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TABLE 12 Radiocarbon dates for some of the anchor archaeological contexts of the periods under study, data from the Egyptian Radiocarbon Database (Rowl and and Bronk Ramsey 2011) and Claes et al. (2020). There is not much radiocarbon data directly associated with the metalwork in ancient Egypt, and even the data measured are disparate. More data are needed.

Period	Dynasty	Reign	Sampref	Material	Species	Oxdel13
Badarian				charcoal		null
Badarian				other	worked?	null
Early Dynastic	1	Djer	1901.40.59.1	plant remains	Poaceae	-10
Early Dynastic	1	Qa'a	AF.11.4.Q5	bone	Human	-16.944
Early Dynastic	1	Anedjib	AF.11.4.452	bone	Human	-17.566
Early Dynastic	1	Qa'a		wood		null
Early Dynastic	1	Anedjib	AF.11.4.452	bone	Human	-17.565
Early Dynastic	1	Qa'a	AF.11.4.428	bone	Human	-19.03
Early Dynastic	1	Qa'a	AF.11.4.460	bone	Human	-17.371
Early Dynastic	1	Qa'a	AF.11.4.428	bone	Human	-19.059
Early Dynastic	1	Den	1901.40.89.3	plant remains		-22.115
Early Dynastic	1	Djer	1896-1908 E.4065 (Ash-molean)	other	Pot contents	-23.146
Early Dynastic	1	Den	1901.40.89.3	plant remains		-22.138
Early Dynastic	1	Djer	BM35555	seeds	Ficus carica	-21.1
Early Dynastic	1	Qa'a	AF.11.4	bone	Human	-
						17.7375
Early Dynastic	1	Djer	Ashmol. 1896-1908 E.4034	other		-25.374
Early Dynastic	1	Djer		plant remains	reed	-22.7
Early Dynastic	1	Den	1901.40.78.1	hair	Human	-18.953
Early Dynastic	1	Den	1901.40.76	plant remains		-27.128
Early Dynastic	1	Semerkheth	AF.11.4.459	bone	Human	-18.154
Early Dynastic	1	Djer	AF.11.4.406	bone	Human	-17.587
Early Dynastic	1	Den	1901.40.78.2	hair	Human	-18.326
Early Dynastic	1	Qa'a		wood		-27.35
Early Dynastic	1	Djer	1896-1908 E.4066 (Ash-molean)	other	Pot contents	-24.673
Early Dynastic	1	Djer	AF.11.4.409	bone	Human	-17.356
Early Dynastic	1	Djer	1901.40.53	hair	Human	-17.656
Early Dynastic	1	Djer		wood		null
Early Dynastic	1	Djer		wood		null
Early Dynastic	1	Djer		plant remains	reed	-18.2
Early Dynastic	1	Djet	AF.11.4.440	bone	Human	-18.139
Early Dynastic	1	Qa'a	AF.11.4.412	bone	Human	-16.468
Early Dynastic	1	Djer	AF.11.4.414	bone	Human	-17.718
Early Dynastic	1	Den		wood		null

BC	Oxdate	Oxerr	Oxf14C	Oxf14Cerr	Reference
3810	5760	70	0.490235	0.00424708	Egyptian Radiocarbon Database
3900	5850	50	0.484804	0.00300003	Egyptian Radiocarbon Database
1081	3031	25	0.6857	0.0021	Egyptian Radiocarbon Database
2188	4138	31	0.59741	0.00232	Egyptian Radiocarbon Database
2255	4205	32	0.59246	0.00235	Egyptian Radiocarbon Database
2274	4224	41	0.592875	0.0030084	Egyptian Radiocarbon Database
2300	4250	31	0.58916	0.00225	Egyptian Radiocarbon Database
2308	4258	33	0.5886	0.00243	Egyptian Radiocarbon Database
2316	4266	32	0.58801	0.00233	Egyptian Radiocarbon Database
2349	4299	31	0.58557	0.00228	Egyptian Radiocarbon Database
2356	4306	27	0.58505	0.00197	Egyptian Radiocarbon Database
2357	4307	33	0.58497	0.00242	Egyptian Radiocarbon Database
2374	4324	26	0.58376	0.0019	Egyptian Radiocarbon Database
2379	4329	33	0.5834	0.0024	Egyptian Radiocarbon Database
2379	4329	21	0.58337	0.00152	Egyptian Radiocarbon Database
2394	4344	32	0.58233	0.00232	Egyptian Radiocarbon Database
2396	4346	36	0.58399	0.00260194	Egyptian Radiocarbon Database
2409	4359	29	0.58118	0.0021	Egyptian Radiocarbon Database
2418	4368	26	0.58056	0.0019	Egyptian Radiocarbon Database
2427	4377	31	0.57992	0.00225	Egyptian Radiocarbon Database
2437	4387	32	0.57917	0.0023	Egyptian Radiocarbon Database
2439	4389	28	0.57904	0.00205	Egyptian Radiocarbon Database
2447	4397	42	0.580316	0.00301649	Egyptian Radiocarbon Database
2447	4397	29	0.5785	0.00206	Egyptian Radiocarbon Database
2470	4420	32	0.57684	0.00228	Egyptian Radiocarbon Database
2478	4428	29	0.57628	0.00206	Egyptian Radiocarbon Database
2480	4430	60	0.57795	0.00429171	Egyptian Radiocarbon Database
2490	4440	25	0.577236	0.001786	Egyptian Radiocarbon Database
2510	4460	52	0.575808	0.0037057	Egyptian Radiocarbon Database
2515	4465	33	0.57361	0.00234	Egyptian Radiocarbon Database
2526	4476	32	0.57279	0.00227	Egyptian Radiocarbon Database
2527	4477	21	0.57276	0.00153	Egyptian Radiocarbon Database
2545	4495	35	0.57332	0.00248344	Egyptian Radiocarbon Database

TABLE 12 Radiocarbon dates for some of the anchor archaeological contexts (*cont.*)

Period	Dynasty	Reign	Sampref	Material	Species	Oxdel13
Early Dynastic	1	Aha		wood		null
Early Dynastic	1	Aha		wood		null
Early Dynastic	1	Aha	E0023	plant remains		-13.6
Early Dynastic	1	Den	E0122	plant remains		-12.2
Early Dynastic	1	Aha	UC35693	plant remains		-13.3
Early Dynastic	2	Khasekhemwy	1901.40.120	plant remains	Poaceae	-20.8
Early Dynastic	2			wood		
Early Dynastic	2			charcoal		
Old Kingdom	3	Djoser	UC57892	seeds	Poaceae	-24.9
Old Kingdom	4			charcoal		-27.6
Old Kingdom	4			charcoal		-27.5
Old Kingdom	4			charcoal		-27.6
Old Kingdom	4			charcoal		-28.1
Old Kingdom	4			charcoal		-23.7
Old Kingdom	4			charcoal		-25.1
Old Kingdom	4			charcoal		-25.8
Old Kingdom	4			charcoal		-26.5
Middle Kingdom	12		22.3.5239	plant remains	Cyperus papyrus	-9.8
Middle Kingdom	12		22.3.5239	plant remains	Cyperus papyrus	-11

BC	Oxdate	Oxerr	Oxf14C	Oxf14Cerr	Reference
2555	4505	20	0.57261	0.00141735	Egyptian Radiocarbon Database
2585	4535	40	0.570488	0.0028242	Egyptian Radiocarbon Database
2612	4562	35	0.5667	0.0025	Egyptian Radiocarbon Database
2703	4653	35	0.5603	0.0024	Egyptian Radiocarbon Database
2814	4764	33	0.5526	0.0023	Egyptian Radiocarbon Database
-402	1548	30	0.8247	0.0031	Egyptian Radiocarbon Database
-2828		25			Claes et al. (2020, Table 1)
-2832		30			Claes et al. (2020, Table 1)
1363	3313	27	0.662	0.0022	Egyptian Radiocarbon Database
2032	3982	71	0.6109	0.00536806	Egyptian Radiocarbon Database
2035	3985	45	0.610673	0.00340103	Egyptian Radiocarbon Database
2055	4005	50	0.609164	0.00376958	Egyptian Radiocarbon Database
2115	4065	55	0.604657	0.00411586	Egyptian Radiocarbon Database
2130	4080	55	0.603535	0.00410822	Egyptian Radiocarbon Database
2255	4205	45	0.59427	0.00330967	Egyptian Radiocarbon Database
2282	4232	49	0.592288	0.00359185	Egyptian Radiocarbon Database
2332	4282	267	0.588634	0.0194512	Egyptian Radiocarbon Database
1670	3620	32	0.6372	0.0025	Egyptian Radiocarbon Database
1729	3679	29	0.6326	0.0023	Egyptian Radiocarbon Database

TABLE 13 Royal contexts with the copper artefacts

Site	Part of site	Structure	Period
Abydos	North cemetery, enclosures of Aha	Aha II cult building	EDP, Dynasty 1, the reign of Aha
Abydos	Umm el-Qa'ab, royal tombs	Tomb of Aha, Chamber B15	EDP, Dynasty 1, the reign of Aha
Abydos	Umm el-Qa'ab, royal tombs	Tomb of Aha, Chamber B19	EDP, Dynasty 1, the reign of Aha
Abydos	Umm el-Qa'ab, royal tombs	Tomb of Aha, no chamber determined	EDP, Dynasty 1, the reign of Aha
Abydos	Umm el-Qa'ab, royal tombs	Tomb of Djer	EDP, Dynasty 1, the reign of Djer
Abydos	Umm el-Qa'ab, royal tombs	Tomb of Djer	EDP, Dynasty 1, the reign of Djer
Abydos	Umm el-Qa'ab, royal tombs	Tomb of Meretneith	EDP, Dynasty 1, the reign of Meretneith
Abydos	Umm el-Qa'ab, royal tombs	Tomb of Djet	EDP, Dynasty 1, the reign of Djet
Abydos	Umm el-Qa'ab, royal tombs	Tomb of Den	EDP, Dynasty 1, the reign of Den
Abydos	Umm el-Qa'ab, royal tombs	Tomb of Adjib	EDP, Dynasty 1, the reign of Andjib
Abydos	Umm el-Qa'ab, royal tombs	Tomb of Semerkhet	EDP, Dynasty 1, the reign of Semerkhet
Abydos	Umm el-Qa'ab, royal tombs	Tomb of Qaa	EDP, Dynasty 1, the reign of Qaa
Abydos	Umm el-Qa'ab, royal tombs	North-west of tomb of Qaa	EDP, Dynasty 1, the reign of Qaa
Abydos	Umm el-Qa'ab, royal tombs	Tomb of Qaa, finds around the royal tomb	EDP, Dynasty 1, the reign of Qaa
Abydos	Umm el-Qa'ab, royal tombs	Tomb of Qaa, burial chamber of king—Room Q-KK	EDP, Dynasty 1, the reign of Qaa
Abydos	Umm el-Qa'ab, royal tombs	Tomb of Qaa, royal tomb magazine, Room Q-S8	EDP, Dynasty 1, the reign of Qaa
Abydos	Umm el-Qa'ab, royal tombs	Tomb of Qaa, royal tomb magazine, Room Q-O2	EDP, Dynasty 1, the reign of Qaa
Abydos	Umm el-Qa'ab, royal tombs	Tomb of Qaa, royal tomb magazine, Room Q-N5	EDP, Dynasty 1, the reign of Qaa
Abydos	Umm el-Qa'ab	Tomb of Peribsen	EDP, Dynasty 2, the reign of Peribsen
Abydos	Umm el-Qa'ab, royal tombs	Tomb of Peribsen	EDP, Dynasty 2, the reign of Peribsen
Abydos	Umm el-Qa'ab	Tomb of Khasekhemwy	EDP, Dynasty 2, the reign of Khasekhemwy

Type of context	Description of context	Bibliography
temple	Found in the room 3 of building, in a layer from the Dynasty 1.	Bestock (2009, 72, 93, Fig. 26, Pl. 8)
unknown	A wire.	Petrie (1901, 36, Pl. XXXII: 65)
unknown		Petrie (1901); Ashmolean index cards
unknown		Petrie (1901); Ashmolean index cards
primary probably		Petrie (1901, 36, Pl. XXXV: 84–95); Golden (2002)
primary	Along the northern wall of chamber wooden casing with copper nails and wires, destroyed during or after the excavations by Amélineau.	Petrie (1901, 8)
		Loeben (2014)
primary probably		Petrie (1900, 28, Pl. XXXVII: 35; 1901, 36, Pl. XXXVIII: 91–94, XLI: 85–86, 90–93)
secondary probably		Petrie (1901, 36, Pl. XLII: 37, 74)
primary probably		Petrie (1900, 28, Pl. XXXVII: 37, 38, 40–41; 1901, Pl. XLIII: 13–17, Pl. XLIV: 11, 12)
secondary probably	Finds of Flinders Petrie without specification of the location	Petrie (1901, Pl. XLIV: 12, 47–49); Engel (2017)
tertiary	Found north-west of tomb, probably left by tomb robbers.	Engel (2017, 84–86, 93–95, 419–421, 522, Abb. 264, 319, Taf. 30f)
tertiary	Found in concentrations around the royal tomb.	Engel (2017, 84–86, 93–95)
secondary	Found scattered in the burial chamber of the king, probably remains of the burial equipment	Engel (2017, 19–28)
secondary	Magazine room south of the burial chamber, accessible only from the ceiling. Scattered finds.	Engel (2017, 41–42)
secondary	Magazine room east of the burial chamber, accessible only from the ceiling. Scattered finds.	Engel (2017, 44–45)
secondary	A magazine of royal tomb in the stairway area at the entrance, scattered finds of burial equipment	Engel (2017, 35–36)
unknown	Revision excavations of the tomb by DAI	Dreyer et al. (2006, 108–110, Abb. 16 a–c)
unknown		Petrie (1901, 12, 36, Pl. XLV: 18–21); Amélineau (1904, 259, Pl. 48: 1, 2)
primary	With number 6 found also copper handle of vessel, but there is also a Middle Kingdom razor blade and probably also later hair curler (no. 8). Under this number are only artefacts with Early Dynastic typology.	Amélineau (1902, 255–266, Pl. XVIII: 1–7); de Morgan (1897, Figs. 830–850); Quibell (1905, 279–286); Bissing (1901, 5–6); Radwan (1983, 19); Couton-Perche (2021, 69)

TABLE 13 Royal contexts with the copper artefacts (*cont.*)

[illegible]

Type of context	Description of context	Bibliography
primary	Found by Amélineau in a storeroom 14 (47 of Petrie) of the tomb	
primary	Found in Storeroom 17 (but no information in the published report). Allegedly lost	Amélineau (1902, 135)
primary	Found opposing the chamber 21, under fallen wall; besides tools 13 copper vessels. It is difficult to decide, if the plate published in the "Extra plates" volume (pl. IXA) contains different deposit as the tools illustrated by drawings in the second volume of "Royal Tombs" (pl. XLV). Harpoons are omitted in the second case. Petrie writes that some artefacts from the excavations of Amélineau were sold and he found an axe with a numeral 43. There were found copper tools in the rooms 1–12, but Petrie did not specified the types. The number of the tools is probably a multiple of number four.	Petrie (1901, 12–13, 28, 38–40, Pl. XLV: 65–80; Pl. IXA); Kühnert-Eggebrecht (1969, 114, Cat. No. MA-B/1); Davies (1987, 73, Cat. No. 11); Kuhn (2011); Spencer (1980); Feucht (1986, 26–27); Schorsch (1992); Golden (2002); Kuhn (2011); Rademakers et al. (2018; 2018 Supplement 3, 38–45); Odler—Kmošek (2020)
primary probably	Found in the room 20 wrapped in linen.	Petrie (1901, 12–13, 38–40, Pl. XLV: 76); Davies (1987, 73, Cat. No. 6)
primary probably	Found in the entrance to the room 40.	Petrie (1901, 13)
primary probably	Found in the room 44: chisels.	Petrie (1901, 13)
primary probably	Found in the room 47: "some objects of copper".	Petrie (1901, 13)
secondary	The revision excavation of DAI; needle in room 2, tweezers in room 52, chisel in room GN, saw in room MO, adze in room 49, axe in 50, 2 chisels in room 50.	Dreyer et al. (2003, 116, Taf. 24: e–g)
primary	Corridor 9, Room 25 (Room 19 for Petrie): The copper vessel was found approximately in the middle of the room, at 0,86 m from the west wall, 0,36 m from the south wall and 0,40 m from the north wall. It was upright between sand and other vessel debris. Petrie found also "needles, chisels, axes", number and types not specified.	Amélineau (1902, 54–94, 153–157, Pl. XVII); Petrie (1901, 12); Rademakers et al. (2018; 2018 Supplement 3, 24–25, Fig. 11)
primary	"Using his hands to climb out of the corridor (6), one of my workmen placed a hand on top of the north wall of chamber 29 and felt that on this wall metal was present. He looked and removed a large group of oxidised objects which were stuck together: these objects filled an entire basket. I have counted them with patience: there were 1220."	Amélineau (1902, 54–94, 95–129, 135, 159, 163–166, 261); Rademakers et al. (2018; 2018 Supplement 3, 24–37, Figs. 12–17)

TABLE 13 Royal contexts with the copper artefacts (*cont.*)

Site	Part of site	Structure	Period
Unknown	Unknown		EDP, Dynasty 2, the reign of Khasekhemwy
Abydos	Umm el-Qa'ab, royal tombs	Tomb of Khasekhemwy	EDP, Dynasty 2
Saqqara	Pyramid complex of Netjerykhet	Netjerykhet	EDP, Dynasty 3, reign of Netjerykhet
Saqqara	Pyramid complex of Netjerykhet	Netjerykhet	EDP, Dynasty 3, reign of Netjerykhet
Saqqara	Pyramid complex of Netjerykhet	Netjerykhet	EDP, Dynasty 3, reign of Netjerykhet
Saqqara	Pyramid complex of Netjerykhet	Netjerykhet	EDP, Dynasty 3, reign of Netjerykhet
Saqqara	Pyramid complex of Netjerykhet	Pyramid of Netjerykhet	EDP, Dynasty 3, reign of Netjerykhet
Saqqara	Pyramid complex of Sekhemkhet	Pyramid of Sekhemkhet	EDP, Dynasty 3
Saqqara	Pyramid complex of Netjerykhet	Pyramid of Netjerykhet	Early Dynastic Period / Old Kingdom
Unknown	Unknown	unknown	OK, Dynasty 4, the reign of Snofru
Giza	Pyramid complex of Khufu	Pyramid of Khufu	OK, Dynasty 4, the reign of Khufu
Abu Rawash	Pyramid complex of Radjedef	Pyramid of Radjedef	OK, Dynasty 4, the reign of Radjedef
Abu Rawash	Pyramid complex of Radjedef	Satellite Pyramid of Radjedef Pyramid	OK, Dynasty 4, the reign of Radjedef
Abu Rawash	Pyramid complex of Radjedef	Satellite Pyramid of Radjedef Pyramid	OK, Dynasty 4, the reign of Radjedef
Giza		Pit for a boat of Khufu	OK, Dynasty 4, the reign of Radjedef

Type of context	Description of context	Bibliography
unknown		Davies (1987, 72); Kühnert-Eggebrecht (1967, Cat. No. A-B/3); Kaplony (1965, 24, Abb. 55); Kaplony (1973, 23, no. 56, Taf. 13); Abraham (1999)
unknown	Context unspecified in the publication. Drillings were sent to Sebelien from Petrie.	Sebelien (1924); Lucas—Harris (1962, 485)
secondary	Found in the gallery with fragments of stone vessels ("gallery of broken vases").	Firth—Quibell (1935, 124, Fig. 11, Pl. 93: 3); Lauer (1936, 232, Pl. XCVI: 3, 4); Porter et al. (1981, 399–415); Arnold (1991, 259)
secondary	Found in the substructure of the pyramid.	Radwan (1983, 36)
secondary	Found in Gallery V.	Lauer (1936, 233, Fig. 236–237)
secondary	Found in Gallery XI.	Lauer (1936, 232, Fig. 234; 1939, 33, 75, Fig. 66, Pl. XIX: 11); Porter et al. (1981, 399–415); Arnold (1991, 258)
	Found in Gallery VI. A saw or a knife	Lauer (1939, 7, 75, Pl. XIX: 11); Porter et al. (1981, 399–415)
secondary	Found in the main corridor of substructure, in a concentration of stone vessels southwards from the second blockage of the corridor. Deposit of model tools.	Goneim (1957, Pl. XXXVI: B); Porter et al. (1981, 415–417)
secondary	Found in the gallery VII.	Lauer (1936, 233; 1939, 14, 75, Pl. XIX: 11); Porter et al. (1981, 399–415)
unknown	Full-size tool with the cartouche and name of the working unit. According to Petrie bought from "Gizeh dealer".	Petrie—Mackay—Wainwright (1910, 43, Pl. XXXVII: 40); Petrie (1917, 16, Pl. XVII: 76); Rowe (1936, 285, Fig. 5); Aubert—Aubert (2001, 37), Roth (1991, 122–123); Odler (2016, Fig. 18)
primary probably	Found in the upper part of the northern shaft, together with stone ball and wooden lath.	Stadelmann (1994, 287–288, Taf. 55 b); Odler (2016, Fig. 212)
primary	According to Valloggia a foundation deposit, traces of wood, might be from the haft.	Valloggia (2011, 45–46, Figs. 163–164); Odler (2016, Fig. 19, 29)
secondary	Fragments of the burial equipment in the manouv- ering chamber.	Valloggia (2011, 63); Marchand (2009, 73, Fig. 3)
secondary probably	Found in the central corridor.	Valloggia (2011, 64); Marchand (2009, 73, Fig. 3)
primary	Traces of chisels: straight, concave, pointed. Tips of chisels broken off and analysed. Also analysed copper clamps, holding	Iskander (1960) in Nour et al. (1960)

TABLE 13 Royal contexts with the copper artefacts (*cont.*)

Site	Part of site	Structure	Period
Giza	Mortuary complex of Khufu	Second boat pit of Khufu	OK, Dynasty 4
Meidum	Snofru Pyramid complex	Pyramid of Snofru	OK, Dynasty 4
Nahr Ibrahim	–	unknown	OK, Dynasty 4 to 5
Saqqara	Pyramid complex of Weserkaf	Mortuary temple of Weserkaf	OK, Dynasty 5, the reign of Weserkaf
Unknown	Unknown	unknown	OK, Dynasty 5, the reign of Weserkaf
Abusir	Royal Cemetery, Pyramid complex of Sahure, AC 1	Mortuary temple of Sahure	OK, Dynasty 5, the reign of Sahure
Abusir	Royal Cemetery, Pyramid complex of Sahure, AC 1	Mortuary temple of Sahure	OK, Dynasty 5, the reign of Sahure
Abusir	Royal Cemetery, Pyramid complex of Neferirkare, AC 2	Mortuary temple	OK, Dynasty 5, the reign of Neferirkare
Unknown	Unknown	Unknown	OK, Dynasty 5, the reign of Raneferef
Mit Rahina	Unknown	Unknown	OK, Dynasty 5, the reign of Shepseskare
Unknown	Unknown	Unknown	OK, Dynasty 5, the reign of Menkauhor
Unknown	Unknown	Unknown	OK, Dynasty 5, the reign of Djedkare
Abu Ghurab	sun temple of Nyuserre	Sun temple of Nyuserre	OK, Dynasty 5
Saqqara	Mortuary complex of Pepi	Mortuary temple of Pepi	OK, Dynasty 6, the reign of Teti
Unknown	Unknown	unknown	OK, Dynasty 6, the reign of Weserkare
Hierakonpolis	Early Dynastic temple	Room with statue of Pepy I	OK, Dynasty 6

Type of context	Description of context	Bibliography
primary	A pit with a second boat, belonging to the mortuary komplex of Khufu. Six planks were found with copper clasps, three on the north, three on the south. And also cuts covered with copper sheet, L-shaped notches in the tomb of Ty, scene of boat building. And angular U-shaped attachment with two perforations on both ends.	Abe et al. (2019, 22–23, Fig. 1)
tertiary	Found in the debris around the pyramid.	Petrie (1892, 34, Pl. XXIX: 14)
tertiary	“Found near the Roman Bridge, mouth of the River Adonis (Nahr Ibrahim), Syria, in 1911.”	Mallon (1925); Rowe (1936, 283–289); Roth (1991, 123); Davies (1987, 73); Kühnert-Eggebrecht (1967, Cat. No. A-B/7); Mallon (1925, 49–54); Odler (2016, Fig. 19)
temple	Found in the northeastern part of court with portico, together with fragments of papyrus in sand.	Labrousse—Lauer (2000, 29, Fig. 35); Odler (2016, Fig. 213)
unknown	It cannot be decided from the publication whether the inscription of Userkaf is genuine or fake. Most probably inscriptions are fake and the artefacts are genuine. Formerly Michailidis Collection, now Neues Museum Berlin.	Kaplony (1965, 34, Taf. VII); Kaiser (1967, 28, Abb. 258–260); Odler (2016, Fig. 18)
temple	No information.	Borchardt (1910, 77–78, Abb. 102–103)
temple	Found in the drainage under the threshold of the southern wall of the room with niches.	Borchardt (1910, 78–83, Abb. 104–113)
tertiary	No information.	Borchardt (1909, 68)
unknown	In a collection of antiquary Philip, then probably bought by Petrie	Kaplony (1981, 281–283, Taf. 80: 1)
tertiary	Chance find of sebbakh digging.	Daressy (1915); Kaplony (1981, 279–280, Taf. 81: 2); Verner (2014, 55–56)
unknown	Bought by the museum from the collection of M. Nahman, Cairo	Kaplony (1981, 306–307, Taf. 84: 10)
unknown	Bought from Sotheby's, Catalogue 10 June, 1947, Nr. 65	Kaplony (1981, 328, Taf. 88: 24)
temple	Found in the mud-brick ship near the temple.	von Bissing (1905a, 54)
unknown		Lucas and Harris (1962, 109)
unknown	Full-size tool blade with the cartouche and name of the working unit. Wrongly determined as mallet by Roth (1991, 122).	Kaplony (1965, 36–39, Abb. 90, Taf. IX; 1973, 24, Nr. 58, Taf. 13); Roth (1991, 122); Abraham (1999); Odler (2016, 142, Fig. 19)
primary		Eckmann—Shafik (2005)

TABLE 13 Royal contexts with the copper artefacts (*cont.*)

Site	Part of site	Structure	Period
Deir el-Bahari	Mortuary complex of Mentuhotep II	Corners of the “Pyramid” of the mortuary temple	MK, Dynasty 11, the reign of Mentuhotep II
Deir el-Bahari	Mortuary complex of Mentuhotep II	Corners of the “Pyramid” of the mortuary temple	MK, Dynasty 11, the reign of Mentuhotep II
Deir el-Bahari	Mortuary complex of Mentuhotep II	Corners of the “Pyramid” of the mortuary temple	MK, Dynasty 11, the reign of Mentuhotep II
Deir el-Bahari	Mortuary complex of Mentuhotep II	Corners of the “Pyramid” of the mortuary temple	MK, Dynasty 11, the reign of Mentuhotep II
Deir el-Bahari	Mortuary complex of Mentuhotep II	Temple platform	MK, Dynasty 11, the reign of Mentuhotep II
Deir el-Bahari	Mortuary complex of Mentuhotep II	Temple platform	MK, Dynasty 11, the reign of Mentuhotep II
Deir el-Bahari	Mortuary complex of Mentuhotep II	Temple platform	MK, Dynasty 11, the reign of Mentuhotep II
Unknown	unknown	unknown	MK, Dynasty 11, the reign of Mentuhotep II
Lisht	Mortuary complex of Amenemhet I	Pyramid	MK, Dynasty 12, the reign of Amenemhat I
Abydos	Osiris mound, Osiris temple complex	Temple of XII–XIII Dynasty	MK, Dynasty 12, the reign of Senusret I
Abydos	Osiris mound, Osiris temple complex	Temple of XII–XIII Dynasty	MK, Dynasty 12, the reign of Senusret I
Elephantine	Satet temple	Foundation deposit of Senusret I	MK, Dynasty 12, the reign of Senusret I

Type of context	Description of context	Bibliography
foundation deposit	Foundation deposit under the north-eastern-corner of the core building.	Arnold (1971, 127, Taf. XVII–XIX: b, c; 1991, 259); Arnold—Settgast (1973, 189, Pl. VII); Romano (1979, 17–18); Arnold (1981, 56–57, Taf. 77b, 80d), Weinstein (1974, 59–61); Davies (1987, 61, 75, Appendix I, no. 1)
foundation deposit	South-eastern foundation deposit, under the south-eastern coner of the core building.	Arnold (1981, 57–58, Taf. 77d, 80d; 1991, 259), Weinstein (1974, 59–61); Arnold (1971, 127, Taf. XVII–XIX: b, c); Arnold—Settgast (1973, 189, Pl. VII); Davies (1987, 61, 75, Appendix I, no. 1)
foundation deposit	Foundation deposit in south-western-pit under the south-western corner of the core building.	Arnold (1981, 58–59, Taf. 77c, 80c, 81c–d; 1991, 259); Weinstein (1974, 59–61); Arnold (1971, 127, Taf. XVII–XIX: b, c); Arnold—Settgast (1973, 189, Pl. VII); Davies (1987, 61, 75, Appendix I, no. 1)
foundation deposit	Foundation deposit in the north-western pit, under the north-western corner of the core building.	Arnold (1981, 59–60, Taf. 77a, 80a, 81a–b, 82a; 1991, 259), Weinstein (1974, 59–61); Arnold (1971, 127, Taf. XVII–XIX: b, c); Arnold—Settgast (1973, 189, Pl. VII); Davies (1987, 61, 75, Appendix I, no. 1)
foundation deposit	deposit 1: a brick with a copper/bronze plaque set inside	Weinstein (1974, 57–59)
foundation deposit	deposit 2: a brick with a copper/bronze plaque set inside	Weinstein (1974, 57–59)
foundation deposit	deposit 3: a brick with a copper/bronze plaque set inside	Weinstein (1974, 57–59)
unknown	Two cylinder seals acquired in 1967.	output from the museum database
foundation deposit	“The pit was covered with a roughly dressed rectangular limestone block set on a ledge at the top of it. The contents of this deposit included a bovine skull, below and to one side of which were six mud bricks, five of which contained inscribed plaques (two of faience, two of copper/bronze, and one of alabaster).” 24 ceramic vessels in addition.	Weinstein (1974, 66–67); Kopp (2019, 50)
foundation deposit	Deposit no. 86, two bricks with copper plaques, one with alabaster, one with wooden originally	Petrie (1902, 17, 20, Pl. LXII); Weinstein (1974, 74–75)
foundation deposit	Deposit no. 96 with five bricks, one with copper plaque, one with faience, three bricks empty	Petrie (1902, 17, 20, Pl. LXII); Weinstein (1974, 74–75)
primary	A foundation deposit of Senusret I at the NE corner of the outer wall of the Satet’s complex. Copper plaque in a mud-brick no. 3, in mud-brick no. 4 was a plaque made of silver.	Kopp (2019, 48–50, 124, Abb. 12–13, Kat. Nr. 50, Taf. 4: 50)

TABLE 13 Royal contexts with the copper artefacts (*cont.*)

Site	Part of site	Structure	Period
Lisht	Senusret I mortuary complex	Pyramid	MK, Dynasty 12, the reign of Senusret I
Lisht	Senusret I mortuary complex	Pyramid	MK, Dynasty 12, the reign of Senusret I
Lisht	Senusret I mortuary complex	Pyramid	MK, Dynasty 12, the reign of Senusret I
Lahun	Senusret II mortuary complex	Valley temple	MK, Dynasty 12, the reign of Senusret II
Medamud	Temple of Montu	temple court, Temple of Montu	MK, Dynasty 12, the reign of Senusret III
Unknown	Unknown	Unknown	MK, Dynasty 12, the reign of Amenemhat III
Dahshur	Pyramid complex of Amenemhat III	Burial chambre of Auibre Hor	MK, Dynasty 12
Unknown		Unknown	MK, Dynasty 13, the reign of Khendjer
Saqqara	Saqqare South	Pyramid of unknown king	MK, Dynasty 13
Unknown		Unknown	MK, Dynasty 13
Unknown		Unknown	MK, Dynasty 13

Type of context	Description of context	Bibliography
foundation deposit	NW corner, in circular pit, five bricks with plaques (copper/bronze, alabaster, wood, faience, silver), inscribed with the name of king and the name of pyramid complex, below bricks ceramics and below pottery food offerings.	Weinstein (1974, 70–72)
foundation deposit	SE corner, in circular pit, five bricks with plaques (copper/bronze, alabaster, wood, faience, silver), inscribed with the name of king and the name of pyramid complex, below bricks ceramics and below pottery food offerings.	Weinstein (1974, 70–72)
foundation deposit	SW corner, in circular pit, five bricks with plaques (copper/bronze, alabaster, wood, faience, silver), inscribed with the name of king and the name of pyramid complex, below bricks ceramics and below pottery food offerings.	Weinstein (1974, 70–72)
foundation deposit	In centre of temple in its axis: “28 copper/bronze model chisels, adzes, axe-heads, and knives, four sandstone model grinders and grindstones, 8 strings of carnelian beads, 8–12 pieces of copper ore and four pieces of lead ore, a number of pottery vessels (shallow bowls, flat based jars, globular pots), and some baskets.”	Petrie (1890, 21–22, Pl. XIV: 1–10); Weinstein (1974, 78–79)
foundation deposit	Found under the SW corner of the temple court. The southwest deposit had four “manchons cylindriques de terre crues,” some pottery vessels (no further information on these), sandstone grinders and/or grindstones (“polissoirs”), model copper/bronze tools (the specific types not indicated), a string of carnelian beads, some green and black mineral samples (‘du fard vert et du fard noir’), and a brick.	Weinstein (1974, 84)
unknown	Adze without provenance	Kaplony (1973, 26, Nr. 61, Taf. 14, 25)
primary		Berthelot (1895); Lucas—Harris (1962, 488)
unknown		Kaplony (1973, 26, Pl. 14: 25, Cat. 62); Ryholt (1997, 342)
foundation deposit	Found under the NE corner of the pyramid, with pottery and 13 carneol beads	Jéquier (1933, 61–62, Fig. 45); Weinstein (1974, 85–86)
unknown		Engelbach (1942); Ryholt (1997, 336)
unknown		Davies (1987, 89, Cat. No. 170); Ryholt (1997, 344)

TABLE 13 Royal contexts with the copper artefacts (*cont.*)

Site	Part of site	Structure	Period
Luxor		Unknown	SIP, Dynasty 15, the reign of Apophi
Sumenu	Unknown	Unknown	SIP, Dynasty 15, the reign of Apophi
Unknown		Unknown	SIP, Dynasty 15, the reign of Apophi
Unknown		Unknown	SIP, Dynasty 17, the reign of Seqenenre Tao
Unknown		Unknown	SIP, Dynasty 17, the reign of Kam-ose
Unknown		Unknown	SIP, Dynasty 17
Unknown	Unknown	Unknown	SIP, Dynasty 17
Naqada		Unknown	SIP
Unknown	Unknown	unknown	SIP

Type of context	Description of context	Bibliography
unknown	Dagger	Dawson (1925); Ryholt (1997, 386); Focke (2013, 6)
foundation deposit	items from foundation deposits	Weinstein (1974, 86–87)
unknown		James (1961, 39–40, Pl. XIII: 6)
unknown		Kaplony (1973, 26–27, Pl. 14: 25, Cat. 63); Ryholt (1997, 397); Abraham (1999)
unknown	Axe	Davies (1987, 50, Cat. No. 151); Ryholt (1997, 399); Focke (2013, 8)
unknown	Adze supposed to be chronologically earlier than the inscription on it.	Kaiser (1967, 49, Abb. 528); Ryholt (1997, 394); Polz (2007, 329–330)
unknown	Unprovenanced	Davies (1981, 177–178, Fig. 3, Pl. xxi, 2; 1987, 49, 82); Ryholt (1997, 390)
unknown	Dagger	Petschel (2011, 109, 362, Cat. No. 18); Ryholt (1997, 390)
unknown	Segmental axe with a scarab (modern addition?)	Davies (1987, 82, Cat. No. 101); Ryholt (1997, 391); Focke (2013, 6)

TABLE 14 Publications of the material culture, including written and iconographic sources, from the periods under study, arranged by the region and respective site

01_Northern Levant

Byblos, Nahr Ibrahim: Dunand 1937, 1950, 1954; Lilyquist 1979, 28–29, 46; Kopetzky 2018; Mallon 1925; Miniaci—Saler 2021; Rowe 1936, 283–289

03_Sinai

Tell Ras Budran: Mumford 2006, 2015; Tallet—Marouard 2016

Rest of sites: Literature in Table 27

04_Delta

Bubastis: Habachi 1957; el-Sawi 1979; Helck 1983, 57

Buto: Way 1997; Pernicka and Schleiter 1997; Hartung et al. 2016

Khatana: Davies 1987, 88, Cat. No. 167

Kom el-Barnougi: Edgar 1907

Kom el-Hisn: Hamada and Amir 1947; Hamada and Farid 1947, 1948, 1950; Orel 2000; Silverman 1988

Mendes, Tell el-Rub'a: Hansen 1967; Soghor 1967; Redford 2010

Minshat Abu Omar: Kroeper 1992; Kroeper and Wildung 1994, 2000

Tell el-Daba = Tell el-Dab'a: Bietak, Mlinar and Schwab 1991; Bietak and Hein 1994; Czerny 1999, 2015; Forstner-Müller 2001, 2008; Hein—Jánosi 2004; Philip 2006; Philip and Cowell 2006; Schiestl 2009; Forstner-Müller 2008

Tell el-Farkha: Czarnowicz 2012, 2018, 2021; Rehren and Pernicka 2014

Tell el-Hebua: Abd El-Maksoud 1998

Tell el-Yahudiya: Petrie 1906; McKerrell 1971; Tufnell 1978; Rademakers et al. 2021

Tell Ibrahim Awad: Brink—Zeist 1988; Haarlem 2002

05_Wadi Tumilat

Kafr Hassan Dawood: Tassie 2003; Rowland 2014; Hassan et al. 2015

Tell el-Mansheya: Hassan Mahmud Ahmed et al. 2018

Tell el-Maskhuta: Holladay 1997

Tell el-Retaba: Hudec et al. 2020; Nour el-Din et al. 2016; Rzepka et al. 2015, 2017

06_Memphite region

Abu Gurab: Borchardt and Bissing 1905; Kees 1928, Taf. 28: block 247; Posener-Kriéger 1969, 422, Fig. 3; Radwan 1991;

Abu Rawash: Bisson de la Roque 1924, 1925; Klasens 1957, 1958, 1959, 1960, 1961; Montet 1938, 1946; Tristant 2008; Valloggia 2011

Abu Shalbyah: Petrie et al. 1912, 37, Pl. LI; Lilyquist 1979, 17, footnote 181

TABLE 14 Publications of the material culture, including written and iconographic sources (*cont.*)

- Abusir:** Arias Kytnarová et al. 2013; Awady 2009; Bárta 2001, 2006, 2010; Bárta, Coppens and Vymazalová 2010; Bárta et al. 2009; Bárta et al. 2020; Blaschta 2011; Bonnet 1928; Borchardt 1907, 1910, 1913; Callender 2006, 2008; Dulíková—Odler—Havelková 2011; Jánosi 2017; Krejčí 2008a, 2008b, 2008c, 2013, 2016; Krejčí—Arias Kytnarová et al. 2014; Krejčí, Arias Kytnarová and Odler 2015; Schäfer 1908; Odler 2015b, 2016, 2017b; Odler—Peterková Hlouchová et al. 2019a, 2019b; Odler—Kmošek 2020; Pawlicki 2013; Posener-Kriéger 1969, 1976, 1995; Posener-Kriéger and Cenival 1968; Vachala 2004; Verner 1986; Verner and Callender 2002; Verner et al. 1995; Verner et al. 2006
- Batn el-Baqara:** Boghdady 1932, 156–157; Radwan 1983, 8, Taf. 3: 20
- Dahshur:** Alexanian et al. 2006; Bénédite 1907; Berthelot 1895; Grajetzki 2014; Morgan 1895, 1903;
- Giza:** Abe et al. 2019; Abu-Bakr 1953; Brovarski 2001; Capart 1906; Conard—Lehner 2001; Dunham 1946; Dunham and Simpson 1974; Fakhry 1935; Gladstone 1892; Goedicke 1970; Hampson 2012; Hassan 1936, 1941, 1943, 1948, 1950, 1953; Hawass 1992; Hölscher 1912; Iskander 1960; James 1961; Junker 1929, 1934, 1938, 1940, 1941, 1943, 1944, 1947, 1950, 1951, 1953; Kanawati 2001; Kaplony 1981; Kromer 1978; Lehner 2002, 2007; Lehner and Hawass 2017; Maddin et al. 1984; Manuelian 2009; Murray 2011; Odler 2016; Odler—Kmošek et al. 2021; Petrie 1907; Rademakers et al. 2018; Radwan 1983; Reisner 1931, 1942; Reisner and Smith 1955; Roth 1995; Saleh 1974, 1983; Simpson 1980; Simpson et al. 1976, 1978; Smith 1933; Stadelmann 1994; Steindorff, Hölscher and Grimm 1991; Weeks 1994
- Heliopolis:** Davies 1987, 73; Daressy 1903; Daressy and Barsanti 1916; Díaz Hernández 2019; Franke 2007, 169; Postel—Régen 2005; Simpson 2001;
- Helwan:** Kaplony 1966; Köhler 2005, 2014a; Köhler and Jones 2009; Köhler et al. 2017; Radwan 1983; Saad 1948, 1951, 1957, 1969
- Maadi:** Abdel-Motelib et al. 2012; Afifi Badawi 2003; Bajeot 2017; Hauptmann 2017; Rizkana and Seeher 1989; Pernicka and Hauptmann 1989
- Meidum:** Gladstone 1892; Harpur 2001; Petrie 1892; Petrie—Mackay—Wainwright 1910
- Memphis:** Davies 1987, 74; Giddy 2016; Moussa—Altenmüller 1991; Altenmüller 2015
- Mit Rahina:** Bénédite 1907, 34–35, Fig. 8; Daressy 1915; Kaplony 1981, 279–280, Taf. 81: 2; Lilyquist 1979, 92, Fig. 11; Odler 2016, Fig. 193;
- Saqqara:** Altenmüller 1998; Arnold 2010; Bestock 2018, 112–113, Fig. 4.20; Borchardt 1911, 1937, 1964; Brunton 1947a; Chauvet 2015; Daoud 2005; Decker and Herb 1994; Dobrev, Laville and Onézime 2006; Drioton 1943–1944; Drioton and Lauer 1958; Duell 1938; el-Batal et al. 2015; Emery 1939, 1949, 1954, 1958; Firth—Gunn 1926; Firth and Quibell 1935; Goedicke 1958; Goneim 1957; Goyon 1959; Harpur 1996, 2008; Harpur—Scremin 2015; Hassan 1938, 1948; Hassan—Iskander 1975; Hodjash—Berlev 1982; Hölzl 1999; James 1953, 1961; Jéquier 1928, 1929, 1933, 1935, 1938, 1940; Kanawati 2006; Kanawati and Abder-Raziq 1998, 1999, 2003; Kanawati, Abder-Raziq and McFarlane 2003; Kanawati and Hassan 1997; Kanawati et al. 2006, 2010, 2011; Kaplony 1976; Kowalska 2013; Labrousse—Lauer 2000; Lauer 1936, 1939; Leclant—Berger 1996; Leclant and Clerc

TABLE 14 Publications of the material culture, including written and iconographic sources (*cont.*)

1990, 1997; Lepsius 1897; Lilyquist 1979; Lloyd—Spencer—el-Khouli 1990; Lythgoe 1916; Macramallah 1940; Mariette 1889; Megahed—Jánosi—Vymazalová 2017; Mogensen 1921; Moussa—Altenmüller 1971, 1975; Moussa—Junge 1975; Piankoff 1960; Quibell 1908, 1913, 1923; Quibell and Hayter 1927; Schott 1973; Smith 1942, 1958; Soleiman 2018; Steindorff 1913; Vernus 1976; Walle 1978; Weker 2013; Wild 1953, 1966; Ziegler 1993, 1997
Tura: Junker 1912; Odler et al. 2018; Zaki 2012

07_between Memphis and Fayum

Abusir el-Meleq: Kuhn 2017; Scharff and Möller 1926; Ryholt 1997, 384

Gerza: Payne 1993; Petrie, Wainwright and Mackay 1912; Rademakers et al. 2018; Stevenson 2009

Kafr Ammar: Petrie and Mackay 1915

Kom Amar: Petrie, Wainwright and Mackay 1912; Lilyquist 1979, 110

Lisht: Arnold 1988; 1992; Hayes 1937; Lilyquist 1979, 17, 34; Mace—Winlock 1916; Miniaci 2019; Weinstein 1974

Riqqa: Engelbach et al. 1915; Lilyquist 1979, 34

Tarkhan: Mawdsley 2012, 2021; McKerrell 1971; Petrie, Wainwright and Gardiner 1913; Petrie 1914; Rademakers et al. 2021; Shortland 2006; Stos-Gale—Gale 1981;

08_Fayum

Fayum: Giumlíá-Mair and Quirke 1997; Hill 2004

Ghurab: Loat 1904; Brunton and Engelbach 1927

Haraga: Engelbach 1923

Hawara: Fay 1996; Giumlíá-Mair and Quirke 1997; Hill 2004

Kahun: David 1986; Gilmore 1986a; Petrie 1890, 1891

Lahun: Brunton 1920; Collier and Quirke 2006; Griffith 1898; Parkinson 2004; Petrie—Brunton—Murray 1923; Weinstein 1974; Winlock 1934

Tebtunis: <https://webapps.cspace.berkeley.edu/pahma/imageserver/blobs/93812320-44c2-4f27-8b7e/derivatives/Medium/content>

Qasr es-Sagha: Caton-Thompson 1934, 138–140; Di Teodoro 2018, 114;

09_between Fayum and Beni Hasan

Deshasha: Bienkowski—Southworth 1986, 44; Kanawati—McFarlane 1993; Petrie 1898

Heracleopolis Magna: Padró 1999,

Sedment: Abdel Fatah—Bickel 2000; Petrie and Brunton 1924

Tehna: Thompson et al. 2014

Zawiyet el-Mayitin: Lepsius 1897; Michel 1972; Odler 2016, Fig. 65; Piacentini 1993; Vandier d'Abbadie 1972; Varille 1938

TABLE 14 Publications of the material culture, including written and iconographic sources (*cont.*)

10_Beni Hasan

Beni Hasan: Bienkowski—Southworth 1986, 36; Garstang 1907; Kanawati—Evans 2014, 2016, 2018; Lashien 2016; Lashien—Mourad 2019; Mourad 2020; Newberry 1893a, 1893b; Orel 1993; Rademakers et al. 2021; Willems 1988

11_between Beni Hasan and Amarna

Antinoe: Lilyquist 1979, 18

Deir el-Bersha: Bénédite 1907; Daressy 1900; Freed et al. eds 2009; Griffith—Newberry—Fraser 1895; Kamal 1901a, 1901b; Lacau 1904; Rademakers et al. 2021; Radwan 1983; Terrace 1968; Willems 1988

Sheikh Said: Davies 1901, Lilyquist 1979, 10, Fig. 103;

13_between Amarna and Asiut

Dara: Couton-Perche 2021, 90–91; Hours—Michel 1974, Table 1; Kamal 1912; Lilyquist 1979, 10, 29, 92; Vandier d'Abbadie 1972, 173, Fig. 766; Weill 1958

Deir el-Gebrawi: Davies 1902; Kanawati 2005, 2007, 2013;

Meir: Bénédite 1907, 34; Blackman 1915; Blackman—Apted 1953; Hayes 1953; Kamal 1911, 1912, 1914, 1915; Kanawati and Evans 2014, 2017; Lacau 1904; Lilyquist 1979, 10, 29, 38, 92;

14_Asiut

Asiut: Bénédite 1907; Brunner-Traut 1955, 1981; Chassinat and Palanque 1911; Couton-Perche 2021, 71, 102–103; Hayes 1978; Kahl et al. 2006; Khadragy 2007, 2012; Khadragy et al. 2004; Lilyquist 1979, 15, 18; Mendoza 2004; Odler—Kmošek 2020; Vercoutter 1981; Willems 1988; Zitman 2010; Zöllner-Engelhardt 2012

15_between Asiut and Abydos

Akhmim: Kanawati 1992; Lacau 1904; Lange—Schäfer 1902; Lilyquist 1979, 21

Badari: Brunton 1927, 1930; Brunton—Caton Thompson 1928

Balabish: Wainwright 1915

Bet Khallaf: Brunton—Caton Thompson 1928, 81; Dakin 1938; Lilyquist 1979, 21; Garstang 1903; Rademakers et al. 2018

el-Ahaiwah: <https://webapps.cspace.berkeley.edu/pahma/imageserver/blobs/d02ad262-6ac2-4583-b20e/derivatives/Medium/content>

Hammamiya: Brunton 1927; Brunton—Caton Thompson 1928; Khouli—Kanawati 1991

Hawawish: Kanawati 1980, 1981, 1983, 1988; Kanawati—McFarlane 1992

Mahasna: Ayrton and Loat 1911; Garstang 1903; McKerrell 1971

Matmar: Carpenter 1932; Brunton 1948

Mesheikh: Lilyquist 1979, 21

TABLE 14 Publications of the material culture, including written and iconographic sources (*cont.*)

Mostagedda: Andrews 1981; Brunton 1937; Carpenter 1931; Kaiser 1967, 47, Abb. 489; Stos-Gale—Gale 1981

Naga ed-Deir: Davies 2020; Eaton 1941; Lilyquist 1979, 21, 38; Lythgoe 1965; Mace 1909; Minor 2020; Reisner 1908, 1923, 1932; Simpson 1965

Qau: Brunton—Caton Thompson 1928; Brunton 1927, 1930; Lilyquist 1979, 20, 38; Odler—Kmošek 2020; Rademakers et al. 2018

Reqaqna: Garstang 1904; Radwan 1983

Rifa: Bienkowski—Southworth 1986, 86; Petrie 1907

Sheikh Farag: Dunham 1943; Lilyquist 1979, 21, 38

Zarabi: Davies 1987, 74; Kühnert-Eggebrecht 1967, Cat. No. MD/1; Lilyquist 1979, 11; Petrie 1907

16_Abydos

Abydos: Adams 2015; Amélineau 1899, 1902, 1904, 1905; Ayrton 1904; Ayrton and Loat 1908; Ayrton, Bienkowski—Southworth 1986; Currelly and Weigall 1904; Barta 1970; Couton-Perche 2021, 69; Dreyer et al. 1996, 1998b, 2000, 2003, 2006, 2017; Dreyer, Hartung and Pumpenmeier 1993; Engel 2017; Feucht 1986; Franke 2013; Frankfort 1930; Garstang 1901, 1909, 1913; Golden 2002; Hein—Satzinger 1993; Helck 1983, 25; Ilin-Tomich 2017; Kaplony 1963, 1966; Kuhn 2011; Lange—Schäfer 1902, 1908; Loat 1923; Lilyquist 1979, 22, 39, 40; Lucas 1900; Maddin et al. 1984; Massafra 2012; McKerrell 1971; Miniaci 2019; de Morgan 1897; Müller 1987; Naville 1914; Odler 2016; Odler—Kmošek 2020; Peet 1914; Peet and Loat 1913; Petrie 1900c, 1901b, 1901c, 1903, 1925; Quibell 1905; Quirke 2009, 128–130; Rademakers et al. 2018, 2021; Radwan 1983; Roeder 1913; Schäfer 1904; Schneider 2003; Schorsch 1992; Sebelien 1924; Shortland 2006; Simpson 1974, 1984; Smith 1958; Smither—Dakin 1939; Sowada 2010; Spencer 1980; Tallet 2011; Wegner 2007; Weinsten 1974

Sinki Abydos–South: Dreyer and Swelim 1982, 93

Amra: Amélineau 1899; Baumgartel 1960; Mendoza 2004, 49; Randall-MacIver and Mace 1902; Payne 1993, 146, Fig. 59;

17_between Abydos and Thebes

Ballas and Deir el-Ballas: Davies 1987, 49, 82, 83, 86; Hill 2004, 11–16; Kaiser 1967; Lacovara 1981, 120; Lilyquist 1979; Morris 2021, Fig. 9b; Petrie and Quibell 1895; Payne 1993

Coptos: Goedicke 1967, 1994; Rademakers et al. 2021; http://petriecat.museums.ucl.ac.uk/object_images/mid/32/UC16453.jpg

Dendera: Lilyquist 1979, 22, 24, 41, 42, 93; Fischer 1961, 1968; McKerrell 1971; Odler 2016; Oldeberg 1976; Petrie 1898, 1900a, 1900b; Slater 1974

Diospolis Parva: Bienkowski—Southworth 1986, 43; Bourriau 2009; Lilyquist 1979, 41; Odler 2016; Petrie 1901;

Hamra Dom: Baumgartel 1960, 8–9, 12–13; Morgan 1896, 20, 1897, 34; Quibell 1904, 277; Säve-Söderbergh 1994

TABLE 14 Publications of the material culture, including written and iconographic sources (*cont.*)

Medamud: Weinstein 1974, 84

Mesaid: <https://collections.mfa.org/objects/141464>

Naqada: Fischer 1964; Kaiser 1967, 15; Lilyquist 1979, 26; Petrie and Quibell 1895; Baumgartel 1960, 1970; de Morgan 1897; Payne 1993; Petrie—Quibell 1895; Ryholt 1997, 390; Stos-Gale—Gale 1981; Wetering 2020; Wetering—Tassie 2020

Qena: Payne 1993, 147

18_Thebes

Asasif: Petschel 2011, 247, 502

Deir el-Bahari: Allen 2002; Arnold 1971; Arnold—Settgast 1973; Arnold and Arnold 1981; Bénédict 1907; Davies 1987, 61, 75; Gauthier-Laurent 1935; Hudáková 2019; Lilyquist 1979, 26, 27, 43; Maspero 1889; Petschel 2011, 68; Weinstein 1974; Winlock 1928, 1942, 1943

Dra Abu en-Naga: Ben Amar 2012; Bissing 1900; Davies 1974; Focke 2013, 8; Polz 2007; Ryholt 1997, 398

Karnak: Habachi 1972; Helck 1969, 194–200; Lacau 1949; Mourad 2015, 109–110; Petschel 2011, 68; Van Siclen III 2010;

Khokha: Saleh 1977, 16

Luxor: Dawson 1925; Focke 2013, 6; Odler—Kmošek 2020; Phillips 1922, 1924; Ryholt 1997, 386

Medinet Habu: Miniaci 2020, 20, 69–70; Petrie 1917, 20

Qurna: Bissing 1900; Bénédict 1907; Bourriau 2010; Feucht 1986, 178; Focke 2013, 5, Fig. 1; Lilyquist 1979, 26, 28; Morris 2022; Petrie—Walker 1909; Ryholt 1997, 275, 398; Smith 1992; Vernier 1927; Vandier d'Abbadie 1972

el-Tarif: Gardiner 1917

Thebes: Barns 1956; Clère and Vandier 1948; Davies 1913; Davies and Gardiner 1920; Díaz Hernández 2014a; Feucht 1986, 177; Gauthier-Laurent 1935; Hayes 1957; Jaroš-Deckert 1984; Lepsius 1897; Lilyquist 1979, 26, 44; Odler—Kmošek 2020; Peet 1923; Robins—Shute 1998; Roehrig 1995; Seco Álvarez—Martínez Babón 2021; Spencer 1980, 86–87; Steindorff 1896; Willems 1988; Winlock 1955

19_between Thebes and el-Kab

Adaima: Midant-Reynes et al. 1998; Midant-Reynes and Buchez 2002; Minotti 2021; Needler 1984

Armant: Bannister 1937; Clère and Vandier 1948; Lange and Schäfer 1902; Mond—Myers 1937

Esna: Bienkowski—Southworth 1986, 49; Garstang 1907, 142

es-Sibaia: Needler 1984, 282

Gebelein: Davies 1987, 73; Edel 1981; Fischer 1961, 63; Gauthier-Laurent 1935, 674; Hudáková 2019; Lilyquist 1979, 22; Morenz 2006; Polotsky 1930; Posener-Kriéger 2004; Schiaparelli 1921; Steindorff 1901

Medamud: Weinstein 1974

TABLE 14 Publications of the material culture, including written and iconographic sources (*cont.*)

Moalla: Fischer 1961; Vandier 1950

Tod: Barbotin—Clère 1991; Bisson de la Roque 1950, 1953; Kemp and Merrillees 1980; Petschel 2011, 67

20. *between el-Kab and Asuan*

Edfu: Alliot 1933, 1935; Barsanti 1908; Bruyère et al. 1937; Lilyquist 1979, 28, 44; Michałowski et al. 1950; Moeller and Marouard 2018; Odler 2016; Radwan 1983; Stepniak 2006; Vandier d'Abbadie 1972

el-Kab: Bissing 1901; Claes and Huyge 2016; Claes, Davey and Hendrickx 2020; Gauthier-Laurent 1935; Hendrickx 1994; Hendrickx and Eyckerman 2009; Lilyquist 1979, 13, 44, 92; Limme 2008; Limme, Hendrickx and Huyge 1997; McKerrell 1971; Odler 2016; Quibell 1898; Rademakers et al. 2018, 2021; Sayce and Somers Clarke 1906

Gebel el-Silsila: de Morgan 1897, 141; Quibell 1904, 278

Hierakonpolis: Adams 1974, 1995, 1996; Bienkowski—Southworth 1986, 60; Eckmann and Shafik 2002; Eckmann et al. 2005; Needler 1984; Quibell 1900; Quibell and Green 1902

Kom Ombo: Lilyquist 1979, 28; Möller in Schäfer, Möller and Schubart 1910; Petschel 2011, 159, 442

Kubbaniya and Kubbaniya North: Davies 1987, 71; Junker 1919, 1920; Kühnert-Eggebrecht 1967, Cat. No. E-I/16; Odler et al. 2018

21. *Elephantine*

Asuan: Bénédite 1907, 30; Franke 1994; Lilyquist 1979, 44; Willems 1988, 19

Elephantine: Dreyer 1986; Dorn 2015; Helck 1978, 70; Kaiser et al. 1980, 1982, 1984, 1987, 1995, 1997; Kopp 2006, 2016, 2018, 2019; Pätznick 2005; Raue et al. 2006, 2008; Schenkel 1975, 117

Qubbet el-Hawa: Edel 1987; Edel, Seyfried and Vieler 2008; Goedicke 1988; Jiménez Serrano—Forstner Müller 2020; Jiménez Serrano et al. 2014, 19–23; Kemp—Merrilles 1980; Odler 2016; Seidlmayer 2006

Wadi Shatt er-Rigal: Petschel 2011, 68

22. *Western Desert*

Balat: Castel—Pantalacci 2005; Castel—Pantalacci—Cherpion 2001; Cherpion, Castel and Pantalacci 2001; Minault-Gout and Deleuze 1992; Odler 2016; Soukiassian, Wuttmann and Pantalacci 2002; Jeuthe 2012; Pantalacci 2010; Valloggia 1986, 1998

