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HIERATIC

الهيراطيقي

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HIERATIC

الهيراطيقي

Ursula Verhoeven

Hieratisch
Hiératique

Hieratic is the name given to Egypt's oldest cursive system of hieroglyphs, which was used primarily as handwriting and served as a multifunctional script for more than three millennia, until the third century BCE. As early as 1820, Champollion recognized the connection between hieroglyphics and hieratic. Hieratic was written in ink on papyrus and ostraca, as well as on wooden tablets, linen, stone surfaces, etc. The characters could also be carved or chiseled into clay, wood, rock surfaces, or stone objects. Unlike hieroglyphics, hieratic was always written from right to left, and the signs evolved from separate elements in single columns to horizontal lines of complete text, with increasing use of ligatures and abbreviations, especially in administrative contexts. In addition, most manuscripts reveal personal idiosyncrasies of the scribes. From 750 BCE on, hieratic was partially replaced by the abnormal hieratic script and later by Demotic. However, it remained in use until Roman times, primarily for ritual, funerary, and scholarly texts. Increasingly enhanced by digital methods, the study of hieratic is based on paleographic analysis and comparison, which aid our understanding of the texts and allow us to date a manuscript or identify an individual scribe. Writing practices, the social milieu of scribes, and the various scripts, text genres, and modes of transmission have become current research topics. In addition, the discovery, decipherment, adequate documentation, and interpretation of other testimonies to hieratic writing are of interest.

الهيراطيقي هو الاسم الذي أطلق على أقدم نظام مخطوط بحروف متصلة للكتابة الهيروغليفية في مصر، والذي كان يستخدم بشكل أساسي كخط يد وكان يعتبر نظامًا موحدًا للكتابة لأكثر من ثلاثة آلاف عام، حتى القرن الثالث قبل الميلاد. خلال بداية عام ١٩٨٠، بدأ شامبليون في إدراك العلاقة بين الهيروغليفية الهيراطيقيّة. كانت الهيراطيقيّة تكتب بالحبر على البردي والأستراكا، بالإضافة إلى الألواح الخشبية والكتان والسطوح الحجرية. كما يمكن نقش الأحرف أو نحتها على الطين أو الخشب أو الحجر. على عكس الهيروغليفية، كانت الهيراطيقيّة تكتب دائمًا من اليمين إلى اليسار. في البداية، كانت تُكتب العلامات كلا على حدة، ولكنها تطورت مع مرور الوقت، حيث تُظهر الاستخدام المتزايد لأدوات الوصل والاختصارات، خاصة في السياقات الإدارية. بالإضافة إلى ذلك، تكشف معظم المخطوطات عن الأسلوب الشخصي للكاتب. ابتداءً من 750 قبل الميلاد وصاعداً، استبدل الخط الهيراطيقي جزئياً "بالهيراطيقي غير المألوف"، ولاحقاً الديموطيقي. ومع ذلك، استمر الهيراطيقي في الاستخدام حتى العصر الروماني، بشكل رئيسي في النصوص الطقسية والجنائزية والعلمية. اليوم، تستند دراسة الهيراطيقي تعتمد دراسة الهيراطيقيّة اليوم على التحليل والمقارنة الباليوغرافية، والتي تتيح لنا، بمساعدة التكنولوجيا الرقمية، تحديد تاريخ مخطوطة أو تحديد هوية الكاتب. أصبحت ممارسات الكتابة، والسياق الاجتماعي للكتابة، والنصوص المختلفة، وأنواع النص، وأنماط النقل موضوعات بحثية مطروحة حالياً. بالإضافة إلى ذلك، فإن اكتشاف وفك رموز أمثلة جديدة للكتابة الهيراطيقيّة أمر مهم.

Hieratic is the designation of the Egyptian cursive hieroglyphic script used continuously for more than three millennia, primarily in handwritten sources. The earliest clear evidence of hieratic writing dates from at least the 2nd Dynasty (c. 2800 BCE), if not earlier, in parallel to the first appearance of hieroglyphic signs (c. 3200 BCE), and the latest hieratic papyri are dated to the Roman Period (third century CE). The Egyptian lexeme for “writing,” “scribe,” “script,” “written document,” etc., in fact comprises the instruments used for handwriting—brushes or rushes, pigments, and palette (𓆎) —rather than the tools for carving hieroglyphs. That training in hieratic writing was a primary component of the scribes’ curriculum further emphasizes its fundamentality.

Hieratic was generally written from right to left (rare exceptions are single reversed signs on Middle Kingdom coffins: Fischer-Elfert 2021: 217-219). Remarkably, individual characters—unlike those of Arabic, for example—are not started from the right, but at the top left. Initially, hieratic signs were arranged in vertical columns, (centered) single signs alternating with sets of two or three signs side by side. Sometimes several signs forming a word were written horizontally in a single row, or a row was divided into two parallel half-rows. Tables with horizontal heading lines are found in administrative sources dating as far back as the early Old Kingdom and were used throughout all periods. During the 12th Dynasty, a new layout for hieratic became common: scribes wrote in lines of varying length, width, and arrangement. The lines could take unusual shapes, such as star-shaped columns or circles on the inner or outer surfaces of bowls or vessels (von Pilgrim 1996; Donnat 2014; Hsieh 2021). In each type of layout, only a minority of signs were arranged in squares (as hieroglyphs were), while most signs were written side by side on a baseline, horizontal lines prevailing. Throughout its history, the hieratic script was written in varying styles—in, for example, what we might consider “uncial,” “book-hand,” or “long-hand” (*Buchschrift*) for the elaborate or

calligraphic writing of literary, religious, funerary, and scientific texts, or in “administrative,” “business,” or “short-hand” (*Kanzleischrift*) for the more abbreviated writing of documentary texts, letters, notes, and accounts. However, the styles could be mixed and varied, the execution depending on the intention, education, and skills of the individual scribe.


The sign inventory of hieratic differs in some respects from that of hieroglyphic, e.g., by favoring the simple classifier of the tail 𓆎 F27 over detailed signs of mammals, or a slash 𓆏 Z5 as an abbreviation for various signs that are time-consuming to render, such as that of the woman giving birth 𓆑 B3. (The highlighted sign-numbers here are linked to hieratic examples of the grapheme in the AKU-PAL database: <https://aku-pal.uni-mainz.de/>.) In the New Kingdom, the number of classifiers increases (for the system, see Chantraine 2014). It is not easy to make a comparison between the quantity of signs in the monumental and hieratic writing systems. While Gardiner (1973: 544-548) listed 745 signs and Hannig (2006: 1465-1474) listed 780 standard hieroglyphic graphemes, the Thot Sign List provided 1,203 in its online version, from its collected total of 7,051 signs (<https://thotsignlist.org/About>). Collombert (2022) explained the complexity of the count. Applying his restrictive definition, he named about 1,500 - 2,000 individual hieroglyphic signs for the Dynastic Period, and 2,000 - 2,500 signs for the Ptolemaic and Roman Periods. Regarding the number of hieratic graphemes, Möller presented 503 for the 18th to 21st Dynasties (Möller 1927: Vol. II), while Verhoeven totalled 530 for the period from the 21st Dynasty until 230 BCE (Verhoeven 2001: 339; see also Verhoeven 2015: 34). The current database of the project *Altägyptische Kursivschriften* contains 690 graphemes for which hieratic examples have already been documented, plus 116 previously undocumented ones (Tobias Konrad: personal communication, Aug. 17, 2022); about a hundred more are expected in the future. In the online version of AKU-PAL (<https://aku-pal.uni-mainz.de/>), 663 graphemes are available.

As Polis (2020: 554) pointed out, “scribes could relatively freely enrich the repertoire with new semograms...that do not necessarily have hieroglyphic equivalents.” Polis cited a Ramesside letter (Kitchen 1983: 335, 5-15) with four hieratic signs not yet found in paleographies (compare, however, the kilt sign S26: <https://aku-pal.uni-mainz.de/graphemes/575>, and the crown S7: <https://aku-pal.uni-mainz.de/graphemes/560>). Also worth mentioning are the singular pictograms of amulets (double hippopotamus heads and double red-crowns) that Butehamun included in the text of a letter to his father (papyrus London BM EA 10411, verso 3-4; cf. Polis and Rosmorduc 2015).

Terminology

Herodotus (fifth century BCE) employed the Greek adjective *hierá* “sacred, priestly” for the older system of cursive writing, in contrast to *demotiká* “popular, vernacular,” since in his time hieratic was used mainly for funerary and religious manuscripts, and Demotic for administrative and everyday purposes. Later, Clement Alexandrinus (second century CE) coined the term *hieratiká grammata*, from which the modern term is derived (Depauw 1997: 20-21). In modern German Egyptology, the term *Hieratistik* was developed for the field of hieratic studies in parallel to the earlier established term, *Demotistik* (Wimmer 1995a: Teil 1: 1; Verhoeven ed. 2015; Fischer-Elfert 2021: 1); however, both are still to be seen as parts of the overall discipline of Egyptology and should be pursued in combination (Quack 2015: 458).

