

Teamwork in the Production of the Book of the Dead Papyri during the Ptolemaic Period: the papyrus of Peteamunnebnasetawy (p.Turin 1831)

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ABSTRACT

P. Turin 1831 is a Book of the Dead manuscript from the Ptolemaic period belonging to Peteamunnebnasetawy, a god's father and priest of Amun in Karnak, son of Tanitamunnebnasetawy. The papyrus is now in the Egyptian Museum in Turin as part of the Department of Manuscripts. It was transferred to the Egyptian Museum at Turin in 1824 by Bernardino Drovetti.

The papyrus is an important example of teamwork in the production of the Book of the Dead papyri during the Ptolemaic Period, which was written by several scribes. It highlights various features of the Book of the Dead from this period. The manuscript offers numerous opportunities to detect changes in handwriting and layout according to each scribe. The current article will study the layout, the structure and composition of signs, orthography, and handwriting analysis of the scribes to determine the number of scribes involved in creating these texts.

ARTICLE INFO

Article history

Received 16 May 2023

Received in revised form 1 April 2024

Accepted 28 April 2023

Available Online 28 May 2024

KEYWORDS

Book of the Dead;

Ptolemaic Period;

teamwork production;

scribes;

P3- dī- Imn- nb- nst- t3wy;

p. Turin 1831

1. INTRODUCTION

Although the main developments of the Book of the Dead appeared during the 17th Dynasty and built upon the traditions of the Pyramid Texts and Coffin Texts (Steven 2018, 68). The texts consisted of spells from the Book of the Dead and a few spells from the Coffin Texts (L. Gestermann 2023, 9-35), but the oldest testimonials of the Book of the Dead are found on the coffin of Queen Mentuhotep, which is probably dated to the Thirteenth Dynasty. (Gasse 2023, 218) (Geisen 2004).

The Book of the Dead saw widespread use during the New Kingdom, the Twenty-first, Twenty-second, and Twenty-sixth Dynasties, though its use declined in other periods. It experienced a revival during the Thirtieth Dynasty and the Ptolemaic Period. (Mosher 2017, 85). The Ptolemaic version has more features and traditions which show the results of a long process of textual collation and layout development that evolved throughout earlier ages and took different forms (Lucarelli 2006, 36); it is often written in columns of hieratic text in horizontal lines (Cole 2017, 43). Papyrus Turin 1791 is the first Book of the Dead

papyri from the Saite Period through the Ptolemaic Period to be published, encompassing nearly most of the spells (M. Mosher 2016, 85).

During various periods, the Book of the Dead -whether shorter or longer manuscripts- were sometimes the work of several scribes and artists. These papyri retain clues about the collaborative effort involved in their creation, whether between the scribes and artists or among the scribes themselves (Scalf 2017, 22) (Kockelmann 2017, 72). The production of Book of the Dead was a complex process, frequently requiring a team of skilled scribes and artisans. Workshops often included several experienced scribes and draftsmen who produced the manuscripts (Kockelmann 2017, 71).

In the New Kingdom, it was usually only one scribe who wrote a complete Book of the Dead manuscript (U. Verhoeven 2023, 167). However, there are notable examples of collaborative production. For instance, Ani's papyrus roll was assembled from separate sections, with distinct differences in handwriting observed in spell 17. Additionally, there are instances of text erasure and colour changes (R. L. Parkinson 2010, 35-62). Despite the consistent height of the papyrus, the borders are inconsistent. The original red border at the top and bottom was not continuous and was later replaced by a yellow border (see Fig. 1).



Fig. 1: Detail of Spell 17 from the Book of the Dead of Ani (EA10470, 9) © The British Museum.


In the papyrus of Hunefer (EA 9901) (see Fig. 2), there are noticeable changes in the writing style and the forms of the signs (R. B. Parkinson 2010). Figure 2 illustrates two distinct sections of the papyrus, each displaying different handwriting styles. Between spells 183 and 30B, there are changes in the style of writing of some signs as ; it seems that one scribe worked on the photo on the left and a different scribe worked on that of the right.



Fig. 2: the papyrus of Hunefer (EA 9901 1-8) ©the British museum. The blue pertains to the different script for 𓀀, and the orange highlights the difference in the 𓄏. The yellow is used to highlight the different forms of 𓆎, and the green is used to highlight the 𓆏

During the Third Intermediate Period, there are more examples of teamwork involved in the production of papyri (P. Berlin P. 3009, P. London BM EA 10084, P. Cairo S.R. VII 11501, New York MMA 25.3.31, EA10743, EA10554, N 3080 f 14, N 3280 f 01.). One notable example is P. Vatican 38566 (see Fig. 3), which contains only the vignette and four columns written by at least two scribes. In this papyrus, the scribes worked alternately, with each one responsible for two passages. (Albert. F& Lenzo 2022, 76-77)

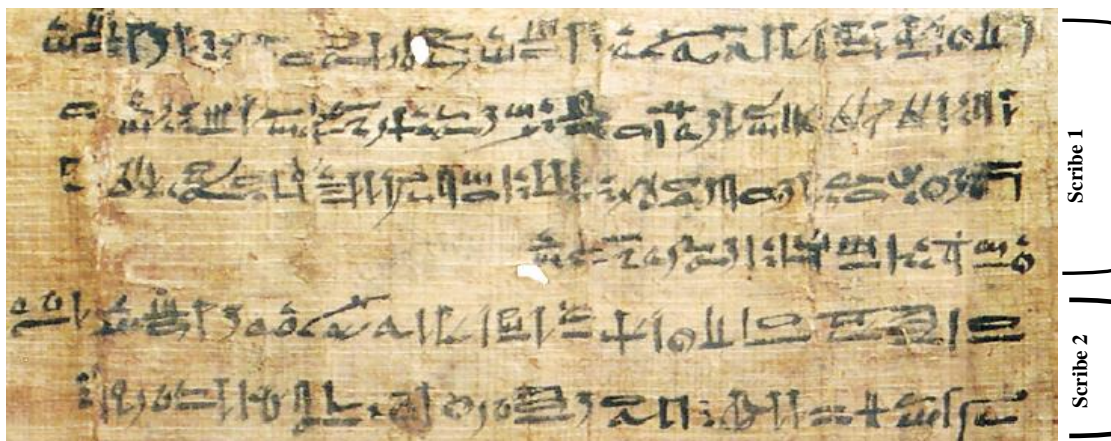
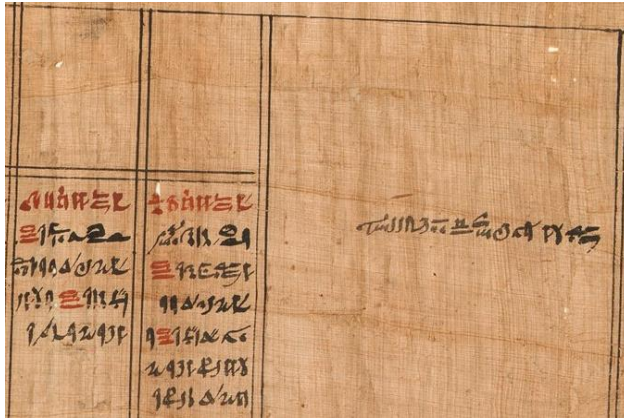


Fig. 3: P. Vatican 38566© Vatican Museum

During the Saite period, there are several examples illustrating the collaboration between scribes and artists. For instance, in P. MMA. 25.3.212, the scribe laid out the large empty spaces for the illustrator and wrote annotations to guide the creation of the vignette(s) (F. Scalf (2015-2016), 71) (see Fig.4a). In other cases, the draftsman initiated the work, with the text added in a subsequent phase (T. Allen 1974, 2) (Lucarelli 2006, 201) (Raggazoli 2010, 234-235) (see Fig.4b). Additionally, in P. BNF Egyptien 62–88, the marginalia refers to vignettes that are enclosed within the text, indicating that the vignettes could not

have been executed after the text was written. (Kockelmann 2017, 72) (Raggazoli 2010, 234)



(a) Part of unfinished Book of the Dead of Khamhor (MMA. 25.3.212)



(b) P. BNF Egyptien 62-88
 Fig. 4: Examples of teamwork in the Saite Period

P. BM 10252 (Assmann 2008) (see Fig. 5), dating to the Ptolemaic-Roman Period, exhibits changes in handwriting, that indicate the involvement of multiple scribes in its production. This practice of using different scribes is well-documented for this period.

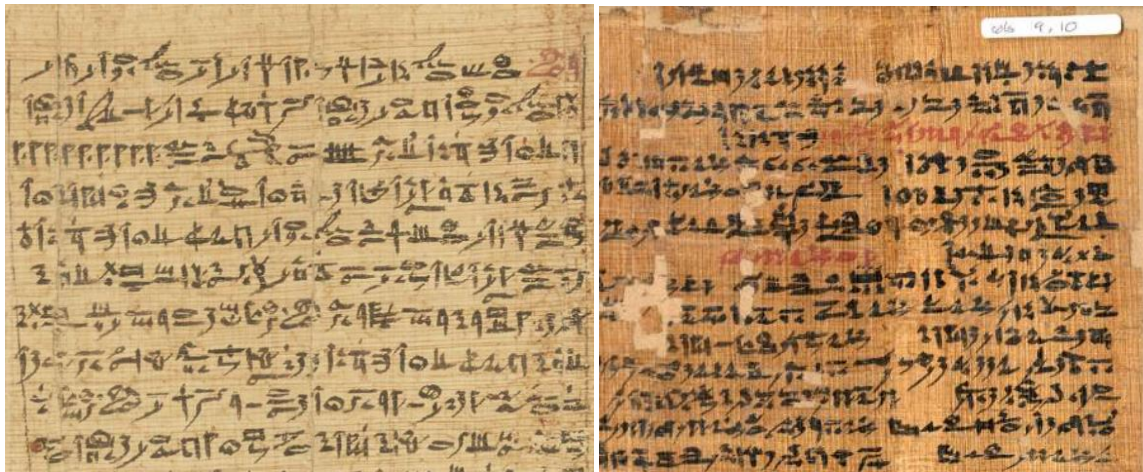


Fig. 5: P. BM 10252 © the British museum

P. Turin 1831 is also one of the Ptolemaic examples that demonstrate differences in layout, orthography, and paleography, reflecting the teamwork involved in its production. While the exact number of scribes who worked on this papyrus is unknown, an analysis of the scribal features and layout will aim to determine how many scribes were involved in creating this text.