Gebel Tjauti: Darnell et al. 2002, 58

23. *Eastern desert*

Ayn Sokhna: Abd El-Raziq et al. 2011; Abd El-Raziq, Castel and Tallet 2016; Marouard 2020; Tallet 2012, 2018

TABLE 14 Publications of the material culture, including written and iconographic sources (*cont.*)

Lakeita: Debono 1951

Mersa Gawasis: Childs in Carannante et al. 2007, 196; Bard—Fattovich 2018, 92, 99–100

Wadi el-Hudi: Rowe 1939, Pl. XXVIb; Franke 2007, 169

Wadi el-Jarf: Tallet and Marouard 2016

Wadi Hammamat: Debono 1951

Rest of sites: Literature in Table 27

24_Lower Nubia

Adindan: Davies 1987, 73; Odler 2016; Williams 1989, 122, 128

Afya: Smith 1962; Lal 1967; Stevenson 2012

Aniba: Bietak 1968; Davies 1987, 78; Fischer-Elfert and Helmbold-Doyé 2016; Helmbold-Doyé—Seiler 2019; Lilyquist 1979, 44; Odler—Kmošek 2020; Petschel 2011, 181, 452; Spiekermann 2004; Steindorff 1935, 1937; Wolf 1935

Argin: Almagro, Presedo and Pellicer 1963; Hofmann 1967, 238

Askut: Smith 1991, 115; 2013, 283

Buhen: Davey et al. 2021; Emery 1963; Emery et al. 1979; Lilyquist 1979, 44–45, 47; O'Connor 2014; Odler 2016; Petschel 2011, 245, 500; Radwan 1983; Randall-MacIver and Woolley 1911

Dakka: Firth 1915; Hofmann 1967; Petschel 2011

Dihmit South: Harrell—Mittelstaedt 2015, 35–36

el-Hisnein West: Harrell—Mittelstaedt 2015, 32–33

Emery and Kirwan 1935 sites: Cemetery 167, Cemetery 189, Cemetery 195; Cemetery 201, Cemetery 215

Faras: Andrews 1981; Arkell 1950; Davies 1987, 71, Cat. No. 2; Kühnert-Eggebrecht 1967, Cat. No. B/11; Griffith 1921; Hofmann 1967; Nordström 2002; Spencer 1980; Rademakers et al. 2018; Verwers 1961

Firth 1912 sites: Mediq 79

Firth 1915 sites: Kostamna; Moalla Nubian

Firth 1927 sites: Cemetery 148; el-Sheima el-Saghira; Kubban 110; Kubban 113; Naga el-Sheikh; Naga Wadi; Salen Kolei; Sayala; Wadi Allaqi 111

Khor Bahan: Brunton—Caton Thompson 1928, 32; Reisner 1910

Kostamna: Bienkowski—Southworth 1986, 67; Firth 1912; Garstang 1907, 140

Meris Markos: Reisner 1910

Mirgissa: Gratien 2019; Knoblauch 2020; Lilyquist 1979, 45; Vandier d'Abbadie 1972; Vercoutter 1966, 1977; Vercoutter et al. 1970, 1975

Nagaa el-Madrassa: Abou Bakr 1963b

Nordström 1972 sites: Ashkeit 332, Debeira 292, Halfa Degheim 277, Serra 298

Qustul: Davies 1987, 49, 71, 82; Williams 1986, 1989

Reisner 1910 sites: Risqalla; Shelal; Shem Nishai; Siali

TABLE 14 Publications of the material culture, including written and iconographic sources (*cont.*)

Säve-Söderbergh 1989 sites: Abka 262; Abka 270; Abka 410; Abka 426; Ashkeit 95; Ashkeit 97; Ashkeit 332; Debeira 47; Debeira 65; Debeira 99; Debeira 170; Debeira 179; Debeira 184; Debeira 310; Gamai 451; Serra 179
Semna South: Davies 1987, 80; Žabkar and Žabkar 1982
Serra East: Williams 1993
Shalfak: Radwan 1983, 87
Toshka, Toshka 204, 206: Junker 1926; Emery and Kirwan 1935; Satzinger 1991; Odler et al. 2018
Umm Fahm: Klemm and Klemm 2013, 564–566
Unknown: Desch 1928; Rowe 1938
Wadi el-Arab: Emery and Kirwan 1935
 25_Upper Nubia
Kehaila: Mohamed et al. 2014; Welsby 2018, 60
Kerma: Bonnet 1990; Davies 1987, 37, 77; Drici 2016; Dunham 1943; Dunham 1982; Honegger 1999, 2018; Lilyquist 1979, 46, 141, Odler—Kmošek 2020; Petschel 2011, 159, 442; Rademakers et al. 2021, 2022; Reisner 1923a, 1923b; Young 1996; Valbelle 1990, 2004; Vercoutter—Thomas-Goorieckx—Lefève 1960
Nuri: Cowell 1987, 110
Site 4-K-203: Welsby 2018
 26_ unknown
Sumenu: Weinstein 1974, 86–87
Other artefacts: Abraham 1999; Aubert—Aubert 2001; Bissing 1901; Borchardt 1911, 169–170; Brovarski 2013, 102; Couton-Perche 2021, 72–73, 76–79, 84; Davey 2009; Davies 1981, 177–178, 1987; Edwards 1937; Ellis 1984; Engelbach 1942; Feucht 1986; Focke 2013, 6; Hudáková 2019, 296; James 1961; Kaiser 1967; Kaplony 1963, 1965, 1966, 1968, 1973, 1981; Kühnert-Eggebrecht 1967; Lilyquist 1979; Loeben 2014, 323–324; Mendoza 2004; Odler 2016; Odler and Kmošek 2020; Oldeberg 1976; Petschel 2011; Petrie 1917, 1927, 1937; Quibell 1904; Radwan 1983; Rademakers et al. 2021; Romano 1992; Roth 1991; Rowe 1936; Ryholt 1997; Schulze—Lehmann 2014; Shortland 2006; Spencer 1980; Vandier d'Abbadie 1972; Watson 1979; Wenig 1962; Woldering 1955
Written sources with unknown provenance: Budge et al. 1912, 1913; Černý 1961, 6, Pl. I; Enmarch 2008; Fay 2003, 21–24; Franke 2007, 2013, 107–112; Gardiner 1909; Goedicke 1970, 1974, 2000; Graefe 1971; Grajetzki 2013, 253; Hannig 2003, 2006; Helck 1970; Ilin-Tomich 2017, 190, 253; Kahl 1994; Kahl—Kloth—Zimmermann 1995; Koch 1990; Lipińska 1982, 78–79; Mariette 1872; Martin 1971, 63; Maspero 1889, 71; Mathis et al. 2009; Morenz 2010, 285–295; Newberry 2004, 154; Nuzzolo 2020; Parkinson 1991, 2004, 2009, 2012; Saretta 2016; Scharff 1922; Wilkinson 2000

TABLE 15 Temporal and regional distribution of the included written sources

Period	Number of contexts	Percentage	Region	Number of contexts	Percentage
08_Dynasty-1	2	0.45 %	03_Sinai	17	3.79 %
09_Dynasty-2	1	0.22 %	04_Delta	4	0.89 %
10_Dynasty-3	8	1.79 %	06_Memphite region	129	28.79 %
11_Early Dynastic Period	3	0.67 %	07_between Memphis and Fayum	5	1.12 %
12_Dynasty-4	9	2.01 %	08_Fayum	6	1.34 %
13_Dynasty-5	54	12.05 %	09_between Fayum and Beni Hasan	10	2.23 %
14_Dynasty-6	73	16.29 %	10_Beni Hasan	11	2.46 %
15_Old Kingdom	11	2.46 %	11_between Beni Hasan and Amarna	18	4.02 %
16_First Intermediate Period	24	5.36 %	13_between Amarna and Asiut	23	5.13 %
17_First Intermediate Period / Middle Kingdom	23	5.13 %	15_between Asiut and Abydos	43	9.60 %
18_Dynasty-11	60	13.39 %	16_Abydos	32	7.14 %
19_Dynasty-12	122	27.23 %	17_between Abydos and Thebes	37	8.26 %
20_Dynasty-13	18	4.02 %	18_Thebes	42	9.38 %
21_Middle Kingdom	30	6.70 %	19_between Thebes and el-Kab	11	2.46 %
24_Pan grave	1	0.22 %	20_between el-Kab and Asuan	4	0.89 %
25_Dynasty-15	1	0.22 %	21_Elephantine	9	2.01 %
26_Dynasty-17	3	0.67 %	22_Western Desert	2	0.45 %
27_Second Intermediate Period	5	1.12 %	23_Eastern Desert	5	1.12 %
Grand Total	448	100.00 %	24_Lower Nubia	4	0.89 %
			26_unknown	36	8.04 %
			Grand Total	448	100.00 %

TABLE 16 Temporal and regional distribution of the included archaeological contexts

Period	Number of contexts	Percentage	Region	Number of contexts	Percentage
1_Badarian	9	0.33 %	1_Northern Levant	25	0.91 %
2_Maadi-Buto	78	2.83 %	3_Sinai	25	0.91 %
3_A-Group	20	0.73 %	4_Delta	345	12.53 %
4_Naqada-I	81	2.94 %	5_Wadi Tumilat	38	1.38 %
5_Naqada-II	78	2.83 %	6_Memphite region	493	17.90 %
6_Naqada-III A-B	123	4.47 %	7_between Memphis and Fayum	91	3.30 %
7_Naqada	177	6.43 %	8_Fayum	32	1.16 %
8_Dynasty-1	56	2.03 %	9_between Fayum and Beni Hasan	30	1.09 %
9_Dynasty-2	33	1.20 %	10_Beni Hasan	66	2.40 %
10_Dynasty-3	98	3.56 %	11_between Beni Hasan and Amarna	17	0.62 %
11_Early Dynastic Period	101	3.67 %	13_between Amarna and Asiut	16	0.58 %
12_Dynasty-4	176	6.39 %	14_Asiut	19	0.69 %
13_Dynasty-5	224	8.13 %	15_between Asiut and Abydos	377	13.69 %
14_Dynasty-6	141	5.12 %	16_Abydos	209	7.59 %
15_Old Kingdom	153	5.56 %	17_between Abydos and Thebes	252	9.15 %
16_First Intermediate Period	196	7.12 %	18_Thebes	39	1.42 %
17_First Intermediate Period / Middle Kingdom	79	2.87 %	19_between Thebes and el-Kab	24	0.87 %
18_Dynasty-11	218	7.92 %	20_between el-Kab and Asuan	53	1.92 %
19_Dynasty-12	3	0.11 %	21_Elephantine	37	1.34 %
20_Dynasty-13	181	6.57 %	22_Western Desert	41	1.49 %
21_Middle Kingdom	118	4.28 %	23_Eastern Desert	66	2.40 %
22_C-Group	86	3.12 %	24_Lower Nubia	240	8.71 %
23_Kerma	50	1.82 %	25_Upper Nubia	49	1.78 %
24_Pan grave	45	1.63 %	26_unknown	170	6.17 %

TABLE 16 Temporal and regional distribution of the included archaeological contexts (*cont.*)

Period	Number of contexts	Percentage	Region	Number of contexts	Percentage
25_Dynasty-15	112	4.07%	Grand Total	2754	100.00%
26_Dynasty-17	12	0.44%			
27_Second Intermediate Period	106	3.85%			
Grand Total	2754	100.00%			

TABLE 17 Temporal and regional distribution of the included contexts with analysed artefacts

Period	Number of contexts	Percentage	Regions	Analyses count	Percentage
01_Badarian	1	0.09%	03_Sinai	52	4.77%
03_A-Group	6	0.55%	04_Delta	100	9.17%
05_Naqada-II	27	2.47%	05_Wadi Tumilat	1	0.09%
06_Naqada-III A-B	12	1.10%	06_Memphite region	116	10.63%
07_Naqada	31	2.84%	07_between Memphis and Fayum	19	1.74%
08_Dynasty-1	99	9.07%	08_Fayum	45	4.12%
09_Dynasty-2	87	7.97%	09_between Fayum and Beni Hasan	7	0.64%
10_Dynasty-3	69	6.32%	10_Beni Hasan	8	0.73%
11_Early Dynastic Period	24	2.20%	11_between Beni Hasan and Amarna	6	0.55%
12_Dynasty-4	34	3.12%	13_between Amarna and Asiut	4	0.37%
13_Dynasty-5	40	3.67%	14_Asiut	8	0.73%
14_Dynasty-6	58	5.32%	15_between Asiut and Abydos	127	11.64%
15_Old Kingdom	30	2.75%	16_Abydos	203	18.61%
16_First Intermediate Period	39	3.57%	17_between Abydos and Thebes	59	5.41%
17_First Intermediate Period / Middle Kingdom	133	12.19%	18_Thebes	9	0.82%
18_Dynasty-11	15	1.37%	19_between Thebes and el-Kab	6	0.55%
19_Dynasty-12	97	8.89%	20_between el-Kab and Asuan	23	2.11%
2_Maadi-Buto	37	3.39%	21_Elephantine	2	0.18%
20_Dynasty-13	56	5.13%	22_Western Desert	9	0.82%
21_Middle Kingdom	50	4.58%	23_Eastern Desert	4	0.37%
22_C-Group	13	1.19%	24_Lower Nubia	44	4.03%
23_Kerma	33	3.02%	25_Upper Nubia	33	3.02%
24_Pan grave	16	1.47%	26_unknown	206	18.88%
25_Dynasty-15	37	3.39%	Grand Total	1091	100.00%

TABLE 17 Temporal and regional distribution of the included contexts with analysed artefacts (*cont.*)

Period	Number of contexts	Percentage	Regions	Analyses count	Percentage
26_Dynasty-17	9	0.82 %			
27_Second Intermediate Period	38	3.48 %			
Grand Total	1091	100.00 %			

TABLE 18 Publications of analyses and number of analysed artefacts

Publication	Analysed artefacts	Percentage
McKerrell (1971); Eaton—McKerrell (1976)	208	19.07%
Cowell (1987)	158	14.48%
Philip—Cowell (2006)	70	6.42%
Rademakers et al. (2018)	48	4.40%
Rademakers et al. (2021)	41	3.76%
Gilmore (1986)	33	3.02%
Abdel-Motelib et al. (2012)	28	2.57%
Spencer (1980); Cowell (1987)	26	2.38%
Sebelien (1924)	24	2.20%
Dunham (1943)	19	1.74%
Odler—Kmošek (2020); Kmošek—Odler et al. (2018)	19	1.74%
Michel (1972)	18	1.65%
Hours—Michel (1974)	17	1.56%
Odler—Kmošek (2020); Kmošek—Odler et al. (2016b)	17	1.56%
Oldeberg (1976)	16	1.47%
Odler—Kmošek et al. (2021)	15	1.37%
Odler et al. (2018)	15	1.37%
Cowell (1987); Lang (1987)	13	1.19%
Pernicka—Hauptmann (1989)	13	1.19%
Hauptmann (2017)	12	1.10%
Rehren and Pernicka (2014)	12	1.10%
Maddin et al. (1984)	11	1.01%
Shortland (2006)	11	1.01%
el-Gayar—Jones (1989b)	10	0.92%
Kuhn (2017)	10	0.92%
Pernicka—Schleiter (1997)	10	0.92%
Couton-Perche and Bourgarit (2021)	9	0.82%
Lilyquist (1979)	9	0.82%
Odler—Kmošek (2020)	9	0.82%
Riederer (1978)	9	0.82%
Stos-Gale—Gale (1981)	8	0.73%
Young (1996)	8	0.73%
Coghlan—Voce (1950)	7	0.64%
el-Gayar—Rothenberg (1995)	7	0.64%
Berthelot (1895)	6	0.55%

TABLE 18 Publications of analyses and number of analysed artefacts (*cont.*)

Publication	Analysed artefacts	Percentage
Hall (1929)	6	0.55 %
Pernicka (1986)	6	0.55 %
Rehren (2005)	6	0.55 %
Wuttmann (1992)	6	0.55 %
Abe et al. (2019)	5	0.46 %
Lilyquist (1979); Garenne-Marot (1984)	5	0.46 %
Lucas (1900)	5	0.46 %
Abraham (1999)	4	0.37 %
Brink—Zeist (1988)	4	0.37 %
Golden (2002)	4	0.37 %
Spencer (1980)	4	0.37 %
Anfinset (2010)	3	0.27 %
Bonnet (1990)	3	0.27 %
Brunton (1927)	3	0.27 %
Desch (1928)	3	0.27 %
Garenne-Marot (1984)	3	0.27 %
Hauptmann et al. (1999)	3	0.27 %
Iskander (1960)	3	0.27 %
Kopp (1934)	3	0.27 %
Quibell (1913)	3	0.27 %
Wuttmann (1986)	3	0.27 %
Bannister (1937)	2	0.18 %
Brunton (1937)	2	0.18 %
Davey (1985)	2	0.18 %
Garland—Bannister (1927)	2	0.18 %
Giumlia-Mair (1997)	2	0.18 %
Gladstone (1890)	2	0.18 %
Gladstone (1892)	2	0.18 %
Kmošek—Odler et al. (2016b)	2	0.18 %
Mathis et al. (2009)	2	0.18 %
Mommsen et al. (1979)	2	0.18 %
Petrie (1892)	2	0.18 %
Phillips (1922. 1924)	2	0.18 %
Ratghen (1909)	2	0.18 %
Riederer (1982)	2	0.18 %

TABLE 18 Publications of analyses and number of analysed artefacts (*cont.*)

Publication	Analysed artefacts	Percentage
Schulze—Lehmann (2014)	2	0.18%
Spencer (1980); Cowell (1987); Lang (1987)	2	0.18%
Vercoutter—Thomas-Goorieckx—Lefève (1960)	2	0.18%
Abd el-Raziq—Castel—Tallet (2016)	1	0.09%
Baumgartel (1960, 18)	1	0.09%
Bergdoll (2016)	1	0.09%
Bisson de la Roque (1950)	1	0.09%
Bonnet et al. (1980)	1	0.09%
Borchardt (1910)	1	0.09%
Brovarski (2013)	1	0.09%
Carpenter (1931)	1	0.09%
Carpenter (1932)	1	0.09%
Davey et al. (2021)	1	0.09%
Desch (1933)	1	0.09%
el-Gayar—Jones (1989a)	1	0.09%
Flight (1882)	1	0.09%
Garstang (1907)	1	0.09%
Gharib Abd Allah—Maher (2018)	1	0.09%
Hassan et al. (2015)	1	0.09%
Kühnert-Eggebrecht (1967)	1	0.09%
Michel (1972); Lilyquist (1979)	1	0.09%
Petrie (1900)	1	0.09%
Petrie Museum UCL online database	1	0.09%
Quibell (1898)	1	0.09%
Riederer (1984)	1	0.09%
Romano (1992)	1	0.09%
Saleh (1983)	1	0.09%
Wolff (1935, 111)	1	0.09%
Žabkar—Žabkar (1982, 16)	1	0.09%
Grand Total	1091	100.00%

TABLE 19 Combinations of methods used for analyses

Technique / combination of techniques	Analysed artefacts	Percentage
XRF	344	31.53 %
AAS	213	19.52 %
undefined	82	7.52 %
ICP-MS, LIA	73	6.69 %
spectrometry unspecified	68	6.23 %
NAA	47	4.31 %
LIA	32	2.93 %
ICP-MS, LIA, XRD	26	2.38 %
AAS, metallography	24	2.20 %
XRF, NAA, LIA	23	2.11 %
NAA, LIA	18	1.65 %
ICP-MS, XRD, LIA	14	1.28 %
XRF, metallography	14	1.28 %
PIXE	11	1.01 %
XRF, NAA, LIA, metallography	11	1.01 %
ICP-MS	9	0.82 %
SEM/EDS	9	0.82 %
metallography	8	0.73 %
EMPA	6	0.55 %
PIXE, metallography	6	0.55 %
SEM/EDS, metallography	6	0.55 %
spectrometry unspecified, PIXE, metallography	5	0.46 %
XRF, NAA	5	0.46 %
EMPA, ICP-MS, metallography, microhardness	4	0.37 %
EMPA, ICP-MS, metallography, microhardness, LIA	4	0.37 %
optical microscopy, microhardness, SEM/EDS, NAA	4	0.37 %
spectrometry unspecified, metallography	4	0.37 %
optical microscopy, microhardness, SEM/EDS, NAA, LIA	3	0.27 %
XRF, INAA	3	0.27 %
XRF, LIA	3	0.27 %
ICP-MS, XRD	2	0.18 %
SEM/EDS, NAA	2	0.18 %
XRF, NAA, metallography	2	0.18 %
AAS, wet chemical analysis, EMPA	1	0.09 %
INAA	1	0.09 %

TABLE 19 Combinations of methods used for analyses (*cont.*)

Technique / combination of techniques	Analysed artefacts	Percentage
NAA, metallography	1	0.09 %
SEM/EDS, XRD	1	0.09 %
wet chemical analysis	1	0.09 %
XRD	1	0.09 %
Grand Total	1091	100.00 %

TABLE 20 Artefacts analysed in several studies—comparison of results

Site	Structure	Artefact type	Artefact category	Alloy type	Publication of analysis	Method	Dating	Present location	Inventory number
Abydos	Grave 30B	axe blade	weapon, full-size	CuSnPb	McKerrell (1971, 6)	XRF	Dynasty 12 (tomb card by Petrie)	Ashmolean Museum, Oxford, United Kingdom	1922.145
Abydos	Grave 30B	axe blade socketed	weapon, full-size	CuSn	Cowell (1987, Table 1c)	AAS	Dynasty 12 (tomb card by Petrie)	Ashmolean Museum, Oxford, United Kingdom	1922.145
Abydos	Tomb of Aha, Chamber B15	strip	hardware	Cu+	McKerrell (1971, 3)	XRF	Dynasty 1, the reign of Aha	Ashmolean Museum, Oxford, United Kingdom	E.1672
Abydos	Tomb of Aha, Chamber B15	strip	hardware	undetermined	Coghlan—Voce (1950)	metallo-graphy	Dynasty 1, the reign of Aha	Ashmolean Museum, Oxford, United Kingdom	E.1672
Abydos	Tomb of Aha, Chamber B15	strip	hardware	undetermined	McKerrell (1971, 3)	XRF	Dynasty 1, the reign of Aha	Ashmolean Museum, Oxford, United Kingdom	E.1678
Abydos	Tomb of Aha, Chamber B15	strip	hardware	undetermined	Coghlan—Voce (1950)	metallo-graphy	Dynasty 1, the reign of Aha	Ashmolean Museum, Oxford, United Kingdom	E.1678
Abydos		wire	hardware	CuAs	McKerrell (1971, 3)	XRF	Dynasty 1, the reign of Wadji	Ashmolean Museum, Oxford, United Kingdom	E.1682
Abydos		strip	hardware	undetermined	Coghlan—Voce (1950)	metallo-graphy	Dynasty 1, the reign of Wadji	Ashmolean Museum, Oxford, United Kingdom	E.1682

TABLE 20 Artefacts analysed in several studies—comparison of results (*cont.*)

Site	Structure	Artefact type	Artefact category	Alloy type	Publication of analysis	Method	Dating	Present location	Inventory number
Abydos		strip	hardware	undetermined	Coghlan—Voce (1950)	metallo-graphy	Dynasty 1, the reign of Wadji	Ashmolean Museum, Oxford, United Kingdom	E.1682
Bet Khallaf	Tomb K1	axe blade	artisan tool, model	Cu+	McKerrell (1971, 4)	XRF	Dynasty 3, beginning of	Ashmolean Museum, Oxford, United Kingdom	1896–1908 E.672
Bet Khallaf	Tomb K1	axe blade segmental B1	artisan tool, model	CuFe	Cowell (1987, Table 1c)	AAS	Dynasty 3, beginning of	Ashmolean Museum, Oxford, United Kingdom	1896–1908 E.672
Hierakonpolis	Room with statue of Pepy I	statue	statue	Cu+	Desch (1928); Lucas—Harris (1962, 483)	undefined	Dynasty 6, the reign of Pepy I	Egyptian Museum, Cairo, Egypt	JdE 33034
Hierakonpolis	Room with statue of Pepy I	statue of Pepy I, nail/bolt	statue	Cu+	Rehren (2005)	SEM/EDS, metallography	Dynasty 6, the reign of Pepy I	Egyptian Museum, Cairo, Egypt	JdE 33034
Hierakonpolis	Room with statue of Pepy I	statue of Pepy I, corroded sheet	statue	Cu+	Rehren (2005)	SEM/EDS, metallography	Dynasty 6, the reign of Pepy I	Egyptian Museum, Cairo, Egypt	JdE 33034
Unknown	Unknown	axe blade	artisan tool, full-size	CuAs	Kühnert-Eggebrecht (1967, 51)	AAS	Middle Kingdom	Staatlichen Museum Ägyptischer Kunst, Munich, Germany	1554
Unknown	Unknown	axe blade	artisan tool, full-size	Cu+	Riederer (1982)	AAS	Middle Kingdom	Staatlichen Museum Ägyptischer Kunst, Munich, Germany	1554

TABLE 21 Comparison of the methods, based on Pollard et al. (2018, Table 1), edited

Method	Sample	Advantages	Disadvantages
Gravimetry (wet chemistry)	invasive	brought first analytical data	large sample necessary; elements missed if not sought for
Optical emission spectrometry (OES)	invasive	spectra of all elements recorded	difficult interpretation of spectra
Atomic absorption spectroscopy (AAS)	invasive	reliable sensitivity	elements missed if not sought for
Electron microprobe (EMPA)	on artefact	sample surface analysed	sample surface analysed
Vickers microhardness	on artefact or invasive	measures hardness of the metal, indirect information on practical usability	modern reference points for hardness used; low portability
Scanning electron microscopy with energy-dispersive X-ray fluorescence (SEM-EDX)	on artefact or invasive	microstructure of metal, targeted analysis of the structural parts; sample surface analysed, all spectra present	sample surface analysed
Wavelength-dispersive X-ray fluorescence (WD-XRF)	on artefact or invasive	sample surface analysed, more sensitive than ED-XRF	sample surface analysed
Energy-dispersive X-ray fluorescence (ED-XRF)	on artefact or invasive	sample surface analysed; all elements recorded at once	sample surface analysed
Portable X-ray fluorescence (pXRF)	on artefact	sample surface analysed; portable and fast overview of analysed spot	sample surface analysed; extreme caution required in data interpretation
Neutron activation analysis (NAA)	invasive	high precision for most of elements	cannot measure lead, leaves samples radioactive after analysis; low availability of facilities and overall cost
Inductively-coupled plasma emission spectroscopy (ICP-OES)	invasive	high precision; isotopic ratio can be counted	specific elements overlap in emission
Inductively-coupled plasma mass spectroscopy (ICP-MS)	invasive	high precision; isotopic ratio can be counted	specific elements overlap in emission
Laser-ablation-inductively-coupled plasma emission spectroscopy (LA-ICP-MS)	on artefact	laser ablation of selected micro-spots	sample surface analysed; specific elements overlap in emission
Proton-induced X-ray emission (PIXE)	on artefact	high precision	low availability of facilities and overall cost

TABLE 22 Geographical and temporal distribution of the artefacts analysed by X-ray fluorescence

Period	Count	Percentage	Region	Count	Percentage
05_Naqada-II	18	4.44 %	03_Sinai	1	0.25 %
06_Naqada-III A-B	8	1.98 %	04_Delta	42	10.37 %
07_Naqada	13	3.21 %	05_Wadi Tumilat	1	0.25 %
08_Dynasty-1	50	12.35 %	06_Memphite region	31	7.65 %
09_Dynasty-2	48	11.85 %	07_between Memphis and Fayum	13	3.21 %
10_Dynasty-3	46	11.36 %	08_Fayum	1	0.25 %
11_Early Dynastic Period	6	1.48 %	09_between Fayum and Beni Hasan	6	1.48 %
12_Dynasty-4	8	1.98 %	10_Beni Hasan	4	0.99 %
13_Dynasty-5	14	3.46 %	14_Asiut	2	0.49 %
14_Dynasty-6	29	7.16 %	15_between Asiut and Abydos	77	19.01 %
15_Old Kingdom	5	1.23 %	16_Abydos	117	28.89 %
16_First Intermediate Period	27	6.67 %	17_between Abydos and Thebes	35	8.64 %
17_First Intermediate Period / Middle Kingdom	20	4.94 %	18_Thebes	4	0.99 %
18_Dynasty-11	11	2.72 %	19_between Thebes and el-Kab	1	0.25 %
19_Dynasty-12	23	5.68 %	20_between el-Kab and Asuan	8	1.98 %
20_Dynasty-13	11	2.72 %	21_Elephantine	2	0.49 %
21_Middle Kingdom	20	4.94 %	22_Western Desert	9	2.22 %
22_C-Group	12	2.96 %	23_Eastern Desert	1	0.25 %
23_Kerma	5	1.23 %	24_Lower Nubia	18	4.44 %
24_Pan grave	3	0.74 %	25_Upper Nubia	5	1.23 %
25_Dynasty-15	11	2.72 %	26_unknown	27	6.67 %
26_Dynasty-17	3	0.74 %	Grand Total	405	100.00 %
27_Second Intermediate Period	14	3.46 %			
Grand Total	405	100.00 %			

TABLE 23 Geographical and temporal distribution of the artefacts analysed by atomic absorption spectroscopy

Period	Count	Percentage	Region	Count	Percentage
03_A-Group	2	0.84 %	04_Delta	43	18.07 %
05_Naqada-II	2	0.84 %	06_Memphite region	9	3.78 %
07_Naqada	2	0.84 %	07_between Memphis and Fayum	1	0.42 %
08_Dynasty-1	13	5.46 %	08_Fayum	3	1.26 %
09_Dynasty-2	19	7.98 %	10_Beni Hasan	2	0.84 %
10_Dynasty-3	3	1.26 %	15_between Asiut and Abydos	13	5.46 %
11_Early Dynastic Period	4	1.68 %	16_Abydos	26	10.92 %
13_Dynasty-5	6	2.52 %	17_between Abydos and Thebes	7	2.94 %
14_Dynasty-6	7	2.94 %	18_Thebes	1	0.42 %
15_Old Kingdom	3	1.26 %	24_Lower Nubia	5	2.10 %
16_First Intermediate Period	1	0.42 %	25_Upper Nubia	3	1.26 %
17_First Intermediate Period / Middle Kingdom	94	39.50 %	26_unknown	125	52.52 %
18_Dynasty-11	1	0.42 %	Grand Total	238	100.00 %
19_Dynasty-12	4	1.68 %			
20_Dynasty-13	18	7.56 %			
21_Middle Kingdom	1	0.42 %			
23_Kerma	3	1.26 %			
24_Pan grave	7	2.94 %			
25_Dynasty-15	26	10.92 %			
26_Dynasty-17	3	1.26 %			
27_Second Intermediate Period	19	7.98 %			
Grand Total	238	100.00 %			

TABLE 24 Alloys and other types of materials identified in the corpus

Alloy type	Count	Percentage
Cu+	355	32.54 %
CuAs	346	31.71 %
CuSn	105	9.62 %
undetermined	58	5.32 %
Cu ore	55	5.04 %
CuSnPb	32	2.93 %
lead sulphide	19	1.74 %
slag	17	1.56 %
CuSnAs	13	1.19 %
CuAsSn	9	0.82 %
CuFe	9	0.82 %
CuPbAs	6	0.55 %
CuPb	5	0.46 %
turquoise	5	0.46 %
CuSb	4	0.37 %
CuSnPbAs	4	0.37 %
lead ore	4	0.37 %
CuAsFe	3	0.27 %
CuAsPb	3	0.27 %
CuAsSb	3	0.27 %
CuPbSbAs	3	0.27 %
Fe ore	3	0.27 %
CuAgAu	2	0.18 %
CuNi	2	0.18 %
CuSnAsAu	2	0.18 %
CuSnAsPb	2	0.18 %
CuSnSb	2	0.18 %
furnace	2	0.18 %
AgCu	1	0.09 %
AuAg	1	0.09 %
CuAg	1	0.09 %
CuAgAs	1	0.09 %
CuAgPb	1	0.09 %
CuAsFeNi	1	0.09 %
CuAsNi	1	0.09 %

TABLE 24 Alloys and other types (*cont.*)

Alloy type	Count	Percentage
CuAsSnPb	1	0.09 %
CuAuAg	1	0.09 %
CuNiAs	1	0.09 %
CuPbAsSb	1	0.09 %
CuPbSb	1	0.09 %
CuPbSn	1	0.09 %
CuPbZn	1	0.09 %
CuPSbZn	1	0.09 %
CuSnAg	1	0.09 %
CuZnNiAs	1	0.09 %
Mn ore	1	0.09 %
Grand Total	1091	100.00 %

TABLE 25 Sources for the Figures 14 to 22, copper, Asiatic copper, and *hsmn*

Figure	Letter	Site	Structure / work	Present location
27	a	Abydos	label of Den	
27	b	Helwan	Stela SP 52	unknown
27	c	Saqqara	Stela SP 34	
27	d	Unknown	Palermo Stone	Regional Archaeological Museum Antonino Salinas, Palermo, Italy
27	e	unknown	Stela SP 38: Stela from the Tomb of a Noblewoman	Brooklyn Museum of Art, Brooklyn, USA
27	f	Helwan	Stela of Wabkhnun	Egyptian Museum, Cairo, Egypt
27	g	Meidum	Mastaba 6	in situ
27	h	Unknown	Palermo Stone	Regional Archaeological Museum Antonino Salinas, Palermo, Italy
27	h	Unknown	Palermo Stone	Regional Archaeological Museum Antonino Salinas, Palermo, Italy
27	i	Abusir	Pyramid archive of the mortu- ary temple of Khentkaus II	Egyptian Museum, Cairo, Egypt
27	j	Ayn Sokhna	Gallery G5	in situ
27	k	Giza	Tomb G8882 of Wepemnefret	in situ
27	l	Saqqara	Tomb of Kaemrehu	Egyptian Museum, Cairo, Egypt
27	m	Giza	Tomb G6020 of Iymery	in situ
27	n	Abusir	Archives of the funerary temple of Neferirkare Kakai	British Museum, London, United Kingdom; Louvre, Paris, France
27	o	Abusir	Archives of the funerary temple of Neferirkare Kakai	British Museum, London, United Kingdom; Louvre, Paris, France
27	p	Abusir	Archives of the funerary temple of Neferirkare Kakai	British Museum, London, United Kingdom; Louvre, Paris, France
27	q	Abusir	Archives of the funerary temple of Neferirkare Kakai	British Museum, London, United Kingdom; Louvre, Paris, France
27	r	Abusir	Archives of the funerary temple of Neferirkare Kakai	British Museum, London, United Kingdom; Louvre, Paris, France
27	s	Abusir	Archives of the funerary temple of Neferirkare Kakai	British Museum, London, United Kingdom; Louvre, Paris, France
27	t	Abusir	Archives of the funerary temple of Raneferef	Egyptian Museum, Cairo, Egypt
27	u	Abusir	Archives of the funerary temple of Raneferef	Egyptian Museum, Cairo, Egypt

Inventory number	Locus	General period	Reference
37.1348E	PS r.V.4	08_Dynasty-1	Kaplony 1966, 166; Graefe 1971, 82
		09_Dynasty-2	Kaplony 1966, 34–39, Taf. 7: 1056; Herslund 2015, 112
		11_Early Dynastic Period	Smith 1958, Pl. 13; Herslund 2015, 111, Figs. 8–9; Manuelian 2003, 232, Fig. 291; Kaplony 1966, 166
		13_Dynasty-5	Wilkinson 2000, 133–134
	False door of Rahotep	10_Dynasty-3	Kaplony 1963, I—279–283, III—Abb. 838; Herslund 2015, 111–112, Fig. 9
		10_Dynasty-3	Kaplony 1966, 13–14, Taf. 7: 1097; Kahl 2004, 308–309; Köhler and Jones 2009, 148–149; Herslund 2011, 43; Odler 2016, 31–32, Figs. 12–13
		12_Dynasty-4	Petrie 1892, Pl. XIII; Herslund 2011, 43; 2015, 112, Fig. 9
	PS v.IV.1	13_Dynasty-5	Wilkinson 2000, 168–171; Nuzzolo 2020, Fig. 6AB
	PS v.V.2	13_Dynasty-5	Wilkinson 2000, 179–180
	Pl. 27 A	13_Dynasty-5	Posener-Kriéger 1995, 134, Pl. 27A
	wall D, register 4 2.36	13_Dynasty-5	Tallet 2012, 215–217, doc. 245; 2018, 105–106, 302
		13_Dynasty-5	Hassan 1936, 179–201, Fig. 219
		13_Dynasty-5	Odler 2016, Fig. 115
		13_Dynasty-5	Weeks 1994, 19, Fig. 30
	Pls. XV A–XVI A	13_Dynasty-5	Posener-Kriéger and Cenival 1968, Pls. XV A–XVI A; Posener-Kriéger 1976, 81–82; Hannig 2003, 837
	Pl. XXXII, Text 7	13_Dynasty-5	Posener-Kriéger and Cenival 1968, Pl. XXXII, text 7; Posener-Kriéger 1976, 431; Hannig 2003, 837
	Pl. LXVII, Col. b	13_Dynasty-5	Posener-Kriéger and Cenival 1968, Pl. LXVII, col. b; Posener-Kriéger 1976, 441, 504; Hannig 2003, 837
	Pl. XXVI B, col. d	13_Dynasty-5	Posener-Kriéger and Cenival 1968, Pl. XXVI B, col. d; Posener-Kriéger 1976, 146–148, Fig. 11; Hannig 2003, 837
	Pl. XXX N	13_Dynasty-5	Posener-Kriéger and Cenival 1968, Pl. XXX N; Posener-Kriéger 1976, 677; Hannig 2003, 837
	Pl. LXXIII D	13_Dynasty-5	Posener-Kriéger and Cenival 1968, Pl. LXXIII D; Posener-Kriéger 1976, 677; Hannig 2003, 837
	Pl. 28A	13_Dynasty-5	Posener-Kriéger—Verner—Vymazalová 2006, Pl. 28, 28A
	Pl. 29, 29A	13_Dynasty-5	Posener-Kriéger—Verner—Vymazalová 2006, Pl. 29, 29A

TABLE 25 Sources for the Figures 14 to 22, copper, Asiatic copper, and *hsmn* (cont.)

Figure	Letter	Site	Structure / work	Present location
27	v	Abusir	Archives of the funerary temple of Raneferef	Egyptian Museum, Cairo, Egypt
27	w	Abusir	Archives of the funerary temple of Raneferef	Egyptian Museum, Cairo, Egypt
27	x	Abusir	Archives of the funerary temple of Raneferef	Egyptian Museum, Cairo, Egypt
27	y	Abusir	Archives of the funerary temple of Raneferef	Egyptian Museum, Cairo, Egypt
27	z	Abusir	Archives of the funerary temple of Raneferef	Egyptian Museum, Cairo, Egypt
27	aa	Abusir	Archives of the funerary temple of Raneferef	Egyptian Museum, Cairo, Egypt
27	bb	Abusir	Archives of the funerary temple of Raneferef	Egyptian Museum, Cairo, Egypt
28	a	Saqqara	Tomb of Mereruka, Room A3, east wall, register 5: metal-working scene	in situ
28	b	Saqqara	Tomb of Mehu	in situ
28	c	Saqqara	Tomb of Metjetji	Nelson-Atkins Museum of Art, Kansas City, USA
28	d	Deir el-Gebrawi	Tomb of Ibi	in situ
28	e	Coptos	Decree of Pepy II from Coptos (Coptos C)	Egyptian Museum, Cairo, Egypt
28	f	Coptos	Decree of Pepy II from Coptos (Coptos D)	Egyptian Museum, Cairo, Egypt; Metropolitan Museum of Art, New York, USA
28	g	Hamra Dom	Tomb T 73 of Tjauty	in situ
28	h	Saqqara	Tomb of Biu	
28	i	Saqqara	Mastaba VI, fragment of offering list	
28	j	Saqqara	Tomb of Hebsedneferkare	
28	k	Saqqara	Tomb of Neferher	
28	l	Saqqara	Tomb of Idi	

Inventory number	Locus	General period	Reference
	Pl. 32, 32A	13_Dynasty-5	Posener-Kriéger—Verner—Vymazalová 2006, Pl. 32, 32A
	Pl. 36, 36A	13_Dynasty-5	Posener-Kriéger—Verner—Vymazalová 2006, Pl. 36, 36A
	Pl. 37, 37A–C	13_Dynasty-5	Posener-Kriéger—Verner—Vymazalová 2006, Pl. 37, 37A–C
	Pl. 37, 37A–K	13_Dynasty-5	Posener-Kriéger—Verner—Vymazalová 2006, Pl. 37, 37A–K
	Pl. 39, 39A	13_Dynasty-5	Posener-Kriéger—Verner—Vymazalová 2006, Pl. 39, 39A
	Pl. 43, 43A	13_Dynasty-5	Posener-Kriéger—Verner—Vymazalová 2006, Pl. 43, 43A
	Pl. 46, 46A	13_Dynasty-5	Posener-Kriéger—Verner—Vymazalová 2006, Pl. 46A
		14_Dynasty-6	Herslund 2011, 46–47
	Corridor, north wall, right from the entrance to the court of tomb, Registers 1–3	14_Dynasty-6	Altenmüller 1998, 146–148, Taf. 42; Strudwick 2005, 432–433
		14_Dynasty-6	Goedicke 1958, 24; Kaplony 1976, 28; Hannig 2003, 837
		14_Dynasty-6	Davies 1902, Pl. XIII
	19–20	14_Dynasty-6	Hannig 2003, 837; Strudwick 2005, 110–111
Egyptian Museum, Cairo, JdE 43052 and New York, MMA 14.7.10		14_Dynasty-6	Hannig 2003, 837; Strudwick 2005, 112
	offering list	14_Dynasty-6	Säve-Söderbergh 1994, Pl. 20
	offering list	14_Dynasty-6	Graefe 1971, 198, Tabelle 1: 6, 2: 5; Hassan 1948, Pl. CXXXI, Nr. 135 T, Pl. CXXXIII, Nr. 135 T
	offering list	14_Dynasty-6	Graefe 1971, 198, Tabelle 1: 7; Jéquier 1929, 112
	offering list	14_Dynasty-6	Graefe 1971, 198, Tabelle 1: 9, 2: 7; Jéquier 1940, 57, Pl. 59; Hassan 1948, Pl. CXXXIII, Nr. 137 T
	offering list	14_Dynasty-6	Graefe 1971, 198, Tabelle 1: 10, 2: 11; Jéquier 1940, 41, Fig. 29
	offering list	14_Dynasty-6	Graefe 1971, 200, Tabelle 2: 9; Hassan 1948, Pl. CXXXIII, Nr. 140 T; Jéquier 1928, 18

TABLE 25 Sources for the Figures 14 to 22, copper, Asiatic copper, and *hsmn* (cont.)

Figure	Letter	Site	Structure / work	Present location
28	m	Saqqara	Tomb of Sebaku	
28	n	Saqqara	Tomb West II, of Khenem	
28	o	Saqqara	Pyramid Texts of the Pyramid of King Pepy II	in situ
28	p	Saqqara	Mastaba XIV: Tomb of Khabaukhnum, called Bau	in situ
28	q	Heliopolis	Tomb of Sebeky	Egyptian Museum, Cairo, Egypt
28	r	Giza	Tomb of Meni	
28	s	Dendera	Mastaba of Idu I	Museum of Fine Arts, Boston, USA
28	t	Coptos	Dedication list of priest Hetepkamin	Egyptian Museum, Cairo, Egypt
29, 282		Saqqara	Pyramid Texts of King Pepy II	in situ
29, 282		Saqqara	Pyramid Texts of King Wenis	in situ
29, 282		Saqqara	Pyramid Texts of King Teti	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy II	in situ
29, 282		Saqqara	Pyramid Texts of Queen Wedjebten	in situ
29, 282		Saqqara	Pyramid Texts of King Wenis	in situ
29, 282		Saqqara	Pyramid Texts of King Teti	in situ
29, 282		Saqqara	Pyramid Texts of King Teti	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy I	in situ
29, 282		Saqqara	Pyramid Texts of King Merenre	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy I	in situ
29, 282		Saqqara	Pyramid Texts of King Teti	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy I	in situ
29, 282		Saqqara	Pyramid Texts of King Merenre	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy I	in situ
29, 282		Saqqara	Pyramid Texts of Queen Neith	in situ
29, 282		Saqqara	Pyramid Texts of King Teti	in situ

Inventory number	Locus	General period	Reference
98,1038 JdE 43290	Mortuary temple, South wall, offering list	14_Dynasty-6	Graefe 1971, 200, Tabelle 2: 10; Hassan 1948, Pl. CXXXIII, Nr. 141 T; Jéquier 1928, 80
		14_Dynasty-6	Graefe 1971, 200, Tabelle 2: 12; Jéquier 1935, 146, Fig. 11
		14_Dynasty-6	Jéquier 1938, Pl. 67
		14_Dynasty-6	Jéquier 1940, Pl. 52
	offering list	14_Dynasty-6	Daressy and Barsanti 1916, 200, 203; Herslund 2011, 47
		15_Old Kingdom	Graefe 1971, 200, Tabelle 2: 6, 13 = second case wrongly attributed by Graefe to another tomb; Hassan 1948, Pl. CXXXIII, Nr. 136 H
		14_Dynasty-6	Strudwick 2005, 348; Fischer 1961, 61
		15_Old Kingdom	Strudwick 2005, 125; Goedicke 1994, Taf. 9
	Spell 21, § 14a	14_Dynasty-6	Allen 2005, 252, N100; 2013b, PT 21; Carrier 2010, 1246–1247
	Spell 214, § 138c	13_Dynasty-5	Graefe 1971, 13, Dok 12; Allen 2013b, PT 214, § 138c
	Spell 214, § 138c	14_Dynasty-6	Graefe 1971, 13, Dok 12; Allen 2013b, PT 214, § 138c
	Spell 214, § 138c	14_Dynasty-6	Graefe 1971, 13, Dok 12; Allen 2013b, PT 214, § 138c
	Spell 214, § 138c	14_Dynasty-6	Graefe 1971, 13, Dok 12; Allen 2013b, PT 214, § 138c
	Spell 214, § 138c	14_Dynasty-6	Graefe 1971, 13, Dok 12; Allen 2013b, PT 214, § 138c
	Spell 257, § 305a	13_Dynasty-5	Herslund 2011, 45; Allen 2013c, PT 257, § 305a
	Spell 257, § 305a	14_Dynasty-6	Herslund 2011, 45; Allen 2013c, PT 257, § 305a
	Spell 325, § 530a	14_Dynasty-6	Graefe 1971, 15, Dokument 22; Allen 2005, 68, T 10; 2013c, PT 325, § 530a; 2015, 72
	Spell 325, § 530a	14_Dynasty-6	Graefe 1971, 15, Dokument 22; Allen 2005, 68, T 10; 2013c, PT 325, § 530a; 2015, 72
	Spell 355, § 573b	14_Dynasty-6	Graefe 1971, 15, Dokument 28; Herslund 2011, 45; Allen 2013c; 355, § 573b; 2015, 76 T; Pierre-Croisiau 2019, Pl. III
	Spell 357, § 590c	14_Dynasty-6	Herslund 2011, 45
	Spell 357, § 590c	14_Dynasty-6	Herslund 2011, 45
	Spell 357, § 590c	14_Dynasty-6	Herslund 2011, 45
	Spell 357, § 590c	14_Dynasty-6	Herslund 2011, 45; Pierre-Croisiau 2019, Pl. III
	Spell 357, § 590c	14_Dynasty-6	Herslund 2011, 45
	Spell 357, § 590c	14_Dynasty-6	Herslund 2011, 45
	Spell 364, § 615b, d	14_Dynasty-6	Herslund 2011, 45; Allen 2013c, PT 364, 615b, d; 2015, 83

TABLE 25 Sources for the Figures 14 to 22, copper, Asiatic copper, and *hsmn* (cont.)

Figure	Letter	Site	Structure / work	Present location
29, 282		Saqqara	Pyramid Texts of King Mer-enre	in situ
29, 282		Saqqara	Pyramid Texts of King Mer-enre	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy I	in situ
29, 282		Saqqara	Pyramid Texts of King Teti	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy II	in situ
29, 282		Saqqara	Pyramid Texts of Queen Neith	in situ
29, 282		Saqqara	Pyramid Texts of King Mer-enre	in situ
29, 282		Saqqara	Pyramid Texts of King Teti	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy I	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy II	in situ
29, 282		Saqqara	Pyramid Texts of King Wenis	in situ
29, 282		Saqqara	Pyramid Texts of King Mer-enre	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy I	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy II	in situ
29, 282		Saqqara	Pyramid Texts of King Mer-enre	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy I	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy II	in situ
29, 282		Saqqara	Pyramid Texts of King Mer-enre	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy I	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy II	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy II	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy I	in situ

Inventory number	Locus	General period	Reference
	Spell 364, § 615b, d	14_Dynasty-6	Herslund 2011, 45; Allen 2013c, PT 364, 615b, d; 2015, 83; Pierre-Croisiau 2019, Pl. XII: 49
	Spell 368, § 636d	14_Dynasty-6	Herslund 2011, 45; Allen 2013c, PT 368, § 636d; 2015, 85 T; Pierre-Croisiau 2019, Pl. VII
	Spell 368, § 636d	14_Dynasty-6	Herslund 2011, 45; Allen 2013c, PT 368, § 636d; 2015, 85 T
	Spell 368, § 636d	14_Dynasty-6	Herslund 2011, 45; Allen 2013c, PT 368, § 636d; 2015, 85 T
	Spell 368, § 636d	14_Dynasty-6	Herslund 2011, 45; Allen 2013c, PT 368, § 636d; 2015, 85 T
	Spell 368, § 636d	14_Dynasty-6	Herslund 2011, 45; Allen 2013c, PT 368, § 636d; 2015, 85 T
	Spell 370, § 647a	14_Dynasty-6	Herslund 2011, 48; Allen 2013c, PT 370, § 647a; 2015, 86 T
	Spell 370, § 647a	14_Dynasty-6	Herslund 2011, 48; Allen 2013c, PT 370, § 647a; 2015, 86 T
	Spell 370, § 647a	14_Dynasty-6	Herslund 2011, 48; Allen 2013c, PT 370, § 647a; 2015, 86 T
	Spell 370, § 647a	14_Dynasty-6	Herslund 2011, 48; Allen 2013c, PT 370, § 647a; 2015, 86 T
	Spell 38, § 30b	13_Dynasty-5	Herslund 2011, 48; Allen 2005, 20, W 26; 2013b, PT 38, § 30b; 2015, 22 W
	Spell 424, § 770c	14_Dynasty-6	Allen 2005, 102, P 10; 2013d, PT 424, § 770c; 2015, 106; Herslund 2011; Pierre-Croisiau 2019, Pl. VII
	Spell 424, § 770c	14_Dynasty-6	Allen 2005, 102, P 10; 2013d, PT 424, § 770c; 2015, 106; Herslund 2011,
	Spell 424, § 770c	14_Dynasty-6	Allen 2005, 102, P 10; 2013d, PT 424, § 770c; 2015, 106; Herslund 2011,
	Spell 437, § 800d	14_Dynasty-6	Allen 2005, 105, P 31; 2013d, PT 437, § 800d–801a; 2015, 110 P; Herslund 2011, 48
	Spell 437, § 800d	14_Dynasty-6	Allen 2005, 105, P 31; 2013d, PT 437, § 800d–801a; 2015, 110 P; Herslund 2011, 48
	Spell 437, § 801a	14_Dynasty-6	Allen 2005, 105, P 31; 2013d, PT 437, § 800d–801a; 2015, 110 P; Herslund 2011, 48
	Spell 437, § 801a	14_Dynasty-6	Allen 2005, 105, P 31; 2013d, PT 437, § 800d–801a; 2015, 110 P; Herslund 2011, 48
	Spell 437, § 801a	14_Dynasty-6	Allen 2005, 105, P 31; 2013d, PT 437, § 800d–801a; 2015, 110 P; Herslund 2011, 48
	Spell 437, § 800d	14_Dynasty-6	Allen 2005, 105, P 31; 2013d, PT 437, § 800d–801a; 2015, 110 P; Herslund 2011, 48
	Spell 459, § 865a	14_Dynasty-6	Herslund 2011; Allen 2005, 120, T 296; 2015, 125 P
	Spell 459, § 865a	14_Dynasty-6	Herslund 2011; Allen 2005, 120, T 296; 2015, 125 P

TABLE 25 Sources for the Figures 14 to 22, copper, Asiatic copper, and *hsmn* (*cont.*)

Figure	Letter	Site	Structure / work	Present location
29, 282		Saqqara	Pyramid Texts of King Mer-enre	in situ
29, 282		Saqqara	Pyramid Texts of King Mer-enre	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy II	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy I	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy I	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy II	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy II	in situ
29, 282		Saqqara	Pyramid Texts of King Mer-enre	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy I	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy I	in situ
29, 282		Saqqara	Pyramid Texts of King Mer-enre	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy I	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy II	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy I	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy II	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy I	in situ
29, 282		Saqqara	Pyramid Texts of King Mer-enre	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy I	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy I	in situ
29, 282		Saqqara	Pyramid Texts of Queen Neith	in situ

Inventory number	Locus	General period	Reference
	Spell 459, § 865a	14_Dynasty-6	Herslund 2011; Allen 2005, 120, T 296; 2015, 125 P; Pierre-Croisiau 2019, Pl. III
	Spell 461, § 873a f.	14_Dynasty-6	Graefe 1971, 15, Dokument 29; Allen 2005, 224, M 284; 2013d, PT 461, § 873a; 2015, 124; Pierre-Croisiau 2019, Pl. XII
	Spell 461, § 873a f.	14_Dynasty-6	Graefe 1971, 15, Dokument 29; Allen 2005, 224, M 284; 2013d, PT 461, § 873a; 2015, 124
	Spell 461, § 873a f.	14_Dynasty-6	Graefe 1971, 15, Dokument 29; Allen 2005, 224, M 284; 2013d, PT 461, § 873a; 2015, 124
	Spell 469, § 907b	14_Dynasty-6	Herslund 2011, 48; Allen 2005, 124, P 319b; 2015, 130 P
	Spell 469, § 907b, N 1055+72	14_Dynasty-6	Herslund 2011, 48; Allen 2005, 124, P 319b; 2015, 130 P
	Spell 483, § 1016a	14_Dynasty-6	Allen 2005, 131, P 334; 2013d, PT 483, § 1016a; 2015, 137; Herslund 2011, 45
	Spell 483, § 1016a	14_Dynasty-6	Allen 2005, 131, P 334; 2013d, PT 483, § 1016a; 2015, 137; Herslund 2011, 45; Pierre-Croisiau 2019, Pl. IX
	Spell 483, § 1016a	14_Dynasty-6	Allen 2005, 131, P 334; 2013d, PT 483, § 1016a; 2015, 137; Herslund 2011, 45
	Spell 509, § 1121a	14_Dynasty-6	Graefe 1971, 15, Dokument 32; Allen 2005, 158, P 462; 2013d, PT 509, § 1121a; 2015, 163 P
	Spell 509, § 1121a	14_Dynasty-6	Graefe 1971, 15, Dokument 32; Pierre-Croisiau 2019, Pl. XIV
	Spell 509, § 1124a	14_Dynasty-6	Graefe 1971, 15, Dokument 32; Allen 2005, 158, P 462; 2013d, PT 509, § 1124a; 2015, 163 P
	Spell 512, § 1165c	14_Dynasty-6	Herslund 2011; Allen 2005, 154, P 452; 2013d, PT 512, § 1165c; 2015, 159–160 P
	Spell 512, § 1165c	14_Dynasty-6	Herslund 2011; Allen 2005, 154, P 452; 2013d, PT 512, § 1165c; 2015, 159–160 P
	Spell 519, § 1211	14_Dynasty-6	Herslund 2011, 145; Allen 2005, 160–161, P 467; 2013d, PT 519, § 1211; 2015, 165–166
	Spell 519, § 1211	14_Dynasty-6	Herslund 2011, 145; Allen 2005, 160–161, P 467; 2013d, PT 519, § 1211; 2015, 165–166
	Spell 519, § 1212a	14_Dynasty-6	Herslund 2011, 145; Allen 2005, 160–161, P 46; 2013d, PT 519, § 1212; 7; 2015, 165–166 P; Pierre-Croisiau 2019, Pl. XVI
	Spell 537, § 1301b	14_Dynasty-6	Kaplony 1966, 168; Allen 2005, 117; 2013d, PT 536, § 1293aP
	Spell 537, § 1301b	14_Dynasty-6	Graefe 1971, 15, Dokument 33; Allen 2005, 117; 2013d, PT 537, § 1301b; 2015, 120–121 P
	Spell 56, § 40a	14_Dynasty-6	Graefe 1971, 198, Tabelle 1: 3, 2: 4; Jéquier 1933, Pl. X, Col. 95/96; Hassan 1948, Nr. 148 T; Allen 2005, 21, W 44; 2013b, PT 56, § 40a; 2015, 24 W

TABLE 25 Sources for the Figures 14 to 22, copper, Asiatic copper, and *hsmn* (cont.)

Figure	Letter	Site	Structure / work	Present location
29, 282		Saqqara	Pyramid Texts of King Wenis	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy II	in situ
29, 282		Saqqara	Pyramid Texts of King Mer-enre	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy I	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy I	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy II	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy I	in situ
29, 282		Saqqara	Pyramid Texts of Queen Neith	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy II	in situ
29, 282		Saqqara	Pyramid Texts of King Mer-enre	in situ
29, 282		Saqqara	Pyramid Texts of King Mer-enre	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy II	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy II	in situ
29, 282		Saqqara	Pyramid Texts of Queen Neith	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy I	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy I	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy II	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy II	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy II	in situ

Inventory number	Locus	General period	Reference
	Spell 56, § 40a	13_Dynasty-5	Graefe 1971, 200, Tabelle 2: 1; Piankoff 1960, Pl. 62; Allen 2005, 21, W 44; 2013b, PT 56, § 40a; 2015, 24 W
	Spell 56, § 40a	14_Dynasty-6	Graefe 1971, 200, Tabelle 2: 1; Piankoff 1960, Pl. 62; Allen 2005, 21, W 44; 2013b, PT 56, § 40a; 2015, 24 W
	Spell 570, § 1454b	14_Dynasty-6	Graefe 1971, 15, Dokument 19; Allen 2005, 178, P 509; 2013e, PT 570, § 1454b; 2015, 181 P
	Spell 570, § 1454b	14_Dynasty-6	Graefe 1971, 15, Dokument 19; Allen 2005, 178, P 509; 2013e, PT 570, § 1454b; 2015, 181 P
	Spell 582, § 1562c	14_Dynasty-6	Herslund 2011, 45; Allen 2005, 186, P 186; 2013e, 582, § 1562c; 2015, 189 P
	Spell 582, § 1562c	14_Dynasty-6	Herslund 2011, 45; Allen 2005, 186, P 186; 2013e, 582, § 1562c; 2015, 189 P
	Spell 584, § 1575b	14_Dynasty-6	Herslund 2011; Allen 2005, 197, P 560; 2013e, PT 584, § 1575b; 2015, 200 P
	Spell 593, § 1633b	14_Dynasty-6	Herslund 2011, 48; Allen 2005, 217, M 206; 2015, 218 M
	Spell 593, § 1633b	14_Dynasty-6	Herslund 2011, 48; Allen 2005, 217, M 206; 2015, 218 M
	Spell 593, § 1633b	14_Dynasty-6	Herslund 2011, 48; Allen 2005, 217, M 206; 2015, 218 M
	Spell 612, § 1735a, 737	14_Dynasty-6	Herslund 2011, 45; Allen 2005, 195, P 555; 2013e, PT 612, § 1735a; 2015, 199 P
	Spell 612, § 1735a	14_Dynasty-6	Herslund 2011, 45; Allen 2005, 195, P 555; 2013e, PT 612, § 1735a; 2015, 199 P
	Spell 666, § 1934b	14_Dynasty-6	Herslund 2011, 48; Graefe 1971, 15, Dokument 32—bjA occurs in emendation of 1939a by Sethe, but it is in 1934b only; Allen 2013e, PT 666, § 1934b
	Spell 666, § 1934b	14_Dynasty-6	Herslund 2011, 48; Graefe 1971, 15, Dokument 32—bjA occurs in emendation of 1939a by Sethe, but it is in 1934b only; Allen 2013e, PT 666, § 1934b
	Spell 666, § 1934b	14_Dynasty-6	Herslund 2011, 48; Graefe 1971, 15, Dokument 32—bjA occurs in emendation of 1939a by Sethe, but it is in 1934b only; Allen 2013e, PT 666, § 1934b
	Spell 667A, 1945d	14_Dynasty-6	
	Spell 667A, 1945d	14_Dynasty-6	Jéquier 1938, 37, Pl. 47; Petschel 2011, 67, 75, Abb. 12; Odler—Peterková Hlouchová 2017
	Spell 669, § 1966a	14_Dynasty-6	Allen 2005, 266; 2013e, PT 669; Herslund 2011,
	Spell 669, § 1968d	14_Dynasty-6	Allen 2005, 266; 2013e, PT 669; Herslund 2011, 45

TABLE 25 Sources for the Figures 14 to 22, copper, Asiatic copper, and *hsmn* (cont.)