Recently, the term “philology” has been used for the handling of language and text by the ancient Egyptians, as well as the people of ancient Mesopotamia (Cancik-Kirschbaum and Kahl 2018). The convincing arguments supporting the use of this term are based on the writing techniques of these cultures; the advanced education and knowledge of their scribes; the existence of specialized places for writing and archiving; the methods of making manuscripts; the handling of ancient textual traditions and templates (*Vorlagen*); the mastery of several languages; and the overall magical

aspects of writing and individual signs. This emic view is therefore very revealing. In Egyptian, the term  *sh3* was used for the general word-field “script, scribe, writing, written document.” Sometimes the cursive scripts hieratic and Demotic were called “letter script”/“book script” (*sh šꜥ.t/sh md3.t*; also used for titles of scribes) and *sh n pr-nh* “script of the house of bounded (documents)” (for this interpretation of the meaning of the former term “house of life” see Farout 2020: 60). *Mdw.w ntr* “god’s words” refers to the entire writing system, but especially to the monumental style. An individual sign was called *tj.t* “picture,” as the scribe said in his colophon to the Book of the Dead of Yuya: “It (the manuscript) has come from its beginning to its end as it was found written (or: in writing), and it was copied, collated, checked, and corrected, sign by sign (*tj.t r tj.t*)” (cf. Lenzo Marchese 2004: 369). Several expressions in Egyptian related to writing, script, papyrus, etc., have already been collected and commented on by Kaplony (1983). Specific “paratextual” signs were used in hieratic manuscripts to add, correct, or delete signs or text elements, numbers for sheets or columns, lines, spaces, tables, and other layout features (e.g., several papers in Carlig, Lescuyer, Motte, and Sojic eds. 2020).

As a counterpart to the terms “hieroglyph” and “hieroglyphic sign,” the term “hieratogram” was introduced for a hieratic sign (Verhoeven 2001: 1; see also Fischer-Elfert 2021: 1, n. 2). Signs that are linked together form a “ligature,” and shortened forms are called “abbreviations” or *Abbreviaturen* (Fischer-Elfert 2021: 2). The term “ductus” refers primarily to characteristics of the writing flow, and to the regularity and direction of signs (see Gasse 1992; Fischer-Elfert 2020: 648), while “idiosyncrasies” are individual, exceptional habits of sign formation, orthography, or layout (see, for example, Vuilleumier 2018).

The rendering of hieratic signs into standard hieroglyphs is variously called (hieroglyphic) “transcription” (e.g., Gardiner 1929; 1973: 10-11; Polis 2020: 560; Fischer-Elfert 2021: *passim*) and (hieroglyphic) “transliteration” (e.g.,

Backes 2016; Regulski 2020; Verhoeven 2020a, 2020b). While “transcription” aims at capturing the sounds represented by a script by transferring that script into a system of phonetic paraphrasing—that is, a transcript (e.g., $\text{𓆎} = nfr$)—“transliteration” is letter-based and deals with a script’s literal representation, sign by sign (e.g., $\text{𓆎} = \text{𓆎}$). Therefore, the term “transliteration” should be preferred when standard hieroglyphs are used to explain or reconstruct hieratic texts (cf., e.g., Schenkel 2012: 18-19; Werning 2018).

Historical Overview of Hieratic among Other Scripts

The boundary between hieroglyphs and hieratograms (and later Demotic signs) was sometimes fuzzy, since it was always possible, and in some contexts quite common, to write or draw detailed hieroglyphs in a more or less cursive or linear form on papyrus, wood, etc., and to mix the writing systems. On the other hand, the characteristic use of color for hieroglyphs was an advantage and comprised an important difference from hieratic writing, which was mainly written in black, and sometimes red, ink. Numerous examples of colored hieroglyphs and their hieratic and linear equivalents can be found in the recent publication by de Spens (2022).

After the first evidence of hieroglyphics appears around 3200 BCE (in the form of hieroglyphs carved on ivory tablets), inked characters on pots, etc., show the handwriting of the 1st Dynasty (cf. Polis 2020: 551-552). Somewhat later, the so-called “archaic hieratic” clearly dates to the 2nd Dynasty (Regulski 2009), followed by “old hieratic” (3rd to 10th Dynasties), and “early middle hieratic” in the 11th and 12th Dynasties. In addition, a more cursive form of handwriting—cursive or linear hieroglyphs (see Díaz-Iglesias Llanos 2023), although their respective definitions remain under discussion—came into use, increasingly during the Middle Kingdom, especially for religious texts like Pyramid and Coffin Texts. Only the apparent writing direction of cursive hieroglyphs from left to right (like that of monumental hieroglyphs) is a likely indication

of its identity (Konrad 2022a). With the transition to the New Kingdom, inked hieroglyphs, often arranged in retrograde columns, came into use for Book of the Dead spells on linen and papyrus, which is why this style was called “Book of the Dead cursive” (Lucarelli 2020). During the first millennium BCE, cursive hieroglyphs were still used for some Book of the Dead papyri and other works, like the Papyrus Jumilhac and the Fayum Book. An entirely different and independent system of signs appeared in the context of administration, the so-called workmen’s or identity marks, especially at Deir el-Medina (Moezel 2016; Haring 2018, 2023). While the hieratic book-hand continued in various stages during the Third Intermediate and Late Periods and into the Ptolemaic and Roman Periods, the hieratic administrative hand was highly abbreviated in two different forms: abnormal hieratic (or cursive hieratic, with the stages protocursive, classic cursive, and late cursive hieratic; cf. Vittmann 2015) in the south from c. 1100 – 550 BCE and Early Demotic in the north from c. 650 – 550 BCE, followed by Middle and Late Demotic throughout Egypt from c. 550 BCE until the Roman Period (cf. Verhoeven 2015: 47-48, fig. 14). Cursive/abnormal hieratic and Demotic were used primarily for letters and administrative writings, but also for literary and religious texts. Neither system was clearly separate from hieratic (for examples of abnormal and traditional hieratic, cf. Fischer-Elfert 2021: 459-460; for “semidemotic,” which refers to Demotic texts written with a mixture of hieratic and Demotic signs, cf. Quack 2004; 2015: 456-457). Hieratic remained in use until the third century CE, especially for large works with literary, funerary, and religious content (recent sources discussed by Fischer-Elfert 2021: 601-609). The last Demotic papyri date from the second century CE; the last ostraca date somewhat later. The hieroglyphic system, limited to stone inscriptions (graffiti), survived longer than the hieratic tradition, until 394 CE, and the last Demotic graffiti is dated to 452 CE. A family tree of the various Egyptian scripts (Verhoeven 2015: 46, fig. 13; modified by Polis 2020: 552, fig. IV.3.2) shows

the dominance of hieratic writing throughout ancient Egyptian history.

Sources and Contexts of Inked Hieratic

Hieratic was mainly handwritten with rush stalks and black and red ink on portable writing materials, such as papyrus (sheets or rolls), linen, leather, wooden tablets, scribal palettes (from wood or even ivory), limestone ostraca, and pottery sherds. Inked inscriptions are also found on objects such as pots and jars, figurines, shabtis, stelae, coffins, sandals, boats, etc., as well as on immovable surfaces, e.g., natural or architectural stone, and stuccoed walls of tombs or temples.

2nd to 6th Dynasties: Archaic and old hieratic

Criteria for archaic hieratic in contrast to archaic inked hieroglyphs are the development of abbreviations/abstractions and the simplification of signs combined with a tendency toward phonetic writing (Regulski

2009: 266; Fischer-Elfert 2021: 59). Therefore, short ink labels in or on stone vessels from the 2nd Dynasty (c. 2800 – 2670 BCE) have been identified as early hieratic signs. Old hieratic is then used in the 3rd Dynasty on pottery from Saqqara and Elephantine (e.g., Möschen 2021: 31-40), and in the 4th Dynasty inside the Giza pyramid of Khufu and on a wooden boat model from Elephantine (Regulski 2009; Fischer-Elfert 2021: 55-69). The earliest papyri with hieratic writing are the 4th-Dynasty (reign of Khufu) fragments of the ship’s log of “Inspector Merer,” found in the Wadi el-Jarf (Tallet 2017, 2021). In fragment BIV (fig. 1), a red vertical line was placed before “day 21,” when Merer traveled by boat from Giza to Tura, where he arrived on day 25 to “pull” limestone for the royal pyramid. The pre-established two columns per day were not always filled with the appropriate content (Tallet 2017: 64).



Figure 1. Postrestoration fragment of Papyrus Jarf BIV (part of Merer’s ship’s log), written in old hieratic. 4th Dynasty.

The format used in the Wadi el-Jarf fragments is similar to that employed in the later and more extensive archives of Gebelein (4th Dynasty) and Abusir (5th to 6th Dynasties). The latter archive uses distinctly different applications of red ink and clearly illustrates the development of more cursive forms and new abbreviations typical of later hieratic (Fischer-Elfert 2021: 110-113). The archives at Saqqara, Sharuna, Balat, and Elephantine contain the first known letters (with both official and private contents) of the 6th Dynasty. The layout of these documents features a horizontal header with the date, vertical lines at the beginning to indicate the addressee, and a short vertical line indicating the end of the letter (Fischer-Elfert 2021: 114-151; see also p. 122 for an example of layout from pCairo JE 49623; cf. also various contributions on the administrative archives of the Old Kingdom in Collombert and Tallet eds. 2021). From the end of the same dynasty the first evidence of Letters to the Dead (or: to the ancestors) is preserved, exceptionally written on a linen sheet (cf. the color plate in Donnat 2022: 264-265). Later examples from the First Intermediate Period to the New Kingdom were inked on ceramic bowls or papyrus (Donnat 2014; Hsieh 2021). The numerous finds from the 6th-Dynasty necropolis of Qubbet el-Hawa (2000 objects; Edel 1980) and from other regions (95 objects) allowed intensive studies of inked hieratic inscriptions on vessels. The content of the inscriptions mainly comprised the names of the persons who deposited the funerary objects for a family member (Seyfried 2014). A particular case, for example, were the execration figures made of clay, with inked names, titles, and places of origin of individuals (both men and women), sometimes with the formula of an Execration Ritual, that were found in deposits of the 5th to 6th Dynasties at Giza, Saqqara, and Balat, and in Middle Kingdom deposits at Mirgissa and Elephantine (Fischer-Elfert 2021: 153-173). (Old Kingdom clay tablets with imprinted hieratic from Balat/Dakhla are discussed further below.)