2. The papyrus Turin 1831

During the Ptolemaic and Roman Periods, approximately a quarter of the papyri were written in cursive hieroglyphs, while the remaining majority were inscribed in hieratic script. P. Turin 1831 is one such hieratic papyrus, written along the direction of the horizontal fibers. The text is primarily in black ink, with titles and rubrics in red. The papyrus is in good condition overall, consisting of 64 columns, and measures approximately 11.26 meters in width and 0.36 meters in height. (Fabretti, Rossi and Lanzone 1882, 226) (Seeber 1976, 227, n. 99) (Díaz-Iglesias Llanos (2005), Nr. 4, S. 31-106.). However, the upper and lower margins have suffered significant damage, particularly in columns 1 to 9. Columns 19 and 20 show extensive damage, with the central portion of the papyrus being entirely lost.

P. Turin 1831, which belonged to Peteamunnebnestawy, arrived at the Egyptian Museum at Turin in 1824 by Bernardino Drovetti. The papyrus is currently being made available online by the ‘Turin Papyrus Online Platform’. All sources confirm that it originates from Thebes and exhibits features typical of Theban versions, including figures, layout, and spells (Seeber 1976, 227, n. 99) (Bellion 1987, 279) (Díaz-Iglesias Llanos (2005), Nr. 4, S. 31-106.) (totenbuch.awk.nrw.de/objekt/tm57576).

2.1 the owner

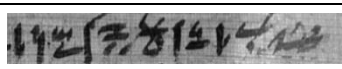

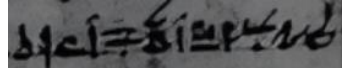

The owner of this papyrus is certainly *P3- di- Imn- nb- nst- t3wy*, who holds the titles *it-ntr* and *hm- ntr n Imn n Ipt- swt*. This name is notably common during the Ptolemaic and Roman periods and frequently appears with these titles. (see: P. Grabung Anch-Hor Reg.Nr. 872, P. Paris Louvre SN (Ref. AE 029481), P. London BM EA 9951, P. Oxford Ms. Egypt. a. 42 (P), P. Detroit 1988.10, P. London BM EA 10253, P. Turin 1813, P. London BM EA 10539, P. Paris BN 1-19 (P Cadet), P. Vatican 38611, P. London BME EA 74127).

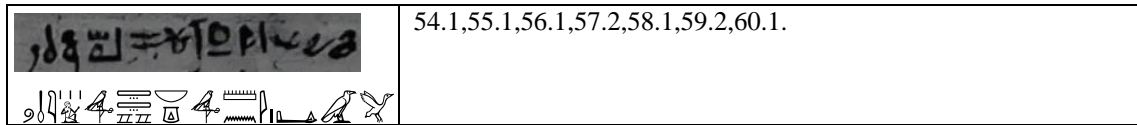
His name appears two hundred times —182 instances accompanied by his mother's name, and 8 cases alone, specifically in columns 43.20, 43.26, 44.5, 45.13, 46.3, 46.20, 50.1, and 52.15. The name is systematically preceded by the mention *Wsr*, written in the form



The name of the owner is documented in several variations:

Table 1: The different forms of the owner's name and their positions (the first number refers to the column, and the second refers to the line)

Form	Position
 	1.1,1.20,2.3,2.5,2.8,3.5,3.8,3.10,3.12,3.14,3.16,3.18,3.20,4.1,4.4,4.5,4.9,4.11,4.17,4.21,5.2,5.6,5.11,5.17,5.21,6.4,6.5,6.7,6.11,6.13,6.14,6.18,7.6,7.16,8.4,8.10,8.14,9.3,9.5,9.17,10.8,10.10,10.17,12.1,13.6,13.8,14.5,14.10,14.12,16.18,17.4,17.7,17.14,18.6,18.10,18.15,19.6,19.8,20.6,20.11,20.16,21.1,21.7,21.11,21.16,22.1,22.7,22.13,22.16,22.19,23.4,23.12,23.18,24.5,24.7,24.9,24.15,24.19,25.3,25.7,25.14,25.19,26.2,26.5,26.8,26.10,26.11,26.17,26.20,27.2,27.7,27.11,27.18,28.16,28.18,29.1,29.4,29.7,29.10,29.16,30.4,31.2,31.10,31.13,31.15,31.19,32.3,32.5,32.7,32.11,32.16,32.21,33.5,33.9,33.16,33.19,34.2,34.10,34.23,35.6,35.12,37.2,37.11,37.22,38.3,38.9,38.16,44.6,63.1,63.4,63.8,63.9,63.10,63.15,63.18, 64.1.
 	39.2,41.5,41.8,41.10,41.11,41.13,41.15,41.17,41.21,41.27,41.29,43.1,43.13,43.20,43.26,44.2,44.5,44.6,44.8,44.26,45.1,45.5,45.13,46.1,46.3,46.5,46.8,46.10,46.12,46.14,46.15,46.17,46.20,46.23,46.25,47.2,47.4,47.6,47.9,47.10,47.20,47.23,47.25,48.1,48.8,48.10,48.12,48.19,48.22,48.23,48.25,49.2,49.12,50.1,52.12,52.14,52.15.



54.1,55.1,56.1,57.2,58.1,59.2,60.1.

Compared to the writing of the name of the owner occurring in the papyrus, the difference appears in three main details:

- 1- The name of *P3- di- Imn- nb- nst- t3wy* appears only once in the papyrus, specifically in line 1, column 1, accompanied by his titles *it-ntr* and *hm- ntr n Imn n Ipt- swt*. In contrast, in all other instances, only the title *it-ntr* is present (see Fig. 6)

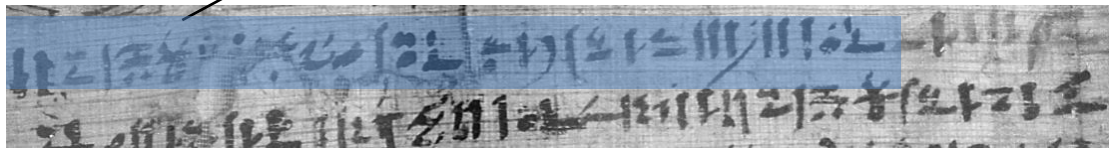







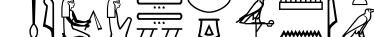


Fig. 6: the name and titles of Peteamunnebesetawy (line 1, Col.1) © Museo Egizio, Turin

- 2- the first part of the name, *di*, is sometimes written with the ending *t* placed under the hand. Occasionally, this ending *t* is omitted and replaced with symbol (I); the use of the (⊂) is sometimes used as filler in the hieratic text so that the height of *di* matches the height of the other characters or sets of characters on the line.
- 3- The determinative of the name is always written with the hieratic sign , and the three strokes above it. However, in the second half of the papyrus, the determinative is also written without the three strokes.
- 4- The scribe made an error in line 15, column 52, which was not corrected .

There are no attestations of his family members other than the name of his mother, *T3- nt- Imn- nb- nst- t3wy*. Her name appears 161 times with three variations: 112 times in the first form and 49 times in the second form.

Table 1: The different forms of the name *T3 - nt- Imn- nb- nst- t3wy* and their positions

Form	Position
 	1.2,1.20,2.3,2.5,2.8,3.6,3.8,3.10,3.12,3.14,3.16,3.19,3.20,4.4,4.6,4.10,4.11,4.17,5.1,5.2,5.7,5.12,5.18,5.20,6.4,6.6,6.8,6.11,6.13,6.15,7.7,7.16,8.11,8.15,9.4,9.5,9.17,10.9,10.11,10.19,12.1,13.7,13.9,14.6,14.11,14.12,16.18,17.8,18.11,19.6,20.12,20.17,21.12,21.16,22.13,22.20,23.5,23.13,23.19,24.5,24.8,24.10,24.15,24.20,25.3,25.8,25.15,25.20,26.3,26.5,26.12,26.17,26.20,27.3,27.8,27.12,27.19,28.18,29.2,29.5,29.8,29.11,29.17,30.4,31.2,31.11,31.15,31.20,32.3,32.5,32.8,32.11,32.17,32.22,33.6,33.9,33.17,33.20,34.2,34.23,35.6,35.13,54.2,55.2,56.2,57.3,58.2,59.3,60.3,63.1,63.9,63.15.
 	17.14,18.6,28.17,39.2,40.5,40.10,40.13,40.16,40.17,40.21,40.27,40.30,41.17,43.1,43.13,43.25,44.2,44.9,45.2,46.2,46.6,46.8,46.11,46.13,46.14,46.16,46.17,46.19,46.24,47.3,47.5,47.10,47.12,47.20,47.23,47.25,48.2,48.9,48.10,48.12,48.19,48.20,48.23,48.25,49.2,49.12,52.12,52.15,63.4,63.18.
 	39.2

In lines 8-9, Column. II (see Fig.7), the scribe duplicates the name of the mother. This repetition is likely a mistake made by the scribe.