Figure	Letter	Site	Structure / work	Present location
29, 282		Saqqara	Pyramid Texts of King Pepy II	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy II	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy II	in situ
29, 282		Saqqara	Pyramid Texts of King Mer-enre	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy II	in situ
29, 282		Saqqara	Pyramid Texts of Queen Neith	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy II	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy I	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy II	in situ
29, 282		Saqqara	Pyramid Texts of Queen Neith	in situ
29, 282		Saqqara	Pyramid Texts of King Pepy II	in situ
30	a	Saqqara	Tomb of Desheri	Egyptian Museum, Cairo, Egypt
30	b	Moalla	Tomb of Ankhtify	in situ
30	c	Dendera	Mastaba of Senendjeswi	Oriental Institute, University of Chicago, USA; unknown
30	c	Dendera	Mastaba of Senendjeswi	Oriental Institute, University of Chicago, USA; unknown
30	d	Dendera	Mastaba of Shensetji	unknown
30	e	Dendera	Mastaba of Hetep	unknown
30	f	Dendera	Mastaba of unknown, son of Pepy	unknown
30	g	Dendera	Mastaba of Bebi	University of Pennsylvania Museum of Archaeology and Anthropology, Philadelphia, USA
30	h	Dendera	Mastaba of Hornekheth	Egyptian Museum, Cairo, Egypt
30	i	Gebelein	Stela of Heqaib	British Museum, London, United Kingdom

Inventory number	Locus	General period	Reference
	Spell 670, § 1983e	14_Dynasty-6	Herslund 2011; Allen 2005, 267; 2013e, 670, § 1983e; 2015, 263 N
	Spell 673, § 1992c	14_Dynasty-6	Herslund 2011; Allen 2005, 275, N 275; 2013f, PT 673, § 1992c; 2015, 271 N
	Spell 674, § 1996b	14_Dynasty-6	Graefe 1971, 15, Dokument 34; Herslund 2011, 45; Allen 2013f, PT 674, § 1996b; 2015, 127 P
	Spell 674, § 1996b	14_Dynasty-6	Graefe 1971, 15, Dokument 34; Herslund 2011, 45; Allen 2013f, PT 674, § 1996b; 2015, 127 P; Pierre-Croisiau 2019, Pl. IV
	Spell 676, § 2012a	14_Dynasty-6	Herslund 2011, 48; Allen 2005, 276, N 411; 2013f, PT 676, § 2012a; 2015, 272 N
	Spell 676, § 2012a	14_Dynasty-6	Herslund 2011, 48; Allen 2005, 276, N 411; 2013f, PT 676, § 2012a; 2015, 272 N
	Spell 684, § 2051c	14_Dynasty-6	Graefe 1971, 15, Dokument 20; Allen 2005, 290, N 514; 2013f, PT 684, § 2051c; 2015, 284 N
	Spell 684, § 2051c	14_Dynasty-6	Graefe 1971, 15, Dokument 20; Allen 2005, 290, N 514; 2013f, PT 684, § 2051c; 2015, 284 N
	Spell 689, § 2091c	14_Dynasty-6	Herslund 2011, 45; Allen 2005, 293, N 523; 2013f, 689, § 2091c; 2015, 287 N
	Spell *714, § 1055+31, § Neith XXIV	14_Dynasty-6	Graefe 1971, 15, Dokument 23; Allen 2013f, *714, § 1055+31; 2015, 318–319 Nt
	Spell *714, § 1055+31, § Neith XXIV	14_Dynasty-6	Graefe 1971, 15, Dokument 23; Allen 2013f, *714, § 1055+31; 2015, 318–319 Nt
	III, 7–8	14_Dynasty-6	Borchardt 1964, 49; Herslund 2011, 47
		16_First Intermediate Period	Vandier 1950, 216–217, Pl. XVIII; Fischer 1961, 60–64
		16_First Intermediate Period	Petrie 1898, Pls. IX, X; Fischer 1961, 61: 3
		16_First Intermediate Period	Petrie 1898, Pls. IX, X; Fischer 1961, 61: 2; 1968, 158–159, Fig. 31
		16_First Intermediate Period	Petrie 1898, Pl. XI; Fischer 1961, 61: 5; 1968, 181
		16_First Intermediate Period	Petrie 1898, Pl. XII; Fischer 1961, 61: 7
		16_First Intermediate Period	Petrie 1898, Pl. XIII; Fischer 1961, 61: 8
D4043 (29-66-661)		16_First Intermediate Period	Fischer 1961, 61: 10; 1968, 178, footnote 746
D 3128 (JdE 46048)		16_First Intermediate Period	Fischer 1961, 61: 11; Musacchio 2006
EA1671	Lines 8–9	16_First Intermediate Period	Polotsky 1930; Fischer 1961, 63

TABLE 25 Sources for the Figures 14 to 22, copper, Asiatic copper, and *hsmn* (cont.)

Figure	Letter	Site	Structure / work	Present location
30	j	Abydos	Stela of Ikhi?	University of Pennsylvania Museum of Archaeology and Anthropology, Philadelphia, USA
30	k	Dendera	Mastaba of Meni	Oriental Institute, University of Chicago, USA
30	l	Hawawish	Tomb of Henti / Henet	Egyptian Museum, Cairo, Egypt
30	m	Unknown	Stela of Merer	National Museum, Cracow, Poland
30	n	Sedment	Coffin of Wadj	
30	o	Sedment	Coffin of Khety	
30	p	Sedment	Coffin of Khety	
30	q	Dendera	Mastaba of unknown, wife Bebi	National Museum of Scotland, Edinburgh, United Kingdom
30	r	Dendera	Mastaba of Shensetha-Hotepa	unknown
30	s	Dendera	Fragment of mastaba inscription	University of Pennsylvania Museum of Archaeology and Anthropology, Philadelphia, USA; Egyptian Museum, Cairo, Egypt
30	t	Qubbet el-Hawa	False door of unknown official	in situ
31	a	Ayn Sokhna	Royal inscription CCIS 218	in situ
31	b	Thebes	EAn164	British Museum, London, United Kingdom
31	c	Armant	CG 20011	Egyptian Museum, Cairo, Egypt
31	d	Beni Hasan	Tomb of Baket I	in situ
31	e	Deir el-Bahari	Tomb TT 314 of Horhotep	in situ
31	f	Deir el-Bersha	Coffin of Djehutynekhet	Museum of Fine Arts, Boston, USA
31	g	Qubbet el-Hawa	Transaction for Sobekhotep	in situ
31	h	el-Tarif	Tomb of Khety	Egyptian Museum, Cairo, Egypt
31	i	Beni Hasan	Tomb of Baket III	in situ

Inventory number	Locus	General period	Reference
40-19-1	offering list	16_First Intermediate Period	Graefe 1971, 198, Tabelle 1: 13; Stevenson Smith 1958, Pl. 57
CG 28006	object frieze	5_First Intermediate Period / Middle Kingdom	Petrie 1900, Pl. IV
		16_First Intermediate Period	Kanawati—McFarlane 1992, Pl. X
		16_First Intermediate Period	Černý 1961, 6, Pl. I
		16_First Intermediate Period	Abdel Fatah—Bickel 2000, 8, photo 6
		16_First Intermediate Period	Abdel Fatah—Bickel 2000, 11, photo 10
		16_First Intermediate Period	Abdel Fatah—Bickel 2000, 14, photo 16
D144		18_Dynasty-11	Petrie 1898, Pl. XI; Fischer 1961, 61: 4
		16_First Intermediate Period	Petrie 1898, Pl. XI B; Fischer 1961, 61: 6
		16_First Intermediate Period	Fischer 1961, 61: 9
EAn64	CCIS 218	16_First Intermediate Period	Edel et al. 2008, 1743–1744, Taf. LXXXII
		18_Dynasty-11	Tallet 2018, 140–141, 311
CG 20011		18_Dynasty-11	Clère and Vandier 1948, No. 4, Line 6; Fischer 1961, 63–64
	offering list	18_Dynasty-11	Clère and Vandier 1948, No. 33, Line 2; Fischer 1961, 63–64
		18_Dynasty-11	Graefe 1971, 198, Tabelle 1: 25, 2: 22; Newberry 1893—Vol. II., Pls. XXX, XXXV
20.1822	object frieze	18_Dynasty-11	Maspero 1889, figure in between 144–145
		18_Dynasty-11	Terrace 1968, Pl. XXVI
		19_Dynasty-12	Edel 1987, 95, Taf. 8: Abb. 13, 14; Edel et al. 2008, 418–419
	Chapel, south wall, west of engaged pillar, lower left, Register 6	18_Dynasty-11	Landgráfová 2011, 56–58; Giumlia-Mair and Quirke 1997, 96; Herslund 2011, 47–48
		19_Dynasty-12	Kanawati—Evans 2018, 43, Pl. 85, 86

TABLE 25 Sources for the Figures 14 to 22, copper, Asiatic copper, and *hsmn* (cont.)

Figure	Letter	Site	Structure / work	Present location
31	j	Deir el-Bahari	Heqanakht papyri	Metropolitan Museum of Art, New York, USA
31	k	Beni Hasan	Tomb of Amenemhat I	in situ
31	l	Meir	Tomb B2: Tomb of Ukhhotep	in situ
31	m	Thebes	Tomb TT 60 of Antefoker and Senet	in situ
31	n	Naga ed-Deir	papyrus Reisner II	Museum of Fine Arts, Boston, USA
31	o	Heliopolis	Dedication list of Senusret I	in situ
31	p	Abydos	Stela C 34	Louvre Museum, Paris, France
31	q	Lisht	Pyramid complex of Senusret I	Metropolitan Museum of Art, New York, USA; Egyptian Museum, Cairo, Egypt
31	r	Memphis	Temple of Ptah	Egyptian Museum, Cairo, Egypt
31	s	Beni Hasan	Tomb of Khnumhotep II	in situ
31	t	Lahun	Mortuary temple of Senusret II	Brooklyn Museum of Art, Brooklyn, USA
31	t	Abydos	Stela of Mentuhotep	Egyptian Museum, Cairo, Egypt
31	v	Lahun	Hymns to King Senusret III, Third Hymn	Petrie Museum, University College London, United Kingdom
31	w	Abydos	Stela of Ikhernofret	Neues Museum, Berlin, Germany
31	x	Deir el-Bersha	Coffin of Gua	British Museum, London, United Kingdom
31	x	Mirgissa	Weighing stones	
31	z	Wadi Maghara	Rock inscription IS 23	in situ
31	aa	Riqqa	A 166	National Museum of Ireland, Dublin, Ireland
31	bb	Saqqara	Stela of Neferher	Egyptian Museum, Cairo, Egypt
31	cc	Riqqa	A 22, Coffin	Destroyed
31	dd	Lahun	Lahun papyri	Petrie Museum, University College London, United Kingdom
31	ee	Kom el-Hisn	Tomb of Khesu, offering list	in situ
31	ff	Asiut	Tübingen Coffin 81 / SiTü	Museum of Tübingen University, Tübingen, Germany
31	gg	Asiut	Model tool box of Ankhhaf	Metropolitan Museum of Art, New York, USA

Inventory number	Locus	General period	Reference
22.3.517		19_Dynasty-12	MMA 22.3.517, pls. 11, 32; Allen 2002, 17, Pl. 11, 32–33
	offering list	19_Dynasty-12	Graefe 1971, 198, Tabelle 1: 22; Newberry 1893, Pl. XVII; Kanawati—Evans 2016, Pl. 103
	offering list	19_Dynasty-12	Graefe 1971, 198, Tabelle 1: 26, 2: 25; Blackman 1915—Vol. II, Pl. VI; Kanawati and Evans 2017, 40, Pl. 86
		19_Dynasty-12	Graefe 1971, 198, Tabelle 1: 28, 2: 24; Davies and Gardiner 1920, Pl. XXXII
	A3	19_Dynasty-12	Simpson 1965, Pl. 2, 2A A3
		19_Dynasty-12	Altenmüller 2005, 206; Postel—Régen 2005, 235–276, Figs. 5–6
C 34 (N 188)		19_Dynasty-12	Louvre online database
JdE 51733	Entrance chapel, east wall, offering list	19_Dynasty-12	Arnold 1988, Pl. 50
	M21	19_Dynasty-12	Petrie 1909, Pl. V; Moussa—Altenmüller 1991; Altenmüller 2015
	South wall, east, Registers 1, 3	19_Dynasty-12	Kanawati—Evans 2014, Pl. 138
14.666	offering list	19_Dynasty-12	Graefe 1971, 200, Tabelle 2: 26; Petrie 1923, Pl. XIX
CG 20539		19_Dynasty-12	Lange—Schäfer 1908, 155, Taf. 42; Landgráfová 2011, 171
UC32157	2: 14 (lot LV.1)	19_Dynasty-12	Griffith 1898, 2–3, Pl. II; Parkinson 2004, 46–47; Collier—Quirke 2004, 18
1204		19_Dynasty-12	Schäfer 1904
30839		19_Dynasty-12	Davies 1987, Pl. 39; Fig. 3
		19_Dynasty-12	Vercoutter 1977, Pl. 2
	IS 23	19_Dynasty-12	Desplancques 2006, 342; Tallet 2018, 155–157, 323
	offering list	19_Dynasty-12	Engelbach 1915, 23, Pl. XXIII
		19_Dynasty-12	Jéquier 1940, Fig. 29; Vernus 1976; Leclant—Berger 1996
		19_Dynasty-12	Engelbach 1915, Pl. XXIV
		19_Dynasty-12	Griffith 1898, Pl. XV, line 57
		19_Dynasty-12	Silverman 1988, 110, Fig. 96
81		19_Dynasty-12	Brunner-Traut 1981, Taf. 44
17.9.31		19_Dynasty-12	Hayes 1978, Fig. 189

TABLE 25 Sources for the Figures 14 to 22, copper, Asiatic copper, and *hsmn* (cont.)

Figure	Letter	Site	Structure / work	Present location
31	hh	Thebes	London Medical Papyrus	British Museum, London, United Kingdom
31	ii	Bubastis	Inscription of Apopi	British Museum, London, United Kingdom
31	jj	Karnak	stèle juridique	Egyptian Museum, Cairo, Egypt
32	159, 369a	Asiut	Tomb 7, Shaft 1	
32	231, 299d	Gebelein	Coffin of Iqer	
32	24, 74g	Deir el-Bersha	Coffin of Sepi	Egyptian Museum, Cairo, Egypt
32	473, 9d	Deir el-Bersha	Coffin of Sepi	Egyptian Museum, Cairo, Egypt
32	474, 17b, 18 f, 19a–f, 21a, 24a/b, 24n, 25 p	Deir el-Bersha	Coffin of nomarch Dje-hutynekheth	Museum of Fine Arts, Boston, USA
32	475, 27j, k	Beni Hasan	Coffin of Netjeruhetep	Egyptian Museum, Cairo, Egypt
32	477, 35k, 35n	Deir el-Bersha	Coffin of Sepi	Louvre, Paris, France
32	479, 37k, 38m/n/o/z	Unknown	Coffin Texts—Papyri Gardiner	British Museum, London, United Kingdom
32	479, 39s/t, 40h, j	Unknown	Coffin Texts—Papyri Gardiner	British Museum, London, United Kingdom
32	480, 43h, 44k/m/n	Unknown	Coffin Texts—Papyri Gardiner	British Museum, London, United Kingdom
32	517, 107d	Deir el-Bersha	Coffin of Amenemhat	Egyptian Museum, Cairo, Egypt
32	60, 248b	Deir el-Bersha	Tomb of CG 28085, 28086	Egyptian Museum, Cairo, Egypt
32	60, 248b	Deir el-Bersha	Coffin of Amenemhat	Egyptian Museum, Cairo, Egypt
32	62, 271c	Deir el-Bersha	Coffin of Amenemhat	Egyptian Museum, Cairo, Egypt

Inventory number	Locus	General period	Reference
EA10059	Pls. XXI: XV, 22, XXIII: XX, 71	20_Dynasty-13	Barns 1956, Pls. XXI, XXIII
EA1101		25_Dynasty-15	Helck 1983, 57
	lines 7 (deben), 13–14, 16–18 (deben, copper)	26_Dynasty-17	Lacau 1949, lines 7 deben, 13–14, 16–18 deben, copper
		18_Dynasty-11	de Buck 1938, 369a
	CT III 299d, Spell 231	18_Dynasty-11	de Buck 1947, 137e
CG 28083	de Buck (1935, CT I 74g, Spell 24—BiP)	19_Dynasty-12	de Buck 1935, 74g
CG 28083	Spell 473 after BiC, CT VI, 9d f.	19_Dynasty-12	Graefe 1971, 15, Dokument 24; de Buck 1956, 9d
20.1822, 20.1827	20.1822, 20.1827	18_Dynasty-11	Graefe 1971, 15, Dokument 14, 25, 26; Hannig 2006, 505
	de Buck (1956, CT VI 18 f, 25 p, Spell 474—BiBo)		
JdE 37565	JdE 37565 de Buck (1956, CT VI 27j—Spell 475, BH4C)	19_Dynasty-12	Garstang 1907, 104, fig. 93, pI. VI; Porter—Moss 1934, 161; Willems 1988, 22
	de Buck (1956, CT VI 35k, n, Spell 477—BiP)	19_Dynasty-12	Graefe 1971, 15, Dokument 16
	Spell 479 after Pap. Gard. II, CT VI, 38n/o	21_Middle Kingdom	Graefe 1971, 15, Dokument 15; de Buck 1956, 38
	Spell 479 after Pap. Gard. II, CT VI, 39s/t	21_Middle Kingdom	de Buck 1956, 40h, j; Graefe 1971, 15, Dokument 27
	Spell 480 after Pap. Gard. II, CT VI, 44k/m/n	21_Middle Kingdom	Graefe 1971, 15, Dokument 17; de Buck 1956, 44
	Spell 517 after B10C, CT VI, 107d f.	19_Dynasty-12	Graefe 1971, 15, Dokument 31
	de Buck (1935, CT I 248b, Spell 60—B4C)	19_Dynasty-12	de Buck 1935, 248b
	CG 28091 and 28092	19_Dynasty-12	de Buck 1935, 248b
	de Buck (1935, CT I 248b, Spell 60—B10C)		
	Spell 62 after B10C, CT I, 271c	19_Dynasty-12	Graefe 1971, 13–14, Dokument 13; de Buck 1935, 271c

TABLE 25 Sources for the Figures 14 to 22, copper, Asiatic copper, and *hsmn* (cont.)

Figure	Letter	Site	Structure / work	Present location
32	635, 257i	Saqqara	Tomb of Karenen and Nefersemdent	Egyptian Museum, Cairo, Egypt
32	635, 257i	Saqqara	Tomb of Khenu and Ipiemsaf	Egyptian Museum, Cairo, Egypt
32	666, 294p	Deir el-Bersha	Coffin of Djehutynekhet	Museum of Fine Arts, Boston, USA
32	816, a, c, f, h	Thebes	Burial chamber of Ashayet	Egyptian Museum, Cairo, Egypt
32	887, 99c	Asiut	Coffin of Iri / Ankhhaf	Egyptian Museum, Cairo, Egypt
32	936, 137e	Gebelein	Coffin of Iqer	Egyptian Museum, Turin, Italy
32	936, 139b, 143	Gebelein	Coffin of Iqer	Egyptian Museum, Turin, Italy
32	989, 198a+g	Unknown	Coffin Texts—Papyri Gardiner	British Museum, London, United Kingdom
32	991, 201h	Unknown	Coffin Texts—Papyri Gardiner	British Museum, London, United Kingdom
33	a	Meidum	Mastaba 6	in situ
33	b	Unknown	Palermo Stone	Regional Archaeological Museum Antonino Salinas, Palermo, Italy; Egyptian Museum, Cairo, Egypt; Petrie Museum, University College London, United Kingdom
33	c	Abu Ghurab	Festival Offerings Calendar of the sun temple of Nyuserre, Inscription A	Neues Museum, Berlin, Germany
33	d	Abusir	Archives of the funerary temple of Neferirkare Kakai	British Museum, London, United Kingdom; Louvre, Paris, France
33	e	Abusir	Archives of the funerary temple of Neferirkare Kakai	British Museum, London, United Kingdom; Louvre, Paris, France
33	f	Abusir	Archives of the funerary temple of Raneferef	British Museum, London, United Kingdom; Louvre, Paris, France
33	g	Abusir	Archives of the funerary temple of Raneferef	British Museum, London, United Kingdom; Louvre, Paris, France
33	h	Abusir	Archives of the funerary temple of Raneferef	British Museum, London, United Kingdom; Louvre, Paris, France
33	i	Hamra Dom	T 73 Tomb of Tjauty	in situ
33	j	Coptos	Decree of Pepy II (?) from Coptos (Coptos G)	Egyptian Museum, Cairo, Egypt
33	k	Coptos	Donation of priest Hetep-kamin	Egyptian Museum, Cairo, Egypt

Inventory number	Locus	General period	Reference
20.1822	Spell 666 after B1Bo, CT VI, 294p	19_Dynasty-12	de Buck 1956, 257i
		6_Middle Kingdom	de Buck 1956, 257i
		18_Dynasty-11	Graefe 1971, 15, Dokument 36
		18_Dynasty-11	de Buck 1961, 15a, c, f, h
		19_Dynasty-12	de Buck 1961, 99c
		18_Dynasty-11	de Buck 1961, 137e
		18_Dynasty-11	Graefe 1971, 200, Tabelle 2: 17
		21_Middle Kingdom	de Buck 1961, 198a, g
		21_Middle Kingdom	de Buck 1961, 201h
		12_Dynasty-4	Petrie 1892, Pl. XV; Posener-Kriéger 1969, 420
20051	“Große Festdarstellung”. Block 247	13_Dynasty-5	Nuzzolo 2020, Fig. 7AB
		13_Dynasty-5	Kees 1928, Taf. 28: block 427; Posener-Kriéger 1969, 422, Fig. 3; Herslund 2011, 46
		13_Dynasty-5	Posener-Kriéger and Cenival 1968, Pl. XXI, cols. k, r and s; Posener-Krieger 1976, 134–136; Hannig 2003, 837
		13_Dynasty-5	Posener-Kriéger and Cenival 1968, Pls. XIII–XIV, text 1; Posener-Kriéger 1976, 59–76, col. 1c, 504; Hannig 2003, 837
		13_Dynasty-5	Posener-Kriéger—Verner—Vymazalová 2006, Pl. 28, 28A
		13_Dynasty-5	Posener-Kriéger—Verner—Vymazalová 2006, Pl. 30, 30A
		13_Dynasty-5	Posener-Kriéger—Verner—Vymazalová 2006, Pl. 31, 31A
		14_Dynasty-6	Säve-Söderbergh 1994, 55, Pl. 40
		14_Dynasty-6	Urk. I, 296; Posener-Kriéger 1969, 423, Fig. 4; Strudwick 2005, 114; Herslund 2015, 118; Weill 1912, Pl. IV: 2, 1.8, Pl. IX
		15_Old Kingdom	Strudwick 2005, 125; Goedicke 1994, Taf. 9
JdE 43290			

TABLE 25 Sources for the Figures 14 to 22, copper, Asiatic copper, and *hsmn* (cont.)

Figure	Letter	Site	Structure / work	Present location
33	l	Elephantine	Middle Kingdom temple of Senusret I	in situ
33	m	Memphis	Annals of Amenemhat II	Egyptian Museum, Cairo, Egypt
34	a	Abu Ghurab	Sun temple of Nyuserre	Neues Museum, Berlin, Germany
34	b	Saqqara	Mastaba XIV: Tomb of Khabaukhnum, called Bau	in situ
34	d	Elephantine	Heqaib sanctuary	Aswan Museum, Aswan, Egypt
34	e	Heliopolis	Donation of Senusret I	in situ
34	f	Tod	Inscription of Senusret I	
34	g	Unknown	unknown	British Museum, London, United Kingdom
34	h	Memphis	Annals of Amenemhat II	Egyptian Museum, Cairo, Egypt
34	i	Memphis	Annals of Amenemhat II	Egyptian Museum, Cairo, Egypt
34	j	Abydos	Stela of Mentuhotep	Egyptian Museum, Cairo, Egypt
34	k	Karnak	Second Stela of Kamose	Luxor Museum, Luxor, Egypt
34	l	Edfu	Stela JdE 38917	Egyptian Museum, Cairo, Egypt

Inventory number	Locus	General period	Reference
		19_Dynasty-12	Schenkel 1975, 117, Abb. 9, Taf. 37; Helck 1978, 70
	M9	19_Dynasty-12	Petrie 1909, Pl. V; Moussa—Altenmüller 1991; Altenmüller 2015
20051	“Große Festdarstellung”. Block 247	13_Dynasty-5	Kees 1928, Taf. 28; block 427; Posener-Kriéger 1969, 422, Fig. 3; Herslund 2011, 46
		14_Dynasty-6	Jéquier 1940, 65, Pl. 55
	stela 9: x + 18	18_Dynasty-11	Franke 1994, 157, Taf. I: 18
		19_Dynasty-12	Altenmüller 2005, 206; Postel—Régen 2005, 235–276, Figs. 5–6
EA586	Column 25	19_Dynasty-12	Barbotin—Clère 1991, 9, Fig. 1: column 25
		19_Dynasty-12	https://www.britishmuseum.org/collection/object/Y_EA586
	M5, M6	19_Dynasty-12	Petrie 1909, Pl. V; Moussa—Altenmüller 1991; Altenmüller 2015
	M21	19_Dynasty-12	Petrie 1909, Pl. V; Moussa—Altenmüller 1991; Altenmüller 2015
CG 20539		19_Dynasty-12	Lange—Schäfer 1908, 155, Taf. 42; Landgráfová 2011, 171
J 43		26_Dynasty-17	Habachi 1972, 37, Fig. 23
JdE 38917	Line 5		Sayed 1979, 168–170, Pl. XLVII: line 5

TABLE 26 Sources for the Figures 23 to 26, signs for crucibles and metalworkers

Figure	Letter	Site	Structure / work	Present location
35	a	unknown	Statue of Ankhua	British Museum, London, United Kingdom
35	b	Helwan	Tomb of Wabkhnun	
35	c	Giza	Tomb G 4561 of Kaemankh	in situ
35	d	Giza	Tomb of Senedjemib Mehi (G 2378)	in situ
35	e	Saqqara	Tomb of Mereruka	in situ
35	f	Saqqara	Pyramid Texts of the Pyramid of King Merenre	in situ
35	f	Saqqara	Pyramid Texts of the Pyramid of King Pepy II	in situ
35	f	Saqqara	Pyramid Texts of the Pyramid of King Pepy I	in situ
36	a	unknown	Statue of Ankhua	British Museum, London, United Kingdom
36	b	Gebelein	papyri Gebelein	Egyptian Museum, Torino, Italy
36	b	Gebelein	papyri Gebelein	Egyptian Museum, Torino, Italy
36	c	Giza	Tomb G8882 of Wepemnefret	in situ
36	d	Giza	G 6020	in situ
36	d	Giza	G 6020	in situ
36	d	Giza	G 6020	in situ
36	d	Giza	G 6020	in situ
36	e	Abusir	Tomb of Ptahshepses	in situ; CIE excavations, Egypt
36	f	Saqqara	Tomb of Nyankhkhnum and Khnumhotep	in situ
36	g	Saqqara	Tomb of Neferseshemptah and Sekhentyu	in situ
36	h	Saqqara	D 11: Tomb of Tepemankh	Petrie Museum, University College London, United Kingdom
36	i	Wadi Maghara	Wadi Maghara inscription of Djedkare Isesi, no. 13	Destroyed
36	j	Saqqara	Tomb D43 of Seankhup-tah Itush, chapel of Mereruka/Metetu	British Museum, London, United Kingdom; Egyptian Museum, Cairo, Egypt; Brooklyn Museum of Art, Brooklyn, USA

Inventory number	Locus	General period	Reference
171		10_Dynasty-3	Spencer 1980, 13; Kahl—Kloth—Zimmermann 1995, 222–223
		10_Dynasty-3	Kaplony 1966, 13–14, Taf. 7: 1097; Kahl 2004, 308–309; Köhler and Jones 2009, 148–149; Herslund 2011, 43; Odler 2016, 31–32, Figs. 12–13
		14_Dynasty-6	Hannig 2003, 271, 430, 535, 1429–1430
	Room II, east wall, register 1	13_Dynasty-5	Brovarski 2001, Fig. 116b
	Room A3, east wall, register 5; metalworking scene	14_Dynasty-6	Herslund 2011, 46–47
	Spell 519, § 1212a	14_Dynasty-6	Herslund 2011, 145; Allen 2005, 160–161, P 46; 2013d, PT 519, § 1212; 7: 2015, 165–166 P; Pierre-Croisiau 2019, Pl. XVI
	Spell 519, § 1211	14_Dynasty-6	Herslund 2011, 145; Allen 2005, 160–161, P 467; 2013d, PT 519, § 1211; 2015, 165–166
	Spell 519, § 1211	14_Dynasty-6	Herslund 2011, 145; Allen 2005, 160–161, P 467; 2013d, PT 519, § 1211; 2015, 165–166
171		10_Dynasty-3	Spencer 1980, 13; Kahl—Kloth—Zimmermann 1995, 222–223
	Geb. II rto	12_Dynasty-4	Posener-Kriéger 2004, Tav. 11, 13, 17
	Geb. V rto	12_Dynasty-4	Posener-Kriéger 2004, Tav. 39
		13_Dynasty-5	Hassan 1936, 179–201, Fig. 219
	2.35	13_Dynasty-5	Weeks 1994, Fig. 30; Herslund 2015, 112, 118, Fig. 9
	2.127	13_Dynasty-5	Weeks 1994, 19, Fig. 42; Herslund 2015, 112, 118, Fig. 9
	2.128	13_Dynasty-5	Weeks 1994, 19, Fig. 42
	2.36	13_Dynasty-5	Weeks 1994, 19, Fig. 30
	Room 4, east wall, register 1	13_Dynasty-5	Verner 1986, Pl. 27; Odler 2016, Fig. 181
	“Torraum”, North wall, lower relief field, Registers 2–4	13_Dynasty-5	Moussa and Altenmüller 1977, Abb. 10; Hannig 2003, 430; Odler 2016, Figs. 23, 115, 174, 203
	False door	13_Dynasty-5	Moussa—Junge 1975, ill. 2
	corridor, east wall, register ?	13_Dynasty-5	Mariette 1889, 202–205; Smith 1942, 515–518, Fig. 6, Hodjash—Berlev 1982, Scheel 1985; Godfrey 2018
1185		13_Dynasty-5	Gardiner—Peet—Černý 1955, 60–61; Baines—Parkinson 1997; Tallet 2018, 107–108, 304
		14_Dynasty-6	Borchardt 1937, 243–244, Blatt 52; Schott 1973; James 1961, 243–244, Pl. 21; Hölzl 1999, 18, 18–28

TABLE 26 Sources for the Figures 23 to 26, signs for crucibles and metalworkers (*cont.*)

Figure	Letter	Site	Structure / work	Present location
36	j	Saqqara	Tomb D43 of Seankhup-tah Itush, chapel of Mere-ruka/Metetu	British Museum, London, United Kingdom; Egyptian Museum, Cairo, Egypt; Brooklyn Museum of Art, Brooklyn, USA
36	j	Saqqara	Tomb D43 of Semenkhu-ptah Itush	Kunsthistorisches Museum, Vienna, Austria; Brooklyn Museum of Art, Brooklyn, USA
36	k	Saqqara	Pyramid Texts of the Pyramid of King Wenis	in situ
36	l	Tura	drum from Tura	Atfih storeroom, Egypt
36	n	Unknown	Statue of metalworker Kakherptah	Egyptian Museum, Cairo, Egypt
36	o	Saqqara	Tomb of Ptahhotep	in situ
36	p	Saqqara	Tomb of Mehu	in situ
36	q	Saqqara	Tomb of Ankhmahor	in situ
36	r	Saqqara	Tomb of Ankhi—Intji	in situ
36	r	Saqqara	Tomb of Ankhi—Intji	in situ
36	r	Saqqara	Tomb of Ankhi—Intji	in situ
36	r	Saqqara	Tomb of Ankhi—Intji	in situ
36	s	Giza	Tomb of Neferherenptah	in situ
36	t	Saqqara	E14: Tomb of Nedjemib	Egyptian Museum, Cairo, Egypt
36	u	unknown	False door of Idu	National Museum, La Habana, Cuba
36	v	Saqqara	False door of Iniptah	Saqqara Storeroom 1
37	a	Naga ed-Deir	papyrus Reisner II	Museum of Fine Arts, Boston, USA
37	a	Naga ed-Deir	papyrus Reisner II	Museum of Fine Arts, Boston, USA
37	b	Serabit el-Khadim	Inscription IS 71a	in situ
37	c	Abydos	IS 85	Egyptian Museum, Cairo, Egypt
37	d	Serabit el-Khadim	Inscription IS 112	in situ
37	e	Serabit el-Khadim	Inscription IS 87	in situ

Inventory number	Locus	General period	Reference
CG 1540		14_Dynasty-6	Borchardt 1937, 243–244, Blatt 52; Schott 1973; James 1961, 243–244, Pl. 21; Hölzl 1999, 18, 18–28
5820		13_Dynasty-5	Mariette 1889, 296–297; James 1961, 243–244, Pl. 21
	Loose block	13_Dynasty-5	Hassan 1938, Pl. XCVI; Odler 2016, Figs. 23, 115, 119
		13_Dynasty-5	Zaki 2012, 775, Fig. 2
CG 267		13_Dynasty-5	Borchardt 1911, 169–170
		13_Dynasty-5	Harpur 2008, Fig. 351
	Corridor, north wall, right from the entrance to the court of tomb, Registers 1–3	14_Dynasty-6	Altenmüller 1998, 146–148, Taf. 42; Strudwick 2005, 432–433
	Room II, registers 2–3	14_Dynasty-6	Scheel 1985, Kanawati—Hassan 1997, 34–36, Pls. 6, 7a, 40
	false door	14_Dynasty-6	Drioton—Lauer 1958, Goyon 1959, Pl. II; Strudwick 2005, 217–218
	lintel	14_Dynasty-6	Drioton—Lauer 1958, Goyon 1959, Pl. I: 1; Strudwick 2005, 217–218
	niche, western face	14_Dynasty-6	Drioton—Lauer 1958, Goyon 1959, Pl. III; Strudwick 2005, 217–218
	niche, southern and northern face	14_Dynasty-6	Drioton—Lauer 1958, Goyon 1959, Pl. V; Strudwick 2005, 217–218
		14_Dynasty-6	Bakr 1953, 121–123, Fig. 99
CG 1732		14_Dynasty-6	Mariette 1889, 416–417, Borchardt 162, Taf. N. 1732, Strudwick 2005, 225–226
79		14_Dynasty-6	Lipińska 1982, 78–79, Málek et al. 2007, obj. no. 803-013-252
		16_First Intermediate Period	Daoud 2005, 158–159, Pl. LXXXVII
	A5	19_Dynasty-12	Simpson 1965, Pl. 4, 4A A5
	Frg 2 rt	19_Dynasty-12	Simpson 1965, Pl. 21, 21A
	IS 71a	19_Dynasty-12	Tallet 2018, 149–151, 319
CG 20028		19_Dynasty-12	Lange—Schäfer 1902, 36–37, Taf. III: 20028; Ilin-Tomich 2015; 2017, 200
	IS 85	19_Dynasty-12	Tallet 2018, 157–160, 325
	IS 112	19_Dynasty-12	Tallet 2018, 169–172, 332

TABLE 26 Sources for the Figures 23 to 26, signs for crucibles and metalworkers (*cont.*)

Figure	Letter	Site	Structure / work	Present location
37	f	Serabit el-Khadim	Inscription IS 136	in situ
37	g	Serabit el-Khadim	Inscription IS 114	in situ
37	h	Serabit el-Khadim	Inscription IS 413	in situ
37	i	Serabit el-Khadim	Inscription IS 106	in situ
37	j	Serabit el-Khadim	Inscription IS 122	in situ
37	k	unknown	Stela EA 233	British Museum, London, United Kingdom
37	l	Serabit el-Khadim		in situ
37	m	Abydos	Stela 7309	Neues Museum, Berlin, Germany
37	n	Abydos	Stela CG 20654	Egyptian Museum, Cairo, Egypt
37	o	Abydos	Stela Cat. No. 1111	Queen's College, Oxford, United Kingdom
37	p	Unknown	Sealing Geneva 18158	Museum of Art and History, Geneva, Switzerland
37	q	unknown	Statue of a metalworker Seneb	unknown
37	r	Gebel Tjauti	Rock inscription	in situ
37	s	unknown	Stela EA 242	British Museum, London, United Kingdom
37	t	Abydos	Stela of Antef	Kunsthistorisches Museum, Vienna, Austria
37	u	Mirgissa	M XXVI: Refuse heap north of the fortress	
39	a	Saqqara	Tomb of Neferseshemptah and Sekhentyu	in situ
39	b	Saqqara	D 61: Tomb of Duaenre	
39	c	Deir el-Gebrawi	Tomb of Hemre, called Isi I	in situ
39	d	Unknown	Offering basin of a gold-worker	Egyptian Museum, Cairo, Egypt
39	e	Beni Hasan	Tomb of Baket III	in situ

Inventory number	Locus	General period	Reference
	IS 87	19_Dynasty-12	Gardiner—Peet—Černý 1955, 95, Pl. XXIV; Tallet 2018, 171
	IS 136	19_Dynasty-12	Tallet 2018, 172–174, 333
	IS 114	19_Dynasty-12	Tallet 2018, 176–178, 336
	IS 413	19_Dynasty-12	Tallet 2018, 191–193, 349
	IS 106	19_Dynasty-12	Tallet 2018, 193–195, 350
233		19_Dynasty-12	Budge 1913, 7, Pl. XIV; Ilin-Tomich 2017, 190
	IS 122	19_Dynasty-12	Tallet 2018, 203–204, 362
7309		19_Dynasty-12	Roeder 1913, 187; Simpson 1974, 21, 55.3, Pl. 74: ANOC 55.3; Ilin-Tomich 2017, 188
CG 20654		19_Dynasty-12	Lange—Schäfer 1908, 367–368, Taf. L: 20654
1111	Stela, Register 2, left side	20_Dynasty-13	Smither—Dakin 1939, 159–160, Pl. XX: 2; Ilin-Tomich 2017, 251
18158		20_Dynasty-13	Newberry 2004, 154, Pl. IV: 11, Martin 1971, 63, Pl. 35: 29
39		20_Dynasty-13	Fay 2003, 21–24, Fig. 18a–b, 19
Inscription 16	Inscription 16	20_Dynasty-13	Darnell et al. 2002, 58, Pl. 16a, b
242		20_Dynasty-13	Budge et al. 1912, 8, Pl. XXVII; Franke 2013, 107–112, Pl. 23–24; Ilin-Tomich 2017, 190
146		20_Dynasty-13	Hein—Satzinger 1993, 64–66; https://www.khm.at/objektdb/detail/317296/
	3–97	20_Dynasty-13	Gratien 2019, 53, 125, Pl. 18, 137
	False door	13_Dynasty-5	Moussa—Junge 1975, ill. 1
		13_Dynasty-5	Mariette 1889, 350
	Chapel, north wall, east of doorway, register 3	14_Dynasty-6	Kanawati 2005, Pl. 63
		14_Dynasty-6	Kaplony 1968
	Chapel, north wall, upper right, Register 5	19_Dynasty-12	Kanawati—Evans 2018, 29, Pl. 68, 69

TABLE 27 Sites with the evidence of mining and processing copper in the periods under study

Site	Part of site	Period	Region	Bibliography
Lakeita	Predynastic settlement	Badarian to Naqada culture, Phase II	Eastern desert	Debono (1951, 67–68)
Wadi Semna	Wadi Semna I	Naqada culture, Phase IIIB	Eastern desert	Abdel-Motelib et al. (2012, 33–34)
Wadi Um Balad	Area 2, sites E–F	Naqada culture, Phase IIIB	Eastern desert	Castel et al. (1998); Grimal (1996, 571)
el-Urf	–	Naqada culture, Phase IIIB to Early Dynastic Period, Dynasty 1, early	Eastern desert	Tawab et al. (1990, 360–362)
Wadi Abu Had	Wadi Abu Had 29	Naqada culture, Phase IIIB to Early Dynastic Period, Dynasty 1, early	Eastern desert	Bomann (1994, 30; 1995; 1999)
Wadi Dara	Camp 5 A	Naqada culture, Phase IIIB to Early Dynastic Period, Dynasty 1, early	Eastern desert	Tawab et al. (1990, 362–364); Castel et al. (1992, 54–61); Grimal (1996, 571–572)
Wadi Dara	Camp 2 B	Early Dynastic Period, Dynasty 1, early, Naqada culture,	Eastern desert	Tawab et al. (1990, 362–364); Castel et al. (1992); Grimal (1996, 571–572)
Wadi Dara	Camp 2 F1	Early Dynastic Period, Dynasty 1, early, Naqada culture,	Eastern desert	Tawab et al. (1990, 362–364); Castel et al. (1992); Grimal (1996, 571–572)
Wadi Dara	Camp 2 I	Early Dynastic Period, Dynasty 1, early, Naqada culture,	Eastern desert	Tawab et al. (1990, 362–364); Castel et al. (1992); Grimal (1996, 571–572)
Wadi Dara	Camp 4 A	Early Dynastic Period, Dynasty 1, early, Naqada culture,	Eastern desert	Tawab et al. (1990, 362–364); Castel et al. (1992); Grimal (1996, 571–572)
Wadi Semna	Wadi Semna I	Early Dynastic Period, Dynasty 1, early, Naqada culture,	Eastern desert	Abdel-Motelib et al. (2012, 33–34)
Wadi Dara	Camp 2 H	Early Dynastic Period, Dynasty 1	Eastern desert	Tawab et al. (1990, 362–364); Castel et al. (1992); Grimal (1996, 571–572)
Wadi Um Balad	Area 2, sites B–C, E–F	Early Dynastic Period, Dynasty 1	Eastern desert	Castel et al. (1998); Grimal (1996, 571)
Abu Mureiwat	–	Early Dynastic Period	Eastern desert	Klemm and Klemm (2013, 79–83, Figs. 5.25–5.27)

TABLE 27 Sites with the evidence of mining and processing copper in the periods under study (*cont.*)

Site	Part of site	Period	Region	Bibliography
el-Urf	–	Early Dynastic Period	Eastern desert	Tawab et al. (1990, 360–362)
Higalig (also Hagalik)	–	Early Dynastic Period	Eastern desert	Klemm and Klemm (2013, 268–270, Figs. 5.210–5.212)
Wadi Bokari	Old Kingdom mines and settlement	Early Dynastic Period	Eastern desert	Klemm and Klemm (2013, 183–187, Figs. 5.125–5.128)
Wadi Dara	Hut 5 D	Early Dynastic Period	Eastern desert	Grimal (1993, 483)
Wadi Um Balad	Area 3	Early Dynastic Period	Eastern desert	Castel et al. (1998)
Lakeita	Early Dynastic settlement	Early Dynastic Period	Eastern desert	Debono (1951, 71)
Wadi Hammamat	Early Dynastic settlement	Early Dynastic Period	Eastern desert	Debono (1951, 76)
Wadi Abu Had	Wadi Abu Had 29	Early Dynastic Period / Old Kingdom, Dynasty 4	Eastern desert	Bomann (1994, 1995, 1999)
Wadi Dara	Hut 5 E	Early Dynastic Period / Old Kingdom, Dynasty 4	Eastern desert	Tawab et al. (1990, 362–364); Castel et al. (1992, 54)
el-Urf	–	Old Kingdom, Dynasty 4, early	Eastern desert	
Wadi Dara	Camp 3 A	Old Kingdom, Dynasty 4, early	Eastern desert	Tawab et al. (1990, 362–364); Castel et al. (1992)
Wadi Dara	Camp 3 B	Old Kingdom, Dynasty 4, early	Eastern desert	Tawab et al. (1990, 362–364); Castel et al. (1992, 61–62)
Wadi Um Balad	Area 2, sites B–C, E–F	Old Kingdom, Dynasty 4	Eastern desert	Castel et al. (1998); Grimal (1996, 571)
Abu Mureiwa	–	Old Kingdom general	Eastern desert	Klemm and Klemm (2013, 79–83, Figs. 5.25–5.27)
Bir Nasib		Old Kingdom general	Sinai	Abdel-Motelib et al. (2012, 14–15); Tallet (2012, 57–58); (Rothenberg 1987, 4–7)

TABLE 27 Sites with the evidence of mining and processing copper in the periods under study (*cont.*)

Site	Part of site	Period	Region	Bibliography
Kasr Girgis	Old Kingdom general	Eastern desert		Tristant in Pantalacci and Denoix (2009, 613–614, Fig. 54); Tristant (2012)
Um Bogma	Mining area 45	Old Kingdom general	Sinai	Abdel-Motelib et al. (2012, 20)
Wadi Abu el-Maysa	Old Kingdom general	Eastern desert		Tristant in Pantalacci and Denoix (2009, 615, Fig. 55); (Tristant 2012)
Wadi Bokari	Old Kingdom mines and settlement	Old Kingdom general	Eastern desert	Klemm and Klemm (2013, 183–187, Figs. 5.125–5.128)
Wadi Kharig	Site 349 (Rothenberg)	Old Kingdom general	Sinai	Rothenberg (1987, 4, Fig. 4); Abdel-Motelib et al. (2012, 17–20); Tallet (2012, 47–51, Figs. 4.4 with earlier references)
Wadi Kharig	Site 349 (Rothenberg)	Old Kingdom general	Sinai	Rothenberg (1987, 4, Fig. 4); Abdel-Motelib et al. (2012, 17–20); Tallet (2012, 47–51, Figs. 4.4–4.7, with earlier references)
Wadi Maghara		Old Kingdom general	Sinai	Abdel-Motelib et al. (2012, 19)
Wadi Sagia	–	Old Kingdom general	Eastern desert	Klemm and Klemm (2013, 118–119, Figs. 5.66–5.67)
Wadi Semna	Wadi Semna II	Old Kingdom general	Eastern desert	Abdel-Motelib et al. (2012, 34–35)
Hamash-North	–	Old Kingdom / Middle Kingdom	Eastern desert	Klemm and Klemm (2013, 268)

TABLE 27 Sites with the evidence of mining and processing copper in the periods under study (*cont.*)

Site	Part of site	Period	Region	Bibliography
Umm Fahm	Umm Fahm 1	Old Kingdom / Middle Kingdom	Nubia	Klemm and Klemm (2013, 564–566, Figs. 6.217–6.219)
Umm Soleimat	–	Old Kingdom / Middle Kingdom	Eastern desert	Klemm and Klemm (2013, 147–148, Figs. 5.90–5.91)
Gebel el-Lahian		Middle Kingdom	Sinai	Tallet (2018, 217–218)
Gebel Hazbar		Middle Kingdom	Sinai	Tallet (2018, 217–218)
Serabit el-Khadim		Middle Kingdom	Sinai	Tallet (2018, 217–218)
Wadi Abu el-Maysa		Middle Kingdom	Eastern desert	Tristant in (Pantalacci and Denoix 2009, 615); Tristant (2012)
Wadi Kharig		Middle Kingdom	Sinai	Rothenberg (1987, 4); Abdel-Motelib et al. (2012, 17–20)

TABLE 28 Egyptian titles from Chapters 4 and 5

Translation	Transliteration	Dating	Chapter	Reference
administrator of foreign land	<i>ḥd-mr ḥꜣs.t</i>	EDP	4	Jones (2000, title no. 1336)
overseer of ten prospectors	<i>jmy-r 10 śmntjw</i>	OK	4	Jones (2000, title no. 567)
craftsman	<i>ḥm(w).t(y)</i>	OK	4	Jones (2000, title no. 2179)
overseer of the quarrywork/stonework	<i>jmy-r šj</i>	OK	4	Jones (2000, title no. 889)
overseer of builders	<i>jmy-r ḳdw</i>	OK	4	Jones (2000, title no. 935)
overseer of prospectors	<i>jmy-r smn.tjw</i>	OK	4	Jones (2000, title no. 846)
overseer of a detachment/troops of prospectors	<i>jmy-r mšꜣ smn.tjw</i>	OK	4	Jones (2000, title no. 555)
overseer of the fortified settlements/fortresses	<i>jmy-r mnww</i>	OK	4	Jones (2000, title no. 537)
quarrymen	<i>ḥrty.w-nṯr</i>	OK, MK	4	Jones (2000, title no. 2894); https://pnm.uni-mainz.de/title/250
great chamberlain of the Treasury	<i>jmy-rꜣ ḥmw.ti wr n pr-ḥd</i>	MK	4	https://pnm.uni-mainz.de/title/610
chamberlain of the Treasury	<i>jmy-rꜣ ḥmw.ti n pr-ḥd</i>	MK	4	https://pnm.uni-mainz.de/title/856
stonemasons	<i>jky.w</i>	MK	4	https://pnm.uni-mainz.de/title/626
sea-captain / overseer of the workplace	<i>jmy-r š</i>	MK	4	https://pnm.uni-mainz.de/title/499
prospectors/jewel workers	<i>ms-ꜣ.t</i>	MK	4	https://pnm.uni-mainz.de/title/263
friendly-is-the-heart-of-Horus	<i>jꜣꜣ-jb ḥrw</i>	EDP	5	der Way (1997, 163)
director / controller	<i>ḥrp</i>	EDP, OK		Jones (2000, title no. 2540 ff.)
sealer	<i>ḥtm.w / ḥtm.ty</i>	EDP, OK	5	Jones (2000, title no. 2763)
overseer of both Treasuries	<i>jmy-r pr.wy-ḥd</i>	OK	5	Jones (2000, title no. 524)
expedition leader / sealer of god	<i>ḥtm.ty-nṯr</i>	OK	5	Jones (2000, title no. 2791)
royal sealer	<i>ḥtm.w nswt</i>	OK	5	Jones (2000, title no. 2790)
overseer of gold	<i>jmy-r nbw</i>	OK	5	Jones (2000, title no. 592)
steward	<i>jmy-r pr</i>	OK	5	Jones (2000, title no. 461)
sealer of the King of Lower Egypt	<i>ḥtm.ty-bj.ty</i>	OK, FIP	5	Jones (2000, title no. 2775)
overseer of sealed things	<i>jmy-r ḥtm.t</i>	OK, FIP, MK	5	Jones (2000, title no. 733)

TABLE 28 Egyptian titles from Chapters 4 and 5 (*cont.*)

Translation	Transliteration	Dating	Chapter	Reference
overseer of both Golden Houses	<i>jmy-r pr.wy nbw</i>	OK, MK	5	Jones (2000, title no. 522)
overseer of Treasury	<i>jmy-r pr-ḥd</i>	OK, SIP	5	Jones (2000, title no. 489)
controller of all works	<i>pḏ-ḥr ḥr k3.t nbt</i>	FIP	5	Padró (1999, 126–146)
inspector of inspectors (of craftsmen)	<i>shḏ shḏ.w [ḥmw.tyw]</i>	FIP	5	Padró (1999, 126–146)
royal carpenter	<i>mḏḥ nswt</i>	FIP	5	https://pnm.uni-mainz.de/title/380
overseer of all the works in the temple	<i>jmy-r k3t nbt m ḥw.t-nṯr</i>	FIP	5	Brovarski (2018, 75)
overseer of value	<i>jmy-r šn'.tjw</i>	FIP, MK	5	https://pnm.uni-mainz.de/title/1089

TABLE 29 Writing of the weighing units *šꜥ.t/šnꜥ.ty* and *dbn*, for the Figures 51 and 52

Figure	Letter	Site	Structure / work	Present location
62	a	Unknown	Stela	
62	b	Giza	“House-selling document”	
62	c	Saqqara	Tomb of Nyankhkhnum and Khnumhotep, “Torraum”, North wall, lower relief field, Registers 2–4	in situ
62	d	Deir el-Bahari	Heqanakht papyri	Metropolitan Museum of Art, New York, USA
62	d	Deir el-Bahari	Heqanakht papyri	Metropolitan Museum of Art, New York, USA
62	e	Unknown	The Tale of the Eloquent Peasant	Neues Museum, Berlin, Germany
62	f	Lahun	Lahun papyri	Petrie Museum, University College London, United Kingdom
62	f	Lahun	Lahun papyri	Petrie Museum, University College London, United Kingdom
62	g	Unknown	Discourse of the Fowler	British Museum, London, United Kingdom
62	h	Thebes	Rhind Mathematical Papyrus	British Museum, London, United Kingdom
63	a	Saqqara	Tomb of Nyankhkhnum and Khnumhotep, “Torraum”, North wall, lower relief field, Registers 2–4	in situ
63	c	Deir el-Bahari	Heqanakht papyri	Metropolitan Museum of Art, New York, USA
63	d	Unknown	The Tale of the Eloquent Peasant	Neues Museum, Berlin, Germany
63	e	Lahun	Lahun papyri	Petrie Museum, University College London, United Kingdom
63	f	Unknown	papyrus Boulaq 18	Egyptian Museum, Cairo, Egypt
63	f	Unknown	papyrus Boulaq 18	Egyptian Museum, Cairo, Egypt
63	f	Unknown	papyrus Boulaq 18	Egyptian Museum, Cairo, Egypt
63	g	Thebes	Rhind Mathematical Papyrus	British Museum, London, United Kingdom
63	h	Karnak	“stèle juridique”	Egyptian Museum, Cairo, Egypt

Inventory number	Locus	General period	Reference
		15_Old Kingdom	Goedicke 1970, Taf. XVIIa
		15_Old Kingdom	Urk. I, 157, 14–158, 10; Goedicke 1970, 149–173, Taf. XVI; Fischer 1961, 63–64; Strudwick 2005, 205–206
		13_Dynasty-5	Moussa and Altenmüller 1977, Abb. 10; Hannig 2003, 430; Odler 2016, Figs. 23, 115, 174, 203
		19_Dynasty-12	MMA 22.3.517, pls. 11, 32; Allen 2002, 17, Pl. 11, 32–33
22.3.517		19_Dynasty-12	Allen 2002, 17, Pl. 8: recto 5–6
UC32142B verso UC32108C		17_First Intermediate Period / Middle Kingdom	Berlev 1965, Tab. 2: 2; Parkinson 1991; 2012
		19_Dynasty-12	Collier and Quirke 2006, 174–175
		19_Dynasty-12	Collier and Quirke 2006, 210–211
EA10274	Columns 33, 46	19_Dynasty-12	Parkinson 2004, Fig. 1
EA10058	Problem 62	27_Second Intermediate Period	Peet 1923, Pl. R: 62; Robins—Shute 1998, Pl. 18
		13_Dynasty-5	Moussa and Altenmüller 1977, Abb. 10; Hannig 2003, 430; Odler 2016, Figs. 23, 115, 174, 203
22.3.517		19_Dynasty-12	MMA 22.3.517, pls. 11, 32; Allen 2002, 17, Pl. 11, 32–33
	B1 191–198	17_First Intermediate Period / Middle Kingdom	Parkinson 1991, 29–29a; 2012, 162–166
		19_Dynasty-12	Griffith 1898, Pl. XV, line 57
		20_Dynasty-13	Mariette 1872, pl. XV
		20_Dynasty-13	Mariette 1872, pl. XXXIII
		20_Dynasty-13	Mariette 1872, pl. XLIII
EA10058	Problem 62	27_Second Intermediate Period	Peet 1923, Pl. R: 62; Robins—Shute 1998, Pl. 18
	lines 7 (deben), 13–14, 16–18 (deben, copper)	26_Dynasty-17	Lacau 1949, lines 7 deben, 13–14, 16–18 deben, copper

TABLE 30 Inscribed weighing stones from the periods under study

Site		Weight (g)	Unit (g)	Title and name	Period
Unknown		1750	?	<i>nr-mr</i>	Dynasty 1
Mirgissa	Fortress	1650	27.5	<i>nswt bjty ḥꜥ-kꜣw-rꜥ sn-wsrt bjꜣ 60</i>	Dynasty 12
Mirgissa	Fortress	550	27.5	<i>nswt bjty ḥꜥ-kꜣw-rꜥ sn-wsrt bjꜣ 20</i>	Dynasty 12
Lisht North	Cemetery	674.8	29.02	<i>sn-wsrt 23 1/4</i>	Dynasty 12
Lisht North	Cemetery south of pyramid below House A2:3, Pit 497	954	13.63	<i>sn-wsrt dj ṛnh dt 70 nbw</i>	Dynasty 12
Unknown		55.25	13.8?	<i>sn-wsrt / nby ḥr-mnw</i>	Dynasty 12
Mirgissa	Fortress	97.8	12.23	<i>nswt bjty Ny-mꜣꜥt-rꜥ nbw 8</i>	Dynasty 12
Unknown		26	13	<i>snfrw</i>	Dynasty 4
Unknown		133.48	13.348	<i>ḥwfw</i>	Dynasty 4
Unknown		68.2	13.64	<i>wsr-kꜣf</i>	Dynasty 5
Unknown		104.9	2.91	<i>sꜣḥ.w-rꜥ</i>	Dynasty 5
Unknown		132	13.2	<i>sꜣḥ.w-rꜥ</i>	Dynasty 5
Buto		81	27	<i>jmꜣ-jb-ḥrw ḥrp ḥm-smn-jb</i>	Dynasty 2
Unknown		29.47	29.47?	<i>sꜣb ṛd-mr nfr-mꜣꜥt</i>	Dynasty 4
Unknown		81.95	?	<i>smr wꜥ.ty, jmy-r wꜥb.ty pth- špss</i>	Dynasty 5
Unknown		174	?	<i>ḥry-ḥb.t, wr mḏw šmꜥw jnpw-ḥpy</i>	Dynasty 5–6
Unknown		28.2	14.1	<i>jmy-r kꜣt kꜣ-tp</i>	Dynasty 5–6
Unknown		142	14.2	<i>smꜣw rm-f nfr mpj rm-f ꜣ ny-kꜣw-ptḥ</i>	Dynasty 6
Unknown		126	15.75	<i>ꜣḥ-ḥtp</i>	Old Kingdom
Unknown		3141	?	<i>(j)r(y)-(j)ḥt nswt ny-ṛnh- rꜥ</i>	Old Kingdom
Unknown		49.62	?	<i>ḥnt</i>	Old Kingdom
Unknown		60	20	<i>jn-kꜣf</i>	Old Kingdom
Unknown		102	17	<i>jn-kꜣf</i>	Old Kingdom
Unknown		28	4.66	<i>?? ms-nb.ty</i>	Old Kingdom
Coptos		54.3996	27.2	2	Dynasty 12

Remark	Reference	Categories
counterweight?	(Warburton 2019, 144, Fig. 1)	1) royal weighing stones
copper standard	Vercoutter (1977, 438, Fig. 2)	1) royal weighing stones
copper standard	Vercoutter (1977, 438, Fig. 2)	1) royal weighing stones
copper standard	The Metropolitan Museum of Art, New York, collection online	1) royal weighing stones
gold standard	Vercoutter (1977, 438); Prell and Rahmstorf (2021, Fig. 2b: 25)	1) royal weighing stones
gold standard	Vercoutter (1977, 438); KHM Sammlung online	1) royal weighing stones
	Vercoutter (1977, 437, Fig. 1)	1) royal weighing stones
gold standard	Cour-Marty (1997, 133: 1)	1) royal weighing stones
gold standard	Cour-Marty (1997, 133: 2)	1) royal weighing stones
gold standard	Cour-Marty (1997, 133: 3); Prell and Rahmstorf (2021, Fig. 2a: 5)	1) royal weighing stones
shaty???	Cour-Marty (1997, 133: 4); Prell and Rahmstorf (2021, Fig. 2a: 14)	1) royal weighing stones
gold standard	Cour-Marty (1997, 133: 5)	1) royal weighing stones
copper standard; friendly is the heart of Horus, director (of the installation) Hemsemenib	(Way 1997a, 171–172, Taf. 70: 9; 1997b)	2) officials' weighing stones
judicial adminis- trator	Cour-Marty (1997, 134: 10); Prell and Rahmstorf (2021, Fig. 2a: 1)	2) officials' weighing stones
sole friend, overseer of both workshops	Cour-Marty (1997, 134: 7)	2) officials' weighing stones
lector priest, great of Upper Egypt	Cour-Marty (1997, 134: 8)	2) officials' weighing stones
overseer of work	Cour-Marty (1997, 134: 9)	2) officials' weighing stones
stolist—priest	Cour-Marty (1997, 134: 6)	2) officials' weighing stones
name only	Cour-Marty (1997, 134: 11); Prell and Rahmstorf (2021, Fig. 2a: 10)	2) officials' weighing stones
custodian of king's property	Cour-Marty (1997, 134: 12)	2) officials' weighing stones
name only	Cour-Marty (1997, 134: 13)	2) officials' weighing stones
name only	Cour-Marty (1997, 134: 14)	2) officials' weighing stones
name only	Cour-Marty (1997, 134: 15)	2) officials' weighing stones
name only	Cour-Marty (1997, 135: 16)	2) officials' weighing stones
	Petrie (1926, Pl. XL: 4529); Vercoutter (1977, 440, Tab. I); Karwiese (2006, 181)	3) weighing stones with units

TABLE 30 Inscribed weighing stones from the periods under study (*cont.*)

Site		Weight (g)	Unit (g)	Title and name	Period
Meidum		1571	27.5	57	Dynasty 4
Meidum		1610.9	27.7	58	Dynasty 4
Meidum		2721.8	27.2	100	Dynasty 4
Unknown		143.2	28.64	5	Dynasty 6
Uronarti	Room F 5	61	12.2	<i>nbw</i> 5	Middle Kingdom
Uronarti	Room F 5	74.5	12.42	<i>nbw</i> 6	Middle Kingdom
Uronarti	Room F 5	66.3	13.26	<i>nbw</i> 5	Middle Kingdom
Uronarti	Room F 5	86.5	14.42	<i>nbw</i> 6	Middle Kingdom
Uronarti	Room F 5	116	12.89	<i>nbw</i> 9	Middle Kingdom
Uronarti	Room F 5	92	13.14	<i>nbw</i> 7	Middle Kingdom
Uronarti		44	?		Middle Kingdom
Uronarti		not listed			Middle Kingdom
Shalfak		not listed			Middle Kingdom
Unknown		409.6	27.3	<i>bj</i> 15	Middle Kingdom
Kahun		780.19	26.006	30	Middle Kingdom
Kahun		246.175	27.352	9	Middle Kingdom
Kahun		553.4	27.67	20	Middle Kingdom
Kahun		566	28.3	20	Middle Kingdom
Kahun		1642.68	27.37	60	Middle Kingdom?
Unknown		460.2	27.07	17	Middle Kingdom?
Sinai		1199.7	27.26	44	Middle Kingdom?
Sinai		617.9	26.86	23	Middle Kingdom?
Sinai		2021.76	27.6	73	Middle Kingdom?
Unknown		474.31	27.9	17	Middle Kingdom?
Unknown		972	27.7	35	Middle Kingdom?
Unknown		1045.3	27.5	38	Middle Kingdom?
Kahun		2481	27.5	90	Middle Kingdom?
Unknown		1244.1	27.6	45	Middle Kingdom?
Kahun		628.5	27.5	23	Middle Kingdom?
Unknown		635	27.6	23	Middle Kingdom?