9th / 10th to 12th / 13th Dynasties: Early middle hieratic

The archive of the early 12th-Dynasty mortuary priest Heqanakht, written in early middle hieratic, was found in an area of tombs at Deir el-Bahri. The eight papyri, containing letters and accounts, were still sealed, and their perfect state of preservation allowed new methods of studying the personal line layout, the order of the strokes employed in a sign, and the frequency of dipping fresh ink. Based on this evidence, Allen was able to determine that the texts were written by three different individuals (Allen 2002; Fischer-Elfert 2021: 189-201). The use, in Heqanakht letter III, of single elongated signs in the wishes for good deeds to be bestowed upon the addressee by the gods (e.g., papyrus New York, MMA 22.3.518: column 2) is also found in the early middle hieratic papyrus letter from the tomb of Meketra (fig. 2: especially column 3 from the right).

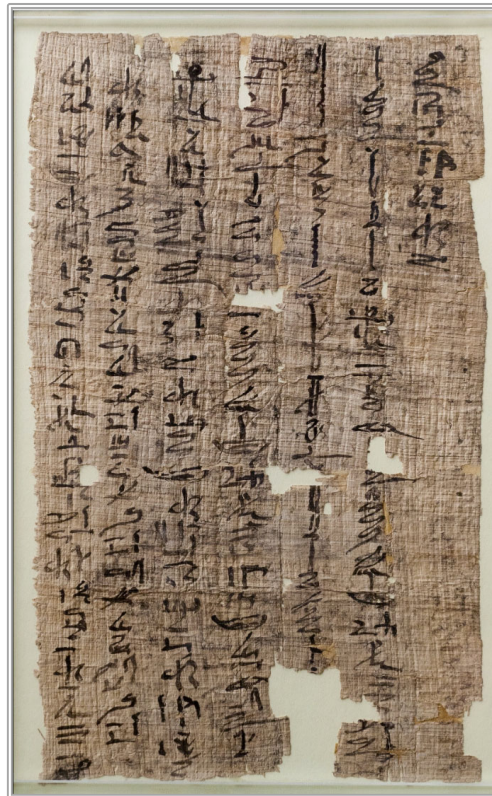


Figure 2. An exercise letter written in early middle middle hieratic. New York, MMA 22.3.524, from the tomb of Meketra (IT 280), reign of Senusret I, 12th Dynasty, c. 1981 – 1975 BCE.

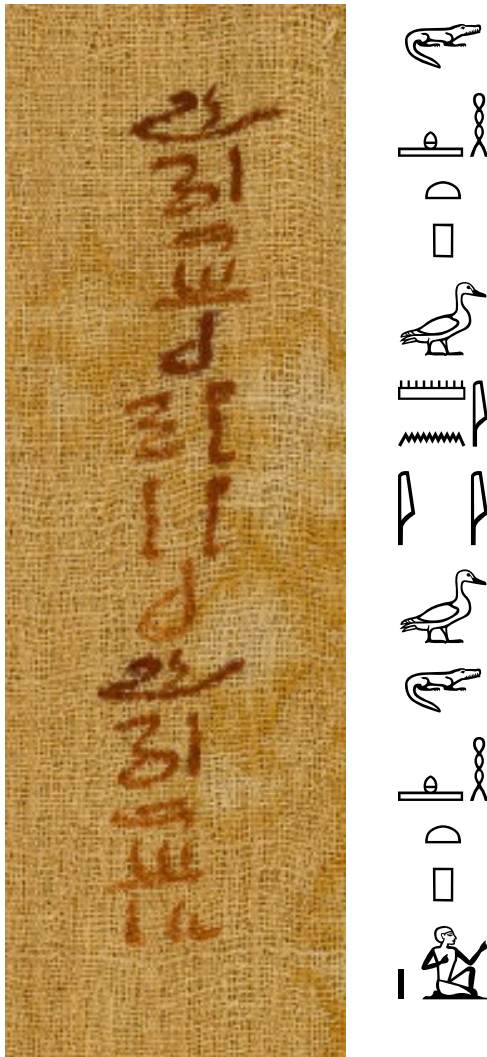


Figure 3. Left: “Sobekhetep’s son Imeny’s son Sobekhetep” in early middle hieratic on linen. New York, MMA 27.3.118, from tomb MMA 507, c. 1961 – 1917 BCE. Right: hieroglyphic transliteration.

Another example, also from the early 12th Dynasty, shows the name of the owner at the end of his genealogy in red ink on a linen shroud (fig. 3). The characters in $\text{𓆎} \text{h} \text{tp}$ and $\text{𓆏} \text{s} \text{z}$ are written in a distinctly cursive script, while $\text{𓆑} \text{m} \text{n}$ is written in a ligature.

An archive at Naga el-Deir from the time of Senusret I containing the four “Reisner Papyri,” written in early middle hieratic, apparently by both older and younger scribes, preserved lists and other documents for a royal

building project (Fischer-Elfert 2021: 225-231). Further north, the city of el-Lahun preserved a large deposit of papyrus texts from the late 12th to the 13th Dynasties written in an extremely cursive form of hieratic with abundant abbreviations and ligatures (Fischer-Elfert 2021: 231-240). Papyrus Brooklyn 35.1446 is exceptional because of its precise dating to the later 12th Dynasty (c. 1810 – 1720 BCE) and its information about a Theban prison camp. It also has a peculiarity in its layout: numbered in tens from one to 79, it lists individuals by first name, second name, profession, gender/age, and also place of origin, where “Asiatic” occurs 45 times (Hayes 1942; Fischer-Elfert 2021: 255-261). Papyrus Boulaq 18 is a ledger of food supplies from the 13th Dynasty (Fischer-Elfert 2021: 261-263; large-format publication by Allam ed. 2019).

The scribes of administrative papyri, from the 5th Dynasty up to the 25th Dynasty, and especially in the Middle Kingdom, used single hieratic signs or groups of signs in black or red with special meanings. These marks (*Aktenvermerke*) served to classify persons, to control the delivery of goods, or to manage documents (most recently Jüngling 2021).

The earliest literary papyri are dated to the beginning of the 12th Dynasty and were all most likely written (copied) by the same scribe, “Ameny’s son Amena,” or at least with the same brush or within the same scribal school (von Bomhard 1999). They comprise the Tale of the Shipwrecked Sailor written in columns as well as (some) horizontal lines (papyrus Hermitage 1115), and both the Instruction of Ptahhotep and Instruction for Kagemni written in horizontal lines (Papyrus Prisse). The change of the writing direction in this period seems to have caused some difficulties for the scribe (Fischer-Elfert 2021: 265-271).

The important literary texts on the papyri of the so-called “Berlin Library” (The Story of Sinuhe, The Tale of the Eloquent Peasant, The Dialogue of a Man with His Ba, and The Story of the Herdsman) were copied by two scribes who are clearly recognizable by their dipping, writing flow, and sign forms (Parkinson 2009: 89-112). The scribes reused an older administrative papyrus and attempted to create

a calligraphic hieratic book-script with only a few ligatures and abbreviations (Fischer-Elfert 2021: 272-277). Another papyrus collection was found in the Ramesseum. The documents have a mixed content of administrative notes and literature (The Story of Sinuhe, The Tale of the Eloquent Peasant, and a teaching with the first use of verse points, cf. Fischer-Elfert 2021: 284), an onomasticon, and magico-medical texts. The writing styles vary from abbreviated forms to calligraphic book-script and retrograde cursive hieroglyphs (ibid.: 281-287). The same range of scripts and content is found at el-Lahun (ibid.: 288-292).

Magico-religious texts are also sporadically found in this period: the first hieratic versions of the Pyramid Texts occur on a Saqqara papyrus from the late 6th or the 11th Dynasty (Fischer-Elfert 2021: 173-174), while the hieratic columns of the Pyramid Texts inside the wooden coffin of Herishefhotep are dated to the First Intermediate Period (Fischer-Elfert 2021: 212-216). Papyri Gardiner II-IV, which come from Saqqara or Assiut, are written in widely spaced columns (see Papyrus Gardiner II, London BM EA 10676, 29: https://www.britishmuseum.org/collection/object/Y_EA10676-29). They are perhaps the earliest witnesses to Coffin Texts, which have been variously dated between the 6th Dynasty and the early Middle Kingdom (Regulski 2018: 236-237). A collection of hieratic papyri from Assiut, now in Berlin, also contains Coffin Texts, in addition to an offering ritual and a Letter to the Dead, all concerning the person Sedekh. These are dated to the end of the 11th/beginning of the 12th Dynasty (Regulski 2020). The texts feature the work of six scribes, and the detailed study of their writing habits revealed, among other things, that they used true ligatures in 6.6-9.4 percent of all characters, and that a ligature could consist of up to six characters (Regulski 2020: 343-357, pls. 31-33). A magical papyrus in Turin with spells against snake venom is dated to the beginning of the Middle Kingdom. The scribe used red and black ink, horizontal headings, vertical columns of text, and some challenging spellings (Fischer-Elfert 2021: 208-212).

Other surfaces with hieratic are inked or carved potsherds from expeditions to the Red Sea (Wadi Gasus) and hieratic or hieroglyphic-hieratic private stelae, e.g., from Abydos (Fischer-Elfert 2021: 241-250). In the calcite-alabaster quarries of Hatnub, numerous hieratic *dipinti* (singular *dipinto*; generally, inked inscriptions on immovable objects) have been preserved on the rock surface, mostly in red, as well as some stone stelae with inked figures and hieratic texts (Enmarch and Gourdon 2020; Fischer-Elfert 2021: 189-201). The content of these sources is varied and includes names, dates, non-royal and royal titles, work reports, autobiographical sentences, appeals to the living, threats, and offering formulae. The scribes mixed cursive hieroglyphs with hieratic signs and partially used ligatures (Fischer-Elfert 2021: 189-201).