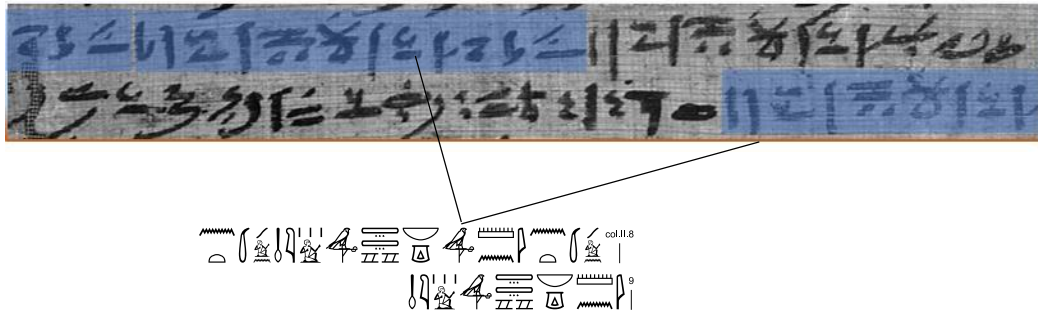


Fig.7: Duplicates the name of the mother in Col. II.8-9© Museo Egizio, Turin

In line 2, Column.54 (see Fig.8), the scribe ignores the first part of the mother's name; again, this may be a mistake by the scribe.

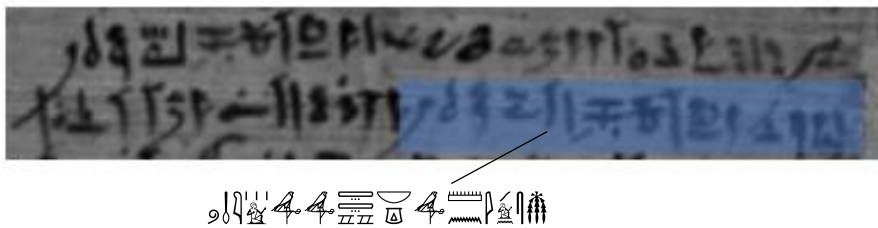


Fig.8: the name of Tanitamunnebneseṯawy without the first part (ti-nt) © Museo Egizio, Turin

Tanitamunnebneseṯawy held the title Lady of the House, the Sistrum-player of Amun-Ra. This title appears only in Column.41, line 17(see Fig.9).



Fig.9: the title of Tanitamunnebneseṯawy in col.41.17© Museo Egizio, Turin

As for the wife, her name is not mentioned in the texts. However, the illustration for BD 148 in column.52 (see Fig.10a) might depict the deceased's wife. Additionally, a similar figure appears in the bottom register of BD 16 in column.11 (see Fig.10b).



(a) col.52 BD.148



(b)col.11 BD.16

Fig.10 a and b: the wife of Peteamunnebneseṯawy in col.52 and col.11© Museo Egizio, Turin

2.2 Dating of the Papyrus

Based on the tradition and the name of the owner's mother, it seems that this papyrus dates to the early Ptolemaic Period. P. Turin 1831 belonged to the Theban-x Group, which includes Berlin 3039, BM 10037, BM 10038, BM 10039, and Munich. Mosher (M. Mosher 2016, 331) dated P. Munich to the early Ptolemaic Period, noting that the second half of the document was produced from the tradition of P. BM 10086, as well as P. BM. 10037, Verhoeven dates it to 230 BCE. (Verhoeven 2001). Furthermore, the Name of Tanitamunnebnestawy appears five times during the same period with the same titles, suggesting that the papyrus was very likely produced toward the end of the Third Century BCE or in the first half of the Second BCE. (<https://www.trismegistos.org>).

2.3 Tradition of the Papyrus

Mosher (M. Mosher 2016, 28) considers P. Turin 1831, along with five other papyri (Berlin 3039, BM 10037, BM 10038, BM 10039, Munich) to be part of an unusual set of documents that do not represent a fixed tradition. He suggests this collection belongs to the Theban-x tradition, which comprises a mixture of texts from Saite/ Memphite texts, and Theban version.

2.4 Content and Sequence of spells

P. Turin 1831 includes both illustrations and text. The vignettes are presented as a continuous sequence of scenes without separation, and the illustrations are coloured. The papyrus contains 80 spells, which represent a blend of different text versions. This blend appears to have been produced from various source documents, similar to BM 10037 and BM 10038 (M. Mosher 2016, 28). The table below outlines the sequence of the spells found in P. Turin 1831.

Table 3 Sequence of chapters of Book of the Dead in P. Turin 1831

Chapter	Position	Chapter	Position	Chapter	Position
1	Col.1-Col.3	29	Col. 27	105	Col. 37
2	Col.3	30	Col. 27	108	Col.37
3	Col.3	31	Col. 27 - Col	109	Col. 37 - Col. 38
4	Col. 3	32	Col. 28	110	Col. 38
5	Col. 3- Col. 4	33	Col. 28	125	Col. 39- Col. 42
6	Col. 4	34	Col. 28	126	Col. 43
7	Col. 4	35	Col. 28- Col. 29	127	Col. 43 - Col. 44
8	Col. 4	36	Col. 29	128	Col. 44
9	Col. 4- Col. 5	37	Col. 29	129	Col.44 - Col.45
10	Col. 5	38	Col. 29	130	Col.45 - Col.47
11	Col. 5	40	Col. 29 - Col. 30	131	Col. 47- Col. 48
12	Col. 5	42	Col. 30- Col. 31	132	Col. 48
13	Col. 5 - Col. 6	44	Col. 31.18- Col. 32.2	133	Col. 48 - Col.49
14	Col. 6	45	Col. 32	140	Col.49
15	Col. 6 - Col. 10	50	Col. 32	141	Col. 49 - Col. 50
17	Col.10- Col. 20	53	Col. 32	143	Col. 51
18	Col. 20 - Col. 23	54	Col. 32	148	Col. 52- Col. 53
19	Col. 23	56	Col. 32 - Col. 33	154	Col. 54
20	Col.23 - Col. 24	59	Col. 33	155	Col. 55
21	Col. 24 - Col. 25	65	Col. 33	156	Col. 56
22	Col. 25	81	Col. 33	157	Col. 57
23	Col. 25	83	Col. 33 - Col. 34	158	Col. 58
24	Col. 25 - Col. 26	84	Col. 34	159	Col. 59
25	Col. 26	89	Col. 34	160	Col. 60
26	Col. 26	100	Col. 34	161	Col. 61
27	Col.26	100/129	Col. 34- Col. 35	163	Col. 62
28	Col.26 - Col. 27	101	Col. 35 - Col. 37		

The list below summaries the thematic sequences present in the contemporary papyri of P. Peteamunnebnasetawy

Table 4: Sequence of chapters of Book of the Dead in another version of the Book of the Dead