Remark	Reference	Categories
gold standard	Petrie (1926, Pl. XLI: 4323 A); Vercoutter (1977, 442, Tab. 2)	3) weighing stones with units
	Petrie (1926, Pl. XLI: 4483 A); Vercoutter (1977, 442, Tab. 2)	3) weighing stones with units
	Petrie (1926, Pl. XLI: 4530 A); Vercoutter (1977, 442, Tab. 2)	3) weighing stones with units
	Petrie (1926, Pl. XL: 4671); Vercoutter (1977, 440, Tab. I)	3) weighing stones with units
	Dunham et al. (1967, 35, Pl. XXXV: B1/1); Prell and Rahmstorf (2021, Fig. 2b: 1)	3) weighing stones with units
gold standard	Dunham et al. (1967, 36, Pl. XXXV: B1/3); Prell and Rahmstorf (2021, Fig. 2b: 3)	3) weighing stones with units
gold standard	Dunham et al. (1967, 36, Pl. XXXV: B1/2); Prell and Rahmstorf (2021, Fig. 2b: 2)	3) weighing stones with units
gold standard	Dunham et al. (1967, 36, Pl. XXXV: B2/3); Prell and Rahmstorf (2021, Fig. 2b: 5)	3) weighing stones with units
gold standard	Dunham et al. (1967, 36, Pl. XXXV: B2/1); Prell and Rahmstorf (2021, Fig. 2b: 6)	3) weighing stones with units
gold standard	Dunham et al. (1967, 36, Pl. XXXV: B2/2); Prell and Rahmstorf (2021, Fig. 2b: 4)	3) weighing stones with units
gold standard	Dunham et al. (1967, 39, Pl. XXXV: A2/6); Prell and Rahmstorf (2021, Fig. 2b: 9)	3) weighing stones with units
11 weighing stones	Dunham et al. (1967, 39, Pl. XXXV: A1/1–8, 2/3–5); Prell and Rahmstorf (2021, Fig. 2b: 7–8, 10–15)	3) weighing stones with units
	Dunham et al. (1967, 128, Pl. LXII: B2/3); Prell and Rahmstorf (2021, Fig. 2b: 16)	3) weighing stones with units
	Griffith (1892, 447: 20); Vercoutter (1977, 439–440, Tab. I)	3) weighing stones with units
	Petrie (1926, Pl. XL: 4394); Vercoutter (1977, 440, Tab. I); Karwiese (2006, 181)	3) weighing stones with units
	Petrie (1926, Pl. XL: 4302); Vercoutter (1977, 440, Tab. I); Karwiese (2006, 177)	3) weighing stones with units
	Petrie (1926, Pl. XL: 4590); Vercoutter (1977, 440, Tab. I); Karwiese (2006, 181)	3) weighing stones with units
	Petrie (1926, Pl. XL: 4688); Vercoutter (1977, 440, Tab. I)	3) weighing stones with units
	Petrie (1926, Pl. XXVIII: 2317); Vercoutter (1977, 441, Tab. 2)	3) weighing stones with units
	Petrie (1926, Pl. XXVIII: 3344); Vercoutter (1977, 441, Tab. 2)	3) weighing stones with units
	Petrie (1926, Pl. XXXVIII: 4287); Vercoutter (1977, 441, Tab. 2)	3) weighing stones with units
	Petrie (1926, Pl. XL: 4309); Vercoutter (1977, 441, Tab. 2)	3) weighing stones with units
	Petrie (1926, Pl. XLI: 4497); Vercoutter (1977, 441, Tab. 2)	3) weighing stones with units
	Petrie (1926, Pl. XXXV: 3602); Vercoutter (1977, 441, Tab. 2)	3) weighing stones with units
	Petrie (1926, Pl. XXXVI: 3786); Vercoutter (1977, 441, Tab. 2)	3) weighing stones with units
	Petrie (1926, Pl. XXXVI: 4081); Vercoutter (1977, 441, Tab. 2)	3) weighing stones with units
	Petrie (1926, Pl. XL: 4312); Vercoutter (1977, 441, Tab. 2)	3) weighing stones with units
	Petrie (1926, Pl. XL: 4319); Vercoutter (1977, 442, Tab. 2)	3) weighing stones with units
	Petrie (1926, Pl. XL: 4333); Vercoutter (1977, 442, Tab. 2)	3) weighing stones with units
	Petrie (1926, Pl. XL: 4353); Vercoutter (1977, 442, Tab. 2)	3) weighing stones with units

TABLE 30 Inscribed weighing stones from the periods under study (*cont.*)

Site		Weight (g)	Unit (g)	Title and name	Period
Unknown		1271.4	27.6	46	Middle Kingdom?
Coptos		550.8	27.5	20	Middle Kingdom?
Unknown		121.18	30.295	4	Old Kingdom
Abydos		90.72	30.24	3	Old Kingdom
Coptos		89.56	29.85	3	Old Kingdom
Unknown		118.84	29.71	4	Old Kingdom
Unknown		28.25	28.25	none	Old Kingdom
Unknown		52.15	26.075	2	Old Kingdom
Abydos		103.03	25.7575	4	Old Kingdom?
Unknown		77.7	25.9	3	Predynastic?
Elephantine		102	20.4	5	Dynasty 3
Elephantine	Satet temple, pottery of late Dynasty-5	17.5	17.5	<i>dbn 1</i>	Dynasty 5
Elephantine		15	7.5	2	Dynasty 5
Elephantine		62	20.7	3	Dynasty 5
Elephantine		320.5	26.7	12	Dynasty 6, late
el-Kab	NE of palace	340.9	17.01	20	Early Dynastic Period
el-Kab	Silo F	71	23.67	3	Early Dynastic Period
el-Kab	South of silos	117	23.4	5	Early Dynastic Period
Elephantine	Distribution centre H 84	0.6	2.4	1/4	Middle Kingdom
Elephantine	Distribution centre H 84	9	?	none	Middle Kingdom
Elephantine	Distribution centre H 84	174	?	none	Middle Kingdom
Elephantine	Distribution centre H 84	71	14.2	5	Middle Kingdom
Ayn Sokhna	Gallery G9	34.84	34.84	1	Middle Kingdom early
Ayn Sokhna	Gallery G9	53.20	26.6	2	Middle Kingdom early
Elephantine		82	13.67	<i>dbn 6</i>	Old Kingdom
Elephantine		8.4	16.8	1/2 <i>nbw</i>	Old Kingdom late
Elephantine	Satet temple, vessel in a Dynasty-6 cellar	318.2	18.72	17	
Elephantine	Satet temple, vessel in a Dynasty-6 cellar	477.7	?	none	
Tarkhan		65.3			Early Dynastic Period
Tarkhan		65.7			Early Dynastic Period
Naqada		7.9			Naqada II
Naqada		27.9			Naqada II
Naqada		39.3			Naqada II

Remark	Reference	Categories
gold standard	Petrie (1926, Pl. XL: 4355); Vercoutter (1977, 442, Tab. 2)	3) weighing stones with units
	Petrie (1926, Pl. XLI: 4546); Vercoutter (1977, 442, Tab. 2)	3) weighing stones with units
	Petrie (1926, Pl. X); Cour-Marty (1997, 138: 55)	3) weighing stones with units
	Petrie (1926, Pl. X); Cour-Marty (1997, 138: 52)	3) weighing stones with units
	Petrie (1926, Pl. X); Cour-Marty (1997, 138: 51)	3) weighing stones with units
	Petrie (1926, Pl. X); Cour-Marty (1997, 138: 54)	3) weighing stones with units
	Petrie (1926, Pl. XII); Cour-Marty (1997, 137: 43)	3) weighing stones with units
	Petrie (1926, Pl. XII); Cour-Marty (1997, 137: 46)	3) weighing stones with units
	Cour-Marty (1997, 138: 56)	3) weighing stones with units
	Cour-Marty (1997, 138: 49)	3) weighing stones with units
	Raue et al. (2004, 11–13, Table 1)	4) datable weighing stones
	Kopp (2019, 67–68, 94, Abb. 37: 40)	4) datable weighing stones
copper standard	Raue et al. (2004, 11–13, Fig. 5: 2); Prell and Rahmstorf (2021, Fig. 2b: 4)	4) datable weighing stones
	Raue et al. (2004, 11–13, Table 1)	4) datable weighing stones
	Raue et al. (2004, 11–13)	4) datable weighing stones
	Cour-Marty (1997, 135: 75)	4) datable weighing stones
	Hendrickx and Eyckerman (2009, 20: 30, Fig. 29: 1)	4) datable weighing stones
	Hendrickx and Eyckerman (2009, 20: 31, Fig. 29: 2)	4) datable weighing stones
damaged	Pilgrim (1996, 274, Abb. 119: a); Prell and Rahmstorf (2021, Fig. 2b: 19)	4) datable weighing stones
	Pilgrim (1996, 274, Abb. 119: b); Prell and Rahmstorf (2021, Fig. 2b: 20)	4) datable weighing stones
	Pilgrim (1996, 274, Abb. 119: c)	4) datable weighing stones
	Pilgrim (1996, 274, Abb. 119: d); Prell and Rahmstorf (2021, Fig. 2b: 21)	4) datable weighing stones
	Abd el-Raziq et al. (2016, 184, Fig. 138)	4) datable weighing stones
	Abd el-Raziq et al. (2016, 184, Fig. 138)	4) datable weighing stones
	Raue et al. (2004, 11–13, Fig. 5: 1); Prell and Rahmstorf (2021, Fig. 2b: 3)	4) datable weighing stones
	Raue et al. (2005, 17–18, Fig. 8); Prell and Rahmstorf (2021, Fig. 2b: 5)	4) datable weighing stones
	Kopp (2019, 67–68, 94, Abb. 37: 41)	4) datable weighing stones
	Kopp (2019, 67–68, 94, Abb. 37: 42)	4) datable weighing stones
counterweight?	Rahmstorf (2006, 14)	4) datable weighing stones
counterweight?	Rahmstorf (2006, 14)	4) datable weighing stones
counterweight?	Rahmstorf (2006, 13)	4) datable weighing stones
counterweight?	Rahmstorf (2006, 13)	4) datable weighing stones
counterweight?	Rahmstorf (2006, 13)	4) datable weighing stones

TABLE 30 Inscribed weighing stones from the periods under study (*cont.*)

Site	Weight (g)	Unit (g)	Title and name	Period
Naqada	52.7			Naqada II
Naqada	77.6			Naqada II
Naqada	145.4			Naqada II
Naqada	185.7			Naqada II
Naqada	266.4			Naqada II
Naqada	281.6			Naqada II
Naqada	378.4			Naqada II
Naqada	512.9			Naqada II

[illegible]

TABLE 31 Written sources on the metalworkers from the periods under study

Source	Locus	Period	Transliteration
Statue of Ankhua	unknown	Early Dynastic Period, Dynasty 3	<i>bḏ3.t(y)</i> <i>(l)r(.y) (l)h(.t) (n)sw</i> <i>mḏh(.w) śm3(.w)</i> <i>ʿnh-wʿ(.w)</i>
Sealing cat. no. 629	Area IIb, South, Room CXX	Early Dynastic period	[...] <i>bḏ3.t(y) ḥm-wn-rwḏ ḥm.w ḥm.ti</i> [...]
papyri Gebelein	Geb. II rto	Old Kingdom, Dynasty 4, late	<i>bḏ3.ty ḏbʿw</i> <i>bḏ3.ty jtt</i> <i>bḏ3.ty nj-jm3-nswt</i> <i>bḏ3.ty kfrw</i> <i>bḏ3.ty rwḏ-jrw</i> <i>ḥrp-bḏ3.tyw js3b</i> <i>bḏ3.ty Jnw</i>
papyri Gebelein	Geb. V rto	Old Kingdom, Dynasty 4, late	
Offering table of Iensheshi		Old Kingdom, Dynasty 5 and 6	<i>smr wʿty, bḏ3.ty pr-ʿ3 jj-n-ššj</i>
tomb G8882 of Wepemnefret		Old Kingdom, Dynasty 5, middle to late	<i>bḏ3.ty</i>
G 6020	2.35	Old Kingdom, Dynasty 5, the reign of Nyuserre	<i>shḏ bḏ3.tyw k3i</i>
G 6020	2.127	Old Kingdom, Dynasty 5, the reign of Nyuserre	<i>shḏ bḏ3.ty.w nj-ʿnh-ptḥ</i>
G 6020	2.128	Old Kingdom, Dynasty 5, the reign of Nyuserre	<i>ḥm-(k3) bḏ3.ty K3i-m-ʿnh</i>
G 6020	2.36	Old Kingdom, Dynasty 5, the reign of Nyuserre	<i>ḥm-k3 bḏ3.ty K3i-m-ʿnh</i>
Tomb of Nyankhkhnum and Khnum-hotep	“Torraum”, North wall, lower relief field, Registers 2–4	Old Kingdom, Dynasty 5, the reign of Nyuserre, late to Menkauhor	<i>bḏ3.ty</i>
Tomb of Nfr-sMptḥ and 𓂏xntjw	False door	Old Kingdom, Dynasty 5, the reign of Nyuserre, late to Menkauhor	<i>jmy-r bḏ3.tyw ... nfr-sšm-ptḥ</i>
D 11: Tomb of Tepe-mankh	corridor, east wall, register ?	Old Kingdom, Dynasty 5, the reign of Raneferef or Nyuserre	<i>ḥw .. n zkr, ḥm.wty pw ... jmy-r bḏ3.tyw k(3)-ḥr-[P]tḥ</i>

Translation	Reference
metalworker property custodian of the king carpenter of smꜣ-ships Ankhua	Spencer (1980, 13); Kahl—Kloth—Zimmermann (1995, 222–223)
metalworker Hemunrudj	Pätznick (2005, 116, 605, Tab. 44, Kat. 629)
Geb. II rto, 17: metalworker Djebau Geb. II rto, 25: metalworker Itjet, the same on Geb. V vso A,6 ? Geb. II rto, 37: metalworker Nyimanesut Geb. II vso J, 2: metalworker Kefenu Geb. II rto B, 2: metalworker Rudjiru Geb. II rto, 69: controller of metalworkers Isab Geb. V rto, 63: metalworker Inu	Posener-Kriéger (2004, Tav. 11, 13, 17) Posener-Kriéger (2004, Tav. 39)
sole friend, metalworker of the Great House Iienscheshi	Maspero (1889, 71, cat. no. 140)
metalworker (2×)	Hassan (1936, 179–201, Fig. 219)
overseer of metalworkers Kai	Weeks (1994, Fig. 30); Herslund (2015, 112, 118, Fig. 9)
funerary priest, overseer of metalworkers Niankhptah	Weeks (1994, 19, Fig. 42); Herslund (2015, 112, 118, Fig. 9)
funerary priest, overseer of metalworkers Kaemankh	Weeks (1994, 19, Fig. 42)
funerary priest, overseer of metalworkers Kaemankh	Weeks (1994, 19, Fig. 30)
Adzes: Adze blade of Variant D2, held in left hand, being exchanged in the market scene. Caption: “metalworker”. Fish-hooks: A cluster of three fish-hooks, held in the right hand, being exchanged in the market scene. Caption: “metalworker”. overseer of metalworkers ... Neferseshemptah	Moussa and Altenmüller (1977, Abb. 10); Hannig (2003, 430); Odler (2016, Figs. 23, 115, 174, 203) Moussa—Junge (1975, ill. 2)
“Sloth is unbearable to Sokar, o craftsmen!” Overseer of the metalworkers Kakherptah.	Mariette (1889, 202–205); Smith (1942, 515–518, Fig. 6), Hodjash—Berlev (1982), Scheel (1985); Godfrey (2018)

TABLE 31 Written sources on the metalworkers from the periods under study (*cont.*)

Source	Locus	Period	Transliteration
Wadi Maghara inscription of Djedkare Isesi, no. 13		Old Kingdom, Dynasty 5, the reign of Djedkare	<i>sš bḏ3.tyw ḥwns</i> <i>šḥḏ bḏ3.tyw šps</i>
Tomb D43 of Semenkuptah Itush		Old Kingdom, Dynasty 5, the reign of Djedkare	<i>bḏ3.ty pr ʿ3 n mrwt, ḥrp mḥnk nswt, bḏ3.ty ḥkrt</i> <i>nswt, jmy-r št3t nbt, jmy-r wʿb.t, mḏḥ s3b.wt,</i> <i>jmy-r ḥw.t-nbw, ḥrj-sš3t3 n nswt m pr-ʿ3 jtwš</i> <i>... mḏḥ s3b.wt, bḏ3.ty pr ʿ3 ... n m sš3t3 nb ... jb</i> <i>n nb3f Jtwš šps ... mry nb3f ... jm3ḥ.w ḥr</i> <i>nb3f ... bḏ3.ty wʿbt nfr ḏd-k3-rʿ ... smnḥw-ptḥ jtš</i> <i>s3f smsw mry3f jm3ḥw3f bḏ3.ty m pr.wy, mḥnk</i> <i>nswt, jmy-r ḥkr.t nswt mrr.w-k3</i> KHM 5818: <i>jmy-r wʿb.t jmy-r pr.wy nbw Jt(wš)</i> KHM 5819: <i>jmy-r wʿb.t jmy-r pr.wy nbw Jt(wš)</i> KHM 5820: <i>bḏ3.ty pr-ʿ3, ḥrp mḥnk nswt Jtwš</i>
Pyramid of King Wenis	Loose block	Old Kingdom, Dynasty 5, the reign of Wenis	<i>skr ḏʿm jn bḏ3.tyw ... ftt ḥḏ nbw, bḏ3.ty, bḏ3.ty</i> <i>... s3n.t bḏ3.tyw .. bḏ3.ty ... ḥsmn n ḏʿm ... pt ...</i> <i>šḥ3ḥ.t bḏ3.ty</i>
tomb of Nykaukhum		Old Kingdom, Dynasty 5, the reigns of Nyuserre to Dynasty 6, Teti	<i>rḥ nswt, nb jm3ḥ bḏ3.ty bj3 nfr-šrš</i>
		Old Kingdom, Dynasty 5	<i>jmy-r bḏ3.tyw wʿbt, jm3ḥ(w) ḥr nṯr ʿ3, rḥ nzwt</i> <i>k(3)-ḥr-ptḥ</i>
Tomb D43 of Seankuptah Itush, chapel of Mereruka/Metetu		Old Kingdom, Dynasty 6, the reign of Teti, middle	<i>bḏ3.ty smsw pr-ʿ3, ... bḏ3.ty pr-ʿ3, ... ms(.w)-nṯr-ʿ</i> <i>mḏḥ s3b.wt Mtt</i>
Tomb D43 of Seankuptah Itush, chapel of Mereruka/Metetu		Old Kingdom, Dynasty 6, the reign of Teti, middle	<i>... nb ḥb n bḏ3.ty pr-ʿ3Mrr.w-k3</i>

Translation	Reference
Strudwick (2005, 137–138): “A royal mission was sent under the command of the boat captain Nyankhkhentykhety to the hills of turquoise; he carried it out, together with: The overseer of officials Nemtyiu, Ptahshepses, Sabi. The judge and scribe Ptahuser. The scribe of copper (?) Khunes. The controller of a crew of recruits Abdu, Merynetjerizezi, Nyankhmin, Heru. ...” Correctly scribe of metalworkers Khunes	Gardiner—Peet—Černý (1955, 60–61); Baines—Parkinson (1997); Tallet (2018, 107–108, 304)
Mariette (1889, 296): “Beloved metalworker of the Great House, controller of royal meheneks, metalworker of the royal jewellery, overseer of every secret, overseer of the workshop, overseer of Both Golden Houses, overseer of speckled snakes, overseer of the golden mansion, secretary of the king in the Great House Itush.” Mariette (1889, 297): “... overseer of speckled snakes, metalworker of the Great House, ... of all secrets ... of his lord Itush. ... beloved of his lord ... revered before his lord ... metalworker of the wabet of the pyramid Beautiful is Djedkare ... Semenkuptah Itush” “His oldest beloved son, revered, metalworker of both houses, royal mehenek, overseer of the royal jewellery Mereruka.”	Mariette (1889, 296–297); James (1961, 243–244, Pl. 21)
KHM 5819: overseer of the workshop, overseer of Both Golden Houses It(ush) KHM 5819: overseer of the workshop, overseer of Both Golden Houses It(ush) KHM 5820: metalworker of the Great House, director of royal mehenks Itush Adzes: Sharpening of adze with two haft bends and lashing. Blade is most probably of Variant D1. Caption: “sharpening of a msh.tyw adze”. Metalworker (4×) king’s acquaintance, possessor of reverence, metalworker, servant Neferseres	Hassan (1938, Pl. XCVI); Odler (2016, Figs. 23, 115, 119) Junker (1950, 59–66), Drenkhahn (1976, 37–38); Herslund (2015, 112, Fig. 9)
overseer of metalworkers of the workshop, revered before the great god, king’s acquaintance Kakherptah ... elder metalworker of the Great House, ... metalworker of the palace/Great House, assistant in the procession, overseer of speckled snakes Metet	Borchardt (1911, 169–170) Borchardt (1937, 243–244, Blatt 52); Schott (1973); James (1961, 243–244, Pl. 21); Hözl (1999, 18, 18–28)
each (day) festival for metalworker of the palace Mereruka	Borchardt (1937, 243–244, Blatt 52); Schott (1973); James (1961, 243–244, Pl. 21); Hözl (1999, 18, 18–28)

TABLE 31 Written sources on the metalworkers from the periods under study (*cont.*)

Source	Locus	Period	Transliteration
tomb of Mehu	Corridor, north wall, right from the entrance to the court of tomb, Registers 1–3	Old Kingdom, Dynasty 6, the reigns of Teti or Pepi I	<i>jmy-r bḏ3.tyw ... jmy-r bḏ3.tyw n pr-ḏ.t</i>
Tomb of Ankhi—Intji	false door	Old Kingdom, Dynasty 6, end	<i>bḏ3.ty bḏ3.ty n pr-ʕ jmy-r-mšwt-ntr ḏḏ.jḥt nbt nfr(t) jm3ḥ hr nswt, jm3ḥ hr pth-zkr, hrj-sšt; n nswt m k3t nbt jm3ḥ nḥ bḏ3.ty nḥ bḏ3.ty pr-ʕ, jmy-r ʕḥ3.w n ḥry-ʕ nswt, jmy-r pr.wy nbw, bḏ3.ty pr-ʕ nḥ jmy-r wʕb.ty, jmy-r wʕb.t ršyt nḥ 1: bḏ3.ty pr-ʕ, mḏḥ s3b.wt nḥ(j) ... ḥm-ntr ḏḏ-swt-ttj ... ḥm-ntr nfr-swt-wnjs ... bḏ3.ty pr-ʕ, mḏḥ s3b.wt nḥ(j) ... jm3ḥw hr ntr-ʕ nḥ(j) ... bḏ3.ty pr-ʕ, jmy-r pr.wy nbw jntj</i>
Tomb of Ankhi—Intji	lintel	Old Kingdom, Dynasty 6, end	
Tomb of Ankhi—Intji	niche, western face	Old Kingdom, Dynasty 6, end	<i>5: bḏ3.ty m3ʕ nḥ(j) smsw j3t ntrt m nbt nb sʕḥ nby m šnwt zkr 6: wḏ-mdw m nbt ʕ.t 9–10: ... bḏ3.ty, hrp mḥnk(w) nswt, jm3ḥw hr ntr-ʕ nḥ(j) 11: (j)r(y) (i)ḥ(.t) (n)swt, bḏ3.ty, jm3ḥw nḥ(j)</i>
Tomb of Ankhi—Intji	niche, southern and northern face	Old Kingdom, Dynasty 6, end	<i>8: bḏ3.ty pr-ʕ, mḏḥ s3b.wt nḥ(j), bḏ3.ty, jmy-r wʕb.ty, jmy-r pr.wy nbw Jntj, bḏ3.ty, hrp mḏḥ s3b.wt nḥ(j), bḏ3.ty, mḏḥ nswt m bḏ3.tyw m pr.wy Jntj, jm3ḥw hr Pth-zkr nḥ .. m3ʕ jntj, ḥnty ḥm(w).t m ḥbw ḥʕw(?) (j)m(yw)-t3 ḥ3t(yw) nḥ, ʕ pḥty m nšr-ḥt, ḥnk n jrt n 3ḥ(.t)s 7: ... w n jrt ḥrw .. tyw ʕḥ.wt nḥ(j), šmś ntrʕr ʕḥ-ḥḏ n gb, wʕ m ʕ(-šḥmw) zkr</i>
Tomb of Neferherenptah		Old Kingdom, Dynasty 6, late	<i>shḏ bḏ3.t(yw) wʕbt nfr-ḥr-n-ptḥ</i>
E14: Tomb of Nedjemib		Old Kingdom, Dynasty 6	<i>jmy-r bḏ3.tyw pr-ʕ ... nḏm-jb</i>

Translation	Reference
overseer of metalworkers ... overseer of metalworkers of the funerary estate	
metalworker metalworker of the Great House overseer of fashioners of the god's image who speaks all good things Revered in front of the king, revered in front of Ptahsokar, secretary of the king of all works, revered Ankhi. Metalworker of the Great House, overseer of the armoury by the royal decree, overseer of Both Golden Houses, Metalworker of the Great House Ankhi. Overseer of both workshops, overseer of the southern workshop Ankhi.	Drioton—Lauer (1958), Goyon (1959, Pl. II); Strudwick (2005, 217–218)
1: metalworker of the Great House, overseer of speckled snakes Ankhi ... god's servant at the mortuary temple of Teti ... god's servant at the mortuary temple of Wenis ... metalworker of the Great House, overseer of speckled snakes Ankhi ... revered before the great god Ankhi ... metalworker of the Great House, overseer of Both Golden House Intji 5: true metalworker Ankh(j) elder in respect to the divine office in smelting possessor of rank (as) a goldworker in the retinue of Sokar 6: giver of commands in the great smelting 9–10: ... metalworker, controller of the royal mehenks, revered before the great god Ankh(i) 11: property custodian of the king, metalworker, revered Ankh(i)	Drioton—Lauer (1958), Goyon (1959, Pl. I: 1); Strudwick (2005, 217–218) Drioton—Lauer (1958), Goyon (1959, Pl. III); Strudwick (2005, 217–218)
8: metalworker of the Great House, overseer of speckled snakes Ankh(j), metalworker, overseer of both workshops, overseer of Both Golden Houses Intji, metalworker, controller of the overseers of speckled snakes Ankh(i), metalworker, royal planner of metalworkers in both houses Intji, revered before Ptahsokar Ankhi ... true Intji, preeminent of craftsmen in the Festivals of Appearance among those in the land and in the Portal/Audience Hall Ankh, great of strenght in kindling the flame servant/offerrer(?) of the eye in its flame(?) 7: the burner(?) of the eye of Horus ..? .. behind its braziers Ankh(j), escorter of his lord to the HD-palace of Geb, unique one of the aba-barque of Sokar overseer of metalworkers of the workshop Neferherenptah	Drioton—Lauer (1958), Goyon (1959, Pl. V); Strudwick (2005, 217–218) Bakr (1953, 121–123, Fig. 99)
Strudwick (2005, 225–226): "(7) The overseer of metalworkers of the Great House, royal mehenek, Nedjemib."	Mariette (1889, 416–417), Borchardt (162, Taf. N. 1732), Strudwick (2005, 225–226)

TABLE 31 Written sources on the metalworkers from the periods under study (*cont.*)

Source	Locus	Period	Transliteration
D26: tomb of Hunyankh		Old Kingdom, Dynasty 6	<i>bdꜥ.ty smsw pr-ꜥ, jmy-r bdꜥ.tyw, bdꜥ.ty pr-ꜥ</i> <i>Mtt</i>
False door of Idu		Old Kingdom general Old Kingdom, late / First Intermediate period	<i>jmy-r bdꜥ.tyw kjj</i> <i>bdꜥ.ty jdw</i>
False door of Inip-tah		First Intermediate period	A. <i>ḥtp dj nzwt jnpw ...</i> B. <i>jmy-r bdꜥ.tyw jmꜥḥw ...</i> C. <i>jmꜥḥw ḥr ...</i> D. <i>ḥꜥ t ḥꜥ ḥnꜥt ḥꜥ sr ḥꜥ trp ḥꜥ rꜥ ḥꜥ šꜥ (ḥꜥ mnḥt n jmꜥḥw) jnj-ptḥ</i> <i>bdꜥ.ty ‘b-kꜥw</i>
papyrus Reisner II	A2, A3, A4, A5	Middle Kingdom, Dynasty 12, the reign of Senusret I	<i>bdꜥ.ty nḥtj</i>
papyrus Reisner II	B, H, Frg 2 rt, Frg 4 rt	Middle Kingdom, Dynasty 12, the reign of Senusret I	<i>bdꜥ.ty nḥt</i>
stela CG 20024		Middle Kingdom, Dynasty 12, the reign of Senusret I	<i>bdꜥ.ty nḥt</i>
	IS 71a	Middle Kingdom, Dynasty 12, the reign of Amenemhat II	<i>bdꜥ.tyw 2, bdꜥ.ty sbw (jr.n Ptw), bdꜥ.ty Jmn[y]- ḥtp (jr.n [...])</i>
stela CG 20103		Middle Kingdom, Dynasty 12, the reign of Senusret III	<i>bdꜥ.ty n šmꜥ ‘nḥw ... bdꜥ.ty n pr-ḥd kkj</i>
stela CG 20028		Middle Kingdom, Dynasty 12, the reign of Senusret III	<i>bdꜥ.ty dꜥꜥ</i>
	IS 85	Middle Kingdom, Dynasty 12, the reign of Amenemhat III	<i>bdꜥ.ty ..., bdꜥ.ty ..., [mdḥ] ..., [mdḥ] ...</i>
	IS 112	Middle Kingdom, Dynasty 12, the reign of Amenemhat III	<i>bdꜥ.ty snb, bdꜥ.ty ḥtp, bdꜥ.ty kmn</i>
	IS 87	Middle Kingdom, Dynasty 12, the reign of Amenemhat III	<i>bdꜥ.ty snb</i>
	IS 136	Middle Kingdom, Dynasty 12, the reign of Amenemhat III	<i>bdꜥ.ty ...</i>

Translation	Reference
elder metalworker of the Great House, overseer of craftsmen, metalworker of Great House Metet	Mariette (1889, 254–255)
overseer of metalworkers Kai	Mariette (1889, 440)
metalworker Idu	Lipińska (1982, 78–79), Málek et al. (2007, obj. no. 803-013-252)
metalworker	Daoud (2005, 158–159, Pl. LXXXVII)
metalworker Abkau	Simpson (1965, Pls. 1, 1A A2; 2, 2A A3; 3, 3A A4; 4, 4A A5)
metalworker Nekhti	Simpson (1965, Pls. 5, 5A B; 11, 11A H; 21, 21A; 23, 23A)
metalworker Nekhet	Lange—Schäfer (1902, 26–29)
two metalworkers, metalworker Sebu, born of Petu, metalworker Amenhotep, born of ?	Tallet (2018, 149–151, 319)
metalworker of shema Ankhu ... metalworker of Treasury Keki	Lange—Schäfer (1902, 125–127); Schneider (2003, 258); Franke (2013, 1); Ilin-Tomich (2015; 2017, 201); Tallet (2018, 29)
metalworker Djaa	Lange—Schäfer (1902, 36–37, Taf. III: 20028); Ilin-Tomich (2015; 2017, 200)
metalworker ..., metalworker ..., carpenter ..., carpenter ...	Tallet (2018, 157–160, 325)
metalworker Seneb, metalworker Hetep, metalworker Kemen	Tallet (2018, 169–172, 332)
metalworker Seneb	Gardiner—Peet—Černý (1955, 95, Pl. XXIV); Tallet (2018, 171)
metalworker ...	Tallet (2018, 172–174, 333)

TABLE 31 Written sources on the metalworkers from the periods under study (*cont.*)

Source	Locus	Period	Transliteration
	IS 114	Middle Kingdom, Dynasty 12, the reign of Amenemhat III	<i>bdꜥ.tyw 2, mdḥ.w 2</i>
	IS 413	Middle Kingdom, Dynasty 12, the reign of Amenemhat III	<i>bdꜥ.tyw 3, mdḥ.w 3</i>
	IS 106	Middle Kingdom, Dynasty 12, the reign of Amenemhat III	<i>bdꜥ.tyw 3</i>
stela BM 233		Middle Kingdom, Dynasty 12, the reign of Amenemhat III	<i>n kꜥ n bdꜥ.ty ʿnkf jr n knjwjt</i>
	IS 122	Middle Kingdom, Dynasty 12, the reign of Amenemhat IV	<i>bdꜥ.tyw 16</i>
stela CG 20114		Middle Kingdom, Dynasty 12, late	<i>bdꜥ.ty snj-snb</i>
Berlin stela 7309		Middle Kingdom, Dynasty 12, late	<i>bdꜥ.ty r-nꜥ-snb jr.n ky</i>
stela CG 20736		Middle Kingdom, Dynasty 12, late	<i>jmy-r bdꜥ.tyw dꜥj jmy-r bdꜥ.tyw ndm-jb</i>
stela CG 20654		Middle Kingdom, Dynasty 12	<i>bdꜥ.ty pth-ḥtp mꜥ-ḥrw nb jmꜥḥ</i>
Stela Cat. No. 1111	Stela, Register 2, left side	Middle Kingdom, Dynasty 13	<i>jmy-r bdꜥ.tyw wꜥḥ-pw-ptḥ</i>
sealing Geneva 18158		Middle Kingdom, Dynasty 13	<i>jmy-r bdꜥ.tyw nḥy</i>
unknown		Middle Kingdom, Dynasty 13	<i>(1) ḥtp dj nswt Ws[jrj] n kꜥ [nj] jmꜥḥy (2) bdꜥ.ty snb-? ... (3) n kꜥ nj {n} nbt-pr ṯḥnw.t (4b) jrt.n ḥnw.t (?)</i>
	Inscription 16	Middle Kingdom, Dynasty 13	<i>jmy-ḥt ʿꜥm sꜥ jmy-r bdꜥ.tyw rn-snb</i>
stela BM 242		Middle Kingdom, Dynasty 13	<i>bdꜥ.ty jdj, jr n snnj</i>
stela of Antef		Middle Kingdom, Dynasty 13	<i>bdꜥ.ty n pr-ḥd jntꜥf ... bdꜥ.ty n pr-ḥd bbw ... bdꜥ.ty n pr-ḥd mnṯw-šd.w ... bdꜥ.ty n pr-ḥd snbw ... bdꜥ.ty n pr-ḥd jn ... bdꜥ.ty n pr-ḥd snbw ... bdꜥ.ty msh</i>

Translation	Reference
2 metalworkers, 2 carpenters	Tallet (2018, 176–178, 336)
3 metalworkers, 3 carpenters	Tallet (2018, 191–193, 349)
3 metalworkers	Tallet (2018, 193–195, 350)
for the ka of the metalworker Ankef, son of Qeniwit	Budge (1913, 7, Pl. XIV); Ilin-Tomich (2017, 190)
16 metalworkers	Tallet (2018, 203–204, 362)
metalworker Seniseneb	Lange—Schäfer (1902, 136–137); Ilin-Tomich (2017, 201)
metalworker Renefseneb, son of Ky	Roeder (1913, 187); Simpson (1974, 21, 55.3, Pl. 74: ANOC 55.3); Ilin-Tomich (2017, 188)
overseer of metalworkers Dai	Lange—Schäfer (1908, 367–368, Taf. LV); Ilin-Tomich (2017, 214)
overseer of metalworkers Nedjemib	Lange—Schäfer (1908, 367–368, Taf. L: 20654)
metalworker Ptahhotep, of true voice, lord of reverence	Smither—Dakin (1939, 159–160, Pl. XX: 2); Ilin-Tomich (2017, 251)
overseer of metalworkers Wahpuptah	Newberry (2004, 154, Pl. IV: 11), Martin (1971, 63, Pl. 35: 29)
overseer of metalworkers Nehy	Fay (2003, 21–24, Fig. 18a–b, 19)
Reading and translation of inscription by Detlef Franke: (1) Offering which Osiris gives to ka of the revered (2) metalworker Seneb-? (3) for ka of the Lady of the house Tjehenut (4b) daughter of Hut(?)	
“The (police) official, ‘m’s son, the overseer of metalworkers, Renseneb”	Darnell et al. (2002, 58, Pl. 16a, b)
metalworker Idi, son of Seneni	Budge et al. (1912, 8, Pl. XXVII); Franke (2013, 107–112, Pl. 23–24); Ilin-Tomich (2017, 190)
metalworker of the Treasury Antef ... metalworker of the Treasury Bebu ... metalworker of the Treasury Mentushedu ... metalworker of the Treasury Senbu ... metalworker of the Treasury In ... metalworker of the Treasury Senebu ... metalworker Meseh	Hein—Satzinger (1993, 64–66); https://www.khm.at/objektdb/detail/317296/

TABLE 31 Written sources on the metalworkers from the periods under study (*cont.*)

Source	Locus	Period	Transliteration
stela CG 20560		Middle Kingdom, Dynasty 13	<i>jmy-r wꜣrt n bdꜣ.tyw sꜣ-wnt</i> <i>bdꜣ.ty n pr-ḥd</i> <i>jmy-r bdꜣ.tyw sꜣ-wnt</i> <i>bdꜣ.ty n pr-ḥd twr</i> <i>jmy-r bdꜣ.tyw wntw</i> <i>jmy-r bdꜣ.tyw sn-wsrt-sn</i> <i>jmy-r bdꜣ.tyw ḥtp</i> <i>jmy-r bdꜣ.tyw sꜣ-wnt</i> <i>jmy-r bdꜣ.tyw nj-rḥ-sw</i> <i>bdꜣ.ty n pr-ḥd jt-r-ꜣw</i>
M XXVI: Refuse heap north of the fortress	3–187	Middle Kingdom / Second Intermediate Period	<i>smsw ḥꜣyt ꜣm sꜣ jmy-r bd(.tyw) mꜣꜣ-ḥrw wḥm- ꜣḥ</i>
stela CG 20152		Second Intermediate Period	<i>bdꜣ.ty snbt=f</i>

Translation	Reference
overseer of the section of metalworkers Sawenet metalworker of the Treasury overseer of the metalworkers Sawenet metalworker of the Treasury Tur overseer of the metalworkers Wenetu overseer of the metalworkers Senusretsen overseer of the metalworkers Hetep overseer of the metalworkers Sawenet overseer of the metalworkers Nirekhsu metalworker of the Treasury Iterau elder of the portal, son of Asian man??. overseer of metalworkers, of true voice, Wehemankh	Lange—Schäfer (1908, 192–194), Quirke (2003), Grajetzki (2013, 252), Ilin-Tomich (2011, 28; 2017, 210)
metalworker Senebetef	Lange—Schäfer (1902, 179–180); Ilin-Tomich 2017 (108–109)

TABLE 32 Titles of the Early Dynastic and Old Kingdom metalworkers (*cont.*)

[illegible]

TABLE 32 Titles of the Early Dynastic and Old Kingdom metalworkers (*cont.*)

[illegible]

TABLE 32 Titles of the Early Dynastic and Old Kingdom metalworkers (*cont.*)

[illegible]

TABLE 33 Titles of the artisans mentioned or referred to in the text

Title	Translation	Jones (2000, title no.)	Category	Period
<i>jry ḥ3.w</i>	weapon-maker	1144	army	OK
<i>jmy-r gs-pr jr(w).js</i>	overseer of the troop-house, (part of a gang?) of tomb makers	971	building	OK
<i>jmy-r gs-pr hr.t(yw?)-ntr</i>	overseer of the troop-house of stonecutters/necropolis workers/the necropolis/tomb makers of the necropolis	974	building	OK
<i>jr(w).js</i>	tomb-maker	1120	building	OK
<i>jswt nt jr(w).js</i>	crews/gangs of tomb-makers	1275	building	OK
<i>hrp.jr(w).js</i>	director of tomb-makers	2554	building	OK
<i>hrp.jrw.js</i>	controller of the tomb-workers	2554	building	OK
<i>kd(y) wr jr(t?)</i>	great one of the tomb makers(?)/builder who is great (in making(?),	3690	building	OK
<i>jmy-r 10 ḥmw.t(yw)</i>	overseer of (a crew of) ten craftsmen	565	craftsmen	OK
<i>jmy-r 10 ḥmw.t(yw) w'bt</i>	overseer of (a crew of) ten craftsmen of the workshop	566	craftsmen	OK
<i>jmy-r ḥwj(yw?) jr(w?) js</i>	overseer of (courier messengers?) of the tomb builders(?)	626	craftsmen	OK
<i>jmy-r ḥmw.t(yw)</i>	overseer of craftsmen	680	craftsmen	OK
<i>jmy-r ḥmw.t(yw) w'bt</i>	overseer of craftsmen of the wa'bet	681	craftsmen	OK
<i>jmy-r ḥmw.t(yw) nbt</i>	overseer of all crafts(men)	683	craftsmen	OK
<i>jmy-r ḥmw.t(yw) pr-ʿ3</i>	overseer of the craftsmen of the Great House	684	craftsmen	OK
<i>jmy-r ḥry(w)-ḥmw.t(yw)(?)</i>	overseer of authorisations(?) of the craftsmen	744	craftsmen	OK
<i>jmy-r gsw 4</i>	overseer of 4 gang(s) of craftsmen	964	craftsmen	OK
<i>jmy-ḥt ḥmw.t(yw)</i>	under-supervisor of crafts(men)	1071	craftsmen	OK
<i>jmy-ḥt ḥmw.t(yw) pr-ʿ3</i>	under-supervisor of crafts(men) of the Great House	1072	craftsmen	OK
<i>wr ḥmw(.tyw)</i>	greatest of craftsmen	1446	craftsmen	OK
<i>wr ḥmw(.tyw) n nswt</i>	greatest of craftsmen of the king	1447	craftsmen	OK
<i>wr ḥk3(.w) ḥwt(?)</i>	greatest of the chief(s) of the estate(?)	1448	craftsmen	OK

TABLE 33 Titles of the artisans mentioned or referred to in the text (*cont.*)

Title	Translation	Jones (2000, title no.)	Category	Period
<i>wr hrp(.w) hmwt n wnjs</i>	greatest of the directors of craftsmen of Unis	1451	craftsmen	OK
<i>wr hrp(.w) hmwt nbt(?)</i>	Greatest of the Directors of all craftsmen(?)	1454	craftsmen	OK
<i>wr hrp(.w) hmwt.t(yw) n nswt(?)</i>	greatest of the directors of craftsmen of the king(?)	1455	craftsmen	OK
<i>wr hrp(.w) hmwt nb(t) ntrt mtrt</i>	greatest of the directors of all craftsmen divine and right-ful(?)	1456	craftsmen	OK
<i>wr hrp(.w) hmwt n r' hb</i>	greatest of the directors of craftsmen belonging to the day of festival/the festival of the sun(?)	1457	craftsmen	OK
<i>hmwt</i>	craftsman, stoneworker	2179	craftsmen	OK
<i>hmwt.yw w'bt</i>	craftsmen of the workshop	2180	craftsmen	OK
<i>hm(.w)ty nt pr-dt</i>	craftsmen of the funerary estate	2181	craftsmen	OK
<i>hm(.w)ty hkr-nswt</i>	craftsman/artisan of the king's regalia/adornment	2182	craftsmen	OK
<i>hm(w).ty dbn.w</i>	craftsman of deben	2183	craftsmen	OK
<i>hry-jb '3 hm.w</i>	great amidst craftsmen?	2197	craftsmen	OK
<i>[h]ry-sšt3 (n) w'bt</i>	privy to the secret of the workshop	2245	craftsmen	OK
<i>hry-sšt3 n hmwt(yw)</i>	secretary of crafts/craftsmen	2331	craftsmen	OK
<i>hnty hm(.w)t m hbw h'w(?)</i>	Preeminent of craftsmen in the Festivals of 'Appearance'	2526	craftsmen	OK
<i>(j)m(yw)-t3 h3t(yw)</i>	among those in the land and in the Portal/Audience hall			
<i>hrpjs(.w)t</i>	director of the crew(s), director of a gang of workmen/boat crew	2559	craftsmen	OK
<i>hrp 'b.t(ywt)</i>	director of the female ivory workers	2572	craftsmen	OK
<i>hrp hm.wt(yw?)</i>	director of crafts(men)	2655	craftsmen	OK
<i>hrp hm.wt(yw) nb(t)</i>	director of all craftsmen	2656	craftsmen	OK
<i>hrp hm.wt(yw?)js rh nfr hry-jb nb3f</i>	director of crafts(men) of the workroom (?) who knows the perfection (of that) which is in the heart of his lord	2658	craftsmen	OK
<i>htm(.w) nm(.w) r' nb</i>	sealer of lithics each day	2789	craftsmen	OK

TABLE 33 Titles of the artisans mentioned or referred to in the text (*cont.*)

Title	Translation	Jones (2000, title no.)	Category	Period
<i>sš ḥry gs-pr(?)</i>	scribe of the supervisor of a gang/crew of workmen/workshop	3157	craftsmen	OK
<i>sš ḳdw(t)</i>	outline draughtsman	3208	craftsmen	OK
<i>sš ḳdt ntr</i>	outline draughtsman/scribe of god's printing	3210	craftsmen	OK
<i>sš tst (nt) gs 4</i>	scribe of the troop (consisting) of four gangs of craftsmen	3218	craftsmen	OK
<i>sbnr ḥmt(yw?) nb ḥr nswt</i>	who promotes/brings into favour all crafts(men) before the king	3239	craftsmen	OK
<i>smjty</i>	bender of branches	3261	craftsmen	OK
<i>shḏ ḥm.wt(yw)</i>	inspector of craftsmen	3484	craftsmen	OK
<i>shḏ n ḥm.wt(yw) pr-ʿ3</i>	inspector of craftsmen of the Great House	3487	craftsmen	OK
<i>shḏ sš(.w)-ḳdwt</i>	inspector of draughtsmen/architects	3560	craftsmen	OK
<i>jmy-r ḥmw.t(yw) n(t) ḥkr.w nswt</i>	overseer of craftsmen of the king's ornaments/royal regalia	685	craftsmen, regalia	OK
<i>wr ḥrp(.w) ḥmwt</i>	greatest of the directors of craftsmen, great director of craftsmen, (originally a functional title shared by two individuals during most of the O.K., later = High Priest of Ptah at Memphis)	1450	craftsmen, religion	OK
<i>wr ḥrp(.w) ḥmwt db;t(y?)</i>	greatest of the directors of craftsmen of ?	1458	craftsmen, religion	OK
<i>jmy-r whrt</i>	overseer of the dockyard/workshop	426	dockyard	OK
<i>jmy-r pr-ḥ'ww/ḥw'w</i>	overseer of the house of Haw-boats	485	dockyard	OK
<i>jmy-r fnḥ.w</i>	overseer of carpenters	529	fnx	OK
<i>fnḥ</i>	carpenter	1540	fnx	OK
<i>ḥrp.fnḥ.w</i>	director of the carpenters	2607	fnx	OK
<i>jmy-r fnḥ(.w) w'bt</i>	overseer of the carpenters of the workshop	530	fnx, wabet	OK

TABLE 33 Titles of the artisans mentioned or referred to in the text (*cont.*)

Title	Translation	Jones (2000, title no.)	Category	Period
<i>jmy-r pr-nfr</i>	overseer of the funerary workshop/'house of rejuvenation'	480	funerary workshop	OK
<i>jmy-r js</i>	overseer of the workshop/iz(t)-chamber/bureau	290	js worskhop	OK
<i>jmy-r hmw.t(yw) n w'bt</i>	overseer of crafts (or craftsmen) of the iz-chamber of the workshop	299	js worskhop	OK
<i>jmy-r pr dh'</i>	overseer of the house of leather	509	leather	OK
<i>jmy-r gs(.w)</i>	overseer of leather-workers (awl used in title)	963	leather	OK
<i>jmy-r gs(.w)(?) hry-ʿ(?) nswt</i>	overseer of leather-workers and royal assistant(?)	966	leather	OK
<i>jmy-r gs(.w) t3-wr</i>	overseer of sandalmakers of the Thinite Nome	967	leather	OK
<i>jmy-r gs(.w) t3w nswt(?)</i>	overseer of leatherworkers (and) king's sandalmaker, or overseer of leatherworkers of the king's sandals	968	leather	OK
<i>wr dh'</i>	great of leather crafts	1475	leather	OK
<i>hrrp gs(.w)</i>	director of leather-workers	2742	leather	OK
<i>hry-ʿ gs(?)</i>	assistant of the leather workers	2843	leather	OK
<i>gs(?)</i>	leather-worker	3703	leather	OK
<i>t3wty(?)</i>	he of the sandals(?)	3723	leather	OK
<i>t3w nswt</i>	sandal-maker of the king(?)	3724	leather	OK
<i>jmy-r mdh.w</i>	overseer of carpenters	571	mDH	OK
<i>jmy-r mdh.w js pr-nswt</i>	overseer of carpenters of the iz-chamber of the royal estate	572	mDH	OK
<i>mdh</i>	carpenter, shipwright	1702	mDH	OK
<i>mdh pr</i>	carpenter of the house	1714	mDH	OK
<i>mdh pr-ʿ3</i>	carpenter of the Great House	1715	mDH	OK
<i>mdh pr-nswt</i>	carpenter of the royal house	1716	mDH	OK

TABLE 33 Titles of the artisans mentioned or referred to in the text (*cont.*)

Title	Translation	Jones (2000, title no.)	Category	Period
<i>mdh mdh(.w) bjty</i>	overseer of carpenters of the king of Lower Egypt / both carpenters of the King of Lower Egypt	1719	mDH	OK
<i>mdh mdh(.w) pr-nswt</i>	overseer of carpenters of the royal domain	1720	mDH	OK
<i>mdh mdh(.w) nswt</i>	overseer of royal carpenters	1721	mDH	OK
<i>mdh mdh(.w) nswt hw.t(?) -nswt hw.t</i>	overseer of royal carpenter ...	1722	mDH	OK
<i>mdh jt/tj/hwsj nbw(<)</i>				
<i>mdh mdh(.w) nswt hw.t jt/tj</i>	overseer of royal carpenter ...	1723	mDH	EDP, OK
<i>mdh mdh(.w) nswt hw.t jt/tj hw.t p-hr-msn hr-k</i>	overseer of royal carpenters of (the royal palace(-complexes)/estates?) of Jt/tj and of 'P-/Hr msn'/Horus of Mesen (and) Pe or of 'Horus of the Harpoon' at Pe (belonging to/of the Horus Qa'a)	1724	mDH	OK
<i>mdh nwd(t)</i>	carpenter of the nwdt-(oil-press) bark, (of the ointment-god, Szmw)	1725	mDH	OK
<i>mdh-nswt</i>	carpenter of the King, royal carpenter	1728	mDH	OK
<i>mdh-nswt kdw hw.t hdt wr jrt m t3-wr</i>	royal architect of the builders in making the White Crown and master of ceremonies in Thinite nome	1735	mDH	OK
<i>mdh(.w) nw hnw</i>	carpenters of the Residence (as opposed to the nomarch's own workmen)	1738	mDH	OK
<i>shd mdh(.w) n pr-nswt</i>	inspector of carpenters of the royal domain	3415	mDH	OK
<i>d.t mdh</i>	D.t servant and carpenter	3751	mDH	OK
<i>mdh(w) n(w) pr-dt</i>	carpenter(s) of the funerary estate	1717	mDH, pr D.t	OK
<i>mdh wrt</i>	fashioner(?)/overseer of the wrt-crown(?)	1709	mDH, regalia	OK
<i>mdh 3ms</i>	overseer/fashioner(?) of the Ams-sceptre	1703	mDH, religion	OK
<i>mdh wj3</i>	boat-builder, ship's carpenter, shipwright	1708	mDH, ships	OK

TABLE 33 Titles of the artisans mentioned or referred to in the text (*cont.*)

Title	Translation	Jones (2000, title no.)	Category	Period
<i>mdh whrt</i>	carpenter of the dockyard/workshop	1710	mDH, ships	OK
<i>mdh whrt ʿt</i>	carpenter of the great shipyard/workshop	1711	mDH, ships	OK
<i>mdh whrt ʿt pr-ʿz</i>	carpenter of the great shipyard/workshop of the Great House	1712	mDH, ships	OK
<i>mdh nswt m pr.wy(?)</i>	architect in the two houses	1730	mDH, two houses	OK
<i>mdh nswt kd(.w) m pr.wy</i>	king's architect in the two houses	1733	mDH, two houses	EDP, OK
<i>jmy-r jr(w)-ʿnt pr-ʿz</i>	overseer of manicurists of the Great House	280	personal care	OK
<i>jmy-r jr(w)-ʿnt nswt</i>	overseer of royal manicurists	281	personal care	OK
<i>jmy-r jr(w) šn</i>	overseer of hairdressers	283	personal care	OK
<i>jmy-r jr(w) šn pr-ʿz</i>	overseer of hairdressers of the Great House	284	personal care	OK
<i>jmy-r hʿk(.w)</i>	overseer of barbers	735	personal care	OK
<i>jmy-r hʿk(.w) pr-ʿz</i>	overseer of barbers of the royal house	736	personal care	OK
<i>jmy-r hʿk(.w) pr-ʿz snbt(?) m pr dhwty</i>	overseer of barbers of the Great House .(?) in the temple of Thoth	737	personal care	OK
<i>jr(w) ʿnt</i>	manicurist, chiropodist	1121	personal care	OK
<i>jr(w) ʿnt pr-ʿz</i>	manicurist of the Great House	1122	personal care	OK
<i>jr(w) šn</i>	hairdresser/hairdoer	1131	personal care	OK
<i>jr(w) šn pr-ʿz</i>	hairdresser of the Great House	1132	personal care	OK
<i>jr(w) šn m3; nfrw jssj m (pr-ʿz)</i>	hairdresser who sees the perfection of Izezi in (the Great House)	1133	personal care	OK
<i>jr(w) šn pr-ʿz m3t hjt nswt</i>	palace hairdresser for the one who acclaims the L.E. crown of the king(?)	1134	personal care	OK
<i>jr(w) šn nswt</i>	maker of the king's hair, king's hairdresser	1135	personal care	OK