Late Middle Kingdom to the 18th Dynasty: Middle hieratic

From the Second Intermediate Period to the early 18th Dynasty derive a number of important manuscripts. Representative examples include the mathematical Papyrus Rhind (Imhausen 2021) and the medical Papyrus Edwin Smith (recent edition by Allen 2005: 70-115) and Ebers (recent edition by Popko 2021). Additionally, Papyrus Golenischeff comprises hymns, and narrative texts are found on Papyrus Westcar and papyrus London BM EA 10475, while papyrus Berlin P. 3027 is replete with magic spells for mother and child (Fischer-Elfert 2021: 297-313 and 318-319). The various magical papyri from the Ramesseum, now in the British Museum, date to the end of the Middle Kingdom (Meyrat 2019). Coffin Texts and the earliest sources for spells from the Book of the Dead were sometimes written in hieratic on the inside of wooden coffins or on stick shabtis during the 17th Dynasty (Fischer-Elfert 2021: 313-318). Of 160 manuscripts of the Book of the Dead from the 18th Dynasty on papyrus, leather, and linen, only about ten percent were written in hieratic, all dating to the early 18th Dynasty up to the reign of Thutmose III (Munro 2023: 38, 60). Of the New Kingdom as a whole, the percentage of hieratic on Book of the Dead papyri declines to five percent (Verhoeven 2023: 172-173).

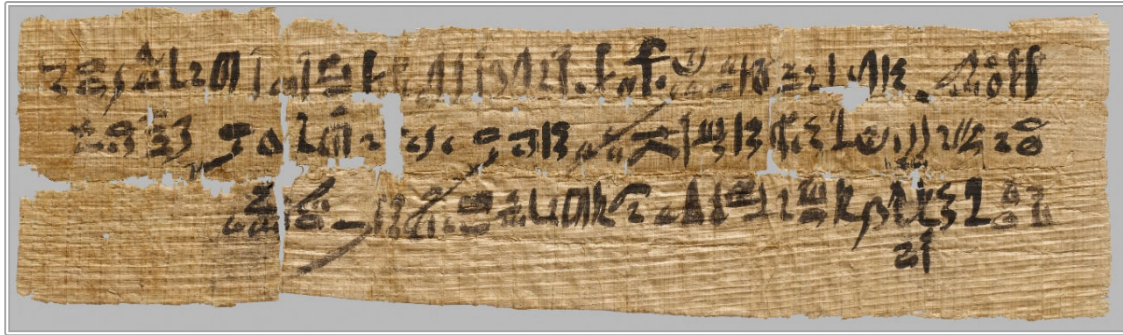


Figure 4. Letter of Tit to “his lord,” Thoth. New York, MMA 27.3.560, 18th Dynasty, c. 1479 – 1458 BCE.

Some letters on papyrus from the first half of the 18th Dynasty show multiple writing styles (Fischer-Elfert 2021: 334-336; Gülden 2022), which are also found in contemporary sources from the archive of a dockyard (Fischer-Elfert 2021: 336-339). The 4.44-meter-long papyrus Louvre E 3226, from the years 28 – 35 of the reign of Thutmose III and which deals with dates (the fruit), provides convincing evidence that the inventory and paleography of signs and the use of ligatures are elements of hieratic that were by no means uniform during this period (Fischer-Elfert 2021: 341-343). A short letter (fig. 4) may illustrate the hand and writing practices of a man named Tit, in the reign of Hatshepsut/Thutmose III: the $\swarrow f$ sign is written three times with a long, thin diagonal line; some abbreviated sign forms are used; few ligatures occur; the dippings are handled differently in the three lines; and in the last line he forgot the word hn^c “and,” which he added underneath.

Typical artifacts from the early 18th Dynasty (and even earlier) are wooden tablets with school exercises, drawings, and excerpts from well-known didactic, narrative, or religious works (e.g., Hagen 2013). Five writing boards with the so-called scribal training book or model letter known as the Kemyt were analyzed with regard to the archaic writing style of Middle Kingdom hieratic and dated to a period from the late Middle Kingdom (?) to the early 18th Dynasty by Motte (2022, with paleographic analyses). In total, Motte recorded 488 witnesses from the New

Kingdom, mainly ostraca, but also five *dipinti* and one papyrus (Motte 2022: 342-343).

From at least the 18th Dynasty onward, the act of leaving graffiti was widespread: visitors commonly left inked graffiti (*dipinti*) inside older royal or private tombs, often mixing hieratic texts with drawings of people, animals, deities, or other subjects. This custom is found in many parts of the country, most notably in the Memphite necropolis (Navratilova 2007, 2015), in Tomb N13.1 at Assiut from about 2000 BCE (Verhoeven 2020a, 2020b), in the Deir el-Bahri area (Marciniak 1974; Sabek 2016; Ragazzoli 2017), and at other sites (Verhoeven 2020a: 16-18). In addition to visitor formulae praising ancient tombs and temples, scribes (and their students) also copied school subjects such as the Kemyt, teachings, hymns, colophons, and letter formulae within the tombs. They also left offering formulae, appeals to the living, and references for ancestor worship (Verhoeven 2020a: 217-266). In Tomb N13.1 at Assiut two texts placed one below the other are dated, respectively, to year 1 and year 30 of Amenhotep III and may have been written by the same scribe, Men, whose handwriting noticeably increased in size over the 30-year interval (fig. 5) (Verhoeven 2020a: 85-86, 218-219; 2020b: pls. 82, 224).

Writing on limestone chips (ostraca) became particularly widespread in the Theban mountain area, where they were freely available. The complex of 600 ostraca from Deir el-Bahri with mainly administrative con-

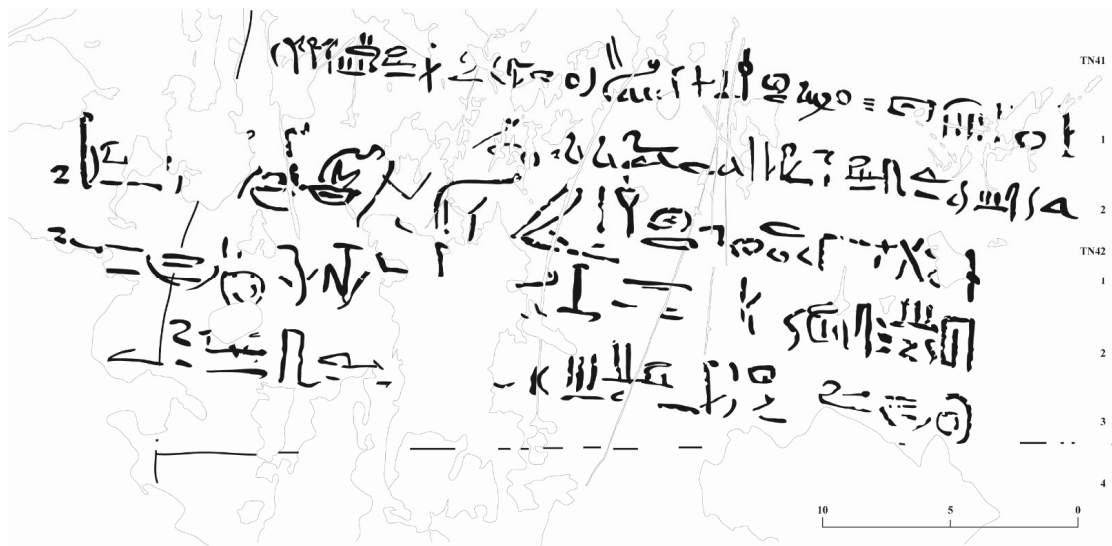


Figure 5. Two *dipinti* in Tomb N13.1. Gebel Assiut al-Gharbi, 18th Dynasty. Years 1 and 30 of Amenhotep III (top and bottom, respectively), c. 1388 – 1351 BCE.

tent concerning the building activities during the reigns of Hatshepsut and Thutmose III has not yet been completely published (examples in Römer 2017a and 2017b). Interesting items from the reign of Thutmose III may demonstrate the handling of different writing styles (for administrative versus literary hieratic cf. ostraca in Hayes 1942: pls. 13-30) and copying practices (Lüscher 2013). The handwriting of this period is very cursive, with many ligatures and abbreviations, and with small character sizes (Fischer-Elfert 2021: 327-328, 331-333).

19th and 20th Dynasties: Ramesside hieratic

The increasing hieratic material from this period, mainly from Deir el-Medina, but also from northern regions such as Memphis and Pi-Ramesse, offers diverse and extensive information about the forms and functions of hieratic and its evolution. The innumerable ostraca and papyri provide insights into education (instruction), community administration, the interest in and handling of geographical, literary, religious, funerary and scientific subject matter, the art of writing on long rolls of papyrus combined with colored vignettes, and even the production of landscape maps and architectural drawings. In

his history of hieratic Fischer-Elfert devoted three extensive chapters to this period (2021: 347-416).

With respect to the rich material from Deir el-Medina, Fischer-Elfert emphasizes the many idiosyncrasies of the scribes and doubts that it would be possible to establish a local paleography with a clearly evident development of signs and ligatures (Fischer-Elfert 2021: 355; cf. also 2020). The numerous school exercises show the progression of instruction, starting with the repetition of single signs, grammatical forms, lexemes, and names, followed by the copying of paragraphs from different text genres (hymns, teachings, letters, and spells from the Book of the Dead), and the instruction in different writing styles like middle hieratic (e.g., the Kemyt) and cursive hieroglyphs (Fischer-Elfert 2021: 356-390). The scribes produced very long text-copies, not only on papyrus scrolls (e.g., Gardiner 1937: *Late-Egyptian Miscellanies*), but also on large ostraca (e.g., for Sinuhe: Ostraca Ashmolean 1945.40 and Cairo CG 25216 from the tomb of Sennedjem, TT 1). The calligraphic handwriting employed is also found in the captions of plans of sacral buildings and important maps (of gold and

stone deposits) produced in this community (Fischer-Elfert 2021: 391-397).