Sources	Sequence of spells (All inventory according to https://totenbuch.awk.nrw.de/ access 11/6/2023)
P. BM 10037 (S. Quirke 1993, 74) (Munro 1973, 63)	1V - 2 - 3 - 4 - 5 - 7 - 8 - 9 - 10/48 - 11/49 - 12/120 - 13/121 - 14 - 15V - 17 - V15- 17 V - 18V - 19 - 44V - 57V.
P. BM 10038 (S. Quirke 1993, 48)	1V - 2 - 3 - 4 - 5 - 6 - 8 - 9 - 10/48 - 11/49 - 12/120+14 - 15 - V15- 17V - 18V - 19 - 21 - 23 - 24 - 25 - 26 - 33 - 34 - 36 - 37 - 38B - 40 - 42 - 110
P. Berlin P. 3039 (Munro 1973, 150) (Wüthrich 2009, 267-282)	Tb 1V - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10/48 - 11/49 - 12/120 - 13/121 - 14 - 15V - 17V - 18 - 19 + V21, V90, V28, V30, V31, V32, V36, V37, V40, V41, Tb 111+V115 - 112 - 113 - 114V - 115 - 116 - 117 - 118 - 119 - 122+V124(?) - 123/139 - 124+V104 - 125A - 125B - 125C - 125D - 134V - 135+V140 - 136/136A+V63+V140- 138+V136/136A - 137 - 140 - 141 - 142 - V150 - 152 - 151V - 152 - 153 - 154V - 155V - 156V - 157V - 158V - 159V - 160V - 161V+V163 - 162 + V163 - 163+V164 - 164+V165 - 165+V162
P. Munich (Grimm 2005, 37-42)	V1 - Tb 15V- 17V - 18V - 19 - 21 - 22 - 23 - 24 - 25 - 26 - 27 - 28 - 29 - 30A - 31 - 32 - 33 - 34 - 35 - 36 - 37 - 38 - 39 - 40 - 41 - 42 - 43 - 44 - 45 - 47 - 50 - 51 - 52 - 53 - 54 - 55 - 56 - 57 + V64 - V19 - V24 - V23 - V? - V25 - V26 - V28 - V27 - V30 - V31 - V33 - V36 - V33 - V41 - V38 - V35 - V39 - V40 - V41 - V33 - V43 - V44 - V? - V45 - V47 - V50 - V51 - V52 - V53 - V54 - V57 - 63+V59 - 65V - 73+V72 - 74V - 75V - 76V - 77V - 81V - 85V - 89V - 101V - 100/129V - V110c+V110b - 115V - 117V - 118V - 119V - 122VV - 125A V - 125B - 125C - TG - 100/129V - 130V - 138V - 137+V63 - 141V - V148 - 152V V - V151 - 155V - 156V - 157V - 158V - 160V - 161V - 163V - 164V - 165+V154
P. Berlin P. 3160 (U. Kaplony-Heckel 1986, Nr. 85)	1V - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10/48 - 11/49 - 12/120 - 13/121 - 14 - 15V - 18V - 21V - 25V - 26V - 27V - 28V - 30V - 32V - 33+V39 - 35V - 36V - 43V - 44V - 45 - 47V - 76 - 125A - 125B - TG - 128V - V143 - V148 - 155V - 156V - 157V - 158V - 159V - 160V - 161V - 163V - 162V
P. Brüssel MRAH E. 8389 (Limme 1980, 81-99)	V1 - Tb 15 - 7 - 8 - 9 - 21 - 23V - 25 - 26 - 30V - 43V - 45V - 46V - 10/48 - 51V - 59V - 73V - 76V - 77V - 81[V] - 83V - 87V - 88[V] - 100/129V - 103 - 104V - 114V - TG - 127V - 131V - 132V - 137V - 138V - 141 - 151V - 155V - 156V - 158 - 160V - V161 - 163V - 164V - 162V
P. Kairo J.E. 95707 (S.R. IV 639) (Backes 2009, 5-27)	Tb 1V - 2 - 3 - 13/121 - 15V - 18V - Tb 19 - 20 - 100/129V - 125A - TG - 155V I: Tb 156V - 158V - 162V- Tb 1V - 2 - 3 - 13/121 - 15V - V15 - 18V - 19 - 20 - 100/129V - 125A - TG - 155V - 156V - 158V - 162V
P. Vatikan 38609 (P. Vatikan 45) (Marucchi 1891, 101)	Tb 1V - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10/48 - 11/49 - 12/120 - 13/121 - 14 - V15 - 18V - 19V - 21V - 22 - 23+V22 - 24V - 25V - 26V - 27V - 30 V - 44V - 45V - 46V - 47V - 10/48V - 11/49V - 50V - 52V - 53V - 38V - 54V - 56V - 57V - 59V - 60+V59 - 89V - 100/129V - 101V - 100/129V - 162V
P. Turin 1833 (Fabretti, Rossi and Lanzzone 1882, 227)	Tb 1V - 2 - 4 - 10/48 - 12/120 - 13/121 - 15V - V15 - 17V - 18V - 19 - 20 - 21 - 26 - 31 - 32 - 39 - 40 - 41 - 43 - 44 - 52 - 54 - 56 - 57 - 58 - 71 - 76 - 85 - 89 - 91 - 92 - 93 - 98 - 100/129 - 103 - 104V - 106V - 108V - 109V - V110b+V110c - 119V - 13/121 - 124V - 125 - TG - 126 - 127 - 132 - 137 - 138 - 123/139 - 144 - 145 - 146 - 147 - V148 - 156 - 157 - 158 - 159 - 160 - 162V - 163V - 164V - 165V

2.5 Changes in Layout

The papyrus's layout, formal characteristics, and structural features warrant close study. The document appears to represent an intermediate stage between the Saite features and a specific tradition of the Book of the Dead of the Ptolemaic Period. Additionally, it reflects the teamwork involved in the production of the Book of the Dead papyri from this period.

It is evident that the scribes of P. Turin 1831 relied on various versions of the Book of the Dead in its production. The papyrus exhibits three distinct styles in its design and layout.

Table 5: Relationship between layout styles and spell sequences.

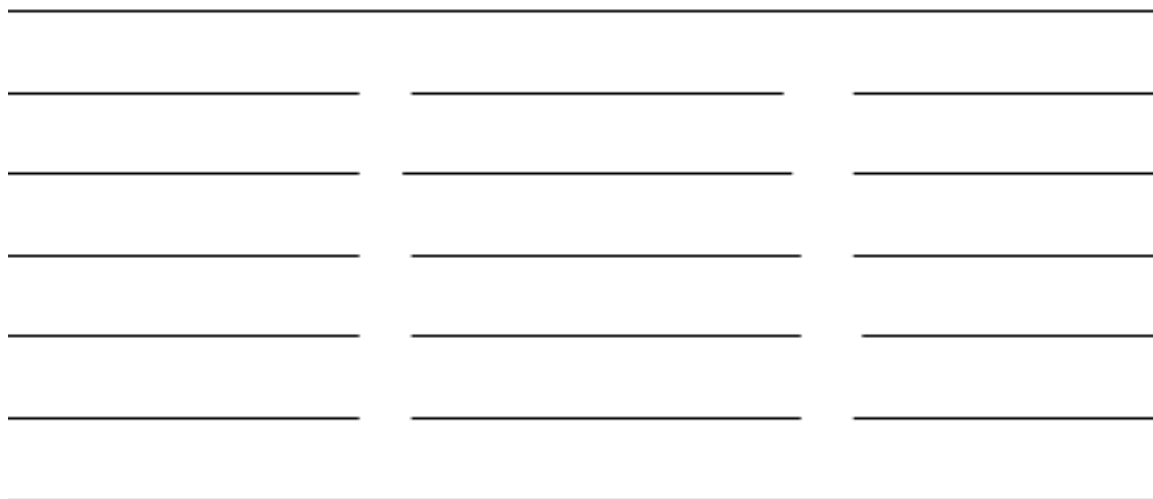
Style	Position	Spells
Type 1	Col.1- Col.2- Col.3- Col.4- Col.5- Col.6- Col.7- Col.8- Col.9- Col.10- Col.11- Col.12- Col.13- Col.14- Col.15- Col.16- Col.17- Col.18- Col.19- Col.20- Col.21- Col.22- Col.23- Col.24- Col.25- Col.26- Col.27- Col.28- Col.29- Col.30- Col.31- Col.32- Col.33- Col.34- Col.35- Col.36- Col.37- Col.38.	1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-17-18-19-20-21-22-23-24-25-26-27-28-29-30-31-32-33-34-35-36-37-38-40-42-44-45-50-53-54-56-59-65-81-83-84-89-100-100/129-101-105-108-109.
Type 2	Col.39- Col.40- Col.41- Col.42- Col.43- Col.44- Col.45- Col.46- Col.47- Col.48- Col.49- Col.50- Col.51- Col.52- Col.53.	125-126-127-128-129-130-131-132-133-140-141-143-148.
Type 3	Col.54- Col.55- Col.56- Col.57- Col.58- Col.59- C.ol.60- Col.61- Col.62- Col.63- Col.64.	154-155-156-157-158-159-160-161-163

2.4.1.1 Type 1:

The vignettes are presented as a continuous sequence of scenes without separation; i.e. the texts of the spells are presented continuously below without separation. This style also found in BM 10097 (S. Quirke 1993, 52m Nr.158) (M. Mosher 2010, 123-172) (Munro 1973, 229. Taf. 14. Abb. 51), BN 112 (Neret 1994, Taf. 66-71), and P. Kairo J.E. 95707 (<https://totenbuch.awk.nrw.de/objekt/tm57442> access in 25/6/2023). This section (Column.1 to Column 38) shows less formatting. The scribe used lines under the vignettes and another line at the lower edge, but there are no framing lines between the texts, Consequently, the width of the gaps between the two columns remains irregular (see Fig. 11a-b).

Space

Vignettes



Space

Fig.11a: Type 1 of the layout

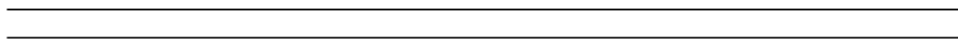


Fig.11b: Type 1 of the layout © Museo Egizio, Turin

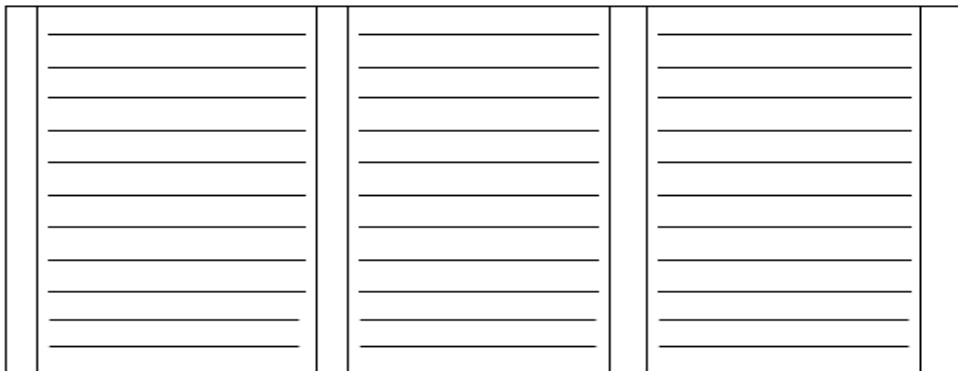
2.4.1.2 Type 2:

At the beginning of column 39, difference in layout suggest that the first and second sections of the papyrus may have been created as separate documents. It most probable that the first and second halves of this papyrus were joined post-production. The scribe used two black horizontal boundary lines at the top of the columns but only one at the bottom. Two black vertical lines used to separate the columns (For another example see: P. Kairo J.E. 95707, P. Berlin P. 3160, P. Berlin P. 3039.). Often the last signs written at the end of a line or the column are compressed into smaller spaces to align with the length of the preceding line (Fig. 12a-b).