TABLE 33 Titles of the artisans mentioned or referred to in the text (*cont.*)

Title	Translation	Jones (2000, title no.)	Category	Period
<i>jr(w) šn nswt šhkr st ḥd.t m wp[t n mn-k3w-ḥr]</i>	royal hairdresser who adorns the white crown on the brow (of Menkauhor)	1136	personal care	OK
<i>mḥnk nswt m jr w 'n.wt</i>	intimate of the king in (the practice of) manicuring	1682	personal care	OK
<i>mḥnk nswt m pr.wy</i>	intimate of the king /royal 'body servant' in the two houses	1684	personal care	OK
<i>mḥnk nswt m k3t jrt 'n.wt</i>	intimate of the king in the works of manicuring/care of hands and nails	1686	personal care	OK
<i>mḥnk nswt m k3t-šn</i>	intimate of the king in the works of hairdressing	1687	personal care	OK
<i>ḥnms jr(.w) šn(?)</i>	leader of the hairdressers	2516	personal care	OK
<i>ḥnms jr(.w) šn</i>	director of hairdressers	2555	personal care	OK
<i>ḥrp jr(w)-šn pr-ʿ3</i>	director of hairdressers of the Great House	2556	personal care	OK
<i>ḥrp jr(w)-šn nswt</i>	director of royal hairdressers	2557	personal care	OK
<i>ḥ'kw</i>	barber	2822	personal care	OK
<i>ḥ'kw pr-ʿ3</i>	barber of the great house	2823	personal care	OK
<i>sb3</i>	instructor (of barbers)	3233	personal care	OK
<i>šḥd jr(.w) 'nt pr-ʿ3</i>	inspector of manicurists of the Great House	3360	personal care	OK
<i>šḥd jr(.w) šn pr-ʿ3</i>	inspector of hairdressers of the Great House	3361	personal care	OK
<i>šḥd jr(.w) šn nswt</i>	inspector of king's hairdressers	3362	personal care	OK
<i>šḥd ḥ'k(.w) pr-ʿ3</i>	inspector of barbers of the Great House	3513	personal care	OK
<i>š[ḥd sš(w) šb3.w w'b.t</i>	adorners of the brow of his god (i.e. the king)	3595	personal care	OK
<i>šhkr ḥ't ntr-f m k3t-šn</i>	adorners of the god's brow in the works of the hair, coiffeur who adorns the brow of his god	3596	personal care	OK
<i>ḏt šḥd jr(w) 'nt pr-ʿ3</i>	ḏ.t-servant (i.e., of the) inspectors of manicurists	3752	personal care	OK
<i>jmy-r tbww m ḥw.t-ntr</i>	overseer of sandalmakers in the temple	988	procurement	OK

TABLE 33 Titles of the artisans mentioned or referred to in the text (*cont.*)

Title	Translation	Jones (2000, title no.)	Category	Period
<i>shd šs/šsrw(?)</i>	inspector of prospectors???	3568	procurement	OK
<i>jmy-r mstt(yw)</i>	overseer of quarry-workers/transport workers?	550	quarrying	OK
<i>jmy-r r3-3w</i>	overseer of the Tura quarries	605	quarrying	OK
<i>jmy-r š</i>	overseer of a pool/quarrywork/weaving-shop(?)	889	quarrying	OK
<i>jkwy(?) nswt</i>	stonemason of the king	1279	quarrying	OK
<i>hrtj-ntr</i>	stonemason, quarryman	2894	quarrying	OK
<i>hrt(yw)-ntr nw hnw pr-dt</i>	stonemasons/quarrymen of the residence and of the funerary estate or possibly stonemasons/quarrymen of the funerary estate (who belong to) the Residence	2895	quarrying	OK
<i>hrtj-ntr hry-sšt3</i>	stonemason of the privy-councillor(?)	2896	quarrying	OK
<i>gmwtj/ksty hkr.w nst</i>	sculptor of the king's regalia	3702	regalia	OK
<i>mdh(?) jnpw</i>	fashioner(?) (of the cult-image) of Anubis	1704	religion, mdH	EDP, OK
<i>mdh jnpw jrr mr(rt) ntr-f r'-nb(?)</i>	fashioner(?) (of the cult-image) of Anubis who does what his god (i.e. the king) loves every day(?)	1705	religion, mdH	OK
<i>mdh jnpw hnty-t3-dsr</i>	fashioner/overseer (of the cult-image) of Anubis, Foremost/Presiding over/of the Sacred Land, (i. e. the necropolis)	1706	religion, mdH	OK
<i>mdh jnpw hnty-t3-dsr shy-ntr jnpw</i>	fashioner(?) /overseer (of the cultimage) of Anubis, Presiding over the Sacred land, He of the Divine Booth	1707	religion, mdH	OK
<i>mdh mhyt(?)</i>	fashioner(?) /overseer (of the cult-image) of Mehyt(?)	1718	religion, mdH	EDP, OK
<i>mdh Nhn</i>	carpenter of Nekhen(?)	1726	religion, mdH	OK
<i>mdh nhn jrrj wj3 n hwt-hr nb.t jwn.t</i>	carpenter of Nekhen who makes the bark of Hathor mistress of Dendera	1727	religion, mdH	OK

TABLE 33 Titles of the artisans mentioned or referred to in the text (*cont.*)

Title	Translation	Jones (2000, title no.)	Category	Period
<i>mdḥ nṯr</i>	fashioner of the (cult image of a) god	1737	religion, mDH	OK
<i>mdḥ nswt ḳḏw ḥw.t ḥḏ.t wr jr.t m t3-wr</i>	overseer(?) of the speckled snakes	1740	religion, mDH	OK
<i>jmy-r sr(.w) whrt nswt</i>	overseer of the srw-officials of the royal workshop	850	royal workshop	OK
<i>mdḥ gmw.tyw/ḳs.tyw</i>	overseer of sculptors, sculptor/maker(?) of stone vessels	1744	sculptors	OK
<i>ḥtmy</i>	sealmaker	2762	sealed things	OK
<i>jry whrt</i>	keeper of the dockyard-workshop	1149	ships	OK
<i>ḥry-sšt3 whrt ʿ3(t)</i>	privy to the secrets of the great dockyard	2251	ships	OK
<i>ḥtm(.w) whrt</i>	sealer of the dockyard	2771	ships	OK
<i>s3b smsw whrt</i>	juridicial elder of the dockyard	2973	ships	OK
<i>sš whrt nswt</i>	scribe of the king's dockyard	3086	ships	OK
<i>smsw whrt</i>	elder of the dockyard/workshop	3301	ships	OK
<i>smsw whrt ʿ3t</i>	elder of the great shipyard	3302	ships	OK
<i>smsw whrt nḥb(t)</i>	senior of the dockyard of nHb-boats	3303	ships	OK
<i>shḏ šsr.w</i>	boat-builder(?)	3619	ships	OK
<i>jmy-r bn(r)wt</i>	overseer of hard stone	452	stonework	OK
<i>jmy-r bn(r)wt nbwt</i>	overseer of all hard stone	453	stonework	OK
<i>jmy-r m3wt(?)</i>	overseer of granite/granite-worker producers of stone vessels(?)	533	stonework	OK
<i>ḥrp ʿw.t(jwt?)</i>	director of the female stone workers	2571	stonework	OK
<i>shḏ jryw rwd/sšr(?)</i>	inspector of custodians of the rwd-stone/sSr linen/cloth(?)	3427	stonework	OK
<i>jmy-r jr(w)js</i>	overseer of tomb-makers(?)	279	tomb making	OK
<i>jmy-r wʿbt</i>	overseer of the wabet-chamber/mortuary workshop	370	wabet	OK
<i>jmy-r wʿbt pr-ʿ3</i>	overseer of the workshop of the Great House	371	wabet	OK

TABLE 33 Titles of the artisans mentioned or referred to in the text (*cont.*)

Title	Translation	Jones (2000, title no.)	Category	Period
<i>jmy-r w'bt nswt</i>	overseer of the royal workshop	372	wabet	OK
<i>jmy-r w'bt rsy</i>	overseer of the southern workshop	373	wabet	OK
<i>jmy-r w'bt.y</i>	overseer of the two workshops	374	wabet	OK
<i>jmy-r sš(.w) w'bt.y</i>	overseer of the scribes of the two workshops	787	wabet	OK
<i>w'b w'bt(?)</i>	wab-priest of the workshop	1367	wabet	OK
<i>hry-s[št] w'bt nswt</i>	privy to the secret of the king's workshop	2246	wabet	OK
<i>[hry-sšt] w'bt.y nswt</i>	privy to the secret of the two workshops	2247	wabet	OK
<i>hnty jst w'bt</i>	foremost of the wabet	2522	wabet	OK
<i>hnp hm.wt(yw?) nbt w'bt</i>	director of all craftsmen of the wabet	2657	wabet	OK
<i>sš' (w) (nw) nswt pr-; m w'bt</i>	scribe of royal documents of the Great House in the workshop	3060	wabet	OK
<i>sš w'bt</i>	scribe of the workshop	3082	wabet	OK
<i>sš w'bt rsy(t)</i>	scribe of the southern workshop	3083	wabet	OK
<i>sš w'bt.y</i>	scribe of the two workshops	3084	wabet	OK
<i>shd w'bt</i>	inspector of the artisans' workshop	3388	wabet	OK
<i>shd w'bt hry-nt</i>	inspector of the artisans' workshop of the necropolis	3389	wabet	OK
<i>shd hm.wt(yw) w'bt</i>	inspector of the craftsmen of the workshop	3485	wabet	OK
<i>shd hm.wt(yw) w'bt nswt(?)</i>	inspector of the craftsmen of the royal wabet	3486	wabet	OK
<i>shd hr.ty(w)-nt w'bt</i>	inspector of necropolis workers/stonemasons of the workshop	3515	wabet	OK
<i>shd hr.ty(w)-nt w'bt nswt</i>	inspector of stonemasons of the king's workshop	3516	wabet	OK
<i>s[hd sš(w?) sb] w'bt</i>	"keeper of the gates of" wabet	3556	wabet	OK
<i>gmwt/ksty w'bt</i>	sculptor of the workshop	3701	wabet	OK
<i>shd šb.w w'bt hw.t hfw</i>	inspector of the ? of the wabet of Khufu's mansion	*36	wabet	OK

TABLE 33 Titles of the artisans mentioned or referred to in the text (*cont.*)

Title	Translation	Jones (2000, title no.)	Category	Period
<i>ḥtm(.w) nbw wʿbt nswt-bjty ḥwfw</i>	sealer of the gold of the waʿbet of the King of Upper and Lower Egypt Khufu	2787	wabet, gold, sealed things	OK
<i>jmy-r šnʿ n jnhrt</i>	overseer of the workhouse of Onuris	908	workshop, religion	OK
<i>jmy-r wʿr.t n jrww ḥm.t</i>	section overseer of furniture carving	https://pnm.uni-mainz.de/title/1096		MK
<i>jmy-r wʿr.t n thnt.yw</i>	overseer of a section of glaze workers	https://pnm.uni-mainz.de/title/1099		MK
<i>jm.y ḥt</i>	attendant	https://pnm.uni-mainz.de/title/168		MK
<i>tb.w</i>	sandal-maker	https://pnm.uni-mainz.de/title/280		MK
<i>jmy-r wʿr.t</i>	overseer of the section	https://pnm.uni-mainz.de/title/379		MK
<i>jmy-r jkdw.w</i>	overseer of builders	https://pnm.uni-mainz.de/title/436		MK
<i>jmy-r wʿr.t n ms-ʿ3.t</i>	overseer of a section of jewellers	https://pnm.uni-mainz.de/title/676		MK
<i>jmy-r s3 n ḥrtyw-ntr/jkyw</i>	overseer of the phyle of stoneworkers and quarrymen	https://pnm.uni-mainz.de/title/838		MK
<i>ks.tj</i>	sculptor	https://pnm.uni-mainz.de/title/99		MK
<i>jmy-r wʿr.t n nbyw</i>	overseer of the section of gold-workers	https://pnm.uni-mainz.de/title/992		MK

TABLE 34 Title occurrences of the metalworkers in the Middle Kingdom

	Title	<i>bdꜣ.ty n pr- ḥd</i>	<i>bdꜣ.ty n šmꜣ</i>	<i>jmy-r wꜣr.t bdꜣ.tyw</i>	<i>bdꜣ.ty</i>	<i>jmy-r bdꜣ.tyw</i>	<i>jmy-ḥt</i>	<i>smsw ḥꜣyt ꜣꜣm</i>
	Translation	Metalworker of Treasury	Metalworker of shema	Overseer of the section of coppersmiths	Metalworker	Overseer of metalworkers	The (police) official	Elder of the portal
Name	Category	Metalwork	Metalwork	Metalwork	Metalwork	Metalwork	“Police”	Administration
<i>ḥb-kꜣw</i>	pReisner II, Senusret I				*			
<i>nḥtj</i>	pReisner II, Senusret I				*			
<i>nḥt</i>	Senusret I				*			
<i>sbw</i>	Amenemhat II				*			
<i>Jmn[y]-ḥtp</i>	Amenemhat II				*			
<i>ḥḥw</i>	Senusret III		*					
<i>kkj</i>	Senusret III	*						
<i>dꜣ</i>	Senusret III				*			
IS 85	Amenemhat III, Year 4				*(2)			
<i>snb</i>	Amenemhat III, Year 5				*			
<i>snb</i>	Amenemhat III, Year 10?				*			
<i>ḥtp</i>	Amenemhat III, Year 10?				*			
<i>kmn</i>	Amenemhat III, Year 10?				*			
IS 136	Amenemhat III, Year 11				*			

TABLE 34 Title occurrences of the metalworkers in the Middle Kingdom (*cont.*)

	Title	<i>bdꜥ.ty n pr-ḥd</i>	<i>bdꜥ.ty n šmꜥ</i>	<i>jmy-r wꜣr.t bdꜥ.tyw</i>	<i>bdꜥ.ty</i>	<i>jmy-r bdꜥ.tyw</i>	<i>jmy-ḥt</i>	<i>smsw ḥꜣyt ꜥꜣm</i>
	Translation	Metalworker of Treasury	Metalworker of shema	Overseer of the section of coppermiths	Metalworker	Overseer of metalworkers	The (police) official	Elder of the portal
Name	Category	Metalwork	Metalwork	Metalwork	Metalwork	Metalwork	“Police”	Administration
IS 114	Amenemhat III, Year 14?				*(2)			
IS 413	Amenemhat III, Year 38				*(3)			
IS 106	Amenemhat III, Year 40				*(3)			
<i>ꜣnkf</i>	Amenemhat III				*			
IS 122	Amenemhat IV, Year 9				*(16)			
<i>snj-snb</i>	Dynasty 12, middle to late				*			
<i>r-nf-snb</i>	Dynasty 12, late				*			
<i>dꜥj</i>	Dynasty 12, late					*		
<i>ndm-jb</i>	Dynasty 12, late					*		
<i>pth-ḥtp</i>	Dynasty 12					*		
<i>wꜥḥ-pw-ptḥ</i>	Dynasty 13					*		
<i>nḥy</i>	Dynasty 13					*		
<i>snb-?</i>	Dynasty 13				*			
<i>rn-snb</i>	Dynasty 13					*	*	

TABLE 34 Title occurrences of the metalworkers in the Middle Kingdom (*cont.*)

	Title	<i>bdꜥ.ty n pr- ḥd</i>	<i>bdꜥ.ty n šmꜥ</i>	<i>jmy-r w'r.t bdꜥ.tyw</i>	<i>bdꜥ.ty</i>	<i>jmy-r bdꜥ.tyw</i>	<i>jmy-ḥt</i>	<i>smsw ḥzyt 'ꜥm</i>
	Translation	Metalworker of Treasury	Metalworker of shema	Overseer of the section of coppersmiths	Metalworker	Overseer of metalworkers	The (police) official	Elder of the portal
Name	Category	Metalwork	Metalwork	Metalwork	Metalwork	Metalwork	"Police"	Administration
<i>jdj</i>	Dynasty 13					*		
<i>jntꜥf</i>	Dynasty 13	*						
<i>bbw</i>	Dynasty 13	*						
<i>mntꜥw-šd.w</i>	Dynasty 13	*						
<i>snbw</i>	Dynasty 13	*						
<i>jn</i>	Dynasty 13	*						
<i>snbw</i>	Dynasty 13	*						
<i>msh</i>	Dynasty 13				*			
<i>sꜥ-wnt</i>	Dynasty 13			*		*		
??	Dynasty 13	*						
<i>twr</i>	Dynasty 13	*						
<i>wntw</i>	Dynasty 13					*		
<i>sn-wsrt-sn</i>	Dynasty 13					*		
<i>ḥtp</i>	Dynasty 13					*		
<i>sꜥ-wnt</i>	Dynasty 13					*		
<i>nj-rḥ-sw</i>	Dynasty 13					*		
<i>jt-r-ꜥw</i>	Dynasty 13	*				*		*
<i>snbtꜥf</i>	Dynasty 13, late or later					*		

TABLE 35 The occurrence of copper with impurities in Egypt and Nubia in the periods under study

Period	Artefacts	Percentage	Region	Artefacts	Percentage
03_A-Group	4	1.13 %	03_Sinai	9	2.54 %
05_Naqada-II	10	2.82 %	04_Delta	29	8.17 %
06_Naqada-III A-B	3	0.85 %	06_Memphite region	46	12.96 %
07_Naqada	10	2.82 %	07_between Memphis and Fayum	1	0.28 %
08_Dynasty-1	51	14.37 %	08_Fayum	16	4.51 %
09_Dynasty-2	38	10.70 %	09_between Fayum and Beni Hasan	1	0.28 %
10_Dynasty-3	40	11.27 %	10_Beni Hasan	2	0.56 %
11_Early Dynastic Period	13	3.66 %	11_between Beni Hasan and Amarna	4	1.13 %
12_Dynasty-4	12	3.38 %	13_between Amarna and Asiut	2	0.56 %
13_Dynasty-5	6	1.69 %	14_Asiut	4	1.13 %
14_Dynasty-6	41	11.55 %	15_between Asiut and Abydos	52	14.65 %
15_Old Kingdom	3	0.85 %	16_Abydos	98	27.61 %
16_First Intermediate Period	9	2.54 %	17_between Abydos and Thebes	11	3.10 %
17_First Intermediate Period / Middle Kingdom	13	3.66 %	19_between Thebes and el-Kab	2	0.56 %
18_Dynasty-11	6	1.69 %	20_between el-Kab and Asuan	11	3.10 %
19_Dynasty-12	30	8.45 %	21_Elephantine	1	0.28 %
2_Maadi-Buto	14	3.94 %	22_Western Desert	6	1.69 %
20_Dynasty-13	6	1.69 %	23_Eastern Desert	1	0.28 %
21_Middle Kingdom	7	1.97 %	24_Lower Nubia	7	1.97 %
23_Kerma	19	5.35 %	25_Upper Nubia	19	5.35 %
24_Pan grave	1	0.28 %	26_unknown	33	9.30 %
25_Dynasty-15	14	3.94 %	Grand Total	355	100.00 %
27_Second Intermediate Period	5	1.41 %			
Grand Total	355	100.00 %			

TABLE 36 The occurrence of arsenical copper in Egypt and Nubia in the periods under study

Period	Artefacts	Percentage	Region	Artefacts	Percentage
03_A-Group	2	0.50 %	03_Sinai	2	0.50 %
05_Naqada-II	8	2.00 %	04_Delta	26	6.48 %
06_Naqada-III A-B	5	1.25 %	05_Wadi Tumilat	1	0.25 %
07_Naqada	8	2.00 %	06_Memphite region	28	6.98 %
08_Dynasty-1	21	5.24 %	07_between Memphis and Fayum	10	2.49 %
09_Dynasty-2	35	8.73 %	08_Fayum	19	4.74 %
10_Dynasty-3	18	4.49 %	09_between Fayum and Beni Hasan	4	1.00 %
11_Early Dynastic Period	8	2.00 %	10_Beni Hasan	5	1.25 %
12_Dynasty-4	11	2.74 %	11_between Beni Hasan and Amarna	2	0.50 %
13_Dynasty-5	15	3.74 %	13_between Amarna and Asiut	2	0.50 %
14_Dynasty-6	16	3.99 %	14_Asiut	3	0.75 %
15_Old Kingdom	7	1.75 %	15_between Asiut and Abydos	49	12.22 %
16_First Intermediate Period	22	5.49 %	16_Abydos	57	14.21 %
17_First Intermediate Period / Middle Kingdom	93	23.19 %	17_between Abydos and Thebes	27	6.73 %
18_Dynasty-11	8	2.00 %	18_Thebes	2	0.50 %
19_Dynasty-12	23	5.74 %	19_between Thebes and el-Kab	1	0.25 %
20_Dynasty-13	19	4.74 %	20_between el-Kab and Asuan	10	2.49 %
21_Middle Kingdom	25	6.23 %	21_Elephantine	1	0.25 %
22_C-Group	11	2.74 %	22_Western Desert	3	0.75 %
23_Kerma	6	1.50 %	24_Lower Nubia	18	4.49 %
24_Pan grave	7	1.75 %	25_Upper Nubia	6	1.50 %
25_Dynasty-15	12	2.99 %	26_unknown	125	31.17 %
26_Dynasty-17	2	0.50 %	Grand Total	401	100.00 %
27_Second Intermediate Period	19	4.74 %			
Grand Total	401	100.00 %			

TABLE 37 List of currently known tin bronzes from Early and Middle Bronze Age Egypt and Nubia

Site	Structure	General period	Artefact category	Artefact type	Alloy type	Alloy category
Unknown	Tomb of Merneith??	o8_Dynasty-1	tool, full-size	adze	CuPbSn	CuSn
Abydos	Tomb of Den	o8_Dynasty-1	hardware	nail	CuSnPb	CuSn
Abydos	Tomb of Den	o8_Dynasty-1	hardware	nail repeated	CuSnPb	CuSn
Abydos	Tomb of Khasekhemwy	o9_Dynasty-2	vessel, full-size	double-spouted jar	CuSnPb	CuSn
Abydos	Tomb of Khasekhemwy	o9_Dynasty-2	vessel, full-size	bowl	CuAsSn	CuAsSn
Abydos	Tomb of Khasekhemwy	o9_Dynasty-2	vessel, full-size	spout of double-spouted jar	CuSn	CuSn
Abydos	Tomb of Khasekhemwy	o9_Dynasty-2	vessel, full-size	ovoid jar spout	CuSn	CuSn
Abydos	Tomb of Khasekhemwy	o9_Dynasty-2	artisan tool, model	axe blade A1	CuSn	CuSn
Abydos	Tomb of Khasekhemwy	o9_Dynasty-2	vessel, full-size	wash basin	CuPbSn	CuPbSn
Unknown	unknown	o9_Dynasty-2	vessel, full-size	spout of double-spouted jar	CuSnAs	CuAsSn
Bet Khallaf	Tomb K1	1o_Dynasty-3	artisan tool, model	saw blade	CuSn	CuSn
Buto	Early Dynastic pit	11_Early Dynastic Period	unknown use	fragment	CuSn	CuSn
Thebes	unknown	11_Early Dynastic Period	artisan tool, full-size	saw blade	CuSn	CuSn
Dahshur	Old Kingdom mastaba, shaft	12_Dynasty-4	personal adornment	bracelet	CuSn	CuSn
Meidum	Mastaba 17, foundation rubble	12_Dynasty-4	hardware	rod	CuSn	CuSn
Unknown	unknown	12_Dynasty-4	cosmetic tool, full-size	razor blade	CuSn	CuSn
Dahshur	Unknown	14_Dynasty-6	vessel, full-size	vase	CuSn	CuSn
Diospolis Parva	Grave Y162	16_First Intermediate Period	weapon, full-size	axe blade segmental	CuSnPb	CuSn
Diospolis Parva	Grave Y162	16_First Intermediate Period	weapon, full-size	axe blade segmental	CuSnPb	CuSn

Method	Present location	Inventory number	Publication of analysis
XRF, LIA	August-Kestner-Museum Hannover, Germany	90	Schulze—Lehmann (2014)
XRF	Ashmolean Museum, Oxford, United Kingdom	E.1239*	McKerrell (1971, 3)
XRF	Ashmolean Museum, Oxford, United Kingdom	E.1239*	McKerrell (1971, 3)
AAS	Petrie Museum, University College London, United Kingdom	UC35571	Spencer (1980, 88); Cowell (1987, Table 1b)
AAS	Petrie Museum, University College London, United Kingdom	UC35572	Spencer (1980, 88); Cowell (1987, Table 1b)
XRF	Petrie Museum, University College London, United Kingdom	UC8572	Spencer (1980, 88)
XRF	Petrie Museum, University College London, United Kingdom	UC8572	Cowell (1987, Table 1d)
XRF	Petrie Museum, University College London, United Kingdom	UC30080	Cowell (1987, Table 1d)
XRF, INAA	British Museum, London, United Kingdom	209	Pernicka (1986, Tabelle 2)
AAS	British Museum, London, United Kingdom	29610	Spencer (1980, 88); Cowell (1987, Table 1b)
XRF	Ashmolean Museum, Oxford, United Kingdom	E.683	McKerrell (1971, 4)
NAA	Egypt, DAI excavations	HDM 1276 (TeF 87 T IX 73 55)	Pernicka—Schleiter (1997, Tabelle 2)
AAS	British Museum, London, United Kingdom	66064	Spencer (1980, 88); Cowell (1987, Table 1b)
undefined	unlocated		Berthelot (1895); Lucas—Harris (1962, 488)
undefined	Petrie Museum, University College London, United Kingdom		Gladstone (1892); Lucas—Harris (1962, 487)
undefined	unlocated	unlocated	Desch (1933); Lucas—Harris (1962, 487); Odler (2016, Fig. 4)
undefined	unlocated		Berthelot (1895); Lucas—Harris (1962, 488)
XRF	Ashmolean Museum, Oxford, United Kingdom	E.1791	McKerrell (1971, 4)
AAS	Ashmolean Museum, Oxford, United Kingdom	1896–1908 E.1791	Cowell (1987, Table 1c)

TABLE 37 List of currently known tin bronzes (*cont.*)

Site	Structure	General period	Artefact category	Artefact type	Alloy type	Alloy category
Abydos	Grave 30B	17_First Intermediate Period / Middle Kingdom	weapon, full-size	axe blade	CuSnPb	CuSn
Abydos	Grave 30B	17_First Intermediate Period / Middle Kingdom	weapon, full-size	axe blade socketed	CuSn	CuSn
Abydos	Grave 51	17_First Intermediate Period / Middle Kingdom	artisan tool, full-size	axe blade	CuSn	CuSn
Unknown	unknown	17_First Intermediate Period / Middle Kingdom	weapon, full-size	axe blade lugged perforated round form	CuSnPb	CuSn
Unknown	unknown	17_First Intermediate Period / Middle Kingdom	weapon, full-size	axe blade lugged perforated round form	CuSn	CuSn
Unknown	unknown	17_First Intermediate Period / Middle Kingdom	weapon, full-size	axe blade lugged perforated round form	CuSnAsPb	CuAsSn
Unknown	unknown	17_First Intermediate Period / Middle Kingdom	weapon, full-size	axe blade lugged perforated round form	CuSnPb	CuSn
Unknown	unknown	17_First Intermediate Period / Middle Kingdom	weapon, full-size	axe blade lugged perforated round form	CuSnPb	CuSn
Unknown	unknown	17_First Intermediate Period / Middle Kingdom	weapon, full-size	axe blade segmental perforated	CuAsSn	CuAsSn
Unknown	unknown	17_First Intermediate Period / Middle Kingdom	weapon, full-size	axe blade segmental perforated	CuSnAs	CuAsSn
Unknown	unknown	17_First Intermediate Period / Middle Kingdom	weapon, full-size	axe blade segmental perforated	CuSnAsPb	CuAsSn
Unknown	unknown	17_First Intermediate Period / Middle Kingdom	weapon, full-size	axe blade segmental perforated	CuSnPbAs	CuSn
Unknown	unknown	17_First Intermediate Period / Middle Kingdom	weapon, full-size	axe blade segmental perforated	CuSn	CuSn
Unknown	unknown	17_First Intermediate Period / Middle Kingdom	weapon, model	axe blade edged-baton asymmetrical	CuSnPb	CuSn

Method	Present location	Inventory number	Publication of analysis
XRF	Ashmolean Museum, Oxford, United Kingdom	1922.145	McKerrell (1971, 6)
AAS	Ashmolean Museum, Oxford, United Kingdom	1922.145	Cowell (1987, Table 1c)
undefined	Petrie Museum, University College London, United Kingdom	UC40949	Sebelien (1924); Lucas—Harris (1962, 487)
AAS	British Museum, London, United Kingdom	68873	Cowell (1987, Table 1a)
AAS	British Museum, London, United Kingdom	51022	Cowell (1987, Table 1a)
AAS	British Museum, London, United Kingdom	51021	Cowell (1987, Table 1a)
AAS	British Museum, London, United Kingdom	12516	Cowell (1987, Table 1a)
AAS	British Museum, London, United Kingdom	51012	Cowell (1987, Table 1a)
AAS, metallography	British Museum, London, United Kingdom	51019	Cowell (1987, Table 1a); Lang (1987)
AAS	British Museum, London, United Kingdom	67484	Cowell (1987, Table 1a)
AAS	British Museum, London, United Kingdom	67485	Cowell (1987, Table 1a)
AAS	British Museum, London, United Kingdom	32580	Cowell (1987, Table 1a)
AAS	British Museum, London, United Kingdom	30074	Cowell (1987, Table 1a)
XRF	British Museum, London, United Kingdom	51042	Cowell (1987, Table 1a)

TABLE 37 List of currently known tin bronzes (*cont.*)

Site	Structure	General period	Artefact category	Artefact type	Alloy type	Alloy category
Unknown	unknown	17_First Intermediate Period / Middle Kingdom	weapon, full-size	axe blade tanged	CuSnAs	CuAsSn
Unknown	unknown	17_First Intermediate Period / Middle Kingdom	weapon, full-size	axe blade tanged	CuAsSn	CuAsSn
Unknown	unknown	17_First Intermediate Period / Middle Kingdom	weapon, full-size	axe blade tanged	CuSnPbAs	CuSn
Unknown	unknown	17_First Intermediate Period / Middle Kingdom	weapon, full-size	axe blade tanged	CuSnPb	CuSn
Unknown	unknown	17_First Intermediate Period / Middle Kingdom	weapon, full-size	axe blade tanged	CuSn	CuSn
Unknown	unknown	17_First Intermediate Period / Middle Kingdom	weapon, full-size	axe blade epsilon wide-edged	CuSnAs	CuAsSn
Unknown	unknown	17_First Intermediate Period / Middle Kingdom	weapon, full-size	axe blade epsilon wide-edged	CuSn	CuSn
Unknown	unknown	17_First Intermediate Period / Middle Kingdom	weapon, full-size	axe blade epsilon	CuSn	CuSn
Unknown	unknown	17_First Intermediate Period / Middle Kingdom	statuette	statuette	CuSn	CuSn
Unknown	unknown	17_First Intermediate Period / Middle Kingdom	weapon, full-size	axe blade segmental perforated	CuSn	CuSn
Unknown	unknown	17_First Intermediate Period / Middle Kingdom	weapon, full-size	dagger blade	CuSnPb	CuSn
Unknown	unknown	17_First Intermediate Period / Middle Kingdom	statuette	statuette	CuSn	CuSn
Unknown	unknown	17_First Intermediate Period / Middle Kingdom	weapon, full-size	axe blade	CuSnSb	CuSn
Unknown	unknown	17_First Intermediate Period / Middle Kingdom	weapon, full-size	axe blade	CuSn	CuSn

Method	Present location	Inventory number	Publication of analysis
AAS, metallography	British Museum, London, United Kingdom	51030	Cowell (1987, Table 1a); Lang (1987)
AAS	British Museum, London, United Kingdom	51031	Cowell (1987, Table 1a)
AAS	British Museum, London, United Kingdom	67481	Cowell (1987, Table 1a)
AAS	British Museum, London, United Kingdom	32579	Cowell (1987, Table 1a)
AAS	British Museum, London, United Kingdom	32204	Cowell (1987, Table 1a)
AAS	British Museum, London, United Kingdom	32203	Cowell (1987, Table 1a)
AAS	British Museum, London, United Kingdom	36776	Cowell (1987, Table 1a)
AAS, metallography	British Museum, London, United Kingdom	67479	Cowell (1987, Table 1a); Lang (1987)
undefined	Ashmolean Museum, Oxford, United Kingdom	1896–1908 E.678	Hall (1929); Lucas—Harris (1962, 487)
AAS	Petrie Museum, University College London, United Kingdom	UC30070	Cowell (1987, Table 1d)
AAS	Museum of Mediterranean and Near Eastern Antiquities, Stockholm, Sweden	SHM 10278:33	Oldeberg (1976, 130–131)
undefined	British Museum, London, United Kingdom	unlocated	Hall (1929, 14, Pl. XXIII: Figs. 4a–d); Lucas—Harris (1962, 487)
spectrometry	Louvre, Paris, France	E.11208	Hours—Michel (1974, Table 1)
spectrometry	Louvre, Paris, France	N.2166	Hours—Michel (1974, Table 1)

TABLE 37 List of currently known tin bronzes (*cont.*)

Site	Structure	General period	Artefact category	Artefact type	Alloy type	Alloy category
Unknown	unknown	17_First Inter- mediate Period / Middle Kingdom	statuette	statuette, man	CuSn	CuSn
Unknown	unknown	17_First Inter- mediate Period / Middle Kingdom	statuette	statuette, man	CuSn	CuSn
Unknown	unknown	17_First Inter- mediate Period / Middle Kingdom	statuette	statuette, man	CuSn	CuSn
Luxor		18_Dynasty-11	vessel, full- size	bowl	CuSnPb	CuSn
Beni Hasan	Tomb 854	19_Dynasty-12	weapon, full- size	axe blade lugged perforated round form	CuSn	CuSn
Dahshur	First Treasure from galleries of princesses	19_Dynasty-12	personal adornment	bracelet	CuSn	CuSn
Dahshur	Burial chambre of Auibre Hor	19_Dynasty-12	hardware	hook	CuSn	CuSn
Dendera	Mastaba 543	19_Dynasty-12	hardware	sheet	CuSn	CuSn
Hawara	Cachette of statues	19_Dynasty-12	statue	statue, crocodile— Sobek	CuSnA- sAu	CuAsSn
Hawara	Cachette of statues	19_Dynasty-12	statue	statue, Ame- nemhat III, rod under right knee	CuSnAg	CuSn
Kahun		19_Dynasty-12	artisan tool, full-size	knife or saw	CuSn	CuSn
Kahun		19_Dynasty-12	food pro- cessing tool, full-size	knife blade	CuSnAs	CuAsSn
Lahun	Tomb of Sithathoriunet	19_Dynasty-12	hardware	knob	CuSnAs	CuSnAs
Lahun	Tomb of Sithathoriunet	19_Dynasty-12	cosmetic tool, full-size	razor blade	CuSn	CuSn
Lahun	Tomb of Sithathoriunet	19_Dynasty-12	cosmetic tool, full-size	razor blade	CuSn	CuSn
Medinet Habu	Unknown con- text	19_Dynasty-12	artisan tool, full-size	chisel blade	CuSn	CuSn
Tell el-Daba	A/II-m/10 Grave 8 burial 1	19_Dynasty-12	weapon, full- size	axe, socketed, Type 2	CuSn	CuSn

Method	Present location	Inventory number	Publication of analysis
undefined	British Museum, London, United Kingdom	58075	Hall (1929, 15, Pl. XXIII: 2)
undefined	British Museum, London, United Kingdom	57361	Hall (1929, 15, Pl. XXIII: 3)
undefined	Neues Museum, Berlin, Germany		Ratghen (1909); Riederer (1982, Tabelle 1)
undefined	unlocated	unlocated	Phillips (1922, 1924); Lucas—Harris (1962, 487)
AAS	Ashmolean Museum, Oxford, United Kingdom	AN1896–1908 E.2295	Cowell (1987, Table 1c)
undefined	Egyptian Museum, Cairo, Egypt	unlocated	Berthelot (1895); Lucas—Harris (1962, 488)
undefined	Egyptian Museum, Cairo, Egypt		Berthelot (1895); Lucas—Harris (1962, 488)
undefined	unknown		Petrie (1900, 61); Lucas—Harris (1962, 483)
ICP-MS, XRD	Staatlichen Museum Ägyptischer Kunst, Munich, Germany	ÄS 6080	Giumlia-Mair (1997)
ICP-MS, XRD	Staatlichen Museum Ägyptischer Kunst, Munich, Germany	ÄS 6982	Giumlia-Mair (1997)
NAA	University Museum, Manchester, United Kingdom; Pitt Rivers Museum, Oxford, United Kingdom	229	Gilmore (1986)
NAA	University Museum, Manchester, United Kingdom; Pitt Rivers Museum, Oxford, United Kingdom	230	Gilmore (1986)
spectrometry	Metropolitan Museum of Art, New York, USA	16.1.50A	Kopp (1934)
spectrometry	Metropolitan Museum of Art, New York, USA	16.1.29B	Kopp (1934)
spectrometry	Metropolitan Museum of Art, New York, USA	16.1.30B	Kopp (1934)
undefined	Petrie Museum, University College London, United Kingdom	UC14240	Sebelien (1924); Lucas—Harris (1962, 487)
AAS	Kunsthistorisches Museum, Wien, Austria	1755	Philip—Cowell (2006, Table 18)

TABLE 37 List of currently known tin bronzes (*cont.*)

Site	Structure	General period	Artefact category	Artefact type	Alloy type	Alloy category
Tell el-Daba	A/II-m/10 Grave 8 burial 1	19_Dynasty-12	weapon, full-size	dagger blade, Type 13	CuSn	CuSn
Tell el-Daba	A/II-m/15 Grave 9 burial 1	19_Dynasty-12	personal adornment	belt fragment	CuSn	CuSn
Tell el-Daba	F/I-n/21 Grave 10	19_Dynasty-12	weapon, full-size	spearhead	CuSn	CuSn
Tell el-Daba	F/I-n/21 Grave 10	19_Dynasty-12	weapon, full-size	spearhead	CuSn	CuSn
Tell el-Daba	F/I-o/19 Grave 8	19_Dynasty-12	weapon, full-size	spearhead	CuSn	CuSn
Tell el-Daba	F/I-o/19 Grave 8	19_Dynasty-12	weapon, full-size	spearhead	CuSn	CuSn
Tell el-Daba	F/I-o/20 Grave 17 chamber	19_Dynasty-12	weapon, full-size	spearhead	CuSn	CuSn
Tell el-Daba	F/I-o/20 Grave 17 chamber	19_Dynasty-12	weapon, full-size	spearhead	CuSnAs	CuAsSn
Tell el-Daba	F/I-o/21 Grave 6	19_Dynasty-12	weapon, full-size	spearhead, Type 7	CuSn	CuSn
Tell el-Daba	F/I-o/20 Grave 17 chamber	19_Dynasty-12	weapon, full-size	dagger blade, Type 12	CuSn	CuSn
Tell el-Daba	F/I-o/19 Grave 8	19_Dynasty-12	personal adornment	belt	CuSn	CuSn
Tell el-Daba	F/I-o/19 Grave 8	19_Dynasty-12	weapon, full-size	axe, fenestrated, Type 1	CuSn	CuSn
Tell el-Daba	A/II-m/15 Grave 8	19_Dynasty-12	personal adornment	pin	CuSnPb	CuSn
Tell el-Daba	A/II-l/12 Grave 5 chamber	19_Dynasty-12	vessel, full-size	stand	CuSn	CuSn
Tell el-Daba	A/II-l/16 Planum 4	19_Dynasty-12	vessel, full-size	stand	CuSn	CuSn
Tod	Silver hoard	19_Dynasty-12	hardware	nail	CuSn	CuSn
Unknown	Unknown	19_Dynasty-12	statuette	statuette, man	CuAsSn	CuAsSn
Abydos	Grave E 281	20_Dynasty-13	personal adornment	ring	CuSn	CuSn
Armant	Tomb 1213 A	20_Dynasty-13	cosmetic tool, full-size	mirror disc	CuSnAs	CuAsSn
Buhen	Tomb H 63, Chamber B	20_Dynasty-13	cosmetic tool, full-size	razor blade thin dega	CuSn	CuSn
Kahun	House with Group 9	20_Dynasty-13	personal adornment	torque	CuSn	CuSn

Method	Present location	Inventory number	Publication of analysis
AAS	Kunsthistorisches Museum, Wien, Austria	1756	Philip—Cowell (2006, Table 18)
XRF	Egypt, ÖAI excavations	4128iii	Philip—Cowell (2006, Table 19)
XRF	Egypt, ÖAI excavations	6106	Philip—Cowell (2006, Table 14, 19)
XRF	Egypt, ÖAI excavations	6107	Philip—Cowell (2006, Table 14, 19)
XRF	Egypt, ÖAI excavations	6104	Philip—Cowell (2006, Table 14, 19)
XRF	Egypt, ÖAI excavations	6105	Philip—Cowell (2006, Table 14, 19)
XRF	Egypt, ÖAI excavations	6108	Philip—Cowell (2006, Table 14, 19)
XRF	Egypt, ÖAI excavations	6109	Philip—Cowell (2006, Table 14, 19)
XRF	Egypt, ÖAI excavations	6103	Philip—Cowell (2006, Table 14, 19)
XRF	Egypt, ÖAI excavations	6141	Philip—Cowell (2006, Table 19)
XRF	Egypt, ÖAI excavations	6140	Philip—Cowell (2006, Table 19)
XRF	Egypt, ÖAI excavations	6139	Philip—Cowell (2006, Table 14, 19)
XRF	Egypt, ÖAI excavations	2525	Philip—Cowell (2006, Table 20)
XRF	Kunsthistorisches Museum, Wien, Austria	813	Philip—Cowell (2006, Table 20)
XRF	Kunsthistorisches Museum, Wien, Austria	2441	Philip—Cowell (2006, Table 20)
undefined	Egyptian Museum, Cairo, Egypt		Bisson de la Roque (1950, 55); Lucas—Harris (1962, 487)
XRF	Sammlung des Ägyptologischen Instituts, Universität Heidelberg, Germany	2127	Pernicka (1986, Tabelle 1)
XRF	Ashmolean Museum, Oxford, United Kingdom	E.2609	McKerrell (1971, 10)
undefined	Royal Ontario Museum, Toronto, Canada	935.20.144	Lilyquist (1979, 100)
PIXE, metallography	University of Pennsylvania Museum of Archaeology and Anthropology, Philadelphia, USA	E10314	Garenne-Marot (1984)
NAA	University Museum, Manchester, United Kingdom	190	Gilmore (1986)

TABLE 37 List of currently known tin bronzes (*cont.*)

Site	Structure	General period	Artefact category	Artefact type	Alloy type	Alloy category
Kahun	House with Group 9	20_Dynasty-13	artisan tool, full-size	saw blade	CuSnAs	CuAsSn
Kahun	House with Group 9	20_Dynasty-13	artisan tool, full-size	chisel blade with handle	CuSn	CuSn
Kahun	House with Group 9	20_Dynasty-13	leather tool, full-size	awl	CuSn	CuSn
Kahun	House with Group 9	20_Dynasty-13	leather tool, full-size	awl	CuSn	CuSn
Kahun	Unknown	20_Dynasty-13	artisan tool, full-size	adze blade	CuSnAs	CuAsSn
Kahun	Unknown	20_Dynasty-13	weapon, full-size	axe blade symmetrical lugged	CuAsSn	CuAsSn
Kahun	Unknown	20_Dynasty-13	artisan tool, full-size	chisel blade	CuSn	CuSn
Sheikh Farag	Grave 113	20_Dynasty-13	weapon, full-size	dagger blade	CuSn	CuSn
Tell el-Daba	F/I-d/23 Grave 1	20_Dynasty-13	weapon, full-size	axe, socketed, Type 1	CuSnPb	CuSn
Tell el-Daba	F/I-i/21 Grave 34	20_Dynasty-13	weapon, full-size	dagger blade, Type 31	CuSnPb	CuSn
Tell el-Daba	F/I-d/23 Grave 1	20_Dynasty-13	vessel, full-size	lid	CuSnAs	CuAsSn
Tell el-Daba	F/I-i/22 Grave 31	20_Dynasty-13	weapon, full-size	spearhead, Type 9	CuSn	CuSn
Tell el-Daba	F/I-i/22 Grave 31	20_Dynasty-13	weapon, full-size	spearhead, Type 7	CuSnPb	CuSn
Tell el-Daba	F/I-d/23 Grave 1	20_Dynasty-13	personal adornment	belt	CuSn	CuSn
Tell el-Daba	F/I-i/22 Planum 4	20_Dynasty-13	artisan tool, full-size	chisel blade	CuSn	CuSn
Tell el-Daba	F/I-k/22 Planum o/1	20_Dynasty-13	fishing tool, full-size	harpoon, Type 3	CuSn	CuSn
Tell el-Daba	F/I-i/22 Grave 31 from grave pit	20_Dynasty-13	leather tool, full-size	leather-cutting knife	CuSn	CuSn
Tell el-Daba	A/II-l/14 Grave 7 from offering chamber	20_Dynasty-13	vessel, full-size	lid	CuSnPb	CuSn
Tell el-Daba	F/I-l/20 Grave 20	20_Dynasty-13	weapon, full-size	spearhead, Type 9	CuSn	CuSn
Tell el-Daba	F/I-k/20 Grave 9/10 between the two graves	20_Dynasty-13	weapon, full-size	spearhead	CuSn	CuSn

Method	Present location	Inventory number	Publication of analysis
NAA	University Museum, Manchester, United Kingdom	192	Gilmore (1986)
NAA	University Museum, Manchester, United Kingdom	194.a	Gilmore (1986)
NAA	University Museum, Manchester, United Kingdom	196.b	Gilmore (1986)
NAA	University Museum, Manchester, United Kingdom	196.c	Gilmore (1986)
AAS	Petrie Museum, University College London, United Kingdom	UC7083	Cowell (1987, Table 1d)
AAS	Petrie Museum, University College London, United Kingdom	UC8900	Cowell (1987, Table 1d)
undefined	Petrie Museum, University College London, United Kingdom		Gladstone (1890); Lucas—Harris (1962, 487)
spectrometry	Museum of Fine Arts, Boston, USA	13.3647 (13-3-136)	Dunham (1943, 61); Lucas—Harris (1962, 486)
AAS	Egypt, ÖAI excavations	3082	Philip—Cowell (2006, Table 17)
AAS	Egypt, ÖAI excavations	4041	Philip—Cowell (2006, Table 17)
AAS	Egypt, ÖAI excavations	3079	Philip—Cowell (2006, Table 17)
AAS	Egypt, ÖAI excavations	3973	Philip—Cowell (2006, Table 17)
AAS	Egypt, ÖAI excavations	3974	Philip—Cowell (2006, Table 17)
AAS	Egypt, ÖAI excavations	3080	Philip—Cowell (2006, Table 18)
AAS	Egypt, ÖAI excavations	4207	Philip—Cowell (2006, Table 14, 18)
AAS	Egypt, ÖAI excavations	4729	Philip—Cowell (2006, Table 14, 18)
AAS	Egypt, ÖAI excavations	4199	Philip—Cowell (2006, Table 14, 18)
AAS	Kunsthistorisches Museum, Wien, Austria	1653	Philip—Cowell (2006, Table 18)
AAS	Egypt, ÖAI excavations	4796	Philip—Cowell (2006, Table 14, 18)
AAS	Egypt, ÖAI excavations	4802	Philip—Cowell (2006, Table 14, 18)

TABLE 37 List of currently known tin bronzes (*cont.*)

Site	Structure	General period	Artefact category	Artefact type	Alloy type	Alloy category
Tell el-Daba	A/II-m/15 Grave 12 burial 2	20_Dynasty-13	personal adornment	pin	CuSnPb	CuSn
Tell el-Daba	F/I-i/23 Planum 3/4	20_Dynasty-13	personal adornment	ring	CuSn	CuSn
Unknown	unknown	20_Dynasty-13	weapon, full-size	axe blade symmetrical lugged	CuSnPb	CuSn
Unknown	unknown	20_Dynasty-13	weapon, full-size	dagger blade	CuSnPb	CuSn
Unknown	unknown	20_Dynasty-13	weapon, full-size	dagger, sheath	CuSnPb	CuSn
Unknown	unknown	20_Dynasty-13	weapon, full-size	dagger blade	CuSnSb	CuSn
Unknown	unknown	20_Dynasty-13	weapon, full-size	axe blade Foreign2	CuSn	CuSn
Unknown	unknown	20_Dynasty-13	weapon, full-size	axe blade Foreign2	CuSnPb	CuSnPb
Abydos	Grave D 79 probably	21_Middle Kingdom	textile tool, full-size	needle	CuSn	CuSn
Abydos	Grave D 110	21_Middle Kingdom	cosmetic tool, full-size	tweezers	CuSn	CuSn
Abydos	Unknown	21_Middle Kingdom	cosmetic tool, full-size	mirror disc	CuAsSn	CuAsSn
Dendera	Mastaba 543	21_Middle Kingdom	cosmetic tool, full-size	razor blade	CuSnPb	CuSn
Naga ed-Deir	unknown	21_Middle Kingdom	hardware	nail	CuSn	CuSn
Unknown	unknown	21_Middle Kingdom	cosmetic tool, full-size	mirror disc with handle	CuSn	CuSn
Unknown	unknown	21_Middle Kingdom	cosmetic tool, full-size	mirror disc with handle	CuSn	CuSn
Unknown	unknown	21_Middle Kingdom	cosmetic tool, full-size	mirror disc with handle	CuSn	CuSn
Unknown	unknown	21_Middle Kingdom	cosmetic tool, full-size	mirror disc with handle	CuSnPb	CuSn
Unknown	unknown	21_Middle Kingdom	cosmetic tool, full-size	mirror disc	CuSn	CuSn
Unknown	unknown	21_Middle Kingdom	cosmetic tool, full-size	mirror disc	CuSnPb	CuSn
Unknown	unknown	21_Middle Kingdom	statue	statue, female	CuSnPbAs	CuSn
Unknown	unknown	21_Middle Kingdom	statue	statue, female, dress, patina	CuSnPbAs	CuSn

Method	Present location	Inventory number	Publication of analysis
XRF	Kunsthistorisches Museum, Wien, Austria	3383	Philip—Cowell (2006, Table 20)
XRF	Kunsthistorisches Museum, Wien, Austria	4067	Philip—Cowell (2006, Table 20)
AAS	Petrie Museum, University College London, United Kingdom	UC30075	Cowell (1987, Table 1d)
spectrometry	Louvre, Paris, France	E.10950-B	Hours—Michel (1974, Table 1)
spectrometry	Louvre, Paris, France	E.10928	Hours—Michel (1974, Table 1)
spectrometry	Louvre, Paris, France	E.10928	Hours—Michel (1974, Table 1)
PIXE	Louvre, Paris, France	AF 5246	Couton-Perche and Bourgarit (2021, Tableau 3, 4)
PIXE	Louvre, Paris, France	AF 675	Couton-Perche and Bourgarit (2021, Tableau 3, 4)
XRF	Ashmolean Museum, Oxford, United Kingdom	E.2447	McKerrell (1971, 7)
XRF	Ashmolean Museum, Oxford, United Kingdom	E.2380	McKerrell (1971, 7)
ICP-MS, LIA	Royal Museum of Art and History, Brussels, Belgium	E.03996	Rademakers et al. (2021)
XRF	Ashmolean Museum, Oxford, United Kingdom	E.1964	McKerrell (1971, 6)
undefined	Phoebe A. Hearst Museum of Anthropology, UC Berkeley, USA		Riederer (1982, 8, Tabelle 1)
spectrometry	Louvre, Paris, France		Michel (1972)
spectrometry	Louvre, Paris, France	N 2151	Michel (1972)
spectrometry	Louvre, Paris, France	N 2155 = AF 6503	Michel (1972)
spectrometry	Louvre, Paris, France	N 2155 = AF 6503	Michel (1972)
spectrometry	Louvre, Paris, France	N 2164	Michel (1972)
spectrometry	Louvre, Paris, France	E 11093	Michel (1972)
PIXE	Louvre, Paris, France	E 27430	Mathis et al. (2009, Table 2)
PIXE	Louvre, Paris, France	E 27430	Mathis et al. (2009, Table 3)

TABLE 37 List of currently known tin bronzes (*cont.*)

Site	Structure	General period	Artefact category	Artefact type	Alloy type	Alloy category
Aniba	Tomb N 83	22_C-Group	cosmetic tool, full-size	tweezers	CuAsSnPb	CuAsSn
Aniba	Tomb N 21	22_C-Group	weapon, full-size	axe blade lugged perforated round form openwork	CuSnPb	CuSn
Aniba	Tomb N 21	22_C-Group	hardware	ferrule	CuSnPb	Cu+
Kerma	Tumulus K IV, Grave K 425	23_Kerma	weapon, full-size	Kerma dagger classic	CuSnPb	CuSn
Kerma	Grave 81	23_Kerma	weapon, full-size	dagger blade	CuSn	CuSn
Kerma	Grave 68	23_Kerma	cosmetic tool, full-size	mirror disc	CuAsSn	CuAsSn
Kerma	Tumulus III, Grave 334	23_Kerma	vessel, full-size	Kerma beaker	CuSnPb	CuSn
Kerma	Tumulus K III, K 338	23_Kerma	cosmetic tool, full-size	tweezers	CuSnPb	CuSn
Kerma	Tumulus K X, Burial K 1060	23_Kerma	cosmetic tool, full-size	razor blade	CuSn	CuSn
Kerma	Tumulus K I, debris, W side	23_Kerma	leather tool, full-size	awl or drill	CuSn	CuSn
Kerma	Tumulus III, Grave 334	23_Kerma	hardware	decoration, inlay, lion shape	CuSn	CuSn
Kerma	Tumulus K XVI, Grave K 1620	23_Kerma	weapon, full-size	Kerma dagger	CuSn	CuSn
Kerma	Grave 77	23_Kerma	cosmetic tool, full-size	mirror disc	CuAsSn	CuAsSn
Aniba	Tomb C 11	24_Pan grave	cosmetic tool, full-size	tweezers	CuSn	CuSn
Mostagedda	Grave 3138	24_Pan grave	artisan, full-size	axe blade symmetrical short lugged	CuSn	CuSn
Tell el-Daba	A/II-n/19 Grave 5	25_Dynasty-15	weapon, full-size	knife, Type 1	CuSn	CuSn
Tell el-Daba	A/II-q/20 Grave 1	25_Dynasty-15	personal adornment	pin	CuSn	CuSn
Tell el-Daba	A/II-l/12 Grave 2 burial 1	25_Dynasty-15	weapon, full-size	axe blade, socketed, Type 2	CuSn	CuSn
Tell el-Daba	A/II-m/n/12 planum	25_Dynasty-15	vessel, full-size	lid	CuSnA-sAu	CuSn
Tell el-Daba	A/II-l/16 Grave 2	25_Dynasty-15	weapon, full-size	knife, Type 1	CuSn	CuSn

Method	Present location	Inventory number	Publication of analysis
XRF, NAA, LIA	Ägyptisches Museum der Universität Leipzig, Germany	ÄMUL 4647	Odler—Kmošek (2020); Kmošek—Odler et al. (2016b)
XRF, NAA, LIA	Ägyptisches Museum der Universität Leipzig, Germany	ÄMUL 4697_1	Odler—Kmošek (2020); Kmošek—Odler et al. (2016b)
XRF, NAA, LIA	Ägyptisches Museum der Universität Leipzig, Germany	ÄMUL 4697	Odler—Kmošek (2020); Kmošek—Odler et al. (2016b)
AAS	British Museum, London, United Kingdom	55443	Cowell (1987, Table 1b)
XRF	Museum of Art and History, Geneva, Switzerland	27453	Bonnet (1990)
XRF	Museum of Art and History, Geneva, Switzerland	27446	Bonnet (1990)
spectrometry	Museum of Fine Arts, Boston, USA; National Museum, Khartum, Sudan	20.1689	Dunham (1943, 60); Lucas—Harris (1962, 486)
spectrometry	Museum of Fine Arts, Boston, USA	20.1808	Dunham (1943, 60); Lucas—Harris (1962, 486)
spectrometry	Museum of Fine Arts, Boston, USA	13.4009	Dunham (1943, 61); Lucas—Harris (1962, 486)
spectrometry	Museum of Fine Arts, Boston, USA	13.4233	Dunham (1943, 61); Lucas—Harris (1962, 486)
XRF	National Museum, Khartum, Sudan		Bonnet et al. (1980)
spectrometry, metallography	National Museum, Khartoum, Sudan	1228	Vercoutter—Thomas-Goorieckx—Lefève (1960)
XRF	Museum of Art and History, Geneva, Switzerland	27451	Bonnet (1990, 180)
XRF, NAA, LIA	Ägyptisches Museum der Universität Leipzig, Germany	ÄMUL 2182	Odler—Kmošek (2020); Kmošek—Odler et al. (2016b)
AAS, metallography	British Museum, London, United Kingdom	63232	Cowell (1987, Table 1a); Lang (1987)
AAS	Egyptian Museum, Cairo, Egypt	3965	Philip—Cowell (2006, Table 17)
AAS	Egypt, ÖAI excavations	2916	Philip—Cowell (2006, Table 17)
AAS	Kunsthistorisches Museum, Wien, Austria	133	Philip—Cowell (2006, Table 18)
AAS	Kunsthistorisches Museum, Wien, Austria	2206	Philip—Cowell (2006, Table 18)
XRF	Kunsthistorisches Museum, Wien, Austria	2147	Philip—Cowell (2006, Table 20)

TABLE 37 List of currently known tin bronzes (*cont.*)