Two impressive administrative papyri show that hieratic could be used in different ways during a single reign, i.e., that of Ramesses V. The large Papyrus Harris I (London BM EA 9999) was written by four scribes from three different regions, but at the same time and place, apparently at Thebes. While the two Theban scribes wrote in more traditional and iconic forms, those from Heliopolis and Memphis preferred modern abbreviated forms (Grandet 1994 I: 23-26; cf. also Fischer-Elfert 2021: 399-409). The Wilbour Papyrus (Brooklyn MFA E. 34.5596) abounds with highly abbreviated hieratic written by four different scribes who shared (some) writing habits and personal characteristics (Fischer-Elfert 2021: 409-416). Thanks to the museum staff of the Museo Egizio in Turin, many long and important papyri from New Kingdom Thebes, but also from other areas and periods, are available in the Turin Papyrus Online Platform (TPOP) (<https://collezionepapiri.museoegizio.it/>)

with high-resolution photographs.

Based on the numerous textual testimonies, the personal identification of scribes becomes possible not only by their names, but also by their special handwriting features, e.g., Qenherkhepeshef (Štubňová 2016), Amunnakht son of Ipuw (e.g., Dorn 2015), Inene (Ragazzoli 2012), Pay (Polis 2022), or the scribe Thutmose (recently Demarée 2022). Paleographic comparisons of the writing of personal names and selected words can also help to identify the same anonymous scribe of multiple documents (van den Berg and Donker van Heel 2000). The social status of scribes within their various professional milieus and social environments is revealed in ten biographies of famous New Kingdom scribes (Allon and Navratilova 2017). These scribes appeared to change their writing style according to the text register and to distinguish between “Sunday” and “weekday” forms (Donker van Heel, cited by Fischer-Elfert 2021: 419-421; cf. also 417-425). As an example, see Figure 6.

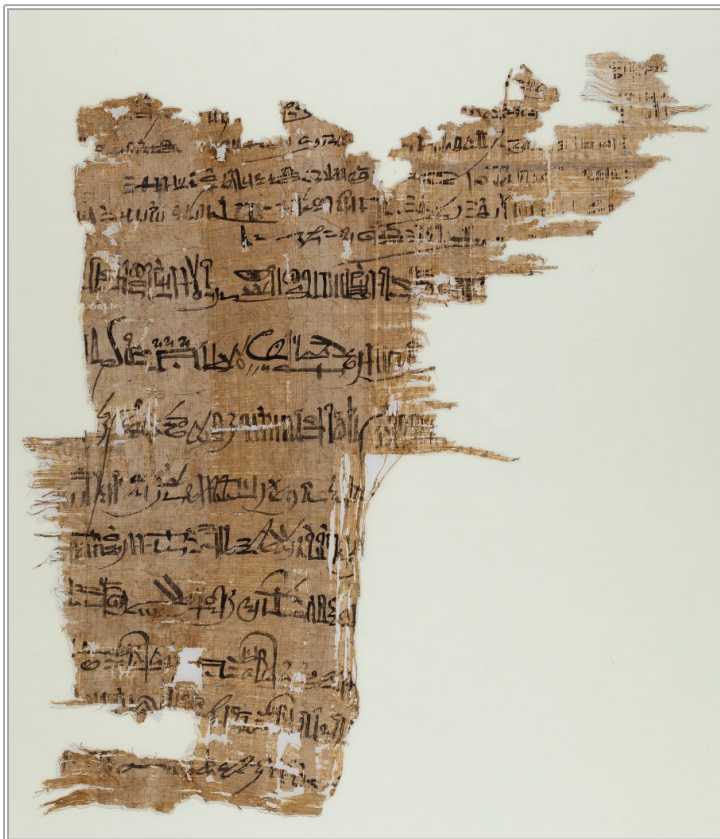


Figure 6. Papyrus fragment with different writing styles: in the upper portion, a text in administrative style mentioning the arrival of a shipment of commodities and the quarrying of stone for a tomb; in the lower portion, a letter between two fan-bearers in calligraphic style. New York, MMA O.C.3569, year 16 of Ramesses III, c. 1183 BCE.

Considerable research has been done on the scribes and scribal practices at Deir el-Medina (e.g., Donker van Heel and Haring 2003; Haring, Kaper, and van Walsem eds. 2014). Paleographic studies have been conducted on non-literary texts (Wimmer 1995a, 1995b; on the use of his paleography for literary texts, cf. Dorn 2022) as well as on the Late Ramesside Letters (Miyanashi 2016). The writing habits in the so-called Necropolis Journal have been shown to exhibit great economy and flexibility with respect to time, space, function, and context (van der Moezel 2022).

21st to 26th Dynasties: Late hieratic I

During the 21st and 22nd Dynasties, long, narrow papyri were produced with the so-called “Oracular Amuletic Decrees” given by the divine triad at Thebes. The small-format handwritings combine normal hieratic with sign forms from the emerging cursive/abnormal hieratic. The lengths of the papyri (32-147 cm) are said to correlate with the height of the individuals (mostly newborns and children) for whom they were written as apotropaic (magically protective) devices. There is only one anomalous short example possibly intended as a summary or supplement (fig. 7; Wilfong 2013; Fischer-Elfert 2021: 443-447).

From the 21st Dynasty onward, hieratic also became the standard script for short and long papyri containing spells of the Book of the Dead (for the paleography, see *inter alia* Lenzo Marchese 2007: 177-271; Lenzo 2023: 88-100). On these papyri the captions of the vignettes were written in hieroglyphs, and the notes for the draftsman in cursive/abnormal hieratic (Ragazzoli 2010). Extensive studies of the Saite scribes of the Book of the Dead, who sometimes worked together on the same papyrus, have been published, e.g., by Gasse (2001) and Verhoeven (2001; 2017: 55-66). In the 26th Dynasty, hieratic was still the dominant script, used in 11 long and well-dated papyri, in contrast to only two relevant hieroglyphic sources (Gülden 2023: 127). An example is the Book of the Dead of the Theban priest of Montu named Khamhor C (fig. 8).

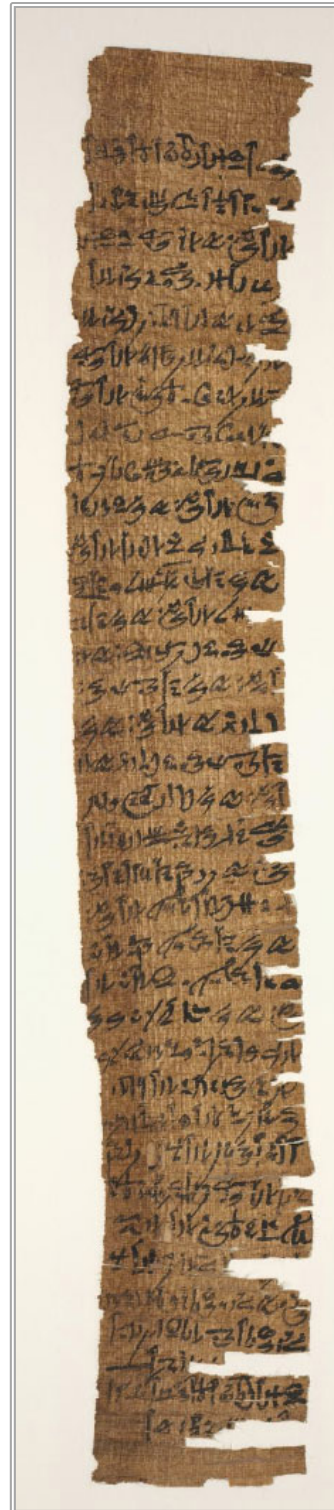


Figure 7. Papyrus with an Oracular Amuletic Decree (18.5 x 3 cm). The Cleveland Museum of Art, Gift of the John Huntington Art and Polytechnic Trust 1914.723, 21st - 22nd Dynasties, c. 1069 – 715 BCE.



Figure 8. Top: Book of the Dead of Khamhor C, col. X+14a, with the title of spell 144. New York, MMA 25.3.212A–G, c. 630 BCE. Bottom: hieroglyphic transliteration.

In addition, long literary, didactic, and scientific texts were written in the late hieratic book-hand (*späthieratische Buchschrift*; for the paleographic dating of some of them see Verhoeven 2001: 272-337; examples in Fischer-Elfert 2021: 515-537). It has been observed that several signs developed significantly during the first millennium BCE (Verhoeven 2001: 226-249). A kind of renaissance, i.e., a preoccupation with the past, mainly with the 18th and 19th Dynasties, began in the 22nd Dynasty, when older forms were integrated side by side with the appearance of new “Saite” forms (Verhoeven 2001: 250-256 and 340). The increasing use of paratextual signs shows the precise and serious work that went into these manuscripts (Verhoeven 2020c).

Ptolemaic and Roman Periods: Late hieratic II

The different types of manuscripts of the Book of the Dead of the Late and Ptolemaic Periods, which could be written in either cursive hieroglyphs or in hieratic, have been collected and extensively studied by Mosher (2017 – 2023), who presents and compares numerous manuscripts spell by spell in visual representations, with translation and commentary. Two unique papyri from this period combine the hieratic and hieroglyphic scripts, not only through the addition of hieroglyphic captions to the larger vignettes, but to entire spells (Mosher 2019).

Beginning with the 30th Dynasty and continuing into Ptolemaic times, a new practice for Book of the Dead spells was initiated: the use of long and narrow mummy bandages with hieratic writing, sometimes combined with hieroglyphic captions and Demotic notes. In

his detailed comments on scribal practices, Kockelmann stated that the hieratic writing on mummy bandages shows different stages of detailed to simplified forms, in sizes ranging from 4-8 mm (Kockelmann 2008 II: 134). The change of scribes within a set is rare: the 50-meter-long bandages of Hor were written by only one person (ibid.: 134-136).

