre présente aux Musées de Metz, du 12 novembre 1978 au 28 février 1979.* Metz: Musées de Metz: 1978.

MALAISE, Michel. *Les scarabées de coeur dans l´Égypte ancienne*. Bruxelles: Fondation égyptologique reine Élisabeth, 1978.

MATIEGKA, Jindřich. Les procédés de momification dans les tombeaux de la XX^{e} dynastie à Deir el Médineh (Thèbes, Haute-Égypte), in: BRUYÈRE, Bernard (ed). *Rapport sur les fouilles de Deir el Médineh (1926).* Caire: Institut français d'archéologie orientale, 1927, pp. 57–59.

MATIEGKOVÁ, Ludmila – MATIEGKA, Jindřich. Hrob Sen Nefera a tělesné znaky staroegyptského lidu za doby XVIII. dynastie, *Anthropologie* IX, 1931, pp. 320–337.

MATIEGKOVÁ, Ludmila. Vyšetřování egyptských mumií, *Anthropologie* VII, 1929, pp. 237–253.

MATIEGKOVÁ, Ludmila. Tělesná zdatnost starých Egypťanů, *Anthropologie* XI, 1933, p. 197–215.

MATIEGKOVÁ, Ludmila. Rozlišování plemen a jeho praktické důsledky v starém Egyptě, *Anthropologie* XIII, 1935, pp. 54–68.

MATIEGKOVÁ, Ludmila. *Dítě ve starém Egyptě*. Praha: Univerzita Karlova v Praze, 1937.

MEINDL, Richard S. – LOVEJOY, Claude Owen. Ectocranial suture closure: a revised method for the determination of skeletal age at death based on the lateral-anterior sutures, *American Journal of Physical Anthropology*, 68, 1985, pp. 57–66.

MICHAŁOWSKI, Kazimierz. *Zbiory sztuki starożytnej.* Warszawa: Muzeum Narodowe w Warszawie, 1938.

MICHAŁOWSKI, Kazimierz. *Sztuka starożytna.* Warszawa: Sztuka, 1955.

MYNÁŘOVÁ, Jana – ONDERKA, Pavel (eds.). *Théby. Město bohů a faraonů.* Praha: Národní muzeum, 2007.

NAGEL, Georges. *La céramique du Nouvel Empire a Deir el-Medineh*, Caire: Institut français d'archéologie orientale, 1938.

NAVRÁTILOVÁ, Hana. Sennefer, in: MYNÁŘOVÁ, Jana – ONDERKA, Pavel (eds.). *Théby. Město bohů a faraonů*. Praha: Národní muzeum, 2007, pp. 128–130.

NAVRÁTILOVÁ, Hana. Sennefer and Tomb DM 1159, in: ONDERKA, Pavel (ed.). *The Deir el-Medina and Jaroslav Černý Collections*. Praha: Národní muzeum, 2014, pp. 45–50.

ONDERKA, Pavel (ed.). *The Deir el-Medina and Jaroslav Černý Collections*. Praha: Národní muzeum, 2014.

ONDERKA, Pavel – NAVRÁTILOVÁ, Hana. Deir el-Medina in the Hrdlička Museum of Man (Appendix 3), in: ONDERKA, Pavel (ed.). *The Deir el-Medina and Jaroslav Černý Collections*. Praha: Národní muzeum, 2014, pp. 117–118.

PORTER, Bertha – MOSS, Rosalind L. B. *Topographical Bibliography of Ancient Egyptian Hieroglyphic Texts, Reliefs, and Paintings. Vol. 1. The Theban Necropolis. Part 2. Royal Tombs and Smaller Cemeteries.* Oxford: Clarendon Press, 1964.

RAXTER, Michelle H. – RUFF, Christopher B. – AZAB, Ayman – ERFAN, Moushira – SOLIMAN, Muhammad – EL-SAWAF, Aly. Stature Estimation in Ancient Egyptians: A New Technique Based on Anatomical Reconstruction of Stature, in: *American Journal of Physical Anthropology* 136, pp. 147-155.

RIGAULT, Patricia. Cercueil de Sennefer, in: ANDREU, Guillemette. *Les artistes de Pharaon: Deir el-Médineh et la Vallée des Rois.* Tournhout: Brepols, 2002a, pp. 302–303.