Space



Vignettes



Space

Fig.12a: Type 2 of the layout

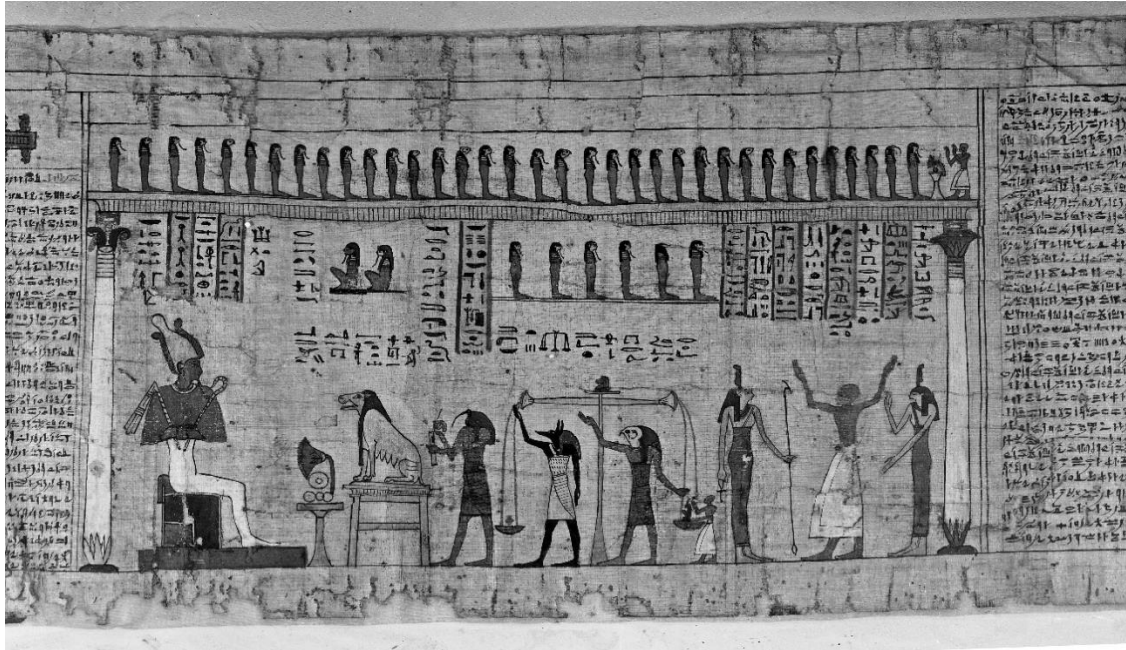


Fig.12b: Type 2 of the layout © Museo Egizio, Turin

2.4.1.3 Type 3

In type 3 (column. 54: 64), the vignettes and texts are presented regularly in columns without being separated by horizontal or vertical bands. Each spell is contained within a separate column (for another example see: P. Berlin P. 3058, P. Kairo J.E. 95707, P. Turin 1833.). Vignettes and text are separated by a black horizontal line. It is likely that the texts were inserted into the papyrus before the vignettes were added, with the scribe leaving spaces empty for the vignettes, which were later filled in by a different craftsman (see Fig.13).

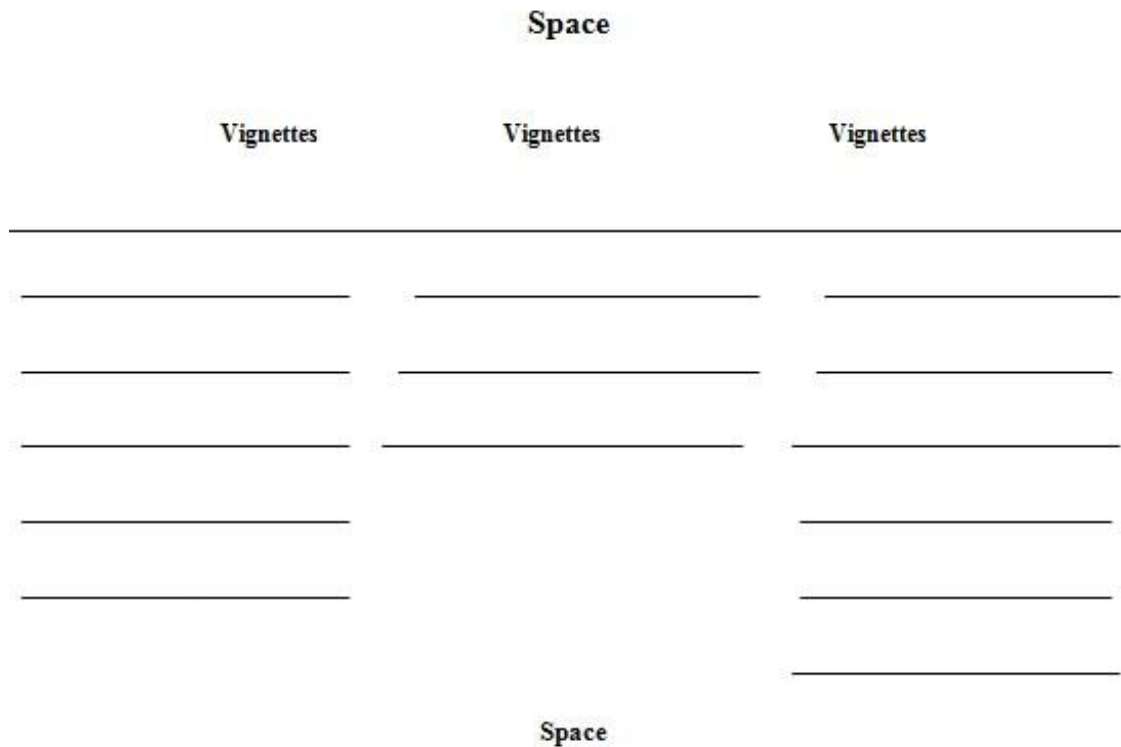


Fig.13a: Type 3 of the layout

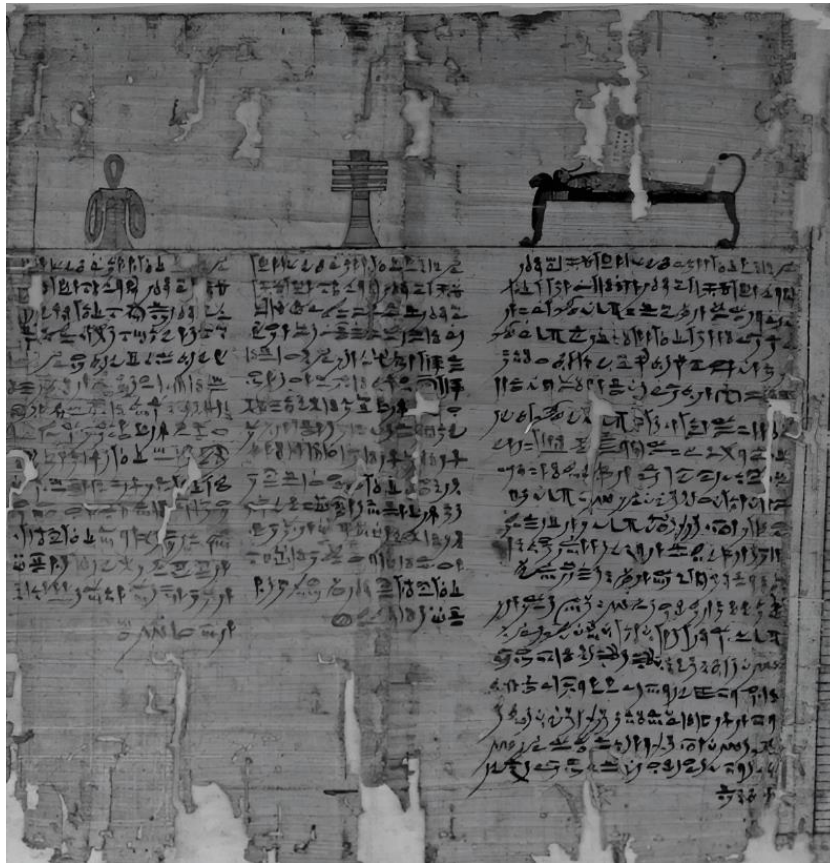


Fig.13b: Type 3 of the layout© Museo Egizio, Turin

2.5 The changes of scribes:

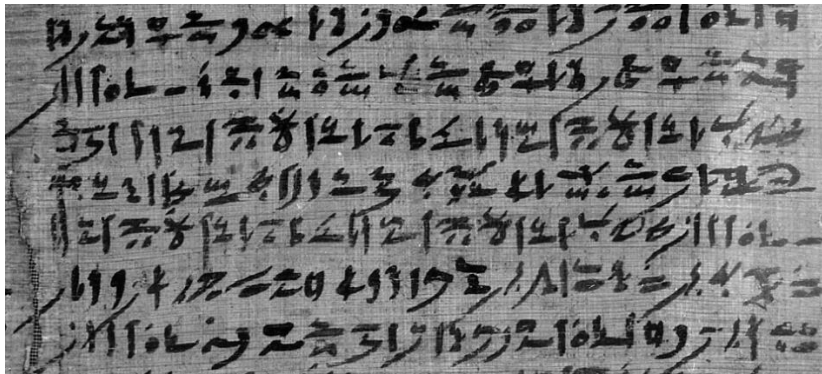
The analysis of the handwriting involves examining different forms of hieratic signs and group writing, as well as the construction methods of individual signs and grapheme groups. We need to look at the shapes of signs, and the overall appearance of a word to understand the personal characteristics of the writing. The investigation of the paleography is essential to determine the number of scribes involved in the manuscript. When reflecting on the differences the layout, orthography, and all the missing phrases, these papyri might have been copied from different sources belonging to other traditions with these features or holes in them.