During the Ptolemaic Period, several important hieratic papyri were produced as grave goods for priests or were deposited in temple archives. They contain extensive liturgical and ritual texts on the mysteries of the god Osiris, the ceremonies for Geb, the procession of Sokar, the Apis embalming ritual, etc. (for recent volumes with fairly extensive paleographic studies see, e.g., Backes 2016; Töpfer 2015; Vuilleumier 2016; Gill 2019; Herbin 2020; for a linen shroud with hieratic texts on the Khoiak Festival, see Herbin and Leitz 2022).

While the production of Book of the Dead manuscripts seems to have ended in the very late Ptolemaic Period (Albert 2023: 147-151), the Egyptians used new funerary documents in the Roman Period: the Books of Breathing and related texts, and the Book of Traversing Eternity (Fischer-Elfert 2021: 571-573). Other documents in mixed hieratic and Demotic served various purposes and included magical texts, instructional texts for learning signs and grammar, manuals for priests, onomastika, medical texts, etc. (ibid.: 578-599).

The special appearance of Roman hieratic is due to the use of a new writing tool, the reed pen (Greek: *kalamos*). The reed pen allowed for precise and uniform ink writing, as opposed to

the older brushes or rushes, which produced a more fluid and pleasing handwriting with varying thicknesses of ink. Samples of more or less contemporary hieratic hands in papyri from the Roman temple library of Tebtunis (mostly from the second century CE) show that handwriting styles could vary considerably (Ryholt 2017: fig. 7.13). Quack published a chapter on the special hieratic of the Roman Period (albeit with few signs presented) with comments on the history of research, dating problems, regionalism, writing tools, layout, orthography, and interactions between hieratic and Demotic (Quack 2015). A supplement was published by Fischer-Elfert with photographic examples of the funerary Papyrus Rhind I-II containing texts of the embalming rituals for the Apis bulls as well as for humans (Fischer-Elfert 2021: 555-568). Several case studies of script switching in Roman Egypt are given by Love (2021). The last papyri with hieratic (again partly mixed with Demotic) can be dated to the third century CE (Quack 2015: 442; Fischer-Elfert 2021: 601-610).

Sources and Contexts of Carved Hieratic

In the 6th Dynasty at Balat (Dakhla Oasis), perhaps because of the lack of other writing materials, a special method of writing hieratic was developed: the scribes pressed a *griffel* (stylus) into unfired clay tablets (Pantalacci 2018, 2022). The same procedure is otherwise found only from the New Kingdom onwards, when magical bricks were stamped (or even inked; see, e.g., Di Biase-Dyson 2014) with hieroglyphic or hieratic phrases from spell 151 of the Book of the Dead (cf. Fischer-Elfert 2021: 134).

Hieratic could be carved into rocks or stone surfaces and is then called lapidary or monumental hieratic. Inscriptions or graffiti of this type are mainly found on the mountains of Western Thebes (Rzepka 2014), on routes in the Western Desert, or in the Wadi el-Hol (Darnell 2002, 2013, 2020; Fischer-Elfert 2021: 189-200, 278-281, 293-295). Stone roofs and walls of tombs and temples were also inscribed: see, e.g., the genealogy of 18 generations of priests during the 22nd to 24th Dynasties on a

temple wall at Karnak (Fischer-Elfert 2021: 490-491; Froid 2010).

A few examples show incised hieratic on New Kingdom stelae: a fragment from Amara West/Nubia, dated to Seti I and Ramesses II, uses a hieroglyphic-hieratic mix of signs (Popko 2016). The carved signs on the Ashmolean fragment HO 655, dated to the second half of the reign of Ramesses III, are all hieratic and inlaid with blue pigment (McDowell 1995).

During the Third Intermediate Period donation stelae (fig. 9) and other stone surfaces were inscribed (Fischer-Elfert 2021: 475-491).



Figure 9. Donation stela of King Shabaqo. New York, MMA 55.144.6, 25th Dynasty, 712 – 698 BCE.

Carved signs are also found on objects or surfaces of clay, wood, metal, etc. Depending on their primary or secondary character, location, and textual content, terms like inscription, graffiti, or caption are used for such writings. The term graffiti is, in fact, not easy to define; a recent definition states that graffiti are “all those texts, signs, marks, and drawings that have been deliberately marked








on a surface that was not designed to receive them” (Salvador 2020: 435 with references; cf. a further discussion of definitions in Verhoeven 2020a: 15-16; *fc.*). In a terminology based on types of writing, carved entries are designated as “graffito/graffiti” and inked texts (and images) are designated as *dipinto/dipinti*.












Selected Paleographic Features

The term “paleography” refers to the study of ancient manuscripts with the aim of decipherment and dating. This study includes the search for the system and development of scripts, and the practices surrounding the production of manuscripts in a sociological context. The material turn in the humanities has led to a new interest in writing practices, manuscripts, and ink traces, and the scribes behind them (Eyre 2013; Allon and Navratilova 2017; Ragazzoli 2019). In a narrower sense, the term “paleography” is used for lists of signs compiled for presenting, studying, and comparing different forms of writing diachronically or synchronically, sometimes with the aim of identifying individual scribes, schools of scribes, or regions (cf. Polis 2020: 552-558). The Egyptians already used such lists—for example, the Tanis Sign Papyrus from the second century CE, with 230 corresponding hieratic and hieroglyphic signs (Gülden 2018: 83-84).

The following remarks can only touch on some aspects of the development of the hieratic script and selected sign forms. It can be observed that in the beginning the signs were separated from each other like hieroglyphs (e.g., Tallet 2017, 2021). Ligatures, mostly between two or three, but also up to six signs, became increasingly common, especially from the 11th to 12th Dynasties. Abbreviations began to appear slowly in administrative texts at the end of the Old Kingdom and became widespread during the Middle Kingdom (e.g., in the Heqanakht Papyri, Reisner Papyri, and el-Lahun Papyri). Allen (2002) has added to the paleographic criteria the number and order of strokes in which the scribe wrote his sign, and, like others, has observed the dipping of the ink. The literary manuscripts of the Middle

Kingdom are not free of ligatures and abbreviations, but they are written calligraphically and are therefore clearer than the administrative texts. A study of ligatures on New Kingdom ostraca was initiated by Annie Gasse (2018), who noted that the lists of ligatures in Möller’s paleography (1927: Vol. II) are still relevant. She added observations on documentary and literary texts and, for the latter group, distinguished between useful and ornamental ligatures (Gasse 2018: 121-128). The possibilities and limitations of paleographic studies of the numerous scribal products of Deir el-Medina have been addressed by Fischer-Elfert 2020. During the first millennium BCE, late hieratic returns to clearly recognizable characters with only a few ligatures and abbreviations, perhaps in deliberate contrast to the shorthand of cursive/abnormal hieratic and Demotic.

In hieratic, the so-called alphabetic or single-consonant characters were most commonly used (list for old hieratic: Möschen 2021: 181-182; middle hieratic: *ibid.* 2021: 185-186; interactive list with links to AKU-PAL, the hieroglyphic word-processor JSesh, and Möller 1927–1936, with characters mainly from papyrus Berlin P. 3022, Sinuhe: Gerhards 2022b). The very common signs as well as the simple geometric signs like  [N1](#),  [N25](#),  [N26](#),  [O1](#),  [O4](#),  [Q1](#),  [Z1](#), etc., presented no significant changes over the millennia. Here, each sign number is linked to the graphemes in the dynamic online database AKU-PAL (<https://aku-pal.uni-mainz.de/graphemes>), where several hieratic examples are to be found in chronological order, and to which additions are constantly being made.

For some graphemes, the scribes used two different forms, which evolved over time and some of which later dropped out of use. A detailed form and an abbreviated form can be found, for example, for  [A1](#),  [A2](#),  [A13](#) (respectively  [Z6](#),  [B1](#),  [D21](#),  [D49](#),  [F26](#),  [G1](#),  [G7](#),  [G17](#), [G43](#), [N5](#), [Q3](#), and [Q7](#)). In addition, it should be noted that scribe A of the Book of the Dead papyrus of Iahtesnakht from the Saite Period

alternately wrote the fist (𓂏 D49) with a hieratic form showing the outside without fingers and a hieratic form showing the inside with fingers, for which no hieroglyph is known in the standard lists (Verhoeven 2001: 121, no. D49; fig. 10).

The more complex graphemes, which a scribe did not need to write very often, show great differences in their hieratic design, cf., e.g., 𓂏 A35, 𓂏 D3, 𓂏 D28, 𓂏 E8, 𓂏 E34, 𓂏 F27, 𓂏 K1, 𓂏 L1, 𓂏 N28, 𓂏 O31, 𓂏 P1, 𓂏 S20, and 𓂏 T18. In the famous literary papyri of the Middle Kingdom, the range of basic forms used for the various bird signs was apparently reduced to only eight basic forms (Kraus 2022: 68).

Some hieratograms are very similar in shape but completely different in their graphemic value. In practice, however, this was not a major problem, since these signs were always complemented by phonetic signs or unambiguous classifiers (see the list of sign examples occurring in late hieratic book-hand in Verhoeven 2001: 257-271; cf. also lists of similar signs occurring in the Old and Middle Kingdoms in Möschen 2021: 195-230 and Gerhards 2022a). Indeed James Allen decided not to transliterate such an indifferent hieratic form as a simple circle without inner dashes into a specific grapheme of the possible hieroglyphic counterparts 𓂏𓂏𓂏 (Aa1, N5, O49, O50), but left it as an empty circle 𓂏 in his hieroglyphic transliteration (Allen 2002: Appendix A: Sign List). On the other hand, one and the same hieroglyph with two different phonetic readings can be distinguished in hieratic. The sign 𓂏 U23, for example, is written with two different hieratograms to distinguish *sb* from *m(h)r* (see Möller 1927, Vols. I–II: nos. 484-485), and later the feather 𓂏 H6 is written with or without lateral dashes for *mꜣꜥ.t* v. *šw*,

especially in the New Kingdom (see Möller 1927, Vol. II: nos. 286-287).