Site	Structure	General period	Artefact category	Artefact type	Alloy type	Alloy category
Tell el-Daba	A/II-l/12 Grave 1	25_Dynasty-15	personal adornment	pin	CuSn	CuSn
Tell el-Daba	A/II-m/11 Planum 2	25_Dynasty-15	personal adornment	pin	CuSnPb	CuSn
Tell el-Daba	A/II-n/10 Grave 1	25_Dynasty-15	personal adornment	pin	CuSn	CuSn
Tell el-Daba	A/II-n/15 Grave 1 burial 1	25_Dynasty-15	vessel, full-size	stand	CuSn	CuSn
Tell el-Daba	A/II-n/15 Grave 1	25_Dynasty-15	vessel, full-size	stand	CuSn	CuSn
Dra Abu en-Naga	Allegedly tomb of Ahhotep, might be “grave of one of the courtiers of King Kamose”	26_Dynasty-17	weapon, full-size	battle axe	CuSn	CuSn
Dra Abu en-Naga	Allegedly tomb of Ahhotep, might be “grave of one of the courtiers of King Kamose”	26_Dynasty-17	weapon, full-size	spearhead, socketed	CuSn	CuSn
Mostagedda	Grave 3135	26_Dynasty-17	weapon, model	axe blade symmetrical short lugged	CuSn	CuSn
Qurna	Tomb of Queen Ahhotep I	26_Dynasty-17	cosmetic tool, full-size	mirror disc	CuSn	CuSn
Rifa	No tomb given	26_Dynasty-17	weapon, full-size	dagger	CuSn	CuSn
Unknown	Unknown	26_Dynasty-17	weapon, full-size	full-size weapon, axe blade asymmetrical lugged	CuSn	CuSn
Unknown	Unknown	26_Dynasty-17	weapon, full-size	axe blade	CuSn	CuSn
Aniba	Tomb S 6o	27_Second Intermediate Period	artisan tool, full-size	adze blade	CuSnAs	CuSn
Aniba	Tomb S 53	27_Second Intermediate Period	weapon, full-size	dagger	CuSn	CuSn
Aniba	Tomb S 53	27_Second Intermediate Period	hardware	hook	CuSn	CuSn

Method	Present location	Inventory number	Publication of analysis
XRF	Kunsthistorisches Museum, Wien, Austria	238	Philip—Cowell (2006, Table 20)
XRF	Kunsthistorisches Museum, Wien, Austria	510	Philip—Cowell (2006, Table 20)
XRF	Kunsthistorisches Museum, Wien, Austria	2383	Philip—Cowell (2006, Table 20)
XRF	Egyptian Museum, Cairo, Egypt	2176	Philip—Cowell (2006, Table 20)
XRF	Kunsthistorisches Museum, Wien, Austria	2179	Philip—Cowell (2006, Table 20)
XRF	Ashmolean Museum, Oxford, United Kingdom	1927.4623	McKerrell (1971, 6)
XRF	Ashmolean Museum, Oxford, United Kingdom	1927.4622	McKerrell (1971, 7)
AAS	British Museum, London, United Kingdom	63224	Cowell (1987, Table 1a)
spectrometry	Egyptian Museum, Cairo, Egypt; Ashmolean Museum, Oxford, United Kingdom; Louvre, Paris, France	E 3458	Michel (1972)
spectrometry	Museum of Fine Arts, Boston, USA	07.542	Dunham (1943, 62); Lucas—Harris (1962, 486)
AAS	British Museum, London, United Kingdom	36772	Cowell (1987, Table 1a)
ICP-MS	County Museum of Art, Los Angeles, USA	M.80.203.43	Abraham (1999, Table 1)
XRF, NAA, LIA	Ägyptisches Museum der Universität Leipzig, Germany	ÄMUL 2141	Odler—Kmošek (2020); Kmošek—Odler et al. (2016b)
XRF, NAA, metallography	Ägyptisches Museum der Universität Leipzig, Germany	ÄMUL 2153_3	Odler—Kmošek (2020); Kmošek—Odler et al. (2016b)
XRF, NAA, LIA	Ägyptisches Museum der Universität Leipzig, Germany	ÄMUL 2142	Odler—Kmošek (2020); Kmošek—Odler et al. (2016b)

TABLE 37 List of currently known tin bronzes (*cont.*)

Site	Structure	General period	Artefact category	Artefact type	Alloy type	Alloy category
Aniba	Tomb S 53	27_Second Intermediate Period	cosmetic tool, full-size	tweezers	CuSn	CuSn
Diospolis Parva	Grave Y237	27_Second Intermediate Period	weapon, full-size	full-size weapon, axe head	CuSn	CuSn
Diospolis Parva	Grave Y376	27_Second Intermediate Period	cosmetic tool, full-size	tweezers	CuSn	CuSn
Diospolis Parva	Grave Y237	27_Second Intermediate Period	weapon, full-size	full-size weapon, axe blade symmetrical lugged	CuSn	CuSn
Tell el-Yahudiya	Grave 37	27_Second Intermediate Period	personal adornment	pin	CuSn	CuSn
Unknown	unknown	27_Second Intermediate Period	weapon, model	axe blade symmetrical short lugged	CuSn	CuSn
Unknown	unknown	27_Second Intermediate Period	weapon, model	axe blade symmetrical short lugged	CuSnAs	CuAsSn
Unknown	unknown	27_Second Intermediate Period	weapon, full-size	axe blade symmetrical lugged with waist	CuSn	CuSn
Unknown	unknown	27_Second Intermediate Period	weapon, full-size	axe blade symmetrical lugged with waist	CuSn	CuSn
Unknown	unknown	27_Second Intermediate Period	weapon, model	axe blade symmetrical lugged with waist	CuSn	CuSn
Unknown	unknown	27_Second Intermediate Period	artisan tool, full-size	axe blade	CuSn	CuSn
Unknown	unknown	27_Second Intermediate Period	artisan tool, full-size	axe blade	CuAsSn	CuAsSn

Method	Present location	Inventory number	Publication of analysis
XRF	Ägyptisches Museum der Universität Leipzig, Germany	ÄMUL 2187	Odler—Kmošek (2020); Kmošek—Odler et al. (2016b)
XRF	Ashmolean Museum, Oxford, United Kingdom; Egyptian Museum, Cairo, Egypt	E.1778	McKerrell (1971, 6)
XRF	Ashmolean Museum, Oxford, United Kingdom	E.1780	McKerrell (1971, 7)
AAS	Ashmolean Museum, Oxford, United Kingdom; Egyptian Museum, Cairo, Egypt	1896–1908 E.1778	Cowell (1987, Table 1c)
XRF	Ashmolean Museum, Oxford, United Kingdom	E.4307	McKerrell (1971, 7)
AAS	British Museum, London, United Kingdom	67505	Cowell (1987, Table 1a)
AAS	British Museum, London, United Kingdom	68875	Cowell (1987, Table 1a)
AAS	British Museum, London, United Kingdom	24635	Cowell (1987, Table 1a)
AAS	British Museum, London, United Kingdom	6050	Cowell (1987, Table 1a)
XRF	British Museum, London, United Kingdom	6074	Cowell (1987, Table 1a)
AAS	Museum of Mediterranean and Near Eastern Antiquities, Stockholm, Sweden	SHM 10278:1	Oldeberg (1976, 130–131)
AAS	Museum of Mediterranean and Near Eastern Antiquities, Stockholm, Sweden	10278:3	Oldeberg (1976, 130–131)

TABLE 38 The occurrence of tin bronze in Egypt and Nubia in the periods under study

Period	Artefacts	Percentage	Region	Artefacts	Percentage
08_Dynasty-1	2	1.16 %	04_Delta	42	24.42 %
09_Dynasty-2	7	4.07 %	06_Memphite region	5	2.91 %
10_Dynasty-3	1	0.58 %	08_Fayum	15	8.72 %
11_Early Dynastic Period	2	1.16 %	10_Beni Hasan	1	0.58 %
12_Dynasty-4	3	1.74 %	15_between Asiut and Abydos	6	3.49 %
14_Dynasty-6	1	0.58 %	16_Abydos	15	8.72 %
16_First Intermediate Period	2	1.16 %	17_between Abydos and Thebes	7	4.07 %
17_First Intermediate Period / Middle Kingdom	31	18.02 %	18_Thebes	6	3.49 %
18_Dynasty-11	1	0.58 %	19_between Thebes and el-Kab	2	1.16 %
19_Dynasty-12	30	17.44 %	24_Lower Nubia	9	5.23 %
20_Dynasty-13	32	18.60 %	25_Upper Nubia	10	5.81 %
21_Middle Kingdom	13	7.56 %	26_unknown	54	31.40 %
22_C-Group	3	1.74 %	Grand Total	172	100.00 %
23_Kerma	10	5.81 %			
24_Pan grave	2	1.16 %			
25_Dynasty-15	10	5.81 %			
26_Dynasty-17	7	4.07 %			
27_Second Intermediate Period	15	8.72 %			
Grand Total	172	100.00 %			

TABLE 39 The occurrences of tool weights in the papyrus Reisner II and comparable known artefacts

Tool class	Weight in deben	Mentions	Listing	Weight in grams (deben 28.26 g)	Artefacts of similar weight
axe	50	19	A2 19; A3 6; A3 22; A3 45; A4 7; A4 14; A4 23; A5 18; A5 22; A5 27; A5 34; C 38; C 44; C 46; F 5; J 6; J 18; J 21; L 11	1413	The British Museum, axe EA51011, weight 1328 g
axe	40	9	A4 8; A4 39; A5 19; C 29; C 34; C 41; F 6; Fr. 2 Rt. 11; Fr. 2 Rt. 13	1130,4	The British Museum, axe EA30077, weight 1091 g
axe	30	2	A4 38; L 10	847,8	Medelhavsmuset, Stockholm, axe SHM 9034:2, weight 894.1 g
axe	22	1	H 11	621,72	Th Egyptian Museum, Cairo, axe CG 14523, weight 610 g
axe	20	3	H 25; H 26; J 19	565,2	
axe	19	5	A4 18–19; C 39; H 11; H 12; Fr. 4 Rt. 27	536,94	The British Museum, axe EA35574, weight 546.1 g
axe	10	1	Fr. 4 Rt. 32	282,6	The British Museum, axe EA68872, weight 284 g
adze	50	1	Fr. 4 Rt. 19	1413	
adze	40	1	C 9	1130,4	
adze	15	15	A3 24; F 8; J 6; J 7; J 36; L 25; L 26; L 27; L 28; L 29; M 23; M 30; M 32; M 33; Fr. 4 Rt. 28	423,9	The British Museum, adze EA59223, weight 439.4 g
adze	13	1	C 25	367,38	The ÄMU Leipzig, adze ÄMUL 2141, weight 369.1 g
adze	12	1	C 25	339,12	
adze	10,5	1	H 13	296,73	
adze	10	1	H 14	282,6	The British Museum, adze EA67580, weight 286.5 g
<i>mnḥ</i> chisel	40	1	A4 41	1130,4	
<i>mnḥ</i> chisel	20	6	C 24c; F 10; J 21; L 44; Fr. 4 Rt. 20; Fr. 4 Rt. 21	565,2	

TABLE 39 The occurrences of tool weights in the papyrus Reisner II (*cont.*)

Tool class	Weight in deben	Mentions	Listing	Weight in grams (deben 28.26 g)	Artefacts of similar weight
<i>mnḥ</i> chisel	14	8	A4 42; F 11; F 12; J 12; J 13; L 41; L 42; L 43	395,64	The British Museum, chisel EA41764, weight 393.3 g
<i>mnḥ</i> chisel	13	2	A4 10; A4 11	367,38	
<i>md;t</i> chisel	20	2	F 15; L 35	565,2	
<i>ḥry-jb</i> middle piece	50	1	B 29	1413	
<i>ḥry-jb</i> middle piece	5	1	F 14	141,3	
saw blade	25	1	A4 32	706,5	
saw blade	26,50	1	A4 32–33	748,89	
blade	25	1	C 24 n	706,5	
blade	25,5	1	C 22 C n	720,63	

[illegible]

CuNiAs	CuPb	CuPbAs	CuPbAsSb	CuPbSb	CuPbSbAs	CuPbSn	CuPbZn	CuPSbZn	CuSb	CuSn	CuSnAg	CuSnAs	CuSnAsAu	CuSnAsPb	CuSnPb	CuSnPbAs	CuSnSb	CuZnNiAs	Lead ore	Lead sulphide	Undetermined	Total
												1									2	9
																						2
										7	1				3						19	91
										4												12
	1	4	1	1	3		1	1		12					3				3	19	3	68
											1		1			2						13
										5											1	14
																						1
										1											6	33
										1											6	
																					1	2
																					1	1
	1					1				7		2	1		4						1	49
																					1	16
																						2
	1								1	39		4		2	17	2	2				2	217
	1								1	17		3		2	9	2	1				1	
															1							
										2												
										1					1							

TABLE 40 Distribution of artefact types among the analyses in corpus, n = 961 (*cont.*)

[illegible]

[illegible]

TABLE 41 Complete artisan tool kits from the archaeological contexts of the periods under study, n = 76

Site	Structure	Owner	Period
Saqqara	Tomb 3471	unknown	Early Dynastic period, Dynasty 1, the reign of Djer
Abydos	Tomb of Khasekhemwy	<i>ḥ3-sḥm.wj</i>	Early Dynastic Period, Dynasty 2, the reign of Khasekhemwy
Abydos	Tomb of Khasekhemwy	<i>ḥ3-sḥm.wj</i>	Early Dynastic period, Dynasty 2, the reign of Khasekhemwy
Abydos	Tomb of Khasekhemwy	<i>ḥ3-sḥm.wj</i>	Early Dynastic period, Dynasty 2, the reign of Khasekhemwy
Bet Khallaf	Tomb K2	<i>ḥn-nḥt</i>	Early Dynastic period, Dynasty 3
Bet Khallaf	Tomb K4		Early Dynastic period, Dynasty 3
Lahun	Grave 771	unknown	Early Dynastic Period, Dynasty 3
Bet Khallaf	Tomb K1	unknown	Early Dynastic period, Dynasty 3, beginning
Abu Rawash	unknown		Early Dynastic Period
Giza	G 8250	unknown	Old Kingdom, Dynasty 4, end
Giza	G 8260	<i>B3-b3ꜥf/ḥnmw-b3ꜥf</i>	Old Kingdom, Dynasty 4 to 5
Giza	G 4360	<i>mry-ḥtpꜥf</i>	Old Kingdom, Dynasty 4 to 5
Giza	G 7143, Shaft B	unknown	Old Kingdom, Dynasty 5, beginning
Giza	G 4631	<i>Nn-sdr-k3(ꜥj)</i>	Old Kingdom, Dynasty 5, the reign of Weserkaf
Abusir	Tomb AS 104, Shaft 3	<i>sḥm-k3</i>	Old Kingdom, Dynasty 5, the reign of Neferirkare
Giza	Mastaba of the Shaft 559	unknown	Old Kingdom, Dynasty 5, middle
Giza	G 8656, Shaft 585	<i>ššm</i>	Old Kingdom, Dynasty 5, second half
Abusir	Tomb AC 10: tomb of Princesses Khaemer-ernebty and Meretites, and Kahotep	<i>K3(ꜥj)-ḥtp</i>	Old Kingdom, Dynasty 5, the reign of Nyuserre
Abusir	Tomb AC15	<i>tjs.t-ḥr.w</i>	Old Kingdom, Dynasty 5, the reign of Djedkare
Abusir	Tomb AS 68d of Nefer	<i>Nfr-ḥwt-ḥr.w</i>	Old Kingdom, Dynasty 5, late
Giza	G 8853	<i>K3(ꜥj)-ꜥpr</i>	Old Kingdom, Dynasty 5, late
Giza	G 4520	<i>ḥw(j)ꜥf-wj-nḥ</i>	Old Kingdom, Dynasty 5, late
Giza	G 4920	<i>ḥn.tj</i>	Old Kingdom, Dynasty 5, end
Saqqara	Tomb of Ptahshepses	<i>špss-ptḥ</i>	Old Kingdom, Dynasty 5, end
Saqqara	Grave 240 in Mastaba of Kaemsenu	unknown	Old Kingdom, Dynasty 5

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TABLE 41 Complete artisan tool kits from the archaeological contexts (cont.)

Site	Structure	Owner	Period
Giza	Mastaba Lepsius 55	<i>Ny-ḥḥ-R(ḥ.w)</i>	Old Kingdom, Dynasty 5 to 6
Gebelein	"Large Tomb"	unknown	Old Kingdom, Dynasty 5 late or 6
Saqqara	Tomb of Wesermut and Inpuemhat	<i>jnpw-m-ḥ3.t</i>	Old Kingdom, Dynasty 5 late or 6
Sedment	Grave 2106	<i>w3d.t-ḥtp</i>	Old Kingdom, Dynasty 5 late or 6, Stufe IB
el-Kab	Tomb of Kaimen	<i>K3(ḥj)-mn.j</i>	Old Kingdom, Dynasty 6, the beginning
Abusir	Tomb AS 27: Lake of Abusir 5, Shaft 2	unknown	Old Kingdom, Dynasty 6, early
Saqqara	Tomb of Ankhmahor	<i>ḥḥ(ḥj) (?) - m- (ḥ.w)-ḥr.w</i>	Old Kingdom, Dynasty 6, early
Saqqara	Tomb of Neferseshemra Shesi	<i>Nfr-sšm-r'—šsj</i>	Old Kingdom, Dynasty 6, the reign of Teti
Saqqara	Tomb of Kagemni	<i>K3(ḥj)-gm(j).nḥj</i>	Old Kingdom, Dynasty 6, the reign of Teti
Saqqara	Tomb of Khentika	<i>ḥnt-k3</i>	Old Kingdom, Dynasty 6, the reign of Pepy I
Giza	G 8640	<i>ḥḥ-ḥ3ḥf—K'r</i>	Old Kingdom, Dynasty 6, first half
Abusir	AS 22, Tomb of Inti	<i>Jn-tj</i>	Old Kingdom, Dynasty 6, the reign of Pepy II, first half
Abusir	Tomb AS 17 of Qar Jr.	<i>K'r</i>	Old Kingdom, Dynasty 6, the reign of Pepy II
Abusir	Tomb AS 17 of Qar Jr.	<i>K'r</i>	Old Kingdom, Dynasty 6, the reign of Pepy II
Abusir	AS 22, Tomb of Inti	<i>Jn-tj</i>	Old Kingdom, Dynasty 6, the reign of Pepy II
Abusir	AS 22, Tomb of Inti, Burial chamber of Inti Pepyankh	<i>Jn-tj ḥḥ-Ppy</i>	Old Kingdom, Dynasty 6, the reign of Pepy II
Bubastis	Tomb 161	<i>Mr(j)-Mr-n-R(ḥ.w)</i>	Old Kingdom, Dynasty 6, the reign of Pepy II
Giza	G 2381, Shaft A	<i>Mr(y)-Pth— ḥḥ Mr(y)-R(ḥ.w) špss-Pth Jmp.y</i>	Old Kingdom, Dynasty 6, the reign of Pepy II
Meir	Tomb of Pepyankh the Middle	<i>ḥw.t-j'h</i>	Old Kingdom, Dynasty 6, the reign of Pepy II
Abydos	Tomb 918	unknown	Old Kingdom, Dynasty 6
Giza	Mastaba with Shafts 125/157	unknown	Old Kingdom, Dynasty 6
Giza	Mastaba S 309–316, Shaft 316	unknown	Old Kingdom, Dynasty 6
Giza	Mastaba of Ptahhetep, Shaft 890A	<i>ḥtp-Pth</i>	Old Kingdom, Dynasty 6
Giza	Context IV	unknown	Old Kingdom general
Giza	Context VIII	unknown	Old Kingdom general
Abydos	Tomb 747, A.09	unknown	Old Kingdom, late / First Intermediate period
Mostagedda	Tomb 5132	unknown	First Intermediate period

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Quibell (1898, 4, Pl. XVIII: 56–65); Bissing (1901, 7); Davies (1987, 73); Odler (2016, Fig. 62)
Odler (2016, Figs. 32, 152–153, 216, 218)
- Firth—Gunn (1926, 18, Fig. 11); Porter et al. (1981, 512–515); Davies (1987, 72); Odler (2016, Fig. 165)
- Firth—Gunn (1926, 19, Fig. 14); Porter et al. (1981, 511–512); Davies (1987, 73); Kühnert-Eggebrecht (1967, Cat. No. MA-B/28+27); Odler (2016, Fig. 50)
Firth—Gunn (1926, 22, Fig. 17); Porter et al. (1981, 521–525); Davies (1987, 72); Kühnert-Eggebrecht (1967, Cat. No. MA-B/23); Odler (2016, Fig. 50)
James (1953, 5–6, Fig. 4); Porter et al. (1981, 508–511)
Hassan (1941, 137–142, Figs. 117–118, Pl. XLIV); Porter et al. (1974, 257–258); Davies (1987, 73); Kühnert-Eggebrecht (1967, Cat. No. MA-B/19); Odler (2016, Fig. 42)
Bárta (2006); Odler (2016, Figs. 146–147)
- Bárta et al. (2009, 225–234, Figs. 6.3.111–6.3.116); Odler (2016, Fig. 96, 130–131, 133, 154, 166, 221–223)
Bárta et al. (2009, 235–237, Figs. 6.3.120–6.3.121, Pl. 28.2); Odler (2016, Figs. 132, 219–220)
Bárta (2006); Odler (2016, Fig. 145)
Bárta (2006); Odler (2016, Figs. 33, 105–109, 134, 215, 217)
- Davies (1987, 73); el-Sawi (1979, 72–73, Figs. 146, 147, 148, 149); Odler (2016, Fig. 28)
Maddin et al. (1984); Lilyquist (1979, 6, Fig. 4); Davies (1987, 72); Porter—Moss (1974–1981, 91–92); Odler (2016, Fig. 44)
- Kamal (1915, 256–257); Davies (1987, 72); Kühnert-Eggebrecht (1967, Cat. No. MA-B/25)
- Frankfort (1930, 216–217); Davies (1987, 73, Cat. No. 12); Kühnert-Eggebrecht (1967, Cat. No. MA-B/20); Odler (2016, Fig. 54)
Junker (1951, 174)
- Junker (1944, 52–54, 58–60, Abb. 19, 24); Davies (1987, 73); Kühnert-Eggebrecht (1967, Cat. No. MA-B/16); Odler (2016, Fig. 41)
Junker (1944, 228, Abb. 93); Odler (2016, Fig. 208)
- Odler (2016, Fig. 47)
Odler (2016, Fig. 47)
Lilyquist (1979, 12, Fig. 20); Garstang (1909, Pl. XVI); Davies (1987, 72)
Brunton (1937, Pl. LXI: 4)

TABLE 41 Complete artisan tool kits from the archaeological contexts (cont.)

Site	Structure	Owner	Period
Qau	Grave 330	unknown	First Intermediate period
Sedment	Grave 1611	unknown	First Intermediate period
Sedment	Grave 1004	unknown	First Intermediate period
Sedment	Tomb with coffins of Khety and Wadj	<i>ḥty, wꜣd</i>	First Intermediate Period
Sedment	Grave 2127	<i>nḥ.t-kꜣ.wj</i>	First Intermediate period
Mostagedda	Tomb 5122	unknown	First Intermediate period, Stufe IIC
Saqqara	Tomb of Gemniemhat	<i>gmni-m-ḥꜣt</i>	First Intermediate Period / Middle Kingdom
Badari	Grave 4973		Middle Kingdom, Dynasty 11, Stufe III A
Mostagedda	Tomb 1621	unknown	Middle Kingdom, Dynasty 11 and early 12, Stufe III B
Mostagedda	Tomb 1690	unknown	Middle Kingdom, Dynasty 11 and early 12, Stufe III B
Mostagedda	Tomb 1693	unknown	Middle Kingdom, Dynasty 11 and early 12, Stufe III B
Mostagedda	Tomb 5118	unknown	Middle Kingdom, Dynasty 11 and early 12, Stufe III B
Mostagedda	Tomb 721	unknown	Middle Kingdom, Dynasty 11 and early 12, Stufe III B
Qau	Grave 321		Middle Kingdom, Dynasty 11 and early 12, Stufe III B
Qau	Grave 306		Middle Kingdom, Dynasty 11 and early 12, Stufe III B
Thebes	Tomb of Meketre	<i>mkt-r</i>	Middle Kingdom, Dynasty 12, the reign of Amemhat I
Beni Hasan	Tomb 116	<i>Nfry</i>	Middle Kingdom, Dynasty 12, early
Beni Hasan	Tomb 723	<i>sbk-ḥtpj</i>	Middle Kingdom, Dynasty 12, early
Lahun	Valley temple	Senusret II	Middle Kingdom, Dynasty 12, the reign of Senusret II
Saqqara	Tomb of Karenen and Nefersemdent	<i>kꜣ-rnn</i>	Middle Kingdom, Dynasty 12, the reign of Senusret II and III
Dahshur	Tomb of Ita	<i>jtꜣ</i>	Middle Kingdom, Dynasty 12
Diospolis Parva	Grave W 84	unknown	Middle Kingdom, Dynasty 12
Beni Hasan	Tomb 186	<i>nfw</i>	Middle Kingdom
Dahshur	“Late Period” tombs in the south-east court of pyramid complex of Senusret III	unknown	Middle Kingdom

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Davies (1987, 75); Kühnert-Eggebrecht (1967, Cat. No. MD/17); Petrie—Brunton (1924, Pl. xxxviii (1611)); tomb
card
Petrie—Brunton (1924, Pl. XXXVIII, XLIII: 95)
Abdel Fatah—Bickel (2000)
- Petrie—Brunton (1924, 13–14, Pl. XXXIX); Porter—Moss (1934, 116)
Brunton (1937, Pl. LXI: 9); Davies (1987, 75, Cat. No. 31); Kühnert-Eggebrecht (1967, Cat. No. MD/8)
Firth—Gunn (1926, 52–54, Pls. 22–23, 29c); Podvin (2000, 296, ME 1)
Brunton (1927, 59, 60, Pl. XXXVIII: 20); Davies (1987, 76); Kühnert-Eggebrecht (1967, Cat. No. MA-B/31)
Brunton (1937, 101, Pl. LXI: 2); Davies (1987, 75, Cat. No. 29); Kühnert-Eggebrecht (1967, Cat. No. MD/9)
Brunton (1937, 102–103, Pl. LXI: 1, LXII: 2); Davies (1987, 40, 75, 81, Cat. No. 30, 89, Pls. 5:30, 15: 89); Kühnert-
Eggebrecht (1967, Cat. No. C-V/4, MC-I/C-V/1, MD/4)
Brunton (1937, 103, Pl. LXI: 8); Davies (1987, 76); Kühnert-Eggebrecht (1967, Cat. No. MA-B/33 + MD/2)
Brunton (1937, 103, Pl. LXI: 5, Pl. LXII: 3); Davies (1987, 76, 81); Kühnert-Eggebrecht (1967, Cat. No. MD/5); Odler et
al. (2018)
Davies (1987, 76); Kaiser (1967, 47, Abb. 489); Kühnert-Eggebrecht (1967, Cat. No. D-I/9 + D/2); Kaiser (1967, 47);
Brunton (1937, 102, Pl. LXI: 3, Pl. LXII: 4)
Brunton (1927, 60, Pl. XXXVIII: 22); Davies (1987, 76); Kühnert-Eggebrecht (1967, Cat. No. MA-B/31)
Brunton (1927, 60, Pl. XXXVIII: 27); Davies (1987, 76); Kühnert-Eggebrecht (1967, Cat. No. MD/11)
Winlock (1955); Fitzenreiter (1950, Abb. 6.2)
- Garstang (1907, 216, Fig. 66); Orel (1993, 536)
Garstang (1907, 237); Davies (1987, 74); Willems (1988, 64–65); Orel (1993, 568)
Petrie (1890, 21–22, Pl. XIV: 1–10); Weinstein (1974, 78–79)
- Quibell (1908, 10–12, Pl. XVII: 3, 4, XVIII: 3); Lilyquist (1979, 16); Podvin (2000, 322–323, ME19)
- Davies (1987, 74); Kühnert-Eggebrecht (1967, Cat. No. MD/24); de Morgan (1903, 48, 51–52, Fig. 106); Podvin (2000,
328–329, ME23)
Petrie (1901, 43, Pl. XXXII: 5–8)
- Garstang (1907, 79–89, 218–219); Orel (1993, 540); Bienkowski—Southworth (1986, 36)
de Morgan (1895, 78, Fig. 196)
-

TABLE 42 Artefact information for the figures with multiple objects present

Figure no.	Letter	Site	Structure	Class	Inventory number
104	1	el-Kab	Building with stone foundation	crucible	
104	5	Byblos	Context 11/23, level XX	crucible	16653
104	8	Badari	Grave 4964	crucible	UC18146
104	11	Serabit el-Khadim	Mines	crucible	UC8901
104	2, 7	Buhen	late Middle Kingdom	crucible	
104	6, 9, 10	Ayn Soukhna		crucible	
108	3115	Tell el-Daba	F/I-i/21 Planum 3/4	crucible	Reg. No. 3115
108	3116	Tell el-Daba	F/I-i/21 Planum 3/4	crucible	Reg. No. 3116
108	5335b	Tell el-Daba	A/II-k/17 Planum 4 from wall	crucible	Reg. No. 5335b
108	5776A	Tell el-Daba	F/I-m/9 Grave 7 robber pit	crucible	Reg. No. 5776a
116		Asiut	Tomb 7, Shaft 1	axe	E 12640; E 12642; E 12005; E 12005, A; E 12637; E 12638; E 12641; E 12643; E 12005, B; E 12005, C; E 12636; E 12639
134	a	Mostagedda	Grave 3121	axe	UC25515
134	b	Mostagedda	Grave 3170	axe	
134	c	Mostagedda	Grave 3132	axe	
134	d	Mostagedda	Grave 3229	dagger	
134	e	Mostagedda	Grave 3138	axe	63231
134	f	Mostagedda	Grave 3128	axe	
134	g	Mostagedda	Grave 10116	axe	
134	h	Mostagedda	Grave 3121	axe	UC25514
134	i	Mostagedda	Grave 3138	haft ending plaque	JdE 52890
134	j	Mostagedda		haft ending plaque	
134	k	Mostagedda	Grave 3138	haft ending plaque	JdE 52890
134	l	Matmar		haft ending plaque	3363A.3

Present location	General period	Reference
Belgian excavations, Egypt	09_Dynasty-2	Claes and Huyge (2016, 41); Claes et al. (2020)
National Museum, Beirut, Lebanon	15_Old Kingdom	Dunand (1950, 847, fig. 962)
Petrie Museum, University College London UK	16_First Intermediate Period	Brunton (1927, 36, 67, Pl. XLI: 25)
Petrie Museum, University College London UK	19_Dynasty-12	Petrie (1906, 162, Fig. 161); Davey (1985, 146); Claes, Davey and Hendrickx (2020, Fig. 10)
	20_Dynasty-13	Claes, Davey and Hendrickx (2020, Fig. 10)
Egyptian Museum, Cairo, Egypt	19_Dynasty-12	Claes, Davey and Hendrickx (2020, Fig. 10)
Egypt, ÖAI excavations	20_Dynasty-13	Philip—Cowell (2006, 199–202, Fig. 82)
Egypt, ÖAI excavations	20_Dynasty-13	Philip—Cowell (2006, 199–202, Fig. 82)
Egypt, ÖAI excavations	19_Dynasty-12	Philip (2006, 202, Fig. 83: 1)
Egypt, ÖAI excavations	20_Dynasty-13	Philip—Cowell (2006, 202, Fig. 83: 2)
Louvre, Paris, France	16_First Intermediate Period	Davies (1987, 75); Chassinat—Palanque (1911, 48)
Petrie Museum, University College London UK	24_Pan grave	Davies (1987, 82); Kühnert-Eggebrecht (1967, Cat. No. G-I/3); Brunton (1937, Pl. lxxvii, 19)
Ashmolean Museum, Oxford UK	24_Pan grave	Brunton (1937, 118, Pls. LXXI, LXXVII: 7); Liszka (2012, 496, Table 21); Petschel et al. (2004, 122)
British Museum, London UK	24_Pan grave	Brunton (1937, 117, Pls. LXX, LXXVII: 9); Liszka (2012, 495, Table 21)
unknown (reserve in the time of publication)	24_Pan grave	Brunton (1937, 119, 128, Pl. LXXI, LXXVII: 2); Petschel (2011, 390, Kat. Nr. 58); Liszka (2012, 496, Table 21)
British Museum, London UK	24_Pan grave	Davies (1987, 82, Cat. No. 105); Kühnert-Eggebrecht (1967, Cat. No. G-I/6)
Egyptian Museum, Cairo, Egypt	24_Pan grave	Brunton (1937, 116, 127, Pls. LXX, LXXVII: 12); Liszka (2012, 495, Table 21)
Kunsthistorisches Museum, Wien, Austria	24_Pan grave	Brunton (1937, 121, Pls. LXXI, LXXVII: 13); Liszka (2012, 496, Table 21)
Petrie Museum, University College London UK	24_Pan grave	Davies (1987, 82); Kühnert-Eggebrecht (1967, Cat. No. G-I/3); Brunton (1937, Pl. lxxvii, 6)
Egyptian Museum, Cairo, Egypt	24_Pan grave	Davies (1987, 89); Brunton (1937, Pls. lxxiv, 6, b, c; lxxv, 46, 48)
Egyptian Museum, Cairo, Egypt	24_Pan grave	Davies (1987, 89); Brunton (1937, Pls. lxxiv, 6, b, c; lxxv, 46, 48)
	24_Pan grave	Davies (1987, 89); Brunton (1948, 79, Pl. xliii, 46)

TABLE 42 Artefact information for the figures with multiple objects present (*cont.*)

Figure no.	Letter	Site	Structure	Class	Inventory number
139		Matmar	Grave 3131	axe	JdE 59136
139		Matmar	Grave 5115	chisel	1932.911
140	a	Naqada	Grave 1298, in Baumgartel as 1258, but also as 1298, i.e. twice		
140	a	Naqada	Grave 400		
140	a	Naqada	Grave 702		
140	a	Ballas	Grave Q 603		
140	b	Naqada	Grave 39		
140	c	Naqada	Grave 162	chisel	UC4300; UC4299; UC4298
140	d	Naqada	Grave 63	chisel	UC4304; UC36150; UC36152; UC36153
141	14	Sayala	Grave 6		
141	1–4	Naga wadi	Grave 1		
141	6–7	Naga el-Sheikh	Grave 3		
141	8–13	Sayala	Grave 1		
142		Abydos	Grave 387	adze	UC16175
142		Abydos	Grave 461	adze	UC16172
142		Abydos	Grave 510	adze	E.05925
142		Abydos	Grave 601	adze	
142		Abydos	Grave 640	adze	
142		Abydos	Grave 654	axe	UC16177
142		Kubbaniya	Grave P.193	adze	ÄS 7187
147		Abydos	Grave 420	adze	

Present location	General period	Reference
Egyptian Museum, Cairo, Egypt	05_Naqada-II	Brunton (1948, Pl. XIII, Pl. XVI: 47); Baumgartel (1960, 13–14); Davies (1987, 72); Kühnert-Eggebrecht (1967, Cat. No. A/1); Castillos (2000, 164)
Ashmolean Museum, Oxford UK	05_Naqada-II	Brunton (1948, 21, Pl. X, XVI: 46); Baumgartel (1960, 17); Payne (1993, 147, Fig. 59: 1222)
Neues Museum, Berlin, Germany	05_Naqada-II	Petrie and Quibell (1896, Pl. LXV)
University Museum, Manchester UK	07_Naqada	Petrie and Quibell (1896, Pl. LXV)
Petrie Museum, University College London UK	05_Naqada-II	Petrie and Quibell (1896, Pl. LXV)
Petrie Museum, University College London UK	05_Naqada-II	Petrie and Quibell (1896, Pl. LXV)
Ashmolean Museum, Oxford UK	05_Naqada-II	Petrie and Quibell (1896, Pl. LXV)
Petrie Museum, University College London UK	05_Naqada-II	Petrie and Quibell (1896, Pl. LXV)
Petrie Museum, University College London UK	05_Naqada-II	Petrie and Quibell (1896, Pl. LXV)
unknown	03_A-Group	Firth (1927, 211, Pl. 22: b 14)
unknown	11_Early Dynastic Period	Firth (1927, 214, Pl. 22: b 1–4); Davies (1987, 72); Kühnert-Eggebrecht (1967, Cat. No. B/13)
unknown	03_A-Group	Firth (1927, 201, Pl. 22b: 6–7); Nordström (2002, Table 1)
unknown	03_A-Group	Firth (1927, 207–208, Pl. 22: b 8–13)
Petrie Museum, University College London UK	08_Dynasty-1	Petrie (1925, 5, Pl. III: 6–7; V: 5–7); Davies (1987, 72); Kühnert-Eggebrecht (1967, Cat. No. B–1/3)
Petrie Museum, University College London UK; University Museum, Manchester UK	08_Dynasty-1	Petrie (1925, 4, Pl. III: 1, 2; IV: 7, 8)
Royal Museum of Art and History, Brussels, Belgium	08_Dynasty-1	Petrie (1925, Pl. III: 5; V: 23–24); Rademakers et al. (2018; 2018 Supplement 3, 16–17, Fig. 7)
Kelvingrove Art Gallery and Museum, Glasgow UK	08_Dynasty-1	Petrie (1925, Pl. III: 4; V: 18–20)
Kelvingrove Art Gallery and Museum, Glasgow UK	08_Dynasty-1	Petrie (1925, 6, Pl. III: 3; V: 12)
Petrie Museum, University College London UK	08_Dynasty-1	Petrie (1925, Pl. III: 8; V: 21–22); Davies (1987, 88); Kühnert-Eggebrecht (1967, Cat. No. B-II/1)
Kunsthistorisches Museum, Wien, Austria	06_Naqada-III-A-B	Junker (1919, 116, 133, Taf. XXXIX); Davies (1987, 71); Kühnert-Eggebrecht (1967, cat. no. B/12); Odler et al. (2018)
Ny Carlsberg Glyptothek, Copenhagen, Denmark	08_Dynasty-1	Petrie (1925, Pl. IV: 5, 6; XXI); tomb card

TABLE 42 Artefact information for the figures with multiple objects present (*cont.*)

Figure no.	Letter	Site	Structure	Class	Inventory number
147		Abydos	Grave 461	adze	UC16172
147		Abydos	Grave 461	adze	
153	a-d	Giza	G 7000 X	chisel	
153	e	Unknown Nubia	unknown	chisel	JdE 68754
153	f	Giza	Mortuary temple of Menkaura, court outside Magazine III-3	chisel	11.841
153	g	Unknown	unknown	chisel	66208
153	h	Unknown	unknown	chisel	67581
153	i	Abydos	Level not written	chisel	
153	j	Abydos	Level not written	chisel	
153	k	Abydos	Level 240	chisel	
153	k	Abydos	Level 240		
154	a	Unknown	unknown		
154	b	Meidum	Mastaba 6		
154	c	Giza	Mortuary temple of Menkaure, court outside Magazine III-3	adze	11.842
154	d	Giza	G 8172		
154	e	Unknown	unknown	adze	66207
154	f	el-Kab	Silo L	adze	E.9225 / K.238

Present location	General period	Reference
Petrie Museum, University College London UK	○8_Dynasty-1	Petrie (1925, 4, Pl. III: 1, 2; IV: 7, 8)
Petrie Museum, University College London UK; University Museum, Manchester UK	○8_Dynasty-1	Petrie (1925, 4, Pl. III: 1, 2; IV: 7, 8)
Egyptian Museum, Cairo, Egypt	12_Dynasty-4	Reisner—Smith (1955, 34–35, Fig. 36; Pl. 3○); Callender (2○11, 235–238); Odler (2○16, Figs. 2○, 164)
Egyptian Museum, Cairo, Egypt	12_Dynasty-4	Rowe (1938); Roth (1991, 123–124)
Museum of Fine Arts, Boston, USA	12_Dynasty-4	PM III 1, 26–35; Reisner (1931, 231, Pl. 65i); Davies (1987, 72); Kühnert-Eggebrecht (1967, Cat. No. A-B/8); Odler (2○16, Fig. 18–2○, 38)
British Museum, London UK	14_Dynasty-6	James (1961, 36–38, Pl. XII: 1); Kaplony (1965, 34, Taf. VII: 75); Arnold (1991, 259)
British Museum, London UK	14_Dynasty-6	James (1961, 36–38, Pl. XII: 2); Kaplony (1965, 34, Taf. VII: 76)
Museum of Fine Arts, Boston, USA [19○3 distribution list]	15_Old Kingdom	Petrie (19○3, 31, Pl. XV: 1○); Odler (2○16, Fig. 2○)
Museum of Fine Arts, Boston, USA [19○3 distribution list]	15_Old Kingdom	Petrie (19○3, 31, Pl. XV: 1○); Odler (2○16, Fig. 2○)
unknown	17_First Intermediate Period / Middle Kingdom	Petrie (19○3, 31, Pl. XV: 8); Odler (2○16, Fig. 2○)
unknown	17_First Intermediate Period / Middle Kingdom	Petrie (19○3, 31, Pl. XV: 8); Odler (2○16, Fig. 2○)
Petrie Museum, University College London UK	12_Dynasty-4	Petrie—Mackay—Wainwright (191○, 43, Pl. XXXVII: 4○); Petrie (1917, 16, Pl. XVII: 76); Rowe (1936, 285, Fig. 5); Aubert—Aubert (2○○1, 37), Roth (1991, 122–123); Odler (2○16, Fig. 18)
Egyptian Museum, Cairo, Egypt; Petrie Museum, University College London UK	12_Dynasty-4	Petrie (1892, 34, 36, Pl. XXIX: 11); Harpur (2○○1, 52, Fig. 66); Odler (2○16, Fig. 18)
Museum of Fine Arts, Boston, USA	12_Dynasty-4	Porter et al. (1974, 26–35); Reisner (1931, 231, Pl. 65i); Davies (1987, 72); Kühnert-Eggebrecht (1967, Cat. No. A-B/8); Odler (2○16, Fig. 18–2○, 38)
Egyptian Museum, Cairo, Egypt	14_Dynasty-6	Hassan (1953, 129, Pl. LXII: B); Odler (2○16, Figs. 18, 2○8)
British Museum, London UK	14_Dynasty-6	Davies (1987); Odler (2○16, Fig. 2○)
Royal Museum of Art and History, Brussels, Belgium	11_Early Dynastic Period	Hendrickx—Eyckerman (2○○9, 2○, Fig. 27); Rademakers et al. (2○18; 2○18 Supplement 3, 12–13, Fig. 5); Odler (2○16, Fig. 62)

TABLE 42 Artefact information for the figures with multiple objects present (*cont.*)

Figure no.	Letter	Site	Structure	Class	Inventory number
155	a	Nahr Ibrahim	unknown	axe	
155	b	Abu Rawash	Pyramid of Radjedef	axe	
155	c	Giza	Mortuary temple of Men-kaure, court outside Magazine III-3	axe	11.784
155	d	Giza	Area G	axe	INVNR: 20902
155	e	Adindan	Grave T 35	axe	E23299
156	a	Giza	G 7000 X	saw	1058: 7
156	b	Giza	G 7000 X	saw	
156	c	Meidum	Mastaba 17	saw	UC30854
159		Abydos	Found west of Structure H, Temple precinct	axe	67579
159		Abydos	Found west of Structure H, Temple precinct	axe	JdE 36109.3
160		Heliopolis	Tomb of Sebeky/By	axe	TR 20/7/16/10
167		Kahun	Basket 200	axe	201
167		Kahun	Basket 200	axe	202
167		Kahun	Basket 200	adze	203
168	a	Byblos	Deposit d	chisel	2190
168	b	Byblos	Level XVI	adze	3550
168	c	Byblos	Level VII	adze	9879

Present location	General period	Reference
Pontifical Biblical Institute, Jerusalem, Israel	12_Dynasty-4	Mallon (1925); Rowe (1936, 283–289); Roth (1991, 123); Davies (1987, 73); Kühnert-Eggebrecht (1967, Cat. No. A-B/7); Mallon (1925, 49–54); Odler (2016, Fig. 19)
IFAO excavations, Egypt	12_Dynasty-4	Valloggia (2011, 45–46, Figs. 163–164); Odler (2016, Fig. 19, 29)
Museum of Fine Arts, Boston, USA	12_Dynasty-4	Porter et al. (1974, 26–35); Reisner (1931, 231, Pl. 65i); Davies (1987, 72); Kühnert-Eggebrecht (1967, Cat. No. A-B/8); Odler (2016, Fig. 18–20, 38)
Kromer collection at the Institute of Prehistory and Historical Archaeology, Universität Wien, Austria	12_Dynasty-4	Kromer (1978, 79–82, Taf. 32); Odler—Kmošek et al. (2021); Odler (2016, Fig. 37)
Oriental Institute, University of Chicago, USA	15_Old Kingdom	Davies (1987, 73); Williams (1989, 128, Fig. 70c); Odler (2016, Fig. 19, 68)
Egyptian Museum, Cairo, Egypt	12_Dynasty-4	Reisner—Smith (1955, 34–35, Fig. 37; Pl. 30); Callender (2011, 235–238); Odler (2016, Figs. 20, 164)
Egyptian Museum, Cairo, Egypt	12_Dynasty-4	Reisner—Smith (1955, 34–35, Fig. 36; Pl. 30); Callender (2011, 235–238); Odler (2016, Figs. 20, 164)
Petrie Museum, University College London UK	15_Old Kingdom	Petrie (1892, 34, Pl. XXIX: 12)
British Museum, London UK	17_First Intermediate Period / Middle Kingdom	Petrie (1903, 32–33, Pl. XXII: 1–9); Kühnert-Eggebrecht (1967, Cat. No. D/1); Davies (1987, 15, 74, 75, Cat. No. 15, Pl. 3)
Egyptian Museum, Cairo, Egypt	17_First Intermediate Period / Middle Kingdom	Petrie (1903, 32–33, Pl. XXII: 1–9); Kühnert-Eggebrecht (1967, Cat. No. D/1); Davies (1987, 15, 74, 75, Cat. No. 15, Pl. 3)
Egyptian Museum, Cairo, Egypt	15_Old Kingdom	Daressy—Barsanti (1916, 215–217); Davies (1987, 73)
University Museum, Manchester UK	19_Dynasty-12	Radwan (1983, 87, Taf. 46: 224); Gilmore (1986); Petrie (1890, 26, Pl. XVII: 4–7, 9, 21)
University Museum, Manchester UK	19_Dynasty-12	Petrie (1890, 26, Pl. XVII: 1, 3)
University Museum, Manchester UK; Pitt Rivers Museum, Oxford UK	19_Dynasty-12	Petrie (1890, 26, Pl. XVII: 2, 10–20; 1891, 12, Pl. VII: 20)
National Museum, Beirut, Lebanon	15_Old Kingdom	Dunand (1939, 145–146, 147, 151–152; 1937, pl. LXVIII)
National Museum, Beirut, Lebanon	17_First Intermediate Period / Middle Kingdom	Dunand (1937, 242, pl. XCVIII)
National Museum, Beirut, Lebanon	21_Middle Kingdom	Dunand (1951, 322, fig. 344)

TABLE 42 Artefact information for the figures with multiple objects present (*cont.*)

Figure no.	Letter	Site	Structure	Class	Inventory number
168	d	Byblos	Rectangle 19, Level VI	axe	1916
168	e	Byblos	Rectangle 19, Level VI	axe	1917
171		Diospolis Parva	Grave W 84	chisel	99.4.21
171		Diospolis Parva	Grave W 84	adze	99.4.22
171		Diospolis Parva	Grave W 84	axe	99.4.23
171		Diospolis Parva	Grave W 84	saw	99.4.20
172		Dahshur	Tomb of Ita	axe	TR 21/11/25/9
174		Lahun	Valley temple	chisel	UC16133
174		Lahun	Valley temple	chisel	UC16134
174		Lahun	Valley temple	chisel	UC16134
174		Lahun	Valley temple	chisel	UC16134
174		Lahun	Valley temple	chisel	UC16134
174		Lahun	Valley temple	chisel	212.a
174		Lahun	Valley temple	chisel	212.b
174		Lahun	Valley temple	chisel	212.c
174		Lahun	Valley temple	chisel	211.a
174		Lahun	Valley temple	chisel	211.b
174		Lahun	Valley temple	axe	UC16135
174		Lahun	Valley temple	axe	UC16135
174		Lahun	Valley temple	axe	209.a

Present location	General period	Reference
National Museum, Beirut, Lebanon	17_First Intermediate Period / Middle Kingdom	Dunand (1937 and 1939, 130, nos. 1916–1917, Pl. xcv); Miniaci—Saler (2021, 349, Fig. 12: d, e)
National Museum, Beirut, Lebanon	17_First Intermediate Period / Middle Kingdom	Dunand (1937 and 1939, 130, nos. 1916–1917, Pl. xcv); Miniaci—Saler (2021, 349, Fig. 12: d, e)
Metropolitan Museum of Art, New York, USA	19_Dynasty-12	Petrie (1901, 43, Pl. XXXII: 5–8)
Metropolitan Museum of Art, New York, USA	19_Dynasty-12	Petrie (1901, 43, Pl. XXXII: 5–8)
Metropolitan Museum of Art, New York, USA	19_Dynasty-12	Petrie (1901, 43, Pl. XXXII: 5–8)
Metropolitan Museum of Art, New York, USA	19_Dynasty-12	Petrie (1901, 43, Pl. XXXII: 5–8)
Egyptian Museum, Cairo, Egypt	19_Dynasty-12	Davies (1987, 74); Kühnert-Eggebrecht (1967, Cat. No. MD/24); de Morgan (1903, 48, 51–52, Fig. 106); Podvin (2000, 328–329, ME23)
Petrie Museum, University College London UK	19_Dynasty-12	Petrie (1890, 21–22, Pl. XIV: 1–10); Weinstein (1974, 78–79)
Petrie Museum, University College London UK	19_Dynasty-12	Petrie (1890, 21–22, Pl. XIV: 1–10); Weinstein (1974, 78–79)
Petrie Museum, University College London UK	19_Dynasty-12	Petrie (1890, 21–22, Pl. XIV: 1–10); Weinstein (1974, 78–79)
Petrie Museum, University College London UK	19_Dynasty-12	Petrie (1890, 21–22, Pl. XIV: 1–10); Weinstein (1974, 78–79)
Petrie Museum, University College London UK	19_Dynasty-12	Petrie (1890, 21–22, Pl. XIV: 1–10); Weinstein (1974, 78–79)
University Museum, Manchester UK	19_Dynasty-12	Petrie (1890, 21–22, Pl. XIV: 1–10); Weinstein (1974, 78–79)
University Museum, Manchester UK	19_Dynasty-12	Petrie (1890, 21–22, Pl. XIV: 1–10); Weinstein (1974, 78–79)
University Museum, Manchester UK	19_Dynasty-12	Petrie (1890, 21–22, Pl. XIV: 1–10); Weinstein (1974, 78–79)
University Museum, Manchester UK	19_Dynasty-12	Petrie (1890, 21–22, Pl. XIV: 1–10); Weinstein (1974, 78–79)
University Museum, Manchester UK	19_Dynasty-12	Petrie (1890, 21–22, Pl. XIV: 1–10); Weinstein (1974, 78–79)
Petrie Museum, University College London UK	19_Dynasty-12	Petrie (1890, 21–22, Pl. XIV: 1–10); Weinstein (1974, 78–79)
Petrie Museum, University College London UK	19_Dynasty-12	Petrie (1890, 21–22, Pl. XIV: 1–10); Weinstein (1974, 78–79)
University Museum, Manchester UK	19_Dynasty-12	Petrie (1890, 21–22, Pl. XIV: 1–10); Weinstein (1974, 78–79)

TABLE 42 Artefact information for the figures with multiple objects present (*cont.*)

Figure no.	Letter	Site	Structure	Class	Inventory number
174		Lahun	Valley temple	axe	209.b
174		Lahun	Valley temple	axe	209.c
174		Lahun	Valley temple	saw	208.c
174		Lahun	Valley temple	saw	208.b
174		Lahun	Valley temple	saw	208.a
174		Lahun	Valley temple	saw	208.e
174		Lahun	Valley temple	saw	208.d
177	a	Mostagedda	Grave 3123	axe	23238
177	b	Mostagedda	Grave 3213	adze	
177	c	Aniba	Tomb S 60	adze	ÄMUL 2141
177	d	Mostagedda	Grave 3161	axe	JdE 52897
177	e	Mostagedda	Grave 3151	chisel	
177	f	Mostagedda	Grave 3138	axe	63232
191	a	Ballas	Grave Q 603	needle	
191	b	Naqada	Grave G 3	needle	1895.976B; 1895.977A; 1895.977B; 1895.977C; 1895.977D; 12868; UC5278
191	c	Diospolis Parva	Grave U 27	needle	
191	d	Giza	Area G	needle	INVNR: 21429
191	d	Matmar	Grave 2702	pin	63414
191	e	Matmar	Area 300	pin	
191	f	Matmar	Grave 3127	pin	

Present location	General period	Reference
University Museum, Manchester UK	19_Dynasty-12	Petrie (1890, 21–22, Pl. XIV: 1–10); Weinstein (1974, 78–79)
University Museum, Manchester UK	19_Dynasty-12	Petrie (1890, 21–22, Pl. XIV: 1–10); Weinstein (1974, 78–79)
University Museum, Manchester UK	19_Dynasty-12	Petrie (1890, 21–22, Pl. XIV: 1–10); Weinstein (1974, 78–79)
University Museum, Manchester UK	19_Dynasty-12	Petrie (1890, 21–22, Pl. XIV: 1–10); Weinstein (1974, 78–79)
University Museum, Manchester UK	19_Dynasty-12	Petrie (1890, 21–22, Pl. XIV: 1–10); Weinstein (1974, 78–79)
University Museum, Manchester UK	19_Dynasty-12	Petrie (1890, 21–22, Pl. XIV: 1–10); Weinstein (1974, 78–79)
University Museum, Manchester UK	19_Dynasty-12	Petrie (1890, 21–22, Pl. XIV: 1–10); Weinstein (1974, 78–79)
Neues Museum, Berlin, Germany	24_Pan grave	Davies (1987, 81); Kühnert-Eggebrecht (1967, Cat. No. G-I/1+24); Brunton (1937, Pl. lxxvii, 16)
Neues Museum, Berlin, Germany	24_Pan grave	Brunton (1937, 116, Pl. LXX, LXXVII: 16–18); Liszka (2012, 495, Table 21)
Ägyptisches Museum der Universität Leipzig, Germany	27_Second Intermediate Period	Odler and Kmošek (2020, Fig. 108)
Egyptian Museum, Cairo, Egypt	24_Pan grave	Davies (1987, 81); Kühnert-Eggebrecht (1967, Cat. No. G-I/4); Brunton (1937, Pl. lxxvii, 8)
Kunsthistorisches Museum, Wien, Austria	24_Pan grave	Brunton (1937, 118, Pl. LXXVII: 5)
British Museum, London UK	24_Pan grave	Davies (1987, 82, Cat. No. 104); Kühnert-Eggebrecht (1967, Cat. No. G-I/6)
Petrie Museum, University College London UK	05_Naqada-II	Petrie—Quibell (1896, 14, 30, Pl. LXV: 19, 20); Baumgartel (1960, 8, 12)
Ashmolean Museum, Oxford UK; Neues Museum, Berlin, Germany; Petrie Museum, University College London UK	05_Naqada-II	Petrie—Quibell (1896, 24, Pl. LXV: 21), Baumgartel (1960, 18; 1970, Pl. I); Payne (1993, 147–148, Fig. 59: 1224–1229) Wetering—Tassie (2020, 84); Wetering (2020, 99)
unknown	07_Naqada	Petrie (1901, 24, Pl. X: 30–31)
Kromer collection at the Institute of Prehistory and Historical Archaeology, Universität Wien, Austria	12_Dynasty-4	Kromer (1978, 79–82, Taf. 32); Odler—Kmošek et al. (2021); Odler (2016, Fig. 37)
British Museum, London UK	07_Naqada	Brunton (1948, Pl. XVI: 45)
Museum of Archaeology and Anthropology, Cambridge UK	07_Naqada	Brunton (1948, Pl. XVI: 44)
Museum of Archaeology and Anthropology, Cambridge UK	07_Naqada	Brunton (1948, 21, Pl. XVI: 43)

TABLE 42 Artefact information for the figures with multiple objects present (*cont.*)

Figure no.	Letter	Site	Structure	Class	Inventory number
191	g	Abydos	Grave 501	needle	
191	h	Abydos	Tomb of Djer	needle	1901.40.40
191	h	Abydos	Tomb of Djer	needle	E6101
191	h	Abydos	Tomb of Djer	pin	
191	h	Abydos	Tomb of Djer	needle	1896–1908 E.1572
191	h	Abydos	Tomb of Djer	needle	1896–1908 E.1571
191	i	Abydos	Tomb of Den	needle	1896–1908 E.1236
191	j	Abydos	Tomb of Semerkhet	net needle	1896–1908 E.1306
191	j	Abydos	Tomb of Semerkhet	needle	E6189
191	k	Abydos	Tomb of Qaa	needle	E.1307
191	l	Abydos	Tomb of Peribsen	needle	1896–1908 E.620
191	m	Mostagedda	Area 10000	needle	
192		Tell el-Daba	F/I-I/16 Planum 2/3 below altar	pin / chisel	Reg. No. 7564
192		Tell el-Daba	I/60, M683	needle	8949D
192		Tell el-Daba	Locus 341	needle	8949F
192		Tell el-Daba	Locus 600	needle	8949B
192		Tell el-Daba	Locus 95	needle	8949C
192		Tell el-Daba	Temple, Locus 29	needle	8949E
197	a	Naqada	Grave 1270	awl	UC4467
197	b	Saqqara	Tomb 3471	awl	410
197	b	Saqqara	Tomb 3471	net needle	425
197	c	Sedment	Grave 1354	awl	UC18155
197	d	Badari	Grave 3226	awl	ABDUA:24262
197	e	Kahun		awl	UC63603
197	f	Mostagedda	Grave 3103	awl	
197	g	Mostagedda	Grave 3234	awl	
197	h	Mostagedda	Grave 3246	awl	
197	i	Mostagedda	Grave 3203	awl	63272
197	j	Mostagedda	Grave 3242	awl	unknown
199	a	Abydos	Level 20	spearhead	67565