This papyrus appears to have been written by at least four different scribes (see Fig. 14), they are anonymous since they did not indicate who they were. Therefore, we used 'scribe 1', 'scribe 2', 'scribe 3', and 'scribe 4' as reference to them. (Table 6)

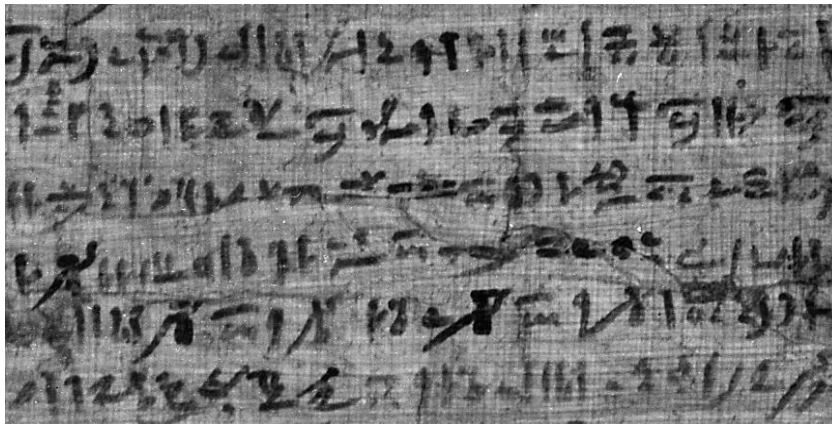
Table 6: The Relationship between the scribe and layout styles

Scribe	Spells	Columns	Layout
scribe 1	1-2-3-4-5-6-7-8-9-10-11-12-13-14-15	Col.1- Col.2- Col.3- Col.4- Col.5- Col.6- Col.7- Col.8- Col.9- Col.10- Col.11- Col.12- Col.13- Col.14	Type 1
scribe 2	17-18-19-20-21-22-23-24-25-26-27-28-29-30-31-32-33-34-35-36-37-38-40-42-44-45-50-53-54-56-59-65-81-83-84-89-100-100/129-101-105-108-109-163.	Col.15- Col.16- Col.17- Col.18- Col.19- Col.20- Col.21- Col.22- Col.23- Col.24- Col.25- Col.26- Col.27- Col.28- Col.29- Col.30- Col.31- Col.32- Col.33- Col.34- Col.35- Col.36- Col.37- Col.38- Col.63- Col.64.	Type 1- Type 3
scribe 3	125-126-127-128-129-130-131-132-133-140-141-143-148.	Col.39- Col.40- Col.41- Col.42- Col.43- Col.44- Col.45- Col.46- Col.47- Col.48- Col.49- Col.50- Col.51- Col.52- Col.53.	Type 2

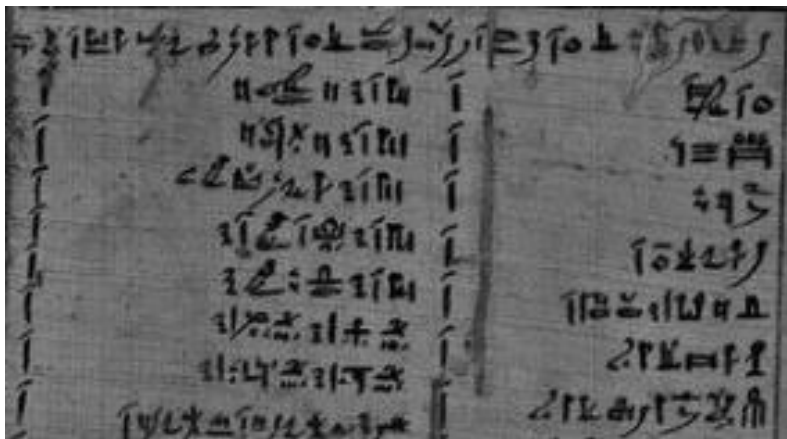
scribe 4	154-155-156-157-158-159-160-161.	Col.54- Col.55- Col.56- Col.57- Col.58- Col.59- Col.60- Col.61- Col.62.	Type 3
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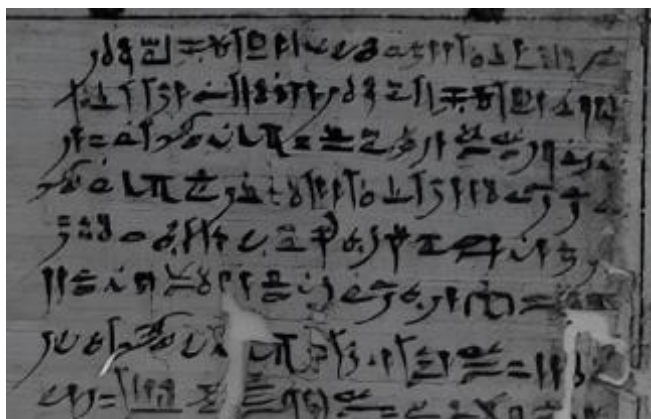
(a) Scribe 1



(b) Scribe 2



(c) Scribe 3



(d) Scribe 4

Fig.14 a, b, c, and d: Examples of the handwriting of the four scribes© Museo Egizio, Turin

2.5.1 Scribe's Style and Tradition

Scribe 1

The first scribe wrote the first 14 columns of the papyrus. The number of lines per column varied from 19 to 21, which the lowest number of lines found in any column of the papyrus. It is possible that this scribe also began column 15, which was subsequently completed by the second scribe.

This scribe did not use borders, guidelines, or lines to separate the columns, relying instead on a simple dividing line between the texts and illustrations, as well as an additional line at the end of the papyrus. The scribes and artists mostly used this style in the Saite/ Memphite versions (M. Mosher 2016, 28). The scribe's writing is particularly cursive, though the text remains relatively readable. Ligature signs represent 3.85% of the total number of signs used. (Table 7)

Table 7: Table 9: Number of Lines, Total signs, and Ligature for the First scribe

Layout	Type 1										
Columns	1	2	3	4	5	6	7	8	9	10	11
Lines	20	20	21	21	21	20	20	20	20	21	v
Total of signs	720	805	934	892	884	840	769	738	639	784	
Ligature signs	16	28	43	36	39	50	19	19	25	34	

Type 1		
12	13	14
19	21	21
747	832	808
24	27	41

Scribe 2

It is evident that this scribe was responsible for the majority of the document, covering 19 columns. The number of lines per column varied from 19 to 23, except for column 38, which contained 17 lines up to the middle. Although this scribe generally followed the layout and guidelines established by the first scribe, he did not apply these consistently. For example, columns 34, 35, 37, and 38 show deviations from the established method. It is possible that the first scribe was senior to scribe 2.

The ink density in this part of the manuscript differs from that in other sections. In most columns, the signs are medium size, and ligature signs are more frequent in this portion of the papyrus, accounting for 4.12% of the total signs (see Table 8).

Table 8: Table 9: Number of Lines, Total signs, and Ligature for the Second scribe

Layout	Type 1												
Columns	15	16	17	19	20	21	22	23	24	25	26	27	28
Lines	19	19	19	19	20	19	19	20	20	20	21	21	19
Total of signs	712	720	691	436	419	675	696	673	643	751	829	823	751
Ligature signs	10	29	35	20	13	28	29	21	32	25	46	35	27

Type 1										
29	30	31	32	33	34	35	36	37	38	63
21	25	22	22	23	23	24	v	22	17	20
795	807	919	875	1018	914	884		888	680	1015
39	31	47	46	32	19	17		29	20	97

Scribe 3

As the first step in preparing this part of the manuscript, the scribe drew the outline, border, and guidelines before adding the texts of spell. Evidence of this process is visible in areas where the script overlaps the framing (see Fig. 15). Additionally, the scribe used two vertical lines to separate columns and establish the document's margins. Underlining appears in Columns 47-48 (see Fig. 16).

The scribe's attention to detail is evident in the consistent sizing, proportion, and arrangement of the signs. The third scribe is very fluent and homogeneous, and his "calligraphy" creates a very pleasing aesthetic effect. Often, the final signs written at the end of a line are compressed into smaller spaces to align with the length of the preceding line, ensuring the overall frame remains consistent.