RIGAULT, Patricia. Collier et scarabée de coeur de Sennefer, in: ANDREU, Guillemette. *Les artistes de Pharaon: Deir el-Médineh et la Vallée des Rois.* Tournhout: Brepols, 2002b, pp. 160–161.

RIGAULT, Patricia. Pectoral de Sennefer, in: ANDREU, Guillemette. *Les artistes de Pharaon: Deir el-Médineh et la Vallée des Rois.* Tournhout: Brepols, 2002c, p. 155.

ROBERTS, Charlotte – MANCHESTER, Keith. *The Archaeology of Disease*. Stroud: The History Press, 2010.

RŮŽOVÁ, Jiřina. *Písař Místa pravdy. Život egyptologa Jaroslava Černého.* Praha: Libri, 2010.

SEYFRIED, Karl-J. Reminiscences of the "Butic burial" in Theban tombs of the New Kingdom, in: STRUDWICK, Nigel – TAYLOR, John H. *The Theban necropolis: past, present, and future.* London: British Museum Press, 2003, pp. 61–68.

STROUHAL, Eugen – BAREŠ, Ladislav. Život a dílo profesora Jaroslava Černého, *Nový Orient*, 48/1, 1993, pp. 1–3.

STLOUKAL, Milan. (ed.) *Antropologie: příručka pro studium kostry.* Praha: Národní muzeum, 1999.

STROUHAL, Eugen – VYHNÁNEK, Luboš. Egyptian mummies in Czechoslovak collections, in: ČEJKA, Jiří (ed.). *Sborník Národního muzea v Praze*. Praha: Národní muzeum [Přírodní vědy 35], 1979, pp. 1–199.

TOIVARI-VIITALA, Jaana. Deir el-Medina (Development), in: WEINDRICH, Willeke (ed.). *UCLA Encyclopedia of Egyptology*, Los Angelos, 2011, pp. 1–15. (Dostupné on-line: http://escholarship.org/uc/item/6kt9m29r, 30. 11. 2015).

TOMSOVÁ, Julie. *Dvojí život Sennefra z Dér el-Medíny* (bachelor thesis, *Double life of Sennefer from Deir el-Medina*). Praha: FF UK, 2014a.

TOMSOVÁ, Julie. Egyptologická sbírka Hrdličkova muzea člověka PřF UK v Praze, *Pražské egyptologické studie* XII/2014, 2014b, pp. 56–67.

VALBELLE, Dominique. *Les ouvriers de la tombe: Deir el-Médineh a l'époque Ramesside*. Caire: Institut français d'archéologie orientale, 1985.

VANDIER D'ABBADIE, Jeanne. *Catalogue des objets de toilette égyptiens.* Paris: Musée du Louvre, 1972.

VERNER, Miroslav – BAREŠ, Ladislav – VACHALA, Břetislav. *Encyklopedie starověkého Egypta*. Praha: Libri, 2007.

WAHLBERG, Eva-Lena. *The Wine Jars Speak – A Text Study* (MA thesis). Uppsala: Uppsala University, 2012.

ZIEGLER, Christiane. *L'Égypte des pharaons. (Catalogue of exhibition at the Fondation Anne et Albert Prouvost, Marcq-en-Baroeul, October 1977 – January 1978).* Paris: Les Presses Artistiques, 1977.

ZIEGLER, Christiane. La tombe de Sennefer a Deir el-Medineh, in: DESROCHES-NOBLECOURT, Christiane – VERCOUTTER, Jean. *Un siècle de fouilles françaises en Egypte 1880–1980: à la occasion du centenaire de l'Ecole du Caire (IFAO).* Caire: Ecole du Caire; Paris: Musée du Louvre, 1981, pp. 213–217 (&187).

ŽÁBA, Zbyněk. Profesor Jaroslav Černý, *Nový Orient* 26/1, 1971, pp. 20–23.

Sources:

Archive of Hrdlička Museum of Man of the Faculty of Science, Charles University, Inventory of the Anthropological Institute and Inventory of the Museum of Man.

Archive of Charles University, Personal Fund of Ludmila Matiegková.

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