Present location	General period	Reference
Royal Academy of Art, The Hague, Netherlands	08_Dynasty-1	Petrie (1925, Pl. IV: 1, 4; XX); tomb card
Pitt Rivers Museum, Oxford UK	08_Dynasty-1	Petrie (1901, 36, Pl. XXXV: 84)
University of Pennsylvania Museum of Archaeology and Anthropology, Philadelphia, USA	08_Dynasty-1	Petrie (1901, 36, Pl. XXXV: 84–95); Golden (2002)
	08_Dynasty-1	Petrie (1901, 36, Pl. XXXV: 84–95); Golden (2002)
Ashmolean Museum, Oxford UK	08_Dynasty-1	Petrie (1901, 8–9, 36, pl. XXXV: 86)
Ashmolean Museum, Oxford UK	08_Dynasty-1	Petrie (1901, pl. XXXV: 34, 36)
Ashmolean Museum, Oxford UK	08_Dynasty-1	Petrie (1901, 9–11 (tomb), 36, pl. XXXVIII: 93)
Ashmolean Museum, Oxford UK	08_Dynasty-1	Petrie (1900, 13–14 (tomb), pl. XXXVII: 37; II, p. 36, pl. XLIII: 17)
Ashmolean Museum, Oxford UK	08_Dynasty-1	Petrie (1900, 28, Pl. XXXVII: 37, 38, 40–41; 1901, Pl. XLIII: 13–17, Pl. XLIV: 11, 12)
Ashmolean Museum, Oxford UK	08_Dynasty-1	Petrie (1901, Pl. XLIV: 48); Engel (2017, 501)
Ashmolean Museum, Oxford UK	09_Dynasty-2	Petrie (1901, 11–12 (tomb), 36, pl. XLV: 18)
Kunsthistorisches Museum, Wien, Austria	14_Dynasty-6	Brunton (1937, 98, 109, Pl. LXI: 16); Odler (2016, Fig. 56)
Egypt, ÖAI excavations	19_Dynasty-12	Czerny (1999, 118, Abb. 56); Philip (2006, 106, Fig. 48: 15)
Egypt, ÖAI excavations	19_Dynasty-12	Czerny (2015, 390–391, Abb. T153)
Egypt, ÖAI excavations	19_Dynasty-12	Czerny (2015, 390–391, Abb. T153)
Egypt, ÖAI excavations	19_Dynasty-12	Czerny (2015, 390–391, Abb. T153)
Egypt, ÖAI excavations	19_Dynasty-12	Czerny (2015, 390–391, Abb. T153)
Petrie Museum, University College London UK	07_Naqada	Petrie—Quibell (1896, Pl. LXV: 12); Baumgartel (1970, Pl. XXXVII)
Egyptian Museum, Cairo, Egypt	08_Dynasty-1	Emery (1949, Fig. 24)
Egyptian Museum, Cairo, Egypt	08_Dynasty-1	Emery (1949, Fig. 25)
Petrie Museum, University College London UK	09_Dynasty-2	Petrie—Brunton (1924, Pl. XXXVI, XLIII: 94)
Anthropological Museum, University of Aberdeen UK	16_First Intermediate Period	Brunton (1927, 59, Pl. XXXVIII: 8)
Petrie Museum, University College London UK	19_Dynasty-12	Petrie (1890, 26, Pl. XVII: 2, 10–20; 1891, 12, Pl. VII: 20)
British Museum, London UK	24_Pan grave	Brunton (1937, 115, Pl. LXXV: 38)
British Museum, London UK	24_Pan grave	Brunton (1937, 119, Pl. LXXV: 39)
Kunsthistorisches Museum, Wien, Austria	24_Pan grave	Brunton (1937, Pl. LXXV: 40)
British Museum, London UK	24_Pan grave	Brunton (1937, 118, Pl. LXXVII: 1)
British Museum, London UK	24_Pan grave	Brunton (1937, 120, Pl. LXXVII: 3)
unknown	08_Dynasty-1	Petrie (1902, 23, Pl. L)

TABLE 42 Artefact information for the figures with multiple objects present (*cont.*)

Figure no.	Letter	Site	Structure	Class	Inventory number
199	b	Qustul	Grave L 24	spearhead	E23727
199	c	Tarkhan	Tomb 474	spearhead	UC17082
199	d	Tarkhan	Tomb 20	spearhead	
204	a	Kafr Ammar	Grave 509	axe	without number
204	b	Rifa	Grave 194	axe	E2900
204	c	Rifa	Grave 195	axe	4202.a-d
204	d	Diospolis Parva	Grave Y162	axe	1896–1908 E.1791; 1896–1908 E.1788–1790
204	e	Qau	Grave 301	axe	without number
204	f	Aniba	Tomb N 21	axe	ÄMUL 4697
204	g	Rifa	Locality 500	axe	JdE 38974
212		Badari	Cemetery 3100/b		
212		Hammamiya	Grave 1939		
212		Hammamiya	Grave 2001		
212		Hammamiya	Grave 2041		
212		Qau	Grave 306		
212		Qau	Grave 308		
212		Badari	Grave 3314		
212		Qau	Grave 859		
213		Hammamiya	Grave 1749		

Present location	General period	Reference
Oriental Institute, University of Chicago, USA	03_A-Group	Williams (1986, 128, 359, Fig. 170, Pl. 64b, 65b)
Petrie Museum, University College London UK	06_Naqada-IIIAB	Petrie—Wainwright—Gardiner (1913, 23, 10, Pl. I, IV: 6, LXIII); Baumgartel (1960, 11)
Petrie Museum, University College London UK		Petrie—Wainwright—Gardiner (1913, 9, Pl. I: 1, XI: 20, LXI)
unknown	16_First Intermediate Period	Petrie—Mackay (1915, 32, Pl. XXVI: 1); Davies (1987, 78)
University of Pennsylvania Museum of Archaeology and Anthropology, Philadelphia, USA	17_First Intermediate Period / Middle Kingdom	Petrie (1907, 14, Pl. XIII: 3); Davies (1987, 37, 79); Kühnert-Eggebrecht (1967, Cat. No. E/1); Ranke (1950, Fig. 47)
University Museum, Manchester UK	17_First Intermediate Period / Middle Kingdom	Petrie (1907, 14, Pl. XIII: 4); Davies (1987, 37, 79); Kühnert-Eggebrecht (1967, Cat. No. E-I/2)
Ashmolean Museum, Oxford UK	16_First Intermediate Period	Petrie (1901, 41, Pls. XXXII: 1, XXVII: 162); Davies (1987, 79); Kühnert-Eggebrecht (1967, Cat. No. E-I/1)
Petrie Museum, University College London UK	18_Dynasty-11	Brunton (1927, Pl. XXXVIII: 5, 13; XXXIX: 13); Davies (1987, 79); Kühnert-Eggebrecht (1967, Cat. No. E-I/3)
Ägyptisches Museum der Universität Leipzig, Germany	22_C-Group	Odler and Kmošek (2020, Fig. 63)
Egyptian Museum, Cairo, Egypt	17_First Intermediate Period / Middle Kingdom	Petrie (1907, 14, Pl. XIII: 2); Davies (1987, 79); Kühnert-Eggebrecht (1967, Cat. No. E-F/1);
Kyoto University Museum, Kyoto, Japan	17_First Intermediate Period / Middle Kingdom	Brunton (1927, 59, 60, Pl. XXXVIII: 18)
stolen from excavation	16_First Intermediate Period	Brunton (1927, 59, Pl. XXXVIII: 9)
Petrie Museum, University College London UK	16_First Intermediate Period	Brunton (1927, 59, Pl. XXXVIII: 6)
University Museum, Manchester UK	16_First Intermediate Period	Brunton (1927, 59, Pl. XXXVIII: 2); Grajetzki (2020, 137)
Hands on History, Hull UK	18_Dynasty-11	Brunton (1927, 60, Pl. XXXVIII: 27); Davies (1987, 76); Kühnert-Eggebrecht (1967, Cat. No. MD/11)
Ashmolean Museum, Oxford UK	18_Dynasty-11	Brunton (1927, 59, Pl. XXXVIII: 1)
Anthropological Museum, University of Aberdeen UK	16_First Intermediate Period	Brunton (1927, 59, Pl. XXXVIII: 17)
Gray Art Gallery and Museum, Hartlepool UK	16_First Intermediate Period	Brunton (1927, 60, Pl. XXXVIII: 26, 1928, Pl. LXIX); Lilyquist (1979, 20, footnote 238); tomb card; Davies (1987, 74); Kühnert-Eggebrecht (1967, Cat. No. MD/10)
Pitt Rivers Museum, Oxford UK	18_Dynasty-11	Brunton (1927, 59, Pl. XXXVIII: 12); http://objects.prm.ox.ac.uk ; Davies (1987, 80); Kühnert-Eggebrecht (1967, Cat. No. C-II/1)

TABLE 42 Artefact information for the figures with multiple objects present (*cont.*)

Figure no.	Letter	Site	Structure	Class	Inventory number
213		Hammamiya	Grave 2061	arrowhead	
213		Hammamiya	Grave 2061		
213		Qau	Grave 301		
213		Qau	Grave 309		
213		Qau	Grave 321		
213		Qau	Grave 324		
213		Qau	Grave 330		
213		Badari	Grave 4973		
213		Badari	Grave 4975		
213		Qau	Grave 914		
213		Qau	Grave 974		
214	a	Rifa	Grave 97		
214	b	Rifa	Grave 130		
214	c	Rifa	Grave 251		
216		Asiut	Tomb 7, Shaft 1		
217		Mostagedda	Grave 504		
217		Mostagedda	Tomb 1621		
217		Mostagedda	Tomb 1658		
217		Mostagedda	Tomb 1681		

Present location	General period	Reference
Anthropological Museum, University of Aberdeen UK	18_Dynasty-11	Brunton (1927, 59, Pl. XXXVIII: 16)
Anthropological Museum, University of Aberdeen UK	18_Dynasty-11	Brunton (1927, 59, Pl. XXXVIII: 16)
Petrie Museum, University College London UK	18_Dynasty-11	Brunton (1927, 59, Pl. XXXVIII: 5, 13; XXXIX: 13); Davies (1987, 79); Kühnert-Eggebrecht (1967, Cat. No. E-I/3)
Lichfield Museum, Lichfield UK	18_Dynasty-11	Brunton (1927, 60, Pl. XXXVIII: 23); Davies (1987, 75); Kühnert-Eggebrecht (1967, Cat. No. MD/12)
City Museum and Art Gallery, Plymouth UK	18_Dynasty-11	Brunton (1927, 60, Pl. XXXVIII: 22); Davies (1987, 76); Kühnert-Eggebrecht (1967, Cat. No. MA-B/31)
Gray Art Gallery and Museum, Hartlepool UK	18_Dynasty-11	Brunton (1927, 60, Pl. XXXVIII: 15, 21); Davies (1987, 76); Kühnert-Eggebrecht (1967, Cat. No. D-I/1)
Egyptian Museum, Cairo, Egypt	16_First Intermediate Period	Brunton (1927, 59, 60, Pl. XXXVIII: 11, 25); Davies (1987, 74, 81); Kühnert-Eggebrecht (1967, Cat. No. MD/14)
University Museum, Manchester UK; Petrie Museum, University College London UK	18_Dynasty-11	Brunton (1927, 59, 60, Pl. XXXVIII: 20); Davies (1987, 76); Kühnert-Eggebrecht (1967, Cat. No. MA-B/31)
Ashmolean Museum, Oxford UK	18_Dynasty-11	Brunton (1927, 41, 59, Pl. XXXVIII: 4); Grajetzki (2020, 137)
Petrie Museum, University College London UK	18_Dynasty-11	Brunton (1927, 60, 61, Pl. XXXVIII: 19)
Petrie Museum, University College London UK	18_Dynasty-11	Brunton (1927, 59, 60, Pl. XXXVIII: 3, 24)
unknown	21_Middle Kingdom	Petrie (1907, Pl. XIII: 11)
World Museum, Liverpool UK	27_Second Intermediate Period	Petrie (1907, 14, Pl. XIII: 8); Davies (1987, 82); Kühnert-Eggebrecht (1967, Cat. No. G-IV/3); Bienkowski—Southworth (1986, 86)
University of Pennsylvania Museum of Archaeology and Anthropology, Philadelphia, USA	20_Dynasty-13	Petrie (1907, 43, Pl. XIII: 9); Petschel (2011, 257, 524, Cat. No. 292)
Louvre, Paris, France; Egyptian Museum, Cairo, Egypt	16_First Intermediate Period	Chassinat—Palanque (1911, 47–48, 111, 112, Pl. XIII, Pl. XXII: 1, Pl. XXIII: 3); Lilyquist (1979, 18–19); Vercoutter (1981); Podvin (2000, 314–315, ME15); Zitman (2010, 257–260); Couton-Perche (2021, 102–103)
Neues Museum, Berlin, Germany	14_Dynasty-6	Brunton (1937, 98, Pl. LXI: 17); Odler (2016, Fig. 56)
British Museum, London UK	18_Dynasty-11	Brunton (1937, 101, Pl. LXI: 2); Davies (1987, 75, Cat. No. 29); Kühnert-Eggebrecht (1967, Cat. No. MD/9)
South African Cultural History Museum, Cape Town, South Africa	18_Dynasty-11	Brunton (1937, Pl. LXI: 7); Davies (1987, 74, 80); Kühnert-Eggebrecht (1967, Cat. No. MD/6, MC-I/C-V/2)
British Museum, London UK	16_First Intermediate Period	Brunton (1937, Pl. LXI: 6)

TABLE 42 Artefact information for the figures with multiple objects present (*cont.*)

Figure no.	Letter	Site	Structure	Class	Inventory number
217		Mostagedda	Tomb 1690	hair curler	
217		Mostagedda	Tomb 1690		
217		Mostagedda	Tomb 1693		
217		Mostagedda	Tomb 1814		
217		Mostagedda	Tomb 1920		
217		Mostagedda	Tomb 5118		
217		Mostagedda	Tomb 5122		
217		Mostagedda	Tomb 5132		
217		Mostagedda	Tomb 721		
222	a	Diospolis Parva	Grave Y179	axe	
222	b	Diospolis Parva	Grave W 65	dagger	E5569
222	c	Diospolis Parva	Grave Y174	axe	99.665
222	d	Diospolis Parva	Grave Y412	axe	
222	e	Diospolis Parva	Grave Y351	axe	
222	f	Diospolis Parva	Grave Q 30	axe	
222	g	Diospolis Parva	Grave Y165	axe	
222	h	Diospolis Parva	Grave Y165	dagger	E.1787
222	i	Diospolis Parva	Grave Y164	axe	
222	j	Diospolis Parva	Grave Y211	dagger	

Present location	General period	Reference
British Museum, London UK; Neues Museum, Berlin, Germany	18_Dynasty-11	Brunton (1937, 102–103, Pl. LXI: 1)
British Museum, London UK; Neues Museum, Berlin, Germany	18_Dynasty-11	Brunton (1937, 102–103, Pl. LXI: 1, LXII: 2); Davies (1987, 40, 75, 81, Cat. No. 30, 89, Pls. 5:30, 15: 89); Kühnert-Eggebrecht (1967, Cat. No. C-V/4, MC-I/C-V/1, MD/4)
Museum of Mediterranean and Near Eastern Antiquities, Stockholm, Sweden	18_Dynasty-11	Brunton (1937, 103, Pl. LXI: 8); Davies (1987, 76); Kühnert-Eggebrecht (1967, Cat. No. MA-B/33 + MD/2)
Neues Museum, Berlin, Germany	18_Dynasty-11	Brunton (1937, Pl. LXII: 2); Davies (1987, 81); Kühnert-Eggebrecht (1967, Cat. No. C-V/3)
Neues Museum, Berlin, Germany	16_First Intermediate Period	Brunton (1937, Pl. LXII: 1); Kaiser (1967, 48, Abb. 499)
Kunsthistorisches Museum, Wien, Austria	18_Dynasty-11	Brunton (1937, 103, Pl. LXI: 5, Pl. LXII: 3); Davies (1987, 76, 81); Kühnert-Eggebrecht (1967, Cat. No. MD/5); Odler et al. (2018)
British Museum, London UK	16_First Intermediate Period	Brunton (1937, Pl. LXI: 9); Davies (1987, 75, Cat. No. 31); Kühnert-Eggebrecht (1967, Cat. No. MD/8)
Durban, South Africa	16_First Intermediate Period	Brunton (1937, Pl. LXI: 4)
Neues Museum, Berlin, Germany	18_Dynasty-11	Davies (1987, 76); Kaiser (1967, 47, Abb. 489); Kühnert-Eggebrecht (1967, Cat. No. D-I/9 + D/2); Kaiser (1967, 47); Brunton (1937, 102, Pl. LXI: 3, Pl. LXII: 4)
Oriental Institute, University of Chicago, USA	20_Dynasty-13	Petrie (1901, Pl. XXXII: 3); Bourriau (2009, 69)
Oriental Institute, University of Chicago, USA	20_Dynasty-13	Petschel (2011, 257, 522, Cat. No. 291)
Museum of Fine Arts, Boston, USA	21_Middle Kingdom	Davies (1987, 81); Kühnert-Eggebrecht (1967, Cat. No. MG-I/1); Petrie (1901b, pls. xxvii, 174, xxxii, 13); Dunham (1943, 62); Lucas—Harris (1962, 486)
Eton College, Windsor UK	27_Second Intermediate Period	Petrie (1901, Pl. XXXII: 14); Bourriau (2009, 80)
Metropolitan Museum of Art, New York, USA	27_Second Intermediate Period	Petrie (1901, Pl. XXXII: 24)
Egyptian Museum, Cairo, Egypt	27_Second Intermediate Period	Petrie (1901, Pl. XXXII: 20)
Ashmolean Museum, Oxford UK	24_Pan grave	Petrie (1901, Pl. XXXII: 15)
Ashmolean Museum, Oxford UK	24_Pan grave	Petschel (2011, 253, 514, Cat. No. 272)
University of Pennsylvania Museum of Archaeology and Anthropology, Philadelphia, USA	27_Second Intermediate Period	Petrie (1901, Pl. XXXII: 21); Bourriau (2009, 68)
Metropolitan Museum of Art, New York, USA; Ashmolean Museum, Oxford UK	27_Second Intermediate Period	Petrie (1901, Pl. XXXII: 16); Bourriau (2009, 72)

TABLE 42 Artefact information for the figures with multiple objects present (*cont.*)

Figure no.	Letter	Site	Structure	Class	Inventory number
222	k	Diospolis Parva	Grave Y237	dagger	JdE 83702
222	l	Diospolis Parva	unknown	dagger	
222	m	Diospolis Parva	Grave Y458	snake	
222	n	Diospolis Parva	Grave Y237	axe	
222	o	Diospolis Parva	Grave Y505	axe	
225		Aniba	Grave N 11	mirror	ÄMUL 4701
225		Aniba	Grave N 11	dagger	ÄMUL 2152
233	a	Naqada	Grave T 9	harpoon	1895.971
233	b	Naqada	Grave B 99	harpoon	12863
233	c	Abydos	Tomb of Den	harpoon	E.1305
233	c	Abydos	Tomb of Djer	harpoon	1901.40.41
233	d	Abydos	Tomb of Semerkhet	harpoon	
233	e	Badari	Grave 3251	harpoon	
233	f	Matmar	Grave 2649	fishhook	
233	g	Matmar	Area 5100	fishhook	1932.905
233	h	Ballas	Grave Q 103	fishhook	
233	i	Abydos	Tomb of Peribsen	fishhook	1901.40.105
233	j	Diospolis Parva	Grave Y456	fishhook	
233	k	Kahun		fishhook	1889.27.42
233	k	Kahun		fishhook	232
236	a	Buto	Unknown	knife	E18_268_2
236	b	Hierakonpolis	Main deposit	knife	1896–1908 E.1073

Present location	General period	Reference
Egyptian Museum, Cairo, Egypt	27_Second Intermediate Period	Petschel (2011, 109, 362, Cat. No. 17); Focke (2013, 8, Fig. 6)
unlocated	24_Pan grave	
Ashmolean Museum, Oxford UK	21_Middle Kingdom	Petrie (1901, Pl. XXXII: 19); Bourriau (2009, 84); Miniaci (2020, 70)
Ashmolean Museum, Oxford UK; Egyptian Museum, Cairo, Egypt	27_Second Intermediate Period	Petrie (1901, Pl. XXXII: 17, 22); Ryholt (1997, 389); Bourriau (2009, 74); Petschel (2011, 109, 362, Cat. No. 17); Focke (2013, 8, Fig. 6)
University of Pennsylvania Museum of Archaeology and Anthropology, Philadelphia, USA	27_Second Intermediate Period	Petrie (1901, Pl. XXXII: 25); Bourriau (2009, 87)
Ägyptisches Museum der Universität Leipzig, Germany	22_C-Group	Steindorff (1935, 126–127); Bietak (1968, 135); Spiekermann (2004); Odler—Kmošek (2020)
Ägyptisches Museum der Universität Leipzig, Germany	22_C-Group	Steindorff (1935, 126–127); Bietak (1968, 135); Spiekermann (2004); Odler—Kmošek (2020)
Ashmolean Museum, Oxford UK	05_Naqada-II	Petrie—Quibell (1896, 48, Pl. LIV: 7); Petrie's Naqada 71 notebook; Baumgartel (1960, 19; 1970, Pl. LXVII); Payne (1993, 148, Fig. 59: 1230)
Neues Museum, Berlin, Germany	05_Naqada-II	Petrie—Quibell (1896, 23); Baumgartel (1960, 19; 1970, Pl. LXIV)
Ashmolean Museum, Oxford UK	08_Dynasty-1	Petrie (1900, 28, Pl. XXXVII: 35; 1901, 36, Pl. XXXVIII: 91–94, XLI: 85–86, 90–93)
Pitt Rivers Museum, Oxford UK	08_Dynasty-1	Petrie (1901, 36, Pl. XXXV: 84–95); Golden (2002)
Ashmolean Museum, Oxford UK	08_Dynasty-1	Petrie (1900, 28, Pl. XXXVII: 37, 38, 40–41; 1901, Pl. XLIII: 13–17, Pl. XLIV: 11, 12)
Hands on History, Hull UK	16_First Intermediate Period	Brunton (1927, 59, Pl. XXXVIII: 7)
Egyptian Museum, Cairo, Egypt	07_Naqada	Brunton (1948, 21, Pl. XVI: 39); Baumgartel (1960, 19)
Ashmolean Museum, Oxford UK	05_Naqada-II	Brunton (1948, 16, 21, Pl. XVI: 40); Payne (1993, 148, Fig. 59: 1233)
unknown	08_Dynasty-1	Petrie—Quibell (1896, 7–8, Pl. III, Fig. 14, Pl. LXV: 17); Baumgartel (1960, 19); Rizkana and Seeher (1989, 14)
Pitt Rivers Museum, Oxford UK	09_Dynasty-2	Petrie (1901, 12, 36, Pl. XLV: 18–21); Amélineau (1904, 259, Pl. 48: 1, 2)
unlocated	21_Middle Kingdom	Petrie (1901, Pl. XXXII: 29, 30); Bourriau (2009, 84)
Pitt Rivers Museum, Oxford UK	19_Dynasty-12	Petrie (1890, 26, Pl. XVII: 2, 10–20; 1891, 12, Pl. VII: 20)
University Museum, Manchester UK	19_Dynasty-12	Petrie (1890, 26, Pl. XVII: 2, 10–20; 1891, 12, Pl. VII: 20)
SCA magazine, Zagazig, Egypt	11_Early Dynastic Period	Hartung et al. (2016, 115, Abb. 57)
Ashmolean Museum, Oxford UK	11_Early Dynastic Period	Quibell (1900, 8, Pl. XXIV: 2); Quibell—Green (1902, Pl. XLVIIIb); Adams (1974, 39)

TABLE 42 Artefact information for the figures with multiple objects present (*cont.*)

Figure no.	Letter	Site	Structure	Class	Inventory number
236	c	Elephantine	House 2	knife	26 108Y/c-1
236	d	Abydos	Found west of Structure H, Temple precinct	knife	
236	e	Tell el-Daba	House L039	knife	8561
238	a	Naqada	Grave 807	razor	1895.97
238	a	Naqada	Grave 807	chisel	UC5073
238	b	Matmar	Grave 3234	razor	
238	c	Abydos	Grave 501	razor	
238	e	Giza	D 203, Shaft 1	razor	ÄMUL 2131
238	e	Giza	D 203, Shaft 1	razor	ÄMUL 2132
238	f	Qau	unknown	razor	ÄMUL 5515
238	g	Matmar	Grave 304	razor	
238	h	Haraga	Grave A 124	razor	
238	i	Matmar	Grave 5002	razor	JdE 55901/2
239	a	Giza	Grave 11	razor	UC27390
239	b	Qau	unknown	razor	ÄMUL 5513
239	c, d	Haraga	Grave A 124	razor	
239	e	Sheikh Abd el-Qurna	Intact female burial	razor	A.1909.527.34
241	a	Naqada	Grave 162	ear spatula	UC4302
241	a	Naqada	Grave 162	net needle	

Present location	General period	Reference
Egypt, DAI excavations	15_Old Kingdom	Dorn (2015, 229, Abb. 218)
British Museum, London UK; Egyptian Museum, Cairo, Egypt	17_First Inter- mediate Period / Middle Kingdom	Petrie (1903, 32–33, Pl. XXII: 1–9); Kühnert-Eggebrecht (1967, Cat. No. D/1); Davies (1987, 15, 74, 75, Cat. No. 15, Pl. 3)
Egypt, ÖAI excavations	19_Dynasty-12	Czerny (2015, 391, Abb. T153)
Ashmolean Museum, Oxford UK	05_Naqada-II	Petrie—Quibell (1896, 27, Pl. LXV: 4); Baumgartel (1960, 16; 1970, Pl. XXX); Payne (1993, 147, Fig. 59: 1219)
Petrie Museum, University Col- lege London UK	05_Naqada-II	Petrie—Quibell (1896, 27, Pl. LXV: 4); Baumgartel (1960, 16; 1970, Pl. XXX); Payne (1993, 147, Fig. 59: 1219)
Egyptian Museum, Cairo, Egypt	07_Naqada	Brunton (1948, 30, Pl. XXXVII: 3234-14); Odler (2016, Fig. 55)
Royal Academy of Art, The Hague, Netherlands	08_Dynasty-1	Petrie (1925, Pl. IV: 1, 4; XX); tomb card
Ägyptisches Museum der Uni- versität Leipzig, Germany	13_Dynasty-5	Steindorff—Hölscher (1991, 97); Lembke—Schmitz (2011, 138, 007 1); http://www.giza-projekt.org/Mastaba/Mastaba_D203.html ; Odler—Kmošek (2020); Odler (2016, Fig. 40)
Ägyptisches Museum der Uni- versität Leipzig, Germany	13_Dynasty-5	Steindorff—Hölscher (1991, 97); Lembke—Schmitz (2011, 138, 007 1); http://www.giza-projekt.org/Mastaba/Mastaba_D203.html ; Odler—Kmošek (2020); Odler (2016, Fig. 40)
Ägyptisches Museum der Uni- versität Leipzig, Germany	15_Old Kingdom	Odler—Kmošek (2020)
Museum of Archaeology and Anthropology, Cambridge UK	16_First Interme- diate Period	Brunton (1948, Pl. XXXV: 20)
City Museum and Art Gallery, Bristol UK	19_Dynasty-12	Engelbach (1923, 15–16, 28, Pls. XV, XXIII); Lilyquist (1979, 35–36, footnote 399–402, Fig. 46); Miniaci (2019, 183, Fig. 6)
Egyptian Museum, Cairo, Egypt	27_Second Inter- mediate Period	Brunton (1948, 56, 58, Pl. XLIII: 41, XLIV)
Petrie Museum, University Col- lege London UK	08_Dynasty-1	Petrie (1907, 4, Pl. V: 22, 23)
Ägyptisches Museum der Uni- versität Leipzig, Germany	15_Old Kingdom	Odler—Kmošek (2020)
City Museum and Art Gallery, Bristol UK	19_Dynasty-12	Engelbach (1923, 15–16, 28, Pls. XV, XXIII); Lilyquist (1979, 35–36, footnote 399–402, Fig. 46); Miniaci (2019, 183, Fig. 6)
National Museum of Scotland, Edinburgh UK	26_Dynasty-17	Petrie (1909, 6–10, Pls. XXII–XXIX); Smith (1992, Fig. 9); Bourriau (2010, 32–35, Fig. 16)
Petrie Museum, University Col- lege London UK	05_Naqada-II	Petrie—Quibell (1896, 5, Taf. LXV: 13)
Petrie Museum, University Col- lege London UK	05_Naqada-II	Petrie—Quibell (1896, 5, Taf. LXV: 15)

TABLE 42 Artefact information for the figures with multiple objects present (*cont.*)

Figure no.	Letter	Site	Structure	Class	Inventory number
241	b	Naqada	Grave G 3	cosmetic tool	
241	c	Abydos	Grave 501	tweezers	
241	d	Abydos	Tomb of Semerkhet	tweezers	1896–1908 E.1304
241	e	Mahasna	Grave 349	tweezers	
241	f	Diospolis Parva	Grave Y250	razor	E.1777
241	g	Diospolis Parva	Tomb Y374	razor	E5350
241	g	Diospolis Parva	Tomb Y374	razor	E5351
241	h	Mostagedda	Tomb 901	razor	
241	h	Mostagedda	Tomb 901	razor	
241	i	Mostagedda	Tomb 1610	razor	62545
241	i	Mostagedda	Tomb 1610	razor	62546
241	j	Diospolis Parva	Grave Y532	razor	ABDUA:21848
241	k	Diospolis Parva	Grave Y519	razor	
241	l	Diospolis Parva	Grave Y376	tweezers	E.1780
241	m	Mostagedda	Grave 3240	tweezers	
241	n	Mostagedda	Grave 3143	tweezers	
262		Giza	D 208, Shaft 9	diadem	ÄMUL 2500
262		Giza	G 7143, Shaft B	diadem	37.606a

Present location	General period	Reference
Ashmolean Museum, Oxford UK; Neues Museum, Berlin, Germany; Petrie Museum, University College London UK	05_Naqada-II	Petrie—Quibell (1896, Pl. LXV: 22)
Royal Academy of Art, The Hague, Netherlands	08_Dynasty-1	Petrie (1925, Pl. IV: 1, 4; XX); tomb card
Ashmolean Museum, Oxford UK	08_Dynasty-1	Petrie (1900, 28, Pl. XXXVII: 37, 38, 40–41; 1901, Pl. XLIII: 13–17, Pl. XLIV: 11, 12)
Royal Museum of Art and History, Brussels, Belgium; National Museum of Antiquities, Leiden, Netherlands	14_Dynasty-6	Garstang (1902, 30–31, 34–35, Pl. XXXIII, XL: 349, XLIII); Rademakers et al (2018; 2018 Supplement 3, 84–87, Figs. 41–42); Odler (2016, Fig. 64)
Ashmolean Museum, Oxford UK	16_First Intermediate Period	Petrie (1901, 41, Pl. XXXII: 2)
Oriental Institute, University of Chicago, USA	17_First Intermediate Period / Middle Kingdom	Bourriau (2009, 78)
Oriental Institute, University of Chicago, USA	17_First Intermediate Period / Middle Kingdom	Bourriau (2009, 78)
Neues Museum, Berlin, Germany	16_First Intermediate Period	Brunton (1937, 108, Pl. LXI: 10–11)
Neues Museum, Berlin, Germany	16_First Intermediate Period	Brunton (1937, 108, Pl. LXI: 10–11)
British Museum, London UK	16_First Intermediate Period	Brunton (1937, 101, 110, Pl. LXI: 12–13)
British Museum, London UK	16_First Intermediate Period	Brunton (1937, 101, 110, Pl. LXI: 12–13)
Anthropological Museum, University of Aberdeen UK	20_Dynasty-13	Petrie (1901, Pl. XXXII: 34)
unlocated	27_Second Intermediate Period	Petrie (1901, Pl. XXXII: 34)
Ashmolean Museum, Oxford UK	27_Second Intermediate Period	McKerrell (1971, 7)
Kunsthistorisches Museum, Wien, Austria	24_Pan grave	Brunton (1937, 120, Pl. LXXV: 28)
British Museum, London UK	24_Pan grave	Brunton (1937, 117, Pl. LXXV: 29)
Ägyptisches Museum der Universität Leipzig, Germany	13_Dynasty-5	(Gauthier-Laurent 1951, Figs. 1–3); Steindorff—Hölscher (1991, 103)
Museum of Fine Arts, Boston, USA	13_Dynasty-5	Dunham (1946); (Gauthier-Laurent 1951, Figs. 1–3)

TABLE 42 Artefact information for the figures with multiple objects present (*cont.*)

Figure no.	Letter	Site	Structure	Class	Inventory number
263	a	Badari	Grave 5413	bead made of copper strip	JdE 49259
263	a	Badari	Grave 5413	bead made of copper strip	JdE 49260
263	b	Naqada	Grave 1480	fingerring: strip with embossed decoration	AN 1895.978B
263	b	Naqada	Grave 1480	fingerring: strip with embossed decoration	AN 1895.978C
263	c	Armant	Tomb 1547	full-size jewellery, bangles	
263	d	Mostagedda	Grave 1873	ibis	1947.2419 B
263	e	Mostagedda	Grave 2822	pendant	
263	f	Matmar	Area 3200	amulet	
263	g	Matmar	Grave 3209	bead	1932.430
263	h	Mostagedda	Tomb 10020	lotus amulet	
263	i	Mostagedda	Grave 11703	pendant	
263	j	Matmar	Grave 3029	armlet	
263	k	Badari	Grave 4947	armlet	
263	l	Qau	Grave 1107	headband	UC18078
263	m	Badari	Grave 5009	round inlaid ornament	
263	n	Matmar	Grave 306	round inlaid ornament	EA63438

Present location	General period	Reference
Egyptian Museum, Cairo, Egypt	01_Badarian	Brunton—Caton Thompson (1928, 12, Pl. L: 86 W 3)
Egyptian Museum, Cairo, Egypt	01_Badarian	Brunton—Caton Thompson (1928, 12, Pl. L: 86 W 3)
Ashmolean Museum, Oxford UK	05_Naqada-II	Petrie—Quibell (1895, 28, 48, Pl. LXIV: 101); Payne (1993, 247, Fig. 86: 2058)
Ashmolean Museum, Oxford UK	05_Naqada-II	Petrie—Quibell (1895, 28, 48, Pl. LXIV: 101); Payne (1993, 247, Fig. 86: 2059)
unlocated	07_Naqada	Bannister (1937); Lucas—Harris (1962, 483)
Museum of Archaeology and Anthropology, Cambridge UK	15_Old Kingdom	Brunton (1937, Pl. LVII: 47C9)
unknown (reserve in the time of publication)	15_Old Kingdom	Brunton (1937, Pl. LVIII: G4)
unknown (reserve in the time of publication)	15_Old Kingdom	Brunton (1948, Pl. XXXI: 32)
Museum of Archaeology and Anthropology, Cambridge UK	13_Dynasty-5	Brunton (1948, 29, Pls. XXXII: 130, XXXVII: 3209)
Neues Museum, Berlin, Germany	16_First Intermediate Period	Brunton (1937, 109, Pls. XLVI, LVII: 58A6)
Egyptian Museum, Cairo, Egypt	16_First Intermediate Period	Brunton (1937, Pls. XLVII, LVIII: E9)
Otago Museum, Dunedin, New Zealand	18_Dynasty-11	Brunton (1948, 40, 52, Pls. XXXV: 22, 27)
University Museum, Manchester UK	18_Dynasty-11	Brunton (1927, 36, Pl. XXIX: 17)
Petrie Museum, University College London UK	16_First Intermediate Period	Brunton (1927, 66, Pl. XXIX: 13)
National Museum, Copenhagen, Denmark	18_Dynasty-11	Brunton (1927, Pl. XXIX: 18)
British Museum, London UK	18_Dynasty-11	Brunton (1948, 38, 50, Pl. XLI: 306–309); Andrews (1981, 53, Pl. 25); Bader (2015, 127)

TABLE 42 Artefact information for the figures with multiple objects present (*cont.*)

Figure no.	Letter	Site	Structure	Class	Inventory number
263	o	Mostagedda	Tomb 1693	sheet	
263	p	Mostagedda	Tomb 1658	sheet	
263	q	Matmar	Grave 521	wire	
263	r	Mostagedda	Grave 1720	scarab	
263	s	Mostagedda	Grave 1895	ring	
263	t	Mostagedda	Grave 2639	earring	62567
263	u	Mostagedda	Grave 1501	ring	
263	v	Mostagedda	Grave 1830	ring	
267	1	Tell el-Daba	A/I-G/4 Grave 3	pin	ÄS 1321 (Reg. No. 340)
267	2	Tell el-Daba	A/II-1/11 Planum 2/3	pin	ÄS 1324 (Reg. No. 343)
267	3	Tell el-Daba	A/I-g/3, Grave 1	pin	ÄS 1322 (Reg. No. 374)
267	4	Tell el-Daba	A/I-g/3 Planum 3.4	pin	ÄS 1323 (Reg. No. 404)
267	5	Tell el-Daba	A/II-m/11 Grave 6, burials 2-3	pin	ÄS 1326 (Reg. No. 882)
267	6	Tell el-Daba	A/II-m/14 Planum 1/2	pin	Reg. No. 928
267	7	Tell el-Daba	A/II-p/21 Grave 7 disturbed by cutting of grave	pin	Reg. No. 4132
267	8	Tell el-Daba	F/I-j/22 Planum 1 deliberate deposit	pin	Reg. No. 4558
272		Abusir	AS 22, Tomb of Inti	vessel	127/AS22/2000_a
272		Abusir	AS 22, Tomb of Inti	vessel	127/AS22/2002_d
272		Abusir	AS 22, Tomb of Inti		
274		Abusir	AS 22, Tomb of Inti	vessel	128/AS22/2002_k
274		Abusir	AS 22, Tomb of Inti	vessel	128/AS22/2002_l
274		Abusir	AS 22, Tomb of Inti	vessel	128/AS22/2002_d
274		Abusir	AS 22, Tomb of Inti	vessel	128/AS22/2002_e
274		Abusir	AS 22, Tomb of Inti	vessel	128/AS22/2002_g
274		Abusir	AS 22, Tomb of Inti	vessel	128/AS22/2002_h
274		Abusir	AS 22, Tomb of Inti	vessel	128/AS22/2002_f

[illegible]

TABLE 42 Artefact information for the figures with multiple objects present (*cont.*)

Figure no.	Letter	Site	Structure	Class	Inventory number
274		Abusir	AS 22, Tomb of Inti	vessel	128/AS22/2002_i
274		Abusir	AS 22, Tomb of Inti	vessel	128/AS22/2002_j
274		Abusir	AS 22, Tomb of Inti	vessel	128/AS22/2002_n
274		Abusir	AS 22, Tomb of Inti	vessel	128/AS22/2002_m
275		Asiut	Tomb 3	vessel	JdE 30967C
275		Asiut	Tomb 3	vessel	JdE 30967D
275		Asiut	Tomb 7, Shaft 1	vessel	E 12012
275		Asiut	Tomb 7, Shaft 1	vessel	E 12011
278	bot- tom	Tell el-Daba	A/II-m/n/12 planum	vessel	Reg. No. 2207
278	top	Tell el-Daba	A/II-m/n/12 planum	vessel	ÄS 1320 (Reg. No. 2206)
281	a	Abydos	Tomb of Aha, no chamber determined	roll of wire	1896–1908 E.1393
281	b	Abydos	Cemetery W, subsidiary burials of the tomb of Djet	wire	E.1682
281	c	Abydos	Cemetery W, subsidiary burials of the tomb of Djet	nail	
281	d	Abydos	Tomb of Den	tip of nail?	1896–1908 E.1241
281	e	Abydos	Tomb of Semerkhet	fitting	1286g
284		Diospolis Parva	Grave D 7		
293		Medinet Habu	'Middle Kingdom Ramesseum Papyri Tomb': Shaft-tomb around the area of the gallery no. 5 of the 'Ramesseum'		
294	a	Balabish	Grave 201	axe	without number
294	b	Balabish	Grave 201	ram, frontal part	
294	c	Balabish	Grave 226	axe	without number
295	a	Mahasna	Grave H 85	knife	JdE 4128 1–2
295	b	Gebel el-Silsila	Early Dynastic tomb	forked staff	CG 14513

Present location	General period	Reference
CIE excavations, Egypt	14_Dynasty-6	Bárta (2006); Odler (2017)
CIE excavations, Egypt	14_Dynasty-6	Bárta (2006); Odler (2017)
CIE excavations, Egypt	14_Dynasty-6	Bárta (2006); Odler (2017)
CIE excavations, Egypt	14_Dynasty-6	Bárta (2006); Odler (2017)
Egyptian Museum, Cairo, Egypt	18_Dynasty-11	Radwan (1983, 81, Taf. 44: 194A)
Egyptian Museum, Cairo, Egypt	18_Dynasty-11	Radwan (1983, 81, Taf. 44: 194B)
Louvre, Paris, France	16_First Intermediate Period	Vercoutter (1981, 124); Radwan (1983, 82, Taf. 44: 195A)
Louvre, Paris, France	16_First Intermediate Period	Vercoutter (1981, 124); Radwan (1983, 82, Taf. 44: 195B)
Kunsthistorisches Museum, Wien, Austria	25_Dynasty-15	Philip (2006, Cat. No. 145)
Kunsthistorisches Museum, Wien, Austria	25_Dynasty-15	Philip (2006, Cat. No. 144)
Ashmolean Museum, Oxford UK	08_Dynasty-1	Petrie (1901, pl. XXXII: 65, 36, 4–5, 7–8)
Ashmolean Museum, Oxford UK	08_Dynasty-1	Petrie (1900, 28, Pl. XXXVII: 10; 1901, Pl. XXXVIII: 74–76)
Ashmolean Museum, Oxford UK	08_Dynasty-1	Petrie (1900, 28, Pl. XXXVII: 10; 1901, Pl. XXXVIII: 74–76)
Ashmolean Museum, Oxford UK	08_Dynasty-1	Petrie (1901, pl. XXXVIII: 91, 36)
Queen's College, London UK	08_Dynasty-1	Petrie (1900, 28, Pl. XXXVII: 37, 38, 40–41; 1901, Pl. XLIII: 13–17, Pl. XLIV: 11, 12)
University of Pennsylvania Museum of Archaeology and Anthropology, Philadelphia, USA; Petrie Museum, University College London UK	14_Dynasty-6	Petrie (1901, 37, Pl. XXV); Radwan (1983, 64, Taf. 35: 166)
Fitzwilliam Museum, Cambridge UK	20_Dynasty-13	Miniaci (2020, 20, 69–70, Fig. 32)
unknown	24_Pan grave	Davies (1987, 83); Kühnert-Eggebrecht (1967, Cat. No. G-V/2); Wainwright (1920, Pl. xiii, 1)
unknown	24_Pan grave	Wainwright (1920, 10, Pl. III, XIII: 3, XVII)
unknown	24_Pan grave	Davies (1987, 82); Kühnert-Eggebrecht (1967, Cat. No. G-I/14); Wainwright (1920, Pls. vi, 1, xiii, 2)
Egyptian Museum, Cairo, Egypt	05_Naqada-II	Ayrton and Loat (1911, 19, 32, Pl. XIX: 5); Baumgartel (1960, 20); Radwan (1983, 3, Taf. 1: 1)
Egyptian Museum, Cairo, Egypt	11_Early Dynastic Period	de Morgan (1897, 141, Fig. 474, 268, Fig. 866); Quibell (1905, 278)

TABLE 42 Artefact information for the figures with multiple objects present (*cont.*)

Figure no.	Letter	Site	Structure	Class	Inventory number
295	c	Diospolis Parva	Grave H 43	bifacial blade	
295	d	Saqqara	Tomb 3471	net needle	457
295	e	Saqqara	Mortuary temple of Weserkaf	auger	
301	a	Naqada	Grave 836	dagger	1895.968
301	b	Tura	Grave 18.e.3	spearhead	ÄS 9252
301	c	Saqqara	Netjerykhet	spearhead	
306	6139	Tell el-Daba	F/I-o/19 Grave 8	axe	Reg. No. 6139
306	7325	Tell el-Daba	F/I-m/18 Grave 3 coffin	axe	Reg. No. 7325
306	7329	Tell el-Daba	F/I-o/17 Grave 1	axe	Reg. No. 7329
308	a	Tell el-Daba	A/I-g/3 Planum 3	harpoon	ÄS 1292 (Reg. No. 264)
308	b	Tell el-Daba	A/II-n/15 Planum 3/4	harpoon	Reg. No. 2506
308	c	Tell el-Daba	A/II-o/16 Planum 4/5	harpoon	Reg. No. 2688
308	d	Tell el-Daba	F/I-k/22 Planum o/1	harpoon	Reg. No. 4729
309	a	Tell el-Daba	A/II-n/11 Grave 4 burial 1	knife	ÄS 1302 (Reg. No. 1310)
309	b	Tell el-Daba	A/II-l/14 Grave 7 from offering chamber	knife	ÄS 1303 (Reg. No. 1656)
309	c	Tell el-Daba	A/II-l/16 Grave 2	knife	ÄS 1312 (Reg. No. 2147)
309	d	Tell el-Daba	F/I-m/18 Grave 3	knife	Reg. No. 6143
309	e	Tell el-Daba	F/I-p/20 Grave 5	knife	Reg. No. 7142
309	f	Tell el-Daba	A/I-g/3, Grave 1	knife	ÄS 1278 (Reg. No. 387)

Present location	General period	Reference
unknown	07_Naqada	Petrie (1901, 35, Pl. X: 32)
Egyptian Museum, Cairo, Egypt	08_Dynasty-1	Emery (1949, 18–57, Figs. 13, 17–27, Pl. 4–6, 9A–10); PM III 2, 444; Davies (1987, 71)
unknown	13_Dynasty-5	Labrousse—Lauer (2000, 29, Fig. 35); Odler (2016, Fig. 213)
Ashmolean Museum, Oxford UK	05_Naqada-II	Petschel (2011, 244, 496, Cat. No. 237)
Kunsthistorisches Museum, Wien, Austria	08_Dynasty-1	Junker (1912, 54–55, 62, Abb. 73); Odler et al. (2018)
Egyptian Museum, Cairo, Egypt	10_Dynasty-3	Firth—Quibell (1935, 124, Fig. 11, Pl. 93: 3); Lauer (1936, 232, Pl. XCVI: 3, 4); PM III 2, 399–415; Arnold (1991, 259)
Egypt, ÖAI excavations	19_Dynasty-12	Philip (2006, 33, 123–124, cat. No. 296, Figs. 4.2, 56.2); Wastlhuber (2011, 72)
Egypt, ÖAI excavations	20_Dynasty-13	Philip (2006, 35, Fig. 5.4)
Egypt, ÖAI excavations	20_Dynasty-13	Philip (2006, 35, Fig. 5.3)
Kunsthistorisches Museum, Wien, Austria	25_Dynasty-15	Philip (2006, 121, Cat. No. 288, Fig. 55. 4)
Egypt, ÖAI excavations	25_Dynasty-15	Philip (2006, 121, Cat. No. 289, Fig. 55: 5)
Egypt, ÖAI excavations	19_Dynasty-12	Philip (2006, 115, 121, Figs. 52: 6, 55: 6)
Egypt, ÖAI excavations	20_Dynasty-13	Philip (2006, 121–123, Fig. Fig. 55: 7)
Kunsthistorisches Museum, Wien, Austria	25_Dynasty-15	Philip (2006, Cat. No. 87)
Kunsthistorisches Museum, Wien, Austria	20_Dynasty-13	Philip (2006, Cat. No. 88)
Kunsthistorisches Museum, Wien, Austria	25_Dynasty-15	Philip (2006, 71–74, 79, 81, Figs. 31: 4, 32: 1, 35: 4, 37: 3); Forstner-Müller (2008, 268, Abb. 194a: 1–4)
Egypt, ÖAI excavations	20_Dynasty-13	Philip (2006, Fig. 34, Cat. No. 101)
Egypt, ÖAI excavations	19_Dynasty-12	Philip (2006, Cat. No. 102)
Kunsthistorisches Museum, Wien, Austria	25_Dynasty-15	Philip (2006, 47–48, axes: 37, Figs. 6.3, 7.1, 7.2; daggers: cat. Nos. 26–28, Figs. 15.1–15.2, 16.1, toggle pin: 98, cat. No. 156, Fig. 45.3)

TABLE 43 List of inscribed tools and weapons

Class	Dating	Inscription category	Inscription	Inscription technology
axe	07_Naqada	owner mark	???	punch
axe	07_Naqada	owner mark	???	punch
axe	07_Naqada	owner mark	???	punch
axe	07_Naqada	owner mark	k3?-??	punch
axe	08_Dynasty-1	personal name	k3-ḥtp	chisel
axe	08_Dynasty-1	royal name in serekh	w3d	chisel
axe	09_Dynasty-2	royal name in serekh	ḥ3j-šm?	chisel
axe	09_Dynasty-2	owner mark	??-sr	punch
axe	09_Dynasty-2	owner mark	n 3	chisel
axe	11_Early Dynastic Period	royal name in serekh	ʿḥ3	unknown
axe	12_Dynasty-4	phyle and royal name	ḥrwy nb šḥtp ꜥprw; snṯ; t3-wr	chisel
axe	14_Dynasty-6	personal name	jꜣj	punch
axe	14_Dynasty-6	unknown	?	continuous line modern fake
axe	17_First Intermediate Period / Middle Kingdom	unknown	sn? k 3 nb	chisel
axe	17_First Intermediate Period / Middle Kingdom	owner mark	jw ... ?	chisel
axe	17_First Intermediate Period / Middle Kingdom	owner mark	jw	chisel
axe	17_First Intermediate Period / Middle Kingdom	numeral	28	chisel
axe	17_First Intermediate Period / Middle Kingdom	unknown	?	unknown
axe	17_First Intermediate Period / Middle Kingdom	owner mark	?	chisel
axe	17_First Intermediate Period / Middle Kingdom	owner mark	?	chisel

Present location	Inventory number	Reference
Petrie Museum, University College London, United Kingdom	TW, pl. iii, 104	Petrie (1917, Pl. iii, 104); Davies (1987, 71); Kühnert-Eggebrecht (1967, Cat. No. A/2)
Egypt Centre, Swansea, United Kingdom	W122	Davies (1987, 71); Rustafjaell (1907, lot. III)
Egypt Centre, Swansea, United Kingdom	W123	Davies (1987, 71); Rustafjaell (1907, lot. III)
Petrie Museum, University College London, United Kingdom	UC16325	Davies (1987, 72); Kühnert-Eggebrecht (1967, Cat. No. B/9); Petrie (1917, Pl. iii, 103)
Petrie Museum, University College London, United Kingdom	UC16177	Petrie (1925, Pl. III: 8; V: 21–22); Davies (1987, 88); Kühnert-Eggebrecht (1967, Cat. No. B-II/1)
Petrie Museum, University College London, United Kingdom	UC16174	Petrie (1925, 5, Pl. III: 6–7; V: 5–7); Davies (1987, 72); Kühnert-Eggebrecht (1967, Cat. No. B-1/3)
County Museum of Art, Los Angeles, USA	M 80.203.36	Davies (1987, 72); Kühnert-Eggebrecht (1967, Cat. No. A-B/3); Kaplony (1965, 24, Abb. 55); Kaplony (1973, no. 56)
British Museum, London, United Kingdom	30065	Spencer (1980); Davies (1987, 72, Cat. No. 3)
Petrie Museum, University College London, United Kingdom	UC30067	Kühnert-Eggebrecht (1967, Cat. No. A-B/2); Petrie (1917, Pl. iii, 108); Cowell (1987, Table 1d); Davies (1987, 73)
Neues Museum, Berlin, Germany	without number	Davies (1987, 72); Kühnert-Eggebrecht (1967, Cat. No. B-I/2); Kaplony (1965, 9, Abb. 14, Taf. I, II); Kaplony (1973, no. 55)
Pontifical Biblical Institute, Jerusalem, Israel	no. undet.	Rowe (1936, 283–289); Roth (1991, 123); Davies (1987, 73); Kühnert-Eggebrecht (1967, Cat. No. A-B/7); Mallon (1925, 49–54)
August-Kestner-Museum Hannover, Germany		Loeben (2014, 323–324); Schulze—Lehmann (2014)
British Museum, London, United Kingdom	51027	Davies (1987, 29, 73, Cat. No. 13, Pls. 2, 31)
Phoebe A. Hearst Museum of Anthropology, UC Berkeley, USA	6–1191	Davies (1987, 79); Kühnert-Eggebrecht (1967, Cat. No. C-II/4); Schulz (2003, 243–244)
Ashmolean Museum, Oxford, United Kingdom	1933.917a	Petrie (1917, Pl. III: 106); Davies (1987, 75); Kühnert-Eggebrecht (1967, Cat. No. D/5)
Ashmolean Museum, Oxford, United Kingdom	1933.917b	Davies (1987, 75)
British Museum, London, United Kingdom	66210	Kühnert-Eggebrecht (1967, Cat. No. D/10+11); Davies (1987, 33, 75, Cat. No. 23, Plate 5: 33); Kaplony (1965, 46, Taf. X: 109)
Oriental Institute, University of Chicago, USA	E11170	Davies (1987, 74)
British Museum, London, United Kingdom	30077	Davies (1987, 75, Cat. No. 18)
British Museum, London, United Kingdom	51009	Davies (1987, 75, Cat. No. 20)

TABLE 43 List of inscribed tools and weapons (cont.)