It is noteworthy that hieratic signs are often larger in size than the small standard hieroglyphs, especially signs 𓂏 D6 since the New Kingdom, 𓂏 D20, 𓂏 N28, 𓂏 N29, and 𓂏 Q3. Also, the tails are often elongated on the three *ba*-birds 𓂏 G30, the cormorant 𓂏 G35, the lizard 𓂏 I1, the crocodile 𓂏 I3, the tadpole 𓂏 I8, the horned viper 𓂏 I9, the cobras 𓂏 I10 as well as 𓂏 I12, and on other snakes; there is, additionally, elongation of the characteristic mouth of the Oxyrhynchus fish 𓂏 K4, the upper ends of the signs 𓂏 U32 and 𓂏 Aa3, the cutting end of the sickle 𓂏 U2, and the handle of 𓂏 V31 (for this sign cf., for example, Fischer-Elfert 2021: 184). The abbreviation of the quail chick 𓂏 G43/Z7 and the sign 𓂏 V1 when used for “hundred” also often have these extended endings. In Papyrus d’Orbiney a nice example is provided by the scribe Inena, who wrote the signs 𓂏𓂏 in line 4, the sign 𓂏 in line 5, and the cormorant 𓂏 in line 8 in an extraordinary size and always drew the thin line of 𓂏 quite long (fig. 11).

Phonetic changes in the history of Egyptian caused certain phenomena in hieratic writing. For example, the fusion of *sn* (𓂏) and *šn* (𓂏) led to the mixed hieratic sign 𓂏 (Papyrus d’Orbiney 8,1; see also fig. 11, line 8), which should be transliterated with the modern artificial hieroglyph 𓂏 V49A (cf. Gardiner 1929: 53). It is noteworthy that Fischer-Elfert (2021: 349) proposed to use the sign 𓂏 V49, which Gardiner had deleted from the repertoire in favor of the creation of his new sign 𓂏 (V49A). The pictorial symbol 𓂏 (V49) is also not present in the Thot Sign List.

Classifier of <i>hf</i> :	 19,7	 21,8	 25,3	 25,15	 25,15	 33,2	 33,3	Classifier of <i>amm</i> :	 41,8
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Figure 10. Alternating hieratograms of D49 by scribe A in the Book of the Dead of Iahtesnakht, c. 600 BCE.

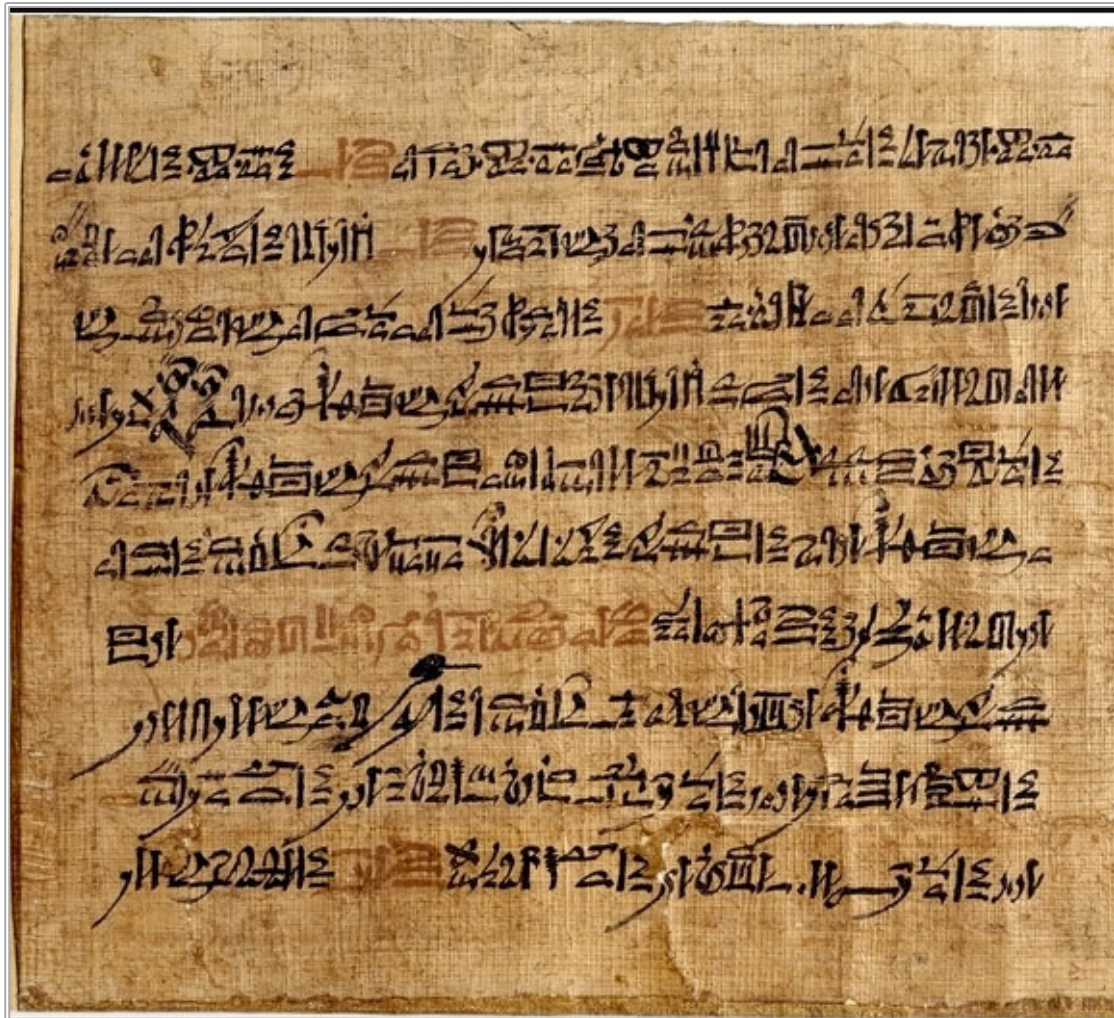


Figure 11. Papyrus d'Orbiney (London BM EA 10183), column 12, with The Tale of Two Brothers, end of 19th Dynasty.

History of Research

The early history of research in the field of hieratic studies, from about 1720 to 1920, has recently been summarized by Fischer-Elfert (2021: 20-53). This early interest began with a hieratic copy of the Book of the Dead (Papyrus Fauvel). The first reading and understanding of the signs, however, did not take place until 1820, when Champollion published a treatise on *l'écriture hiératique*, in which he presented correspondences between hieroglyphic and hieratic signs and concluded therefore that hieratic was a kind of *tachygraphie hiéroglyphique*, a cursive form of the hieroglyphic writing system. Since Champollion knew sources (only) from the first millennium BCE, he was

already able to distinguish three classes of signs based on their degree of abbreviation (Fischer-Elfert 2021: 25) and collected about 400 hieratic signs. Champollion postulated that, developmentally, hieratic represented an intermediate stage between hieroglyphics and the supposedly purely phonetic Demotic (Fischer-Elfert 2021: 29-30). In 1830, he discovered that the hieratic Papyrus Sallier III had more or less the same text as the Karnak inscription concerning the Battle of Qadesh of Ramesses II. Later, in his posthumously published *Grammaire égyptienne*, each table shows hieroglyphic and hieratic side by side (Fischer-Elfert 2021: 35).

While extensive hand facsimiles of hieratic manuscripts were published later in the nineteenth century, Willem Pleyte created a set of 391 hallmarks to present hieratic in a standardized form (his *Catalogue raisonné*, published in 1865), which was not accepted in the field. In 1880, Simeone Levi published a larger and very useful catalog of 675 hieratic signs and sign groups with different forms, hieroglyphic correspondences, and phonetic values (see Gülden 2018: 85-86). However, it was not until 1890, when Erman completed his research on the script and language of the Papyrus Westcar, that the historical development and dating of hieratic manuscripts came into the focus of Egyptology. Erman distinguished between a calligraphic “Uncial” script used for books and an abbreviated “Cursive” used for administrative purposes, and compared 70 characters from 17 sources dating from the 12th to 22nd Dynasties (Erman 1890: Schrifttafel I-VII). In compiling these sign tables, he started with hieratic paleography and was able to date the Papyrus Westcar convincingly to the late Second Intermediate Period, just before the date of the medical Papyrus Ebers. His student Georg Möller continued with this method and produced the standard reference, *Hieratische Paläographie: Die ägyptische Buchschrift in ihrer Entwicklung von der Fünften Dynastie bis zur Römischen Kaiserzeit* (1909 – 1912; second edition 1927 – 1936), based on 32 sources for a period of almost three millennia (Verhoeven 2015: 49), arranged according to a list by the German typographer Ferdinand Theinhardt and adding sign groups with or without ligatures, numbers, weights, selected words, etc. The sources of Möller’s volumes I and II (1927) have already been updated, identifying obsolete sigles with current museum inventory numbers and their metadata (Konrad 2019, 2021). In addition, Möller edited the *Hieratische Lesestücke für den akademischen Gebrauch* (1927 – 1935) for didactic purposes, based on his hand-facsimiles and partly embellished to preclude reading problems. Erman and Möller established the paleographic framework that would endure through nearly a century of research, but their subjective assessments of the development of hieratic signs, especially in

the Intermediate Periods and the first millennium, were evolutionary and should be abandoned (Verhoeven 2019).