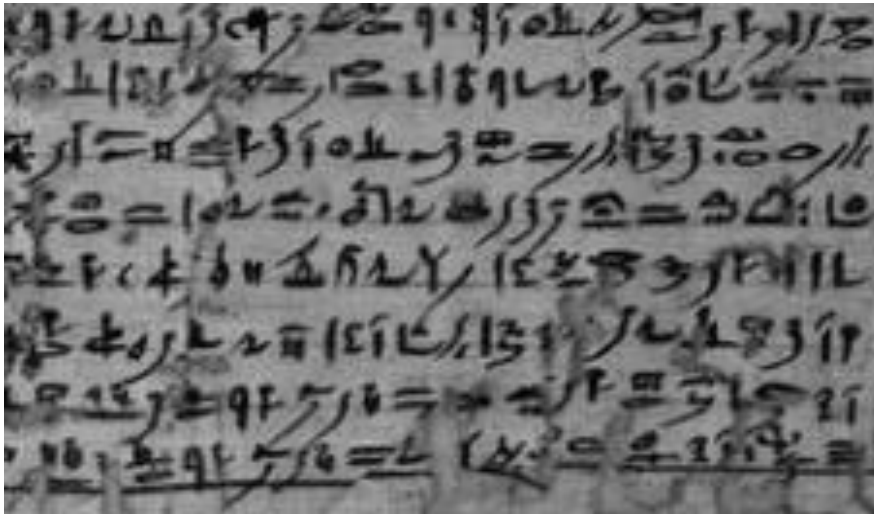


Fig.15: The script is shown overlapping, with the framing (part of col.45) © Museo Egizio, Turin

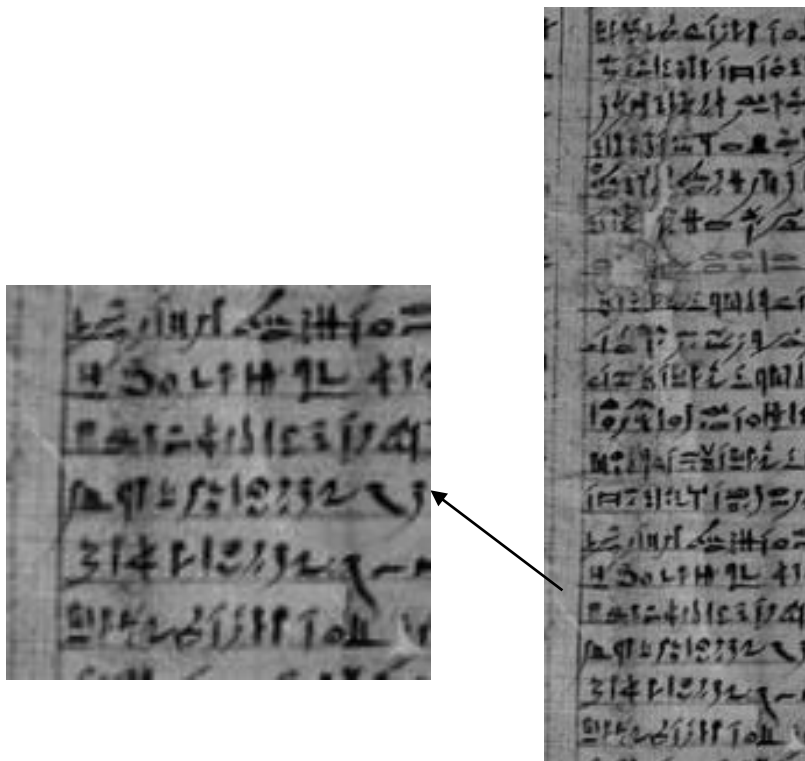


Fig.16: underlines (part of col.47-48) © Museo Egizio, Turin

This scribe has written twelve columns, with the number of lines varying between 25 and 34. The only exception is the last column, which includes a vignette in its lower part. Ligature signs are rarely used by this scribe, accounting for less than 0.25% (see Table 9).

Table 9: Number of Lines, Total signs, and Ligature for the Third scribe

Layout	Type 2											
Columns	39	40	41	42	43	44	45	46	47	48	49	50
Lines	31	34	33	V	28	27	26	26	26	25	26	29
Total of signs	1205	890	1717	224 HG: signs	1012	1074	1066	1127	1079	1144	910	1647
Ligature signs	2	1	0		3	5	4	2	4	5	2	0

Type 2		
51	52	53
v	17	v
	937	
	3	

Scribe 4

This scribe wrote eight columns, and the number of lines per column varying as each each spell is presented in a separate column. Ligatures are used with a frequency of 0.65% (see Table 10). This scribe used an elongated sign form, which often overlap with the lines.

This is especially evident in the signs representing .

Table 10: Table 9: Number of Lines, Total signs, and Ligature for the Fourth scribe

Layout	Type 3								
Columns	54	55	56	57	58	59	60	61	62
Lines	21	15	15	16	8	12	14	v	15
Total of signs	614	327	307	257	136	187	276		204
Ligature signs	3	3	2	2	0	0	2		3

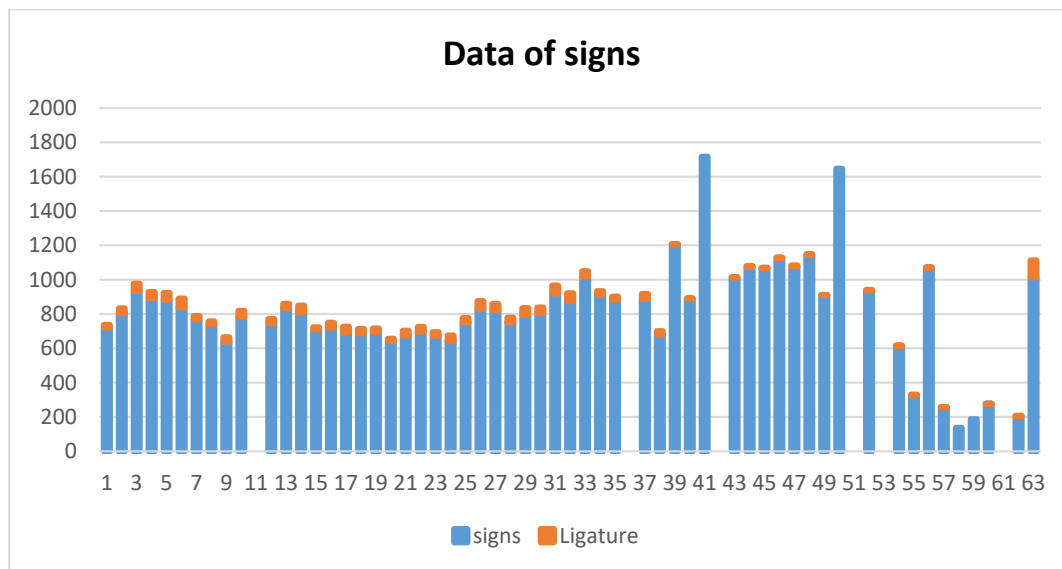


Chart.1: Total signs and ligature of the manuscript

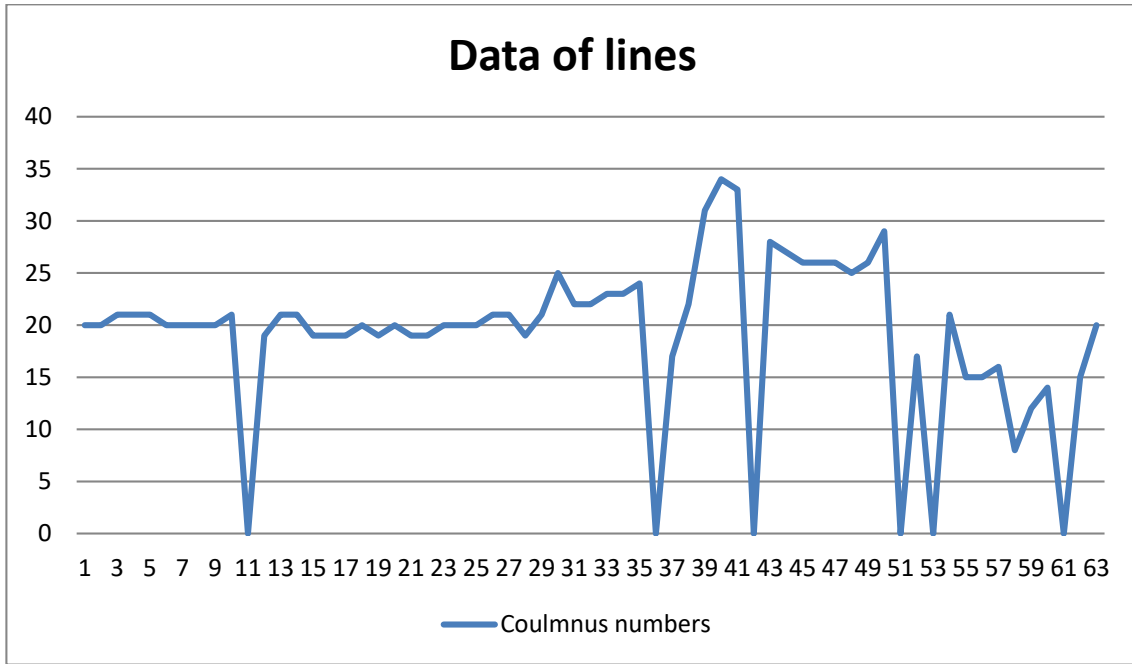


Chart.2: Lines of the manuscript

2.5.2 Orthographical Analysis and Error in Writing

Late Egyptian hieratic writing often features several variant spellings for a single word. Differences in orthography among scribes can serve as distinguishing factors between writers. Variations in the spelling of names, divine names, epithets, and other words can reveal distinctive scribal characteristics. The table below illustrates examples of variant spellings for a single word used by the four scribes in the manuscript.

Table 11: Examples of the variant spellings for a single word by the scribes in their manuscript

	Scribe 1	Scribe 2	Scribe 3	Scribe 4
<i>Wsir</i>				
<i>Wn-nfr</i>				
<i>Itm</i>	-	-		
<i>Ms</i>				
<i>m3^c-hrw</i>				

Some scribes make writing errors such as missing a grammatical element, omitting some words, or confusing writing, which reflect the different level of skills of the scribes. The level of scribes is supplemental evidence of teamwork in the production of the Book of the Dead.