Class	Dating	Inscription category	Inscription	Inscription technology
axe	17_First Intermediate Period / Middle Kingdom	owner mark	?	chisel
axe	17_First Intermediate Period / Middle Kingdom	owner mark	?	chisel
axe	17_First Intermediate Period / Middle Kingdom	royal name in car-touche	... <i>jmn-htp</i> ...	chisel
axe	17_First Intermediate Period / Middle Kingdom	owner mark	?	chisel
axe	17_First Intermediate Period / Middle Kingdom	unknown	?	chased modern fake
axe	17_First Intermediate Period / Middle Kingdom	personal name	<i>nfr</i>	chisel
axe	17_First Intermediate Period / Middle Kingdom	owner mark	<i>present</i>	chisel
axe	17_First Intermediate Period / Middle Kingdom	owner mark	<i>present</i>	
axe	17_First Intermediate Period / Middle Kingdom	royal name in car-touche	?	continuous line modern fake
axe	17_First Intermediate Period / Middle Kingdom	unknown	?	engraved modern fake
axe	17_First Intermediate Period / Middle Kingdom	title and personal name	<i>jmy-r hm-ntr(.w) k3w-nht-šd</i>	chisel
axe	20_Dynasty-13		<i>h-n-d-r</i>	
axe	21_Middle Kingdom	owner mark	" <i>h</i> "	unknown
axe	24_Pan grave	personal name	<i>k3-nfr?</i>	chisel
axe	26_Dynasty-17		<i>s-ḳn-n-r t'-r'</i>	
axe	26_Dynasty-17		<i>ntr nfr nb-phty-r' s3 r' j'ḥ-ms dj 'nh dt</i>	
axe	26_Dynasty-17		<i>present</i>	
axe	26_Dynasty-17		<i>ntr nfr w3d-hpr.w-r' s3 r' k3-ms dj 'nh dt</i>	

Present location	Inventory number	Reference
British Museum, London, United Kingdom	51008	Davies (1987, 75, Cat. No. 21)
British Museum, London, United Kingdom	36773	Davies (1987, 75, Cat. No. 22)
Petrie Museum, University College London, United Kingdom	UC16326	Davies (1987, 75); Kühnert-Eggebrecht (1967, Cat. No. D/3); Petrie (1917, Pl. iv, 120)
British Museum, London, United Kingdom	51010	Davies (1987, 75, Cat. No. 19); Kühnert-Eggebrecht (1967, Cat. No. D/6)
British Museum, London, United Kingdom	51018	Davies (1987, 76, Cat. No. 43)
British Museum, London, United Kingdom	58074	Davies (1987, 76, Cat. No. 45)
Museum of Mediterranean and Near Eastern Antiquities, Stockholm, Sweden	SHM 10278:9	Davies (1987, 76); Martin (1897, no. 14); Oldeberg (1976, 127, no. 3365)
Museum of Mediterranean and Near Eastern Antiquities, Stockholm, Sweden	SHM 10278:20	Davies (1987, 76); Martin (1897, no. 28); Oldeberg (1976, 127, no. 3367)
County Museum of Art, Los Angeles, USA	M. 80.203.90	Davies (1987, 77)
British Museum, London, United Kingdom	51020	Davies (1987, 77, Cat. No. 48); Kühnert-Eggebrecht (1967, Cat. No. C-D/2)
Metropolitan Museum of Art, New York, USA	26.7.834	Davies (1987, 77); Kühnert-Eggebrecht (1967, Cat. No. P15); Hayes (1959, Fig. 126, lower middle)
unknown	208	Kaplony (1973, 26, Pl. 14: 25, Cat. 62); Ryholt (1997, 342)
National Museum of Antiquities, Leiden, Netherlands	F 1926/8.13	Davies (1987, 74); Boeser (1907) EXXXVII, 11–13P. Giovetti/D. Picchi, <i>Egitto splendore millenario</i> (Bologna 2015), cat. IV.1; http://img.rmo.nl/imageproxy/proxy.aspx?server=10.0.10.13&port=5297&maxwidth=350&filename=/016694.jpg
Egyptian Museum, Cairo, Egypt	JdE 52897	Davies (1987, 81); Kühnert-Eggebrecht (1967, Cat. No. G-I/4); Brunton (1937, Pl. lxxvii, 8)
County Museum of Art, Los Angeles, USA	543	Kaplony (1973, 26–27, Pl. 14: 25, Cat. 63); Ryholt (1997, 397)
Ashmolean Museum, Oxford, United Kingdom	1927.4623	Davies (1974; 1987, 86); Kühnert-Eggebrecht (1967, Cat. No. P 8); Davies (1974, Pls. xxix–xxx); Focke (2013, 8)
Egyptian Museum, Cairo, Egypt; Ashmolean Museum, Oxford, United Kingdom; Louvre, Paris, France	CG 52645 (JdE 4673)	Davies (1987, 86); Kühnert-Eggebrecht (1967, Cat. No. P 53); Vernier (1927, 205–207, Pls. XLII, XLIII, CG 52645); Morris (2022, 175–177, Fig. 6)
Egyptian Museum, Cairo, Egypt; Ashmolean Museum, Oxford, United Kingdom; Louvre, Paris, France	CG 52647; JdE 4675	Davies (1987, 86); Kühnert-Eggebrecht (1967, Cat. No. P 7); Vernier (1927, CG 52647); Bissing (1900, 2, Taf. I) Morris (2022, 177–178, Fig. 8b)

TABLE 43 List of inscribed tools and weapons (*cont.*)

Class	Dating	Inscription category	Inscription	Inscription technology
axe	26_Dynasty-17		<i>nṯr nfr wꜣḏ-ḥpr.w-rˁ sꜣ rˁ kꜣ-ms dj ˁnh ḏt</i>	
axe	26_Dynasty-17		<i>nṯr nfr wꜣḏ-ḥpr-rˁ sꜣ rˁ pꜣ- ḥkꜣ</i>	
axe	26_Dynasty-17	royal name in car- touche	<i>nṯr nfr nb-mꜣˁt-rˁ dj ˁnh</i>	chisel
axe	26_Dynasty-17		<i>nṯr nfr smꜣ-n-rˁ</i>	
axe	27_Second Intermediate Period	royal name in car- touche	<i>nṯr nfr ḏḏ-ˁnh-rˁ dj-ˁnh</i>	chisel
axe	20_Dynasty-13	royal name in car- touche	<i>sn-wsr.t</i>	chisel
axe	27_Second Intermediate Period		<i>present</i>	chisel
axe	27_Second Intermediate Period	owner mark	<i>present</i>	chisel
adze	05_Naqada-II	owner mark	<i>?</i>	punch
adze	06_Naqada-IIIa-B	owner mark	<i>?</i>	punch
adze	08_Dynasty-1	royal name in serekh and personal name	<i>ḏr; bḥ</i>	chisel
adze	08_Dynasty-1	personal name	<i>kꜣ-?</i>	chisel
adze	08_Dynasty-1	personal name	<i>kꜣ?-mn?</i>	chisel
adze	08_Dynasty-1	personal name	<i>wr-kꜣ</i>	chisel
adze	08_Dynasty-1	personal name	<i>sbk-ḥtp</i>	chisel
adze	08_Dynasty-1	royal name	<i>mrt-nt</i>	punch
adze	08_Dynasty-1	royal name in serekh	<i>wꜣḏ</i>	chisel
adze	08_Dynasty-1		<i>present</i>	
adze	11_Early Dynastic Period	personal name	<i>kꜣ?-?</i>	chisel
adze	12_Dynasty-4	phyle and royal name in cartouche	<i>snfrw mr.j ḥḏ ḥmw.tj</i>	chisel

Present location	Inventory number	Reference
Egyptian Museum, Cairo, Egypt; Ashmolean Museum, Oxford, United Kingdom; Louvre, Paris, France	CG 52648; JdE 4677	Davies (1987, 86); Kühnert-Eggebrecht (1967, Cat. No. P 9); Vernier (1927, CG 52648); Focke (2013, 5, Fig. 1); Morris (2022, 178–179, Fig. 8c)
British Museum, London, United Kingdom	36772	Davies (1987, 86, Cat. No. 151); Kühnert-Eggebrecht (1967, Cat. No. P 10); Focke (2013, 8)
British Museum, London, United Kingdom	63224	Davies (1987, 81, Cat. No. 102); Kühnert-Eggebrecht (1967, Cat. No. P/5)
Petrie Museum, University College London, United Kingdom	30079	Davies (1981, 177–178, Fig. 3, Pl. xxi, 2; 1987, 82)
British Museum, London, United Kingdom	67505	Davies (1987, 82, Cat. No. 101); Focke (2013, 6)
Petrie Museum, University College London, United Kingdom	UC16324	Davies (1987, 82); Kühnert-Eggebrecht (1967, Cat. No. P/6); Petrie (1917, Pl. v, 137); Focke (2013, 6)
Museum of Fine Arts, Boston, USA	21.849 (15-3-503)	Davies (1987, 81); Reisner (1923, iv–v, 200); Dunham (1943, 61); Lucas—Harris (1962, 486)
Museum of Mediterranean and Near Eastern Antiquities, Stockholm, Sweden	SHM 10278.1	Davies (1987, 86); Martin (1897, no. 1); Oldeberg (1976, 127, no. 3360)
Ashmolean Museum, Oxford, United Kingdom	1895.969	Petrie—Quibell (1896, 20, Pl. LXV: 6); Payne (1993, 146–147, Fig. 59: 1217); Baumgartel (1970, Pl. II)
Kunsthistorisches Museum, Wien, Austria	ÄS 7187	Junker (1919, 116, 133, Taf. XXXIX); Davies (1987, 71); Kühnert-Eggebrecht (1967, cat. no. B/12)
Petrie Museum, University College London, United Kingdom; University Museum, Manchester, United Kingdom	UC16172	Petrie (1925, 4, Pl. III: 1, 2; IV: 7, 8)
Royal Museum of Art and History, Brussels, Belgium; Ashmolean Museum, Oxford, United Kingdom	E.05925	Petrie (1925, Pl. III: 5; V: 23–24); Rademakers et al. (2018; 2018 Supplement 3, 16–17, Fig. 7)
Kelvingrove Art Gallery and Museum, Glasgow, United Kingdom		Petrie (1925, Pl. III: 4; V: 18–20)
Kelvingrove Art Gallery and Museum, Glasgow, United Kingdom		Petrie (1925, 6, Pl. III: 3; V: 12)
Egyptian Museum, Cairo, Egypt; Nubian Museum, Aswan, Egypt	179	Emery (1949, 18–57, Figs. 13, 17–27, Pl. 4–6, 9A–10); PM III 2, 444; Davies (1987, 71)
August-Kestner-Museum Hannover, Germany		Loeben (2014, 323–324)
Petrie Museum, University College London, United Kingdom	UC16175	Petrie (1925, 5, Pl. III: 6–7; V: 5–7); Davies (1987, 72); Kühnert-Eggebrecht (1967, Cat. No. B–1/3)
University Museum, Manchester, United Kingdom	6781	
Petrie Museum, University College London, United Kingdom	UC16329	Davies (1987)
Petrie Museum, University College London, United Kingdom	UC16330	Rowe (1936, 285, Fig. 5)

TABLE 43 List of inscribed tools and weapons (*cont.*)

Class	Dating	Inscription category	Inscription	Inscription technology
adze	13_Dynasty-5	royal name in car-touche	<i>nswt-bitj wsr-k3=f</i>	continuous line modern fake
adze	13_Dynasty-5	royal name in car-touche	<i>nswt-bitj wsr-k3=f</i>	continuous line modern fake
adze	14_Dynasty-6	royal name in car-touche	<i>Mrj.w Wsr-k3-r' pr.w w3d.t s3 dd-šw (?)</i>	continuous line modern fake
adze	14_Dynasty-6	royal name in car-touche	<i>nswt-bitj Wsr-k3=f</i>	continuous line modern fake
adze	17_First Intermediate Period / Middle Kingdom	owner mark	?	chisel
adze	19_Dynasty-12		<i>ntr-nfr nj-m3't-r' mry-sbk-šdtj</i>	
adze	20_Dynasty-13		<i>sbk-ḥtp</i>	
adze	25_Dynasty-15		<i>ntjr nfr 3'-wsr-r' mry šbk nb šwmnw</i>	
chisel	o8_Dynasty-1	owner mark	<i>ḥm ḥm</i>	chisel
chisel	12_Dynasty-4	phyle	<i>k3mw / w3d.tj / tḥmw rsj</i>	chisel
chisel	13_Dynasty-5	royal name in car-touche	<i>nswt-bitj wsr-k3=f</i>	continuous line modern fake
chisel	14_Dynasty-6	royal name in car-touche	<i>nswt-bitj wsr-k3=f</i>	continuous line modern fake
chisel	14_Dynasty-6	royal name in car-touche	<i>nswt-bitj wsr-k3=f</i>	continuous line modern fake
chisel	18_Dynasty-11		<i>present</i>	
chisel	19_Dynasty-12	title and personal name	<i>jmy-r j'w jmbw</i>	chisel
chisel	21_Middle Kingdom	owner mark	?	unknown
saw	o8_Dynasty-1	personal name	<i>k3-h3</i>	chisel
saw	11_Early Dynastic Period	personal name	<i>ny-špss</i>	chisel
saw	16_First Intermediate Period		<i>ḥtmty-bjty, ḥk3-ḥw.t mnj</i>	
mirror	14_Dynasty-6	title and personal name	<i>ir(j)-iḥ.t nswt ḥm(.t)-ntr ḥwt-ḥr igi.t</i>	chisel
mirror	14_Dynasty-6	title and personal name	<i>ir(j)-iḥ.t nswt ḥm(.t)-ntr ḥwt-ḥr igi.t</i>	chisel
mirror	14_Dynasty-6	title and personal name	<i>ir(j)-iḥ.t nswt ḥm(.t)-ntr ḥwt-ḥr id.t</i>	chisel
mirror	14_Dynasty-6	title and personal name	<i>ir(j)-iḥ.t nswt ḥm(.t)-ntr ḥwt-ḥr idw.t</i>	chisel

Present location	Inventory number	Reference
Neues Museum, Berlin, Germany	4/62	Kaplony (1965, 34, Taf. VII); Kaiser (1967, 28, Abb. 258–260)
Neues Museum, Berlin, Germany	31002 (3/62)	Kaplony (1965, 34, Taf. VII); Kaiser (1967, 28, Abb. 258–260)
County Museum of Art, Los Angeles, USA	M.80.203.38	Kaplony (1965, 36–39, Abb. 90, Taf. IX); Roth (1991, 122); Odler (2016, 142, Fig. 19)
British Museum, London, United Kingdom	66207	James (1961, 36–38, Pl. XII: 3)
Petrie Museum, University College London, United Kingdom	UC15793	
unlocated	582	Kaplony (1973, 26, Nr. 61, Taf. 14, 25)
Egyptian Museum, Cairo, Egypt	JdE 67944	Ryholt (1997, 336)
British Museum, London, United Kingdom	EA66206	Ryholt (1997, 386)
British Museum, London, United Kingdom	67567	Sebelien (1924); Lucas—Harris (1962, 487)
Egyptian Museum, Cairo, Egypt	JdE 68754	Rowe (1938); Roth (1991, 123–124)
Neues Museum, Berlin, Germany	ÄM 31001 (2/62)	Kaplony (1965, 34, Taf. VII: 77)
British Museum, London, United Kingdom	67581	James (1961, 36–38, Pl. XII: 2); Kaplony (1965, 34, Taf. VII: 76)
British Museum, London, United Kingdom	66208	James (1961, 36–38, Pl. XII: 1); Kaplony (1965, 34, Taf. VII: 75); Arnold (1991, 259)
Metropolitan Museum of Art, New York, USA	27.3.12	Winlock (1928, 14, Fig. 15); Arnold (1991, 258, Fig. 6.10)
Petrie Museum, University College London, United Kingdom	UC14240	Sebelien (1924); Lucas—Harris (1962, 487)
Egyptian Museum, Cairo, Egypt	JdE 88422	Kaplony (1965, 46, Abb. 110)
Petrie Museum, University College London, United Kingdom	UC16178	Petrie (1925, Pl. III: 8; V: 21–22); Davies (1987, 88); Kühnert-Eggebrecht (1967, Cat. No. B-II/1)
British Museum, London, United Kingdom	66064	Spencer (1980, 86–87, Pl. 71: 632)
unlocated	205	Kaplony (1973, 24–25, Nr. 59, Taf. 13, 25)
IFAO excavations, Egypt	5785	Valloggia (1998, 28, 84–87, 146–150, Fig. 20, Pls. LXXV, C, CVII, CVIII); Odler (2016, Fig. 66)
IFAO excavations, Egypt	5788	Valloggia (1998, 85, fig. 21, pl. LXXV, D–E)
IFAO excavations, Egypt	5789	Valloggia (1998, 86, fig. 22, pl. LXXVI, A)
IFAO excavations, Egypt	5814	Valloggia (1998, 87, 146–149, fig. 20, pl. LXXV, C, CVII, CVIII)

TABLE 43 List of inscribed tools and weapons (*cont.*)

Class	Dating	Inscription category	Inscription	Inscription technology
mirror	14_Dynasty-6	title and personal name	<i>šmr w^rty, ḥry-ḥb.t, mrj-ppy-ḥb-sd</i>	chisel
mirror	14_Dynasty-6	title and personal name	<i>rḥt-nswt ḥm-nṯr ḥwt-ḥr šm₃.t</i>	chisel
mirror	14_Dynasty-6	title and personal name	<i>šmr w^rty, ḥry-ḥb, jdj</i>	chisel
mirror	14_Dynasty-6	title and personal name	<i>rḥt nswt, ḥwt-ḥr, jj-nfr.t</i>	chisel
mirror	14_Dynasty-6	title and personal name	<i>šp_s.t nswt, ḥm-nṯr bb-tj</i>	chisel
mirror	14_Dynasty-6	title and personal name	<i>ḥm.t nṯr ḥw, t-ḥr ir.t-nḥ</i>	chisel
mirror	14_Dynasty-6	title and personal name	<i>rḥ.t nswt, ḥm(t) nṯr jdwt</i>	chisel
mirror	14_Dynasty-6	title and personal name	<i>ḥm(.t)-nṯr ḥwt-ḥr ...</i>	chisel
mirror	14_Dynasty-6	title and personal name	<i>rḥ nswt, ḥm(.t)-nṯr ḥtp</i>	chisel
mirror	14_Dynasty-6	title and personal name	<i>šp_s.t nswt, ḥm.t-nṯr nwt-ir ḥmḥs-s</i>	chisel
mirror	14_Dynasty-6	title and personal name	<i>šp_s.t nswt, ḥm(.t)-nṯr ḥwt-ḥr ḥtj</i>	chisel
mirror	14_Dynasty-6	title and personal name	<i>rḥ(.t) nswt, ḥm(.t)-nṯr ḥwt-ḥr ns-ḥrw-??</i>	chisel
mirror	14_Dynasty-6	title and personal name	<i>rḥ(.t) nswt, ḥm(.t)-nṯr ḥwt-ḥr nb.t</i>	chisel
mirror	14_Dynasty-6	title and personal name	<i>rḥ(.t) nswt, ḥm(.t)-nṯr ḥwt-ḥr ḥntj</i>	chisel
mirror	14_Dynasty-6	title and personal name	<i>rḥ(.t) nswt, ḥm(.t)-nṯr ḥwt-ḥr w?</i>	chisel
mirror	14_Dynasty-6	title and personal name	<i>rḥ(.t) nswt, ḥm(.t)-nṯr ḥwt-ḥr ?</i>	chisel
mirror	14_Dynasty-6	title and personal name	<i>rḥ(.t) nswt mḥ-ḥr.t</i>	chisel
mirror	14_Dynasty-6	title and personal name	<i>ḥm(.t)-nṯr ḥwt-ḥr ipwt</i>	chisel
mirror	15_Old Kingdom	title and personal name	<i>rḥ(t.) nswt, ḥm(.t)-nṯr ḥwt-ḥr</i>	chisel
mirror	16_First Intermediate Period	title and personal name	<i>ḥkr.t nswt w^rtt ḥm-nṯr ḥwt-ḥr jww.tj</i>	chisel

Present location	Inventory number	Reference
Royal Museum of Art and History, Brussels, Belgium	E.4305	Lilyquist (1979, 14, Fig. 8)
Ashmolean Museum, Oxford, United Kingdom	1933.316	Sayce—Somers Clarke (1906, 241); Lilyquist (1979, 13, 92, Fig. 10); Odler (2016, Fig. 62, 193)
World Museum, Liverpool, United Kingdom	11644	Lilyquist (1979, 14, Fig. 9)
Louvre, Paris, France	E 11470 = AF.6502	Michel (1972); Piacentini (1993, 68); Vandier d'Abbadie (1972, 177, Fig. 780); Odler (2016, Fig. 65)
University of Pennsylvania Museum of Archaeology and Anthropology, Philadelphia, USA	E4732	Petrie (1901, 38, Pl. XXXI: N 19)
Belgian excavations, Egypt		Limme—Hendrickx—Huyge (1997); Limme (2008, 21–22, Figs. 22–23); Odler (2016, Fig. 63, 193)
DAIK excavations, Egypt		Kaiser et al. (1980, 287, Abb. 14)
Museum of Fine Arts, Boston, USA	35-11-5	Lilyquist (1979, 6)
Egyptian Museum, Cairo, Egypt	CG 44075	Bénédite (1907, 34–35, Fig. 8); Lilyquist (1979, 92, Fig. 11); Odler (2016, Fig. 193)
Egyptian Museum, Cairo, Egypt	JdE 40708	Lilyquist (1979, 14, 92, Fig. 6); Odler (2016, Fig. 193)
Field Museum, Chicago, USA	30323	Lilyquist (1979, 14, Fig. 7); Odler (2016, Fig. 193)
Louvre, Paris, France	E 4891	Lilyquist (1979, 14, 92, Fig. 13); Odler (2016, Fig. 193)
National Museum of Scotland, Edinburgh, United Kingdom	1921,774	Lilyquist (1979, 14, 92, Fig. 14); Odler (2016, Fig. 193)
Egyptian Museum, Cairo, Egypt	unregistered	Lilyquist (1979, 14, 92, Fig. 15)
Louvre, Paris, France	E 3307	Lilyquist (1979, 14, Fig. 16); Odler (2016, Fig. 193)
Garstang Museum of Archaeology, Liverpool, United Kingdom	E.1510	Watson (1979, 16, Pl. I); Lilyquist (1979, 14, 92, Fig. 17)
Neues Museum, Berlin, Germany	2776	Lilyquist (1979, 14, 92, Fig. 18); Odler (2016, Fig. 193)
University Museum, Manchester, United Kingdom	unregistered	Lilyquist (1979, 14, 92, Fig. 19); Odler (2016, Fig. 193)
unknown	JdE 46406	Lilyquist (1979, 14, Fig. 12); Odler (2016, Fig. 193)
University of Pennsylvania Museum of Archaeology and Anthropology, Philadelphia, USA	D4168 (29-65-660)	Lilyquist (1979, 22, 93, Fig. 22); Fischer (1968, 164); Slater (1974, 264)

TABLE 43 List of inscribed tools and weapons (*cont.*)

[illegible]

Present location	Inventory number	Reference
University of Pennsylvania Museum of Archaeology and Anthropology, Philadelphia, USA	29-65-648	Lilyquist (1979, 24, footnote 226, 235, 269, Figs. 26, 27)
Egyptian Museum, Cairo, Egypt	JdE 89168	Lilyquist (1979, 29, 92, Fig. 24)
Egyptian Museum, Cairo, Egypt	CG 44074	Lilyquist (1979, 29, 92, Fig. 28)
Royal Ontario Museum, Toronto, Canada	909.80.541	Lilyquist (1979, 29, 92, Fig. 25)
British Museum, London, United Kingdom	CG 44048	Lilyquist (1979, 47, 92, Fig. 44)
Metropolitan Museum of Art, New York, USA	26.7.1351	Lilyquist (1979, 42, footnote 466, 472, Figs. 56, 62, 63)
Reading Museum and Art Gallery, United Kingdom	E 65.10	Lilyquist (1979, 47, 93, Fig. 51)
Kunsthistorisches Museum, Wien, Austria	ÄS 7334	Junker (1926, 74, Taf. XXVI, Abb. 443); Satzinger (1991); Odler et al. (2018)
Museum of Art and History, Geneva, Switzerland	27451	Bonnet (1990, 180)
SCA excavations, Egypt		Davies (1987, 73); el-Sawi (1979, 72–73, Figs. 146, 147, 148, 149); Odler (2016, Fig. 28)
SCA excavations, Egypt		Davies (1987, 73); el-Sawi (1979, 72–73, Figs. 146, 147, 148, 149); Odler (2016, Fig. 28)
SCA excavations, Egypt		Davies (1987, 73); el-Sawi (1979, 72–73, Figs. 146, 147, 148, 149); Odler (2016, Fig. 28)
Neues Museum, Berlin, Germany	18859	Kaiser (1967, 29, Abb. 249)
British Museum, London, United Kingdom	6079	Radwan (1983, 62–63, Taf. 32); Davies (1987, 73, Cat. No. 14); Odler (2016, Fig. 54)
British Museum, London, United Kingdom	6080	Radwan (1983, 62–63, Taf. 32); Davies (1987, 73, Cat. No. 14); Odler (2016, Fig. 54)
British Museum, London, United Kingdom	6081	Radwan (1983, 62–63, Taf. 32); Davies (1987, 73, Cat. No. 14); Odler (2016, Fig. 54)
British Museum, London, United Kingdom	6082	Radwan (1983, 62–63, Taf. 32); Davies (1987, 73, Cat. No. 14); Odler (2016, Fig. 54)
British Museum, London, United Kingdom	6093	Radwan (1983, 62–63, Taf. 32); Davies (1987, 73, Cat. No. 14); Odler (2016, Fig. 54)
British Museum, London, United Kingdom	6093	Radwan (1983, 62–63, Taf. 32); Davies (1987, 73, Cat. No. 14); Odler (2016, Fig. 54)
British Museum, London, United Kingdom	6093	Radwan (1983, 62–63, Taf. 32); Davies (1987, 73, Cat. No. 14); Odler (2016, Fig. 54)

TABLE 43 List of inscribed tools and weapons (*cont.*)

Class	Dating	Inscription category	Inscription	Inscription technology
razor	14_Dynasty-6	title and personal name	<i>šmr-wʿty, ḥry-ḥbt, jmꜣḥw ḥr ntr ʿꜣjdj</i>	chisel
razor	23_Kerma	title and personal name	<i>mnjw wr n kꜣp wjʿy wḥm-ʿnh</i>	chisel
spear-head	14_Dynasty-6	title and personal name	<i>mry-ntr jry-pʿt hꜣty-ʿhtm.ty-bj.ty jmy-r šmʿw jmy-r ḥm-ntr(.w) jdj</i>	chisel
spear-head	26_Dynasty-17		<i>1: Wꜣd-ḥpr-rʿ, mry jꜣḥ; 2: nb ntr nfr jr.t ḥ.t Wꜣd-ḥpr-rʿ, jnk ḥkꜣ kn, mry Rʿ, sꜣ jꜣḥ, ms n dḥw.ty, sꜣ Rʿ kꜣ-ms, nhꜣt dt ntr nfr ʿꜣ-ḥn-n-rʿ</i>	chisel
dagger or sword	25_Dynasty-15			
dagger or sword	25_Dynasty-15		<i>ntr nfr ʿꜣ-ḥn-n-rʿ</i>	
dagger	27_Second Intermediate Period	royal name in car-touche	<i>nfr ntr swꜣd-n-rʿ d(j) ʿnh</i>	chisel
dagger	27_Second Intermediate Period		<i>sꜣ Rʿ bbj-ʿnh dj ʿnh</i>	

Present location	Inventory number	Reference
British Museum, London, United Kingdom	6093	Radwan (1983, 62–63, Taf. 32); Davies (1987, 73, Cat. No. 14); Odler (2016, Fig. 54)
Museum of Fine Arts, Boston, USA; National Museum, Khartoum, Sudan		Reisner (1923b, 183); Valbelle (2004, 177)
Metropolitan Museum of Art, New York, USA	39507	http://www.metmuseum.org/collection/the-collection-online/search/555983?rpp=30&pg=1&ft=29.2.8&pos=1
Ashmolean Museum, Oxford, United Kingdom	1927.4622	
Private collection		Dawson (1925); Petschel (2011, 199, 462, Cat. No. 186); Ryholt (1997, 386); Focke (2013, 6, Fig. 2)
Museum of Ancient Egyptian Art, Luxor, Egypt	JdE 32735 (CG 52768)	Petschel (2011, 193, 460, Cat. No. 183); Ryholt (1997, 386–387); Arnold (2010, 210–213, Pl. 37); Focke (2013, 8, Fig. 8)
Ashmolean Museum, Oxford, United Kingdom; Egyptian Museum, Cairo, Egypt	JdE 83702	Petschel (2011, 109, 362, Cat. No. 17); Focke (2013, 8, Fig. 6)
British Museum, London, United Kingdom	66062	Petschel (2011, 109, 362, Cat. No. 18); Ryholt (1997, 390)

TABLE 44 Temporal and regional distribution of the artisan tool kit

Period	Chisels count	Chisels percentage	Adzes count	Adzes percentage	Axes count	Axes percentage	Saws count	Saws percentage
02_Maadi-Buto			1	0.10 %	3	0.38 %		
03_A-Group	3	0.38 %	12	1.14 %	6	0.76 %		
05_Naqada-II	6	0.76 %	6	0.57 %	2	0.25 %		
06_Naqada-III A-B	2	0.25 %	11	1.05 %	4	0.50 %	5	0.98 %
07_Naqada	4	0.50 %	16	1.53 %	31	3.90 %	1	0.20 %
08_Dynasty-1	31	3.90 %	214	20.40 %	83	10.45 %	73	14.37 %
09_Dynasty-2	83	10.45 %	51	4.86 %	67	8.44 %	12	2.36 %
10_Dynasty-3	67	8.44 %	37	3.53 %	20	2.52 %	12	2.36 %
11_Early Dynastic Period	20	2.52 %	22	2.10 %	25	3.15 %	10	1.97 %
12_Dynasty-4	25	3.15 %	45	4.29 %	17	2.14 %	14	2.76 %
13_Dynasty-5	17	2.14 %	181	17.25 %	100	12.59 %	83	16.34 %
14_Dynasty-6	100	12.59 %	244	23.26 %	117	14.74 %	107	21.06 %
15_Old Kingdom	117	14.74 %	68	6.48 %	58	7.30 %	115	22.64 %
16_First Intermediate Period	58	7.30 %	29	2.76 %	44	5.54 %	16	3.15 %
17_First Intermediate Period / Middle Kingdom	44	5.54 %	16	1.53 %	116	14.61 %	7	1.38 %
18_Dynasty-11	116	14.61 %	42	4.00 %	57	7.18 %	15	2.95 %
19_Dynasty-12	57	7.18 %	27	2.57 %	19	2.39 %	29	5.71 %
20_Dynasty-13	19	2.39 %	6	0.57 %	3	0.38 %	3	0.59 %
21_Middle Kingdom	3	0.38 %	15	1.43 %	14	1.76 %	5	0.98 %
22_C-Group	14	1.76 %						
23_Kerma			1	0.10 %	3	0.38 %	1	0.20 %
24_Pan grave	1	0.06 %	2	0.19 %	3	0.38 %		
25_Dynasty-15	5	0.30 %	1	0.10 %				
26_Dynasty-17			1	0.10 %				

TABLE 44 Temporal and regional distribution of the artisan tool kit (*cont.*)

Period	Chisels count	Chisels percentage	Adzes count	Adzes percentage	Axes count	Axes percentage	Saws count	Saws percentage
27_Second Intermediate Period			1	0.10 %	2	0.25 %		
Total	1643	100.00 %	1049	100.00 %	794	100.00 %	508	100.00 %
Region	Chisels count	Chisels percentage	Adzes count	Adzes percentage	Axes count	Axes percentage	Saws count	Saws percentage
1_Northern Levant	11	0.67 %	8	0.76 %	3	0.38 %	3	0.59 %
3_Sinai	4	0.24 %						
4_Delta	14	0.85 %	6	0.57 %	6	0.76 %	5	0.98 %
5_Wadi Tumilat	1	0.06 %	8	0.76 %			2	0.39 %
6_Memphite region	1073	65.31 %	675	64.35 %	346	43.58 %	373	73.43 %
7_between Memphis and Fayum	13	0.79 %	12	1.14 %	7	0.88 %	5	0.98 %
8_Fayum	25	1.52 %	16	1.53 %	11	1.39 %	8	1.57 %
9_between Fayum and Beni Hasan	13	0.79 %	10	0.95 %	10	1.26 %	8	1.57 %
10_Beni Hasan	17	1.03 %	3	0.29 %	8	1.01 %	6	1.18 %
11_between Beni Hasan and Amarna	3	0.18 %			2	0.25 %	13	2.56 %
13_between Amarna and Asiut	15	0.91 %	8	0.76 %	6	0.76 %	7	1.38 %
14_Asiut	24	1.46 %	15	1.43 %	32	4.03 %		
15_between Asiut and Abydos	146	8.89 %	70	6.67 %	62	7.81 %	25	4.92 %
16_Abydos	183	11.14 %	95	9.06 %	85	10.71 %	35	6.89 %
17_between Abydos and Thebes	16	0.97 %	14	1.33 %	13	1.64 %	4	0.79 %
18_Thebes	11	0.67 %	16	1.53 %	16	2.02 %	3	0.59 %
19_between Thebes and el-Kab	4	0.24 %	6	0.57 %	9	1.13 %	2	0.39 %
20_between el-Kab and Asuan	13	0.79 %	11	1.05 %	2	0.25 %	1	0.20 %

TABLE 44 Temporal and regional distribution of the artisan tool kit (*cont.*)

Region	Chisels count	Chisels percentage	Adzes count	Adzes percentage	Axes count	Axes percentage	Saws count	Saws percentage
21_Elephantine	4	0.24 %	2	0.19 %	3	0.38 %		
22_Western Desert	22	1.34 %	18	1.72 %	6	0.76 %	4	0.79 %
23_Eastern Desert	4	0.24 %					1	0.20 %
24_Lower Nubia	17	1.03 %	23	2.19 %	12	1.51 %		
25_Upper Nubia			1	0.10 %	3	0.38 %	1	0.20 %
26_unknown	10	0.61 %	32	3.05 %	152	19.14 %	2	0.39 %
Total	1643	100.00 %	1049	100.00 %	794	100.00 %	508	100.00 %

TABLE 45 Temporal and regional distribution of the weaponry

Period	Axes count	Axes percentage	Spearheads count	Spearheads percentage	Daggers count	Daggers percentage	Arrowheads count	Arrowheads percentage
03_A-Group			1	0.59 %				
05_Naqada-II					4	2.44 %		
06_Naqada-III A-B			2	1.18 %				
07_Naqada					1	0.61 %		
08_Dynasty-1			2	1.18 %			1	5.26 %
09_Dynasty-2			1	0.59 %				
10_Dynasty-3			1	0.59 %				
11_Early Dynastic Period			2	1.18 %	1	0.61 %	8	42.11 %
13_Dynasty-5			2	1.18 %				
14_Dynasty-6			2	1.18 %	1	0.61 %	2	10.53 %
15_Old Kingdom			15	8.88 %				
16_First Intermediate Period	7	1.39 %	33	19.53 %			1	5.26 %
17_First Intermediate Period / Middle Kingdom	295	58.53 %	8	4.73 %	4	2.44 %		
18_Dynasty-11	17	3.37 %	65	38.46 %	3	1.83 %	2	10.53 %
19_Dynasty-12	10	1.98 %	14	8.28 %	28	17.07 %		
20_Dynasty-13	44	8.73 %	17	10.06 %	31	18.90 %		
21_Middle Kingdom	36	7.14 %	1	0.59 %	14	8.54 %		
22_C-Group	3	0.60 %			8	4.88 %	2	10.53 %
23_Kerma	2	0.40 %			20	12.20 %		
24_Pan grave	15	2.98 %			2	1.22 %		
25_Dynasty-15	13	2.58 %	1	0.59 %	20	12.20 %	1	5.26 %
26_Dynasty-17	18	3.57 %	1	0.59 %	6	3.66 %		
27_Second Intermediate Period	44	8.73 %	1	0.59 %	21	12.80 %	2	10.53 %
Grand Total	504	100.00 %	169	100.00 %	164	100.00 %	19	100.00 %

TABLE 45 Temporal and regional distribution of the weaponry (*cont.*)

Region	Axes count	Axes percentage	Spearheads count	Spearheads percentage	Daggers count	Daggers percentage	Arrowheads count	Arrowheads percentage
01_Northern Levant					2	1.22 %		
04_Delta	45	8.93 %	24	14.20 %	54	32.93 %	1	5.26 %
05_Wadi Tumilat	1	0.20 %	2	1.18 %	9	5.49 %	1	5.26 %
06_Memphite region	2	0.40 %	12	7.10 %	4	2.44 %	1	5.26 %
07_between Memphis and Fayum	2	0.40 %	1	0.59 %	4	2.44 %		
08_Fayum	4	0.79 %			2	1.22 %		
09_between Fayum and Beni Hasan							1	5.26 %
10_Beni Hasan	4	0.79 %						
11_between Beni Hasan and Amarna	1	0.20 %	11	6.51 %	2	1.22 %		
13_between Amarna and Asiut	1	0.20 %	4	2.37 %	5	3.05 %		
14_Asiut	5	0.99 %	59	34.91 %				
15_between Asiut and Abydos	41	8.13 %	47	27.81 %	9	5.49 %	9	47.37 %
16_Abydos	7	1.39 %	3	1.78 %	3	1.83 %	1	5.26 %
17_between Abydos and Thebes	32	6.35 %	1	0.59 %	13	7.93 %		
18_Thebes	16	3.17 %	1	0.59 %	7	4.27 %		
20_between el-Kab and Asuan	1	0.20 %	1	0.59 %	1	0.61 %		
21_Elephantine	1	0.20 %			1	0.61 %	1	5.26 %
22_Western Desert					18	10.98 %	2	10.53 %
24_Lower Nubia	9	1.79 %	2	1.18 %	20	12.20 %	2	10.53 %
25_Upper Nubia	2	0.40 %						
26_unknown	330	65.48 %	1	0.59 %	10	6.10 %		
Grand Total	504	100.00 %	169	100.00 %	164	100.00 %	19	100.00 %

TABLE 46 Temporal and regional distribution of the cosmetic tool kit

Period	Mirrors count	Mirrors percentage	Razors count	Razors percentage	Tweezers count	Tweezers percentage	Hair curlers counts	Hair curlers percentage	Kohlsticks count	Kohlsticks percentage
3_A-Group			3	1.19 %	1	1.59 %				
5_Naqada-II			1	0.40 %						
6_Naqada-III A-B			1	0.40 %						
7_Naqada			2	0.79 %	2	3.17 %				
8_Dynasty-1	2	0.30 %	38	15.02 %	5	7.94 %				
9_Dynasty-2	2	0.30 %			5	7.94 %				
10_Dynasty-3	2	0.30 %	1	0.40 %	1	1.59 %				
11_Early Dynastic Period	3	0.45 %	2	0.79 %						
12_Dynasty-4	1	0.15 %	18	7.11 %						
13_Dynasty-5	30	4.50 %	49	19.37 %			2	20.00 %		
14_Dynasty-6	102	15.32 %	44	17.39 %	2	3.17 %	2	20.00 %	18	69.23 %
15_Old Kingdom	39	5.86 %	36	14.23 %			1	10.00 %	1	3.85 %
16_First Intermediate Period	95	14.26 %	12	4.74 %						
17_First Intermediate Period / Middle Kingdom	95	14.26 %	5	1.98 %			1	10.00 %		
18_Dynasty-11	31	4.65 %	2	0.79 %			1	10.00 %		
19_Dynasty-12	65	9.76 %	14	5.53 %	6	9.52 %	2	20.00 %		
20_Dynasty-13	54	8.11 %	2	0.79 %	7	11.11 %				
21_Middle Kingdom	70	10.51 %	2	0.79 %	8	12.70 %	1	10.00 %	2	7.69 %
22_C-Group	42	6.31 %	3	1.19 %	5	7.94 %			2	7.69 %
23_Kerma	20	3.00 %	10	3.95 %	1	1.59 %				
24_Pan grave			3	1.19 %	6	9.52 %			1	3.85 %
25_Dynasty-15	1	0.15 %	1	0.40 %					1	3.85 %

TABLE 46 Temporal and regional distribution of the cosmetic tool kit (*cont.*)

Period	Mirrors count	Mirrors percentage	Razors count	Razors percentage	Tweezers count	Tweezers percentage	Hair curlers counts	Hair curlers percentage	Kohlsticks count	Kohlsticks percentage
26_Dynasty-17	3	0.45%	1	0.40%						
27_Second Intermediate Period	9	1.35%	3	1.19%	14	22.22%			1	3.85%
Total	666	100.00%	253	100.00%	63	100.00%	10	100.00%	26	100.00%
Region	Mirrors count	Mirrors percentage	Razors count	Razors percentage	Tweezers count	Tweezers percentage	Hair curlers counts	Hair curlers percentage	Kohlsticks count	Kohlsticks percentage
01_Northern Levant	3	0.45%					1	10.00%		
04_Delta	82	12.31%	7	2.77%	3	4.76%	1	10.00%		
05_Wadi Tumilat									1	3.85%
06_Memphite region	53	7.96%	131	51.78%	3	4.76%	1	10.00%	2	7.69%
07_between Memphis and Fayum	13	1.95%	3	1.19%						
08_Fayum	14	2.10%	9	3.56%	2	3.17%	2	20.00%		
09_between Fayum and Beni Hasan	8	1.20%	1	0.40%			1	10.00%		
10_Beni Hasan	18	2.70%	1	0.40%						
11_between Beni Hasan and Amarna	13	1.95%								
13_between Amarna and Asiut	8	1.20%							12	46.15%
14_Asiut	11	1.65%	1	0.40%						
15_between Asiut and Abydos	153	22.97%	22	8.70%	14	22.22%	3	30.00%	1	3.85%
16_Abydos	58	8.71%	24	9.49%	11	17.46%				

TABLE 46 Temporal and regional distribution of the cosmetic tool kit (*cont.*)

Region	Mirrors count	Mirrors percentage	Razors count	Razors percentage	Tweezers count	Tweezers percentage	Hair curlers counts	Hair curlers percentage	Kohlsticks count	Kohlsticks percentage
17_between Abydos and Thebes	48	7.21 %	9	3.56 %	12	19.05 %	1	10.00 %	3	11.54 %
18_Thebes	13	1.95 %	1	0.40 %						
19_between Thebes and el-Kab	2	0.30 %								
20_between el-Kab and Asuan	18	2.70 %	1	0.40 %	1	1.59 %				
21_Elephantine	14	2.10 %	1	0.40 %						
22_Western Desert	28	4.20 %	20	7.91 %	1	1.59 %			3	11.54 %
24_Lower Nubia	59	8.86 %	9	3.56 %	14	22.22 %			4	15.38 %
25_Upper Nubia	20	3.00 %	9	3.56 %	1	1.59 %				
26_unknown	30	4.50 %	4	1.58 %	1	1.59 %				
Grand Total	666	100.00 %	253	100.00 %	63	100.00 %	10	100.00 %	26	100.00 %

TABLE 47 Temporal and regional distribution of the textile and leather-processing tool kit and pins

Period	Pins count	Pins percentage	Needles count	Needles percentage	Awls count	Awls percentage	Net-needles count	Net-needles percentage
1_Badarian	1	0.76%	5	0.70%			1	1.05%
2_Maadi-Buto			19	2.67%	13	7.34%		
3_A-Group			1	0.14%	55	31.07%	2	2.11%
04_Naqada-I	3	2.27%	2	0.28%			6	6.32%
05_Naqada-II	1	0.76%	14	1.97%	3	1.69%	8	8.42%
06_Naqada-III A-B	3	2.27%	9	1.27%	2	1.13%	2	2.11%
07_Naqada	7	5.30%	21	2.95%	7	3.95%	16	16.84%
08_Dynasty-1	3	2.27%	357	50.21%	28	15.82%	52	54.74%
9_Dynasty-2			50	7.03%	5	2.82%	1	1.05%
10_Dynasty-3			12	1.69%	2	1.13%		
11_Early Dynastic Period	1	0.76%	25	3.52%	6	3.39%	4	4.21%
12_Dynasty-4			52	7.31%	3	1.69%		
13_Dynasty-5			41	5.77%				
14_Dynasty-6	1	0.76%	29	4.08%	14	7.91%	1	1.05%
15_Old Kingdom	1	0.76%	22	3.09%	2	1.13%	1	1.05%
16_First Intermediate Period			2	0.28%	2	1.13%		
17_First Intermediate Period / Middle Kingdom	1	0.76%	1	0.14%				
19_Dynasty-12	11	8.33%	21	2.95%	7	3.95%		
20_Dynasty-13	20	15.15%	11	1.55%	9	5.08%		
21_Middle Kingdom			2	0.28%			1	1.05%
22_C-Group	1	0.76%	9	1.27%	4	2.26%		
23_Kerma					3	1.69%		
24_Pan grave	1	0.76%	1	0.14%	8	4.52%		
25_Dynasty-15	49	37.12%	5	0.70%				

TABLE 47 Temporal and regional distribution of the textile and leather-processing tool kit (*cont.*)

Period	Pins count	Pins percentage	Needles count	Needles percentage	Awls count	Awls percentage	Net-needles count	Net-needles percentage
27_Second Intermediate Period	28	21.21 %			4	2.26 %		
Total	132	100.00 %	711	100.00 %	177	100.00 %	95	100.00 %
Region	Pins count	Pins percentage	Needles count	Needles percentage	Awls count	Awls percentage	Net-needles count	Net-needles percentage
01_Northern Levant	1	0.76 %					1	1.05 %
04_Delta	82	62.12 %	14	1.97 %	8	4.52 %	1	1.05 %
05_Wadi Tumilat	21	15.91 %	5	0.70 %	1	0.56 %		
06_Memphite region	3	2.27 %	443	62.31 %	37	20.90 %	45	47.37 %
07_between Memphis and Fayum	2	1.52 %	3	0.42 %	2	1.13 %	2	2.11 %
08_Fayum	1	0.76 %	15	2.11 %	10	5.65 %		
09_between Fayum and Beni Hasan					1	0.56 %		
10_Beni Hasan	1	0.76 %	1	0.14 %				
15_between Asiat and Abydos	11	8.33 %	32	4.50 %	10	5.65 %	2	2.11 %
16_Abydos	4	3.03 %	137	19.27 %	13	7.34 %	13	13.68 %
17_between Abydos and Thebes	2	1.52 %	24	3.38 %	5	2.82 %	22	23.16 %
19_between Thebes and el-Kab			2	0.28 %	1	0.56 %	1	1.05 %
20_between el-Kab and Asuan			1	0.14 %			2	2.11 %
21_Elephantine	1	0.76 %	16	2.25 %	3	1.69 %	1	1.05 %
22_Western Desert	1	0.76 %	4	0.56 %	13	7.34 %		
23_Eastern Desert	1	0.76 %			1	0.56 %		
24_Lower Nubia	1	0.76 %	14	1.97 %	69	38.98 %	5	5.26 %
25_Upper Nubia					3	1.69 %		

TABLE 47 Temporal and regional distribution of the textile and leather-processing tool kit (*cont.*)

Region	Pins count	Pins percentage	Needles count	Needles percentage	Awls count	Awls percentage	Net-needles count	Net-needles percentage
Grand Total	132	100.00%	711	100.00%	177	100.00%	95	100.00%

TABLE 48 Temporal and regional distribution of the hunting and food-processing tool kit

Period	Fishhooks count	Fishhooks percentage	Harpoons count	Harpoons percentage	Knives count	Knives percentage
2_Maadi-Buto	8	8.60%				
3_A-Group	1	1.08%	1	1.35%	1	1.11%
4_Naqada-I	1	1.08%				
5_Naqada-II	5	5.38%	6	8.11%	3	3.33%
6_Naqada-III A-B	2	2.15%	4	5.41%		
7_Naqada	8	8.60%	3	4.05%	1	1.11%
8_Dynasty-1	5	5.38%	7	9.46%	13	14.44%
9_Dynasty-2	2	2.15%	36	48.65%		
10_Dynasty-3					1	1.11%
11_Early Dynastic Period	17	18.28%	3	4.05%	4	4.44%
12_Dynasty-4	6	6.45%	2	2.70%		
13_Dynasty-5	6	6.45%			1	1.11%
14_Dynasty-6	1	1.08%			4	4.44%
15_Old Kingdom	7	7.53%			2	2.22%
16_First Intermediate Period	1	1.08%	1	1.35%	1	1.11%
17_First Intermediate Period / Middle Kingdom					3	3.33%
19_Dynasty-12	3	3.23%	4	5.41%	9	10.00%
20_Dynasty-13	9	9.68%	3	4.05%	9	10.00%
21_Middle Kingdom	6	6.45%	2	2.70%	2	2.22%
22_C-Group	3	3.23%			1	1.11%
23_Kerma	2	2.15%			2	2.22%
25_Dynasty-15			2	2.70%	32	35.56%
27_Second Intermediate Period					1	1.11%
Total	93	100.00%	74	100.00%	90	100.00%

TABLE 48 Temporal and regional distribution of the hunting and food-processing tool kit (*cont.*)

Region	Fishhooks count	Fishhooks percentage	Harpoons count	Harpoons percentage	Knives count	Knives percentage
01_Northern Levant	2	2.15 %			1	1.11 %
4_Delta	4	4.30 %	10	13.51 %	45	50.00 %
5_Wadi Tumilat			2	2.70 %		
6_Memphite region	31	33.33 %	3	4.05 %	9	10.00 %
7_between Memphis and Fayum			1	1.35 %		
8_Fayum	2	2.15 %	1	1.35 %	6	6.67 %
9_between Fayum and Beni Hasan	2	2.15 %				
15_between Asiat and Abydos	2	2.15 %	3	4.05 %	4	4.44 %
16_Abydos	12	12.90 %	41	55.41 %	12	13.33 %
17_between Abydos and Thebes	10	10.75 %	6	8.11 %	4	4.44 %
18_Thebes			2	2.70 %		
19_between Thebes and el-Kab	1	1.08 %				
20_between el-Kab and Asuan	2	2.15 %	2	2.70 %	1	1.11 %
21_Elephantine	11	11.83 %	1	1.35 %	1	1.11 %
22_Western Desert					1	1.11 %
24_Lower Nubia	14	15.05 %	2	2.70 %	3	3.33 %
25_Upper Nubia					2	2.22 %
26_unknown					1	1.11 %
Total	93	100.00 %	74	100.00 %	90	100.00 %

TABLE 49 Vessels of the Early Dynastic Period and Old Kingdom in the written and iconographic sources, references in lines discuss the vessels

		Dynasty 5, after Raneferef	Pl. 31, 31A	
		Dynasty 5, after Raneferef	Pl. 28A	
			Pl. 39, 39A	
		Dynasty 6, the reign of Pepy II	Tomb of Biu	
		Dynasty 6, the reign of Pepy II	Tomb of Hebsedneferkara	
		Dynasty 6, the reign of Pepy II	Tomb of Neferher	
		Dynasty 6, the reign of Pepy II	Tomb of Idi	
		Dynasty 6, the reign of Pepy II	Tomb of Sebaku	
		Dynasty 6, the reign of Pepy II	Tomb West II, of Khenem	
		Dynasty 6, the reign of Pepy II	Tomb of Khabaukhnum, called Bau	
		Dynasty 6, the reign of Pepy II	Spell 56	
		Dynasty 6, the reign of Pepy II	Heliopolis	
		Dynasty 6, the reign of Pepy II	Tomb of Khuenhor	
		Dynasty 6, the reign of Pepy II	Tomb of Desheri	
		Dynasty 6, the reign of Pepy II	Tomb of Sebeky	
		Tomb of Meni	Giza	
		Dynasty 8	Coptos	
		Reference		
	<i>stt</i>			
		<i>bj3</i>		Altenmüller (2015, 266)
			<i>bj3</i>	Radwan (1983, 22)
<i>stt</i>				<i>bj3</i> Altenmüller (2015, 266–267)
				<i>bj3</i> Radwan (1983, 54, 154)
				Herslund (2011, 71–73)
	<i>stt</i>			
	<i>stt</i>			
	<i>stt</i>			<i>stt</i> Altenmüller (2015, 267–268)
	<i>bj3</i>	<i>bj3</i>		Radwan (1983, 23)
<i>bj3</i>				<i>bj3</i> Altenmüller (2015, 269)
				Radwan (1983, 72)
				Altenmüller (2015, 270–271)
	<i>bj3</i>			Radwan (1983, 163)
		<i>hsmn</i>		Altenmüller (2015, 269–270)
			<i>bj3 hsmn</i>	

TABLE 49 Vessels of the Early Dynastic Period and Old Kingdom (*cont.*)

			Dynasty 2	SP 52	
			Dynasty 3	SP 38	
			Dynasty 3	Wabkhnun	
			Dynasty 4	False door of Neferet	
			Dynasty 4	False door of Rahotep	
			Dynasty 5; Nyuserra	Block 247	
			Dynasty 5; Wenis	Spell 56	
			Dynasty 5, after Neferirkare	Pl. XXI, Cols. r and s	
<i>kꜣp hꜣry</i>	censer lower part		Dynasty 5, after Neferirkare	Pls. XIII–XIV, Text 1	
<i>kꜣp hꜣry</i>	censer upper part	<i>stt</i>	Dynasty 5, after Neferirkare	Pls. XV A–XVI A	
<i>kḥn</i>	cauldron?	<i>stt</i>	Dynasty 5, after Neferirkare	Pl. 27A	
<i>krḥt</i>	vase		Dynasty 5, after Neferirkare	Pl. 29, 29A	
<i>gn</i>	offering stand		Dynasty 5, after Raneferef	Pl. 30, 30A	
<i>dʃ(j)</i>	big vessel		Dynasty 5, after Raneferef		
<i>dˁ.t</i>	jar	<i>bjꜣ</i>			

	Dynasty 5, after Raneferef	Pl. 31, 31A
	Dynasty 5, after Raneferef	Pl. 28A
		Pl. 39, 39A
	Dynasty 6, the reign of Pepy II	Tomb of Biu
	Dynasty 6, the reign of Pepy II	Tomb of Hebsedneferkara
	Dynasty 6, the reign of Pepy II	Tomb of Neferher
	Dynasty 6, the reign of Pepy II	Tomb of Idi
	Dynasty 6, the reign of Pepy II	Tomb of Sebaku
	Dynasty 6, the reign of Pepy II	Tomb West II, of Khenem
	Dynasty 6, the reign of Pepy II	Tomb of Khabaukhnum, called Bau
	Dynasty 6, the reign of Pepy II	Spell 56
	Dynasty 6, the reign of Pepy II	Heliopolis
	Dynasty 6, the reign of Pepy II	Tomb of Khuenhor
	Dynasty 6, the reign of Pepy II	Tomb of Desheri
	Dynasty 6, the reign of Pepy II	Tomb of Sebeky
	Tomb of Meni	Giza
	Dynasty 8	Coptos
	Reference	
		Radwan (1983, 58)
		Radwan (1983, 58)
		Herslund (2011, 80)
		Herslund (2011, 79–80)
		<i>bj</i> Altenmüller (2015, 272)
		Radwan (1983, 29, 73)
		Radwan (1983, 89)

TABLE 50 Vessels of the Middle Kingdom in the written and iconographic sources, refer-
ences in lines discuss the vessels

		Asiut	CT VII 130g	CT VII, 143	CT VI 179	CT VI 363i	CT VII 93	CT VI 250i	Tomb B2: tomb of Ukhhotep	tomb of Antefoker	Coffin of Sedjathetep	Heliopolis	CT IV 305b, 309a	Annals M5
		Middle Kingdom, early							Senusret I	Senusret I	Senusret I	Senusret I		Amenemhat II
<i>jʿj</i>	ewer / washing set													
<i>ʿn (j)ḥt nṯr</i>	censer arm													<i>bj3</i>
<i>ʿpr.t</i>	vase											?		
<i>ḥj.t</i>	censer		?										?	
<i>wh3.t</i>	cauldron				?								?	
<i>wḏḥw</i>	offering table													
<i>nmst</i>	vase													
<i>ḥnw n wpt-rʿ</i>	box for Opening of the mouth													
<i>ḥw.t / ḥn(w.)t</i>	bowl	<i>bj3</i>		<i>bj3</i>					<i>bj3</i>	<i>bj3</i>	<i>bj3</i>			
<i>ḥsmny</i>	ewer													<i>bj3</i>
<i>ḥš.t</i>	vase											<i>ḥsmn, bj3</i>		<i>bj3</i>
<i>ḥ3w</i>	bowl on <i>gn(w)</i> stand													<i>bj3</i>
<i>s3pt</i>	censer stand													<i>ḥsmn ḥr bj3</i>
<i>k3p</i>	censer													
<i>ktw.t</i>	cauldron						?	?						
<i>gn</i>	offering stand													<i>bj3</i>
<i>ṯb</i>	situla													
<i>ds</i>	(beer) jar													
<i>ḏnj.t</i>	basket, bowl					?					<i>bj3</i>			

[illegible]

TABLE 51 Temporal and regional distribution of the vessels

Period	Vessel count	Vessel percentage	Region	Vessel count	Vessel percentage
03_A-Group	1	0.09 %	04_Delta	33	2.97 %
05_Naqada-II	3	0.27 %	05_Wadi Tumilat	1	0.09 %
06_Naqada-III A-B	8	0.72 %	06_Memphite region	753	67.84 %
07_Naqada	8	0.72 %	07_between Memphis and Fayum	14	1.26 %
08_Dynasty-1	110	9.91 %	08_Fayum	2	0.18 %
09_Dynasty-2	84	7.57 %	09_between Fayum and Beni Hasan	6	0.54 %
10_Dynasty-3	38	3.42 %	10_Beni Hasan	1	0.09 %
11_Early Dynastic Period	32	2.88 %	11_between Beni Hasan and Amarna	17	1.53 %
12_Dynasty-4	50	4.50 %	13_between Amarna and Asiut	6	0.54 %
13_Dynasty-5	161	14.50 %	14_Asiut	4	0.36 %
14_Dynasty-6	484	43.60 %	15_between Asiut and Abydos	50	4.50 %
15_Old Kingdom	54	4.86 %	16_Abydos	126	11.35 %
16_First Intermediate Period	14	1.26 %	17_between Abydos and Thebes	12	1.08 %
17_First Intermediate Period / Middle Kingdom	9	0.81 %	18_Thebes	1	0.09 %
18_Dynasty-11	5	0.45 %	19_between Thebes and el-Kab	5	0.45 %
19_Dynasty-12	23	2.07 %	20_between el-Kab and Asuan	37	3.33 %
20_Dynasty-13	8	0.72 %	22_Western Desert	22	1.98 %
21_Middle Kingdom	9	0.81 %	24_Lower Nubia	9	0.81 %
22_C-Group	1	0.09 %	25_Upper Nubia	1	0.09 %
23_Kerma	1	0.09 %	26_unknown	10	0.90 %
24_Pan grave	2	0.18 %	Total	1110	100.00 %
25_Dynasty-15	5	0.45 %			
Total	1110	100.00 %			

TABLE 52 Presumed Egyptian metal artefacts found in Byblos

Site	Structure	General period	Bibliography	Description of context
Byblos	Demolition of walls from level XI to XX	15_Old Kingdom	Dunand (1937, 282, pl. XCVI)	adzes 4053 and 3721 are with apparent butts, rolled head pin 4068
Byblos		15_Old Kingdom	Dunand (1951, 208, fig. 212)	a cosmetic spatula similar to Egyptian examples, 8641
Byblos	Level XXVIII	14_Dynasty-6	Dunand (1937, pl. XCVI; 1954, 1005, Fig. 1187)	5227 also adze with butt, level XXVIII, 18368, pommel of Type III,
Byblos	Level XII	14_Dynasty-6	Dunand (1950, 530, fig. 603)	12506 adze with butt
Byblos	Demolition of walls of level XI to level XV	15_Old Kingdom	Dunand (1950, 635, fig. 603)	13920 adze with butt
Byblos	Deposit d	15_Old Kingdom	Dunand (1939, 145–146, 147, 151–152; 1937, pl. LXVIII)	2135 to 2159: 28 adze blades from depot d, they do not look Egyptian, but rather Levantine; 2174 to 2176 saws, also on pl. LXVII and LXVIII, from depot d; chisels from 2190 to 2195 look rather Egyptian in their shapes, also depot d, photos on pl. LXIX, but also torque 2255 from pl. LXIX looks like those from the late Middle Kingdom Egypt; 2204 to 2206 are parts of the hair curlers just like Egyptian ones, pl. LXX
Byblos	Level XXVI	15_Old Kingdom	Dunand (1939, 343, fig. 274)	chisel 5117 flat, Egyptian??
Byblos	“la casemate” of temple	15_Old Kingdom	Dunand (1954, 117, fig. 108)	chisel 7574 with burr, might be of course just a local chisel
Byblos	déblaiements du pied de la falaise (2)	15_Old Kingdom	Dunand (1951, 22, pl. CLXXVIII)	6900 is an Egyptian cross-cut chisel
Byblos	Deposit of offerings 10714 to 10779	15_Old Kingdom	Dunand (1954, 385, fig. 417; 1951, pl. LXXVI)	10719 fishhook, in a; 10716 is branding “iron”, deposit of offerings from 10714 to 10779

TABLE 52 Presumed Egyptian metal artefacts found in Byblos (*cont.*)

Site	Structure	General period	Bibliography	Description of context
Byblos	Context? 15/14	15_Old Kingdom	Dunand (1950, 387, fig. 417)	10782 fishhook
Byblos	Level XVI	17_First Intermediate Period / Middle Kingdom	Dunand (1937, 242, pl. XCVIII)	3550 butt adze, early D 11 as in Deir el-Bahari
Byblos	Context 19/15, level XVII	17_First Intermediate Period / Middle Kingdom	Dunand (1950, 721, fig. 858)	adze blade 14722
Byblos	Rectangle 19, Level VI	17_First Intermediate Period / Middle Kingdom	Dunand (1937 and 1939, 130, nos. 1916–1917, Pl. xcv); Miniaci—Saler (2021, 349, Fig. 12: d, e)	two lugged axe blades 1916 and 1917 of type C
Byblos	Tomb 1	19_Dynasty-12	Lilyquist (1979, 46, footnote 526, Fig. 59); Kopetzky (2018, 319–325, Fig. 12: 1)	mirror 5918
Byblos	Tomb 2	19_Dynasty-12	Lilyquist (1979, 46, footnote 527, Fig. 60); Kopetzky (2018, 319–325, Figs. 12: 2; 13)	mirror 16400
Byblos	Deposit b	19_Dynasty-12	Dunand (1937, 155–156, 1939, Fig. 146, Pl. CXXXVI)	2314—cylindrical pendant just like the Dynasty-12 specimens with granulation
Byblos	Jarre Montet	21_Middle Kingdom	Lilyquist (1979, 28–29, footnote 322)	mirror 6044

TABLE 52 Presumed Egyptian metal artefacts found in Byblos (*cont.*)

Site	Structure	General period	Bibliography	Description of context
Byblos	Level IX	21_Middle Kingdom	Dunand (1939, 192; 1937, Pl. CXLIV)	3025—pommel of Petschel's type III dagger
Byblos	Level XIII	21_Middle Kingdom	Dunand (1939, 227, fig. 202)	3322—pommel of Petschel's type III dagger
Byblos	Level XIV	21_Middle Kingdom	Dunand (1939, 230, 234 and fig. 205)	3401, 3367—pommel of Petschel's type III dagger
Byblos	Level XV	21_Middle Kingdom	Dunand (1939, 238, fig. 212)	3529—pommel of Petschel's type III dagger
Byblos	Level XVII, west extremity of rect-angle	21_Middle Kingdom	Dunand (1939, 246–247, 249, Fig. 220; 1937, Pl. XCV)	3616 “net-needle” pin, fig. 220, level XVII; dagger blade 3657
Byblos	Level XIX	21_Middle Kingdom	Dunand (1937, 262, fig. 226)	one-edged knife 3808
Byblos	Deposit Beta	21_Middle Kingdom	Dunand (1954, 189; 1951, Pl. LVII)	separetely pommel 8354, from depot Beta, on plate as 8353—pommel of Petschel's type III dagger
Byblos	Deposit	21_Middle Kingdom	Dunand (1954, 192; 1951, pl. LVII)	nos. 8451 to 8455—pommels of Petschel's type III dagger
Byblos	Deposit of offerings 9505 to 9555	21_Middle Kingdom	Dunand (1954, 291, fig. 311)	9526—pommel of Petschel's type III dagger
Byblos		21_Middle Kingdom	Dunand (1954, 303; 1951, pl. LXVIII)	9670—pommel of Petschel's type III dagger
Byblos	Level VII	21_Middle Kingdom	Dunand (1951, 322, fig. 344)	9879, butt of an early Middle Kingdom adze
Byblos	Level XIII	21_Middle Kingdom	Dunand (1954, 544, fig. 621)	12695—pommel of Petschel's type III dagger
Byblos	16/18 and 16/19	21_Middle Kingdom	Dunand (1954, 608, fig. 719)	two pommels of Petschel's type III dagger
Byblos	Offering deposit of N wall of obelisk temple	21_Middle Kingdom	Dunand (1950, 740, fig. 875)	15094, 15095, 14840 to 15120—pommel of Petschel's type III dagger

TABLE 52 Presumed Egyptian metal artefacts found in Byblos (*cont.*)

Site	Structure	General period	Bibliography	Description of context
Byblos		21_Middle Kingdom	Dunand (1954, 955, fig. 1063)	17771 and 17772, 17811 and 17810—pommels of Petschel's type III dagger
Byblos	Demolition of walls, from level V to X	15_Old Kingdom	Dunand (1950, 465, pl. CLXXX)	11662 is a hair curler, according to text popular in Roman Period, but looks like Bronze Age Egyptian
Byblos	Context 19/18, level XVI	15_Old Kingdom	Dunand (1954, 685, fig. 819)	two chisels 14332 and 14333, both with butt and blade bulges
Byblos	Context 11/23, level XX	15_Old Kingdom	Dunand (1950, 847, fig. 962)	16653 crucible of "Egyptian" type
Byblos	Level III		Dunand (1939, 114; 1937, Pl. CXLIV)	1725—pommel of Petschel's type II dagger
Byblos	Level V		Dunand (1937, 124)	1839—loop made of bronze
Byblos	Level VI		Dunand (1937, 129, fig. 129)	1905—one-edged knife as in Egypt
Byblos	Level XXVII		Dunand (1937, 346, fig. 277)	5257, pin with rolled head
Byblos			Dunand (1951, 447, fig. 483)	adze, although might be local 11431