During the last 50 years, several additional paleographies of selected periods or text corpora have been published (for the Old and Middle Kingdoms, e.g., Edel 1980; Goedicke 1988; Allen 2002; Verner, Dobrev, and Vymazalová 2011; and Regulski 2020: 443-526; for the New Kingdom, e.g., Gasse 1988; Wimmer 1995a, 1995b; and Miyanashi 2016; for the first millennium, e.g., Verhoeven 2001; Gasse 2002; and Lenzo Marchese 2007). The textual material from Deir el-Medina has been presented in two databases: The Deir el-Medina Database, by the Leiden team, 1998 – 2022 (<https://dmd.wepwawet.nl>), and *Deir el Medine Online: Nichtliterarische Ostraka aus Deir el Medine* (non-literary ostraca from Deir el-Medina), prepared 2002 – 2009 by the University of Munich: <https://dem-online.gwi.uni-muenchen.de/>.

Current Research Projects

The possibilities and methods of digital paleography were first addressed by van den Berg and Donker van Heel (2000: 39-42), followed by Quirke (2010); Verhoeven (2015); and Gülden (2016). The ongoing long-term project *Altägyptische Kursivschriften* (Ancient Egyptian Cursive Scripts) (AKU: <https://aku.uni-mainz.de/>) at the Academy of Sciences and Literature in Mainz, which started in 2015, is working on several aspects of hieratic and cursive/linear hieroglyphs by building up a large database for paleographic purposes. Requirements and approaches of the digital methods have been presented by Gülden (2018) and Gülden, Krause, and Verhoeven (2020). Algorithms and other tools for the digital analysis of signs have already been tested and described (Gülden 2022; Gerhards and Konrad 2022; Konrad 2022c). The dynamic digital paleography AKU-PAL (<https://aku-pal.uni-mainz.de/>) was released for open access in May 2022. For its newly developed grapheme list, 53 paleographies were compared and integrated (listed by Konrad 2022b), but of course many more lists exist in text editions, thematic papers, etc. (cf.

the dynamic bibliography for hieratic and cursive hieroglyphs by Gülден and Konrad 2021). The project plans to include more and more hieratograms, step by step, mainly from unambiguously datable sources, and is open for cooperation. In addition, the proceedings of the on-going international conferences *Ägyptologische "Binsen"-Weisheiten* focus on several topics pertaining to hieratic (I-II: Verhoeven ed. 2015; III: Gülден, van der Moezel, and Verhoeven eds. 2018; IV: Gülден, Konrad, and Verhoeven eds. 2022), and the double-blind peer-reviewed academic series Hieratic Studies Online is open for monographic studies (<https://aku.uni-mainz.de/hieratic-studies-online/>).

The on-going collaborative project Crossing Boundaries: Understanding Complex Scribal Practices in Ancient Egypt is based on the material from Deir el-Medina at the Museo Egizio in Turin. Scholars from Turin and the Universities of Basel and Liège work together with the aim of achieving an interdisciplinary and contextualized understanding of this rich material (<http://web.philo.ulg.ac.be/x-bound/>). Florence Albert and Annie Gasse organize an annual *Académie hiéراتique* for international graduate students to learn about the documentation and contents of the ostraca from Deir el-Medina housed at the Institut français d'archéologie orientale in Cairo (Albert and Gasse eds. 2019)

(<https://www.ifao.egnet.net/recherche/manif-estations/ma1410/>). Additionally, the team of the Ifao-project *Écritures: Pour une archéologie et une anthropologie des pratiques d'écriture de l'Égypte ancienne* organizes events and activities around the concept of text as a material and graphic object (<https://www.ifao.egnet.net/recherche/operations/op19225/>).

Present Research Questions and Priorities

Of primary interest remain the discovery, deciphering, adequate documentation, and interpretation of further written testimonies of the hieratic script, deriving from museum objects as well as from monuments and landscape formations. High-resolution color photographs made available online (e.g., through the British Museum in London, Metropolitan Museum in New York, Museo Egizio in Turin, etc.) allow the best study of details and the production of digital drawings for modern research methods. Other research priorities concern writing practices, the social environment of scribes, and the ancient handling of different scripts, text genres, and modes of transmission. A history of layout, systematic comparisons, and consideration of the mutual influences of, and differences between, the hieroglyphic, hieratic, and Demotic writing systems are also aspects that need to be explored more fully in the future.

Bibliographic Notes

Encyclopedic introductions to hieratic, in addition to the present discussion, can be found in Satzinger (1977), Wente (2001), Stauder (2020: 876-877), and Grandet (2022). More comprehensive overviews of development, research methods, and future issues are provided by Posener (1973), Verhoeven (2015), Gülден (2016), and Polis (2020). Three informative chapters by Parkinson, Hagen, and Ryholt on Egyptian libraries and archives of hieratic manuscripts from 2600 BCE to 250 CE are published in Ryholt and Barjamovic eds. (2019). A comprehensive two-volume monograph on the long history of hieratic sources is now available in Fischer-Elfert (2021). In addition, a hieratic chrestomathy (selected passages of text with helpful explanations to aid in language instruction) with examples from the Old and Middle Kingdoms has been published in Möschen (2021); a second volume for the later periods is in preparation. A short (online) introduction for beginners can be found in Roberson (2018). Various tools for hieratic studies are provided by the blog *Hieratisch AKUell* (<https://aku.hypotheses.org/>). The volumes of Möller's *Hieratische Paläographie* (1909–1912; second edition 1927–1936) have been prepared for database access (<https://moeller.jinsha.tsukuba.ac.jp/>), while his references have been updated by

Konrad (2019, 2021). The proceedings of the conference series *Ägyptologische "Binsen"-Weisheiten* (I-II: Verhoeven ed. 2015; III: Gülden, van der Moezel, and Verhoeven eds. 2018; and IV: Gülden, Konrad, and Verhoeven eds. 2022) contain several international contributions to the study of hieratic. The format Hieratic Studies Online (HSO: <https://aku.uni-mainz.de/hieratic-studies-online/>) is dedicated to monographic studies. The paleographic database AKU-PAL was launched with open access in 2022, offering several search parameters across all time periods and with a growing data input (<https://aku-pal.uni-mainz.de/>).

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- Figure 1. Post-restoration fragment of Papyrus Jarf BIV (part of Merer's ship's log), written in old hieratic. 4th Dynasty. (Photograph © Wadi el-Jarf Archaeological Mission.)
- Figure 2. An exercise letter written in early middle hieratic. New York, MMA 22.3.524, from the tomb of Meketra (TT280), reign of Senusret I, 12th Dynasty, c. 1981 – 1975 BCE. (Public domain: <https://www.metmuseum.org/art/collection/search/545453> https://images.metmuseum.org/CRDImages/eg/original/22.3.524_3193.jpg.)
- Figure 3. Left: "Sobekhetep's son Imeny's son Sobekhetep" in early middle hieratic on linen. New York, MMA 27.3.118, from tomb MMA 507, c. 1961 – 1917 BCE. Right: hieroglyphic transliteration. (Public domain: <https://www.metmuseum.org/art/collection/search/561865> https://images.metmuseum.org/CRDImages/eg/original/27.3.118_EGDP011771.jpg; hieroglyphs rendered by the author.)
- Figure 4. Letter of 'Tit to "his lord," Thoth. New York, MMA 27.3.560, 18th Dynasty, c. 1479 – 1458 BCE. (Public domain: <https://images.metmuseum.org/CRDImages/eg/original/DP234741.jpg> <https://www.metmuseum.org/art/collection/search/544847>.)
- Figure 5. Two *dipinti* in Tomb N13.1. Gebel Assiut al-Gharbi, 18th Dynasty. Years 1 and 30 of Amenhotep III (top and bottom, respectively), c. 1388 – 1351 BCE. (Facsimile © Svenja Gulden and Ursula Verhoeven.)
- Figure 6. Papyrus fragment with different writing styles: in the upper portion, a text in administrative style mentioning the arrival of a shipment of commodities and the quarrying of stone for a tomb; in the lower portion, a letter between two fan-bearers in calligraphic style. New York, MMA O.C.3569, year 16 of Ramesses III, c. 1183 BCE. (Public domain: https://images.metmuseum.org/CRDImages/eg/original/O.C.3569_EGDP015269.jpg <https://www.metmuseum.org/art/collection/search/549250>.)
- Figure 7. Papyrus with an Oracular Amuletic Decree (18.5 x 3 cm). The Cleveland Museum of Art, Gift of the John Huntington Art and Polytechnic Trust 1914.723, 21st to 22nd Dynasties, c. 1069 – 715 BCE. (Public domain: <https://www.clevelandart.org/art/1914.723>.)
- Figure 8. Top: Book of the Dead of Khamhor C, col. X+14a, with the title of spell 144. New York, MMA 25.3.212A–G, c. 630 BCE. Bottom: hieroglyphic transliteration. (Public domain: <https://www.metmuseum.org/art/collection/search/590941>; hieroglyphs: Verhoeven 2017: pl. 48.)
- Figure 9. Donation stela of King Shabaqo. New York, MMA 55.144.6, 25th Dynasty, 712 – 698 BCE. (Public domain: https://images.metmuseum.org/CRDImages/eg/original/LC55_144_6_EGDP031744.jpg <https://www.metmuseum.org/art/collection/search/544880>.)
- Figure 10. Alternating hieratograms of D49 by scribe A in the Book of the Dead of Iahtesnakht, c. 600 BCE. (© Ursula Verhoeven.)

Figure 11. Papyrus d'Orbiney (London BM EA 10183), column 12, with The Tale of Two Brothers, end of 19th Dynasty. (Public domain via Wikimedia Commons; source British Museum): https://commons.wikimedia.org/wiki/File:Tale_of_two_brothers.jpg#filelinks.)