The second scribe makes numerous mistakes. There are errors, and confusion in terminologies and formulae; some signs are incorrect, and many individual signs as well as words being omitted. The third scribe was keen and more thorough in checking his writing and completing omissions. Figure 16 illustrates the scribe added omissions inside the previous line. The last scribe also had some errors in the determinatives, missing out

on a grammatical element and ignoring or choosing a wrong preposition. The table below (Table 12) highlights specific mistakes made by the scribes of this papyrus.

Table 12: Examples of the error of the scribes in his manuscript

Scribe 1			
	Error	Correction	Notes
Col.1.6			The scribe added G47 after <i>rn.k</i>
Col.3.19			-Confusion in <i>pr ky wpi</i> - the form of the sign <i>k</i> , and D54
Col.7.10			
Scribe 2			
	Error	Correction	Notes
Col. 29.17			Confusion where the scribe added <i>iw i</i> before <i>i dsf</i> .
Col. 30.1			<i>nn</i> confused as suffix pronoun <i>tn</i>
Col. 30.1			<i>r^c ss msw</i> confused as <i>nw is msw</i>
Col. 32.1			confusion <i>ink k n Nwt ink s3.k</i> as <i>s3 Nwt ink s3.k</i>
Col. 35.16			<i>gs</i> confused as negative <i>nn</i>
Scribe 3			
	Error	Correction	Notes
Col. 50	The scribe added his missing parts beside the last line. (Fig.17) Osiris, Foremost of his town (<i>Wsir hnty niwt.f</i>), should precede Osiris in Nedyt (<i>Wsir m Ndy</i>), not follow it		
Scribe 4			
	Error	Correction	Notes
Col.54.2			The scribe ignored the first part of the name of the mother, maybe it is a mistake by the scribe
Col.54.2			The scribe added the determinative G7 to <i>t3wy</i>
Col.54.2			The scribe added the determinative G7 to the preposition <i>hr</i>
Col.54.3		Unavailable	The scribe added this part. The scribe used the sign from the two sides of the phrase to correct his mistake

Col.54.7			The scribe ignored the preposition <i>hn^c</i>
Col.54.17			The scribe duplicated the preposition <i>in</i>

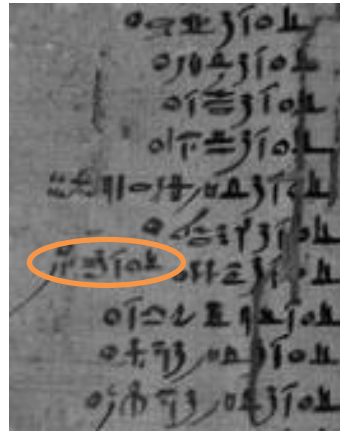


Fig.17: Correction and completion of missing parts (part of col.50) © Museo Egizio, Turin












































2.5.3 Handwriting

The examination of the paleography and handwriting characteristics is one of the critical elements that shows the numbers of the scribes responsible for the papyrus. In the case of P. Turin 1831, an initial observation reveals distinct differences in the handwriting. It appears that at least four different scribes contributed to this papyrus.

The four scribal hands show many features of the hieratic script of the Ptolemaic period (G. Möller 1927) (U. Verhoeven 2001) (cf. the table 13) The first scribe has introduced variant forms for the signs. He used briefer signs and more ligature than the other scribes. The second scribe displayed a more articulated type of the signs. his writing was executed in an elegant and well-organised handwriting. The signs of scribe, in general, are more curving than those of the other hands.

Table 13: Examples of the Sign Forms Used by the Four Scribes





Signs	Scribe 1	Scribe 2	Scribe 3	Scribe 4
	 Col.2.5	 Col.3.8	 Col.4.1	 Col.37.3
	 Col.2.4	 Col.2.6	 Col.4.9	 Col.37.20
	 Col.2.12	 Col.3.4	 Col.37.7	 Col.37.12
	 Col.4.7		 Col.41.1	 Col.41.3
			 Col.41.15	 Col.57.3
			 Col.41.6	 Col.58.3
			 Col.41.23	 Col.55.2
			 Col.41.12	 Col.57.7
			 Col.41.12	 Col.56.4
			 Col.41.15	

	 Col.4.1	 Col.4.4	 Col.37.1	 Col.41.2	 Col.41.12	 Col.54.2	 Col.56.9			
	 Col.2.3	 Col.3.8	 Col.3.21	 Col.37.3	 Col.41.5	 Col.41.11	 Col.41.15	 Col.54.1	 Col.54.2	
	 Col.1.5		 Col.37.11	 Col.37.14	 Col.41.14	 Col.43.5		 Col.56.14		
	 Col.2.1	 Col.2.7	 Col.1.19	 Col.37.22	 Col.37.11	 Col.41.28	 Col.43.1	 Col.43.13	 Col.57.1	 Col.59.1
					 Col.41.5	 Col.41.17		 Col.54.2	 Col.56.2	 Col.57.3
								 Col.60.2		

This section will focus on the structure and composition of the signs, explaining the distinct styles of individual signs, determinatives, and ligature signs used by each scribe.









2.5.3.1 Determinatives and Individual Signs

a) the Gods Hores

Sign	Scribe 1	Scribe 2	Scribe 3	Scribe 4
	 Col.1.5	 Col.23.12	 Col.47.8	 Col.56.8

The difference in shape is immediately visible. The *hr*-sign was written in different ways by the four scribes. Scribes 1 and 2 drew the sign in the abbreviated form, like a small oval shape or a point. The body is depicted in one movement by Scribe 3 as a slanting line that ends with a slight inward curve, and short stroke representing the tail, and two small ligatured strokes depicting the legs. For Scribe 4, the body was oval and very similar to the shape of the mouth below.






b) the Falcon on the Standard

Sign	Scribe 1	Scribe 2	Scribe 3	Scribe 4			
	 Col.4.1	 Col.4.4	 Col.37.1	 Col.41.2	 Col.41.12	 Col.54.2	 Col.56.9

The divine determinative is drawn in its typical form by Scribe 3; a vertical stroke is surmounted by a short diagonal stroke, separated from the body of the sign. For Scribe 2 and 4 the way the sign is written, resemble at short horizontal stroke that is combined with






the sign' body. The divine determinative is written by Scribe 1 as a vertical stroke, and a shorter rounded stroke is attached on the right side. In other places, it is merged into a vertical line.

c) Crested Ibis

Sign	Scribe 1	Scribe 2	Scribe 3	Scribe 4
	 Col.3.11	 Col.24.20	 Col.49.13	 Col.59.6






The difference appeared clearly in the representation of the bird's neck, as it appeared longer in the work by Scribe 2 than that of Scribes 1 and 4, while the neck disappeared entirely in the sign written by Scribe 3. The difference was also in the shape and size of the beak and the feather on top of the bird's head. In addition, the leg is sometimes separated from the body, i.e. scribes 1 and 4, and merged at other times, i.e. in the writings of scribes 2 and 3.

d) Desert Hare

Sign	Scribe 1	Scribe 2	Scribe 3	Scribe 4
	 Col.1.12	 Col.23.16	 Col.50.14	 Col.55.14






The sign written by Scribe 2 was abbreviated, with the details of the body and the ears reduced. A curved line was used to make the head curve downwards, with another curve opening towards the left, representing the ears, separated from the head in the sign by Scribe 4. The shape of the body differed among the four scribes in terms of size and shape, which was represented in the form of a short horizontal line or point in the form by Scribe 4.

e) Bent Man Leaning on Stick

Sign	Scribe 1	Scribe 2	Scribe 3	Scribe 4
	 Col.1.7	 Col.33.2	 Col.50.19	 Col.60.8

This sign is written in three different shapes, especially for the back, arm, and leg. The form of Scribes 1 and 2 is similar but not identical, especially in the form of the bend of the back-hand to reach the bottom of the body in the sign of Scribe 2, and the presence of a tiny tick towards the left of the body in the sign of Scribe 1. Scribe 4 used the soft rounded form in writing the sign, and the back hand was combined with the body and legs, which were highlighted in this sign.

f) Eye

Sign	Scribe 1	Scribe 2	Scribe 3	Scribe 4
	 Col.1.14	 Col.20.10	 Col.41.28	 Col.54.14





The Fourth scribe wrote the eye-sign in a form typical of the pre-Ptolemaic. The outer shape of the eye sign has a flat triangular shape. The iris is added inside. At the right edge of the sign, a short stroke has been added depicting the corner of an eye.

Scribe 1 merged the outer triangle of the eye sign with the iris and gave it the shape of a triangle painted from the inside.

The Second and Third Scribes drew the sign in a very similar way, but there was a difference in the way the iris was drawn. Scribe 2 drew it inward from the vertex of the triangle at a right angle to the base, while Scribe 3 drew it obliquely.





For Scribe 4, the outer shape of the eye sign has the usual triangular form, whereas the iris is drawn as longer, crosses over the base and continues slightly to the bottom.

g) Combination of D58 with a vase

Sign	Scribe 1	Scribe 2	Scribe 3	Scribe 4
	 Col.1.15	 Col.18.16	 Col.41.18	-

Scribes 1 and 2 drew the sign in complete form, and their style is very close to each other, but Scribe 1 separated the sign of the vessel from the foot at the top, while Scribe 3 separated the sign of water falling from the vessel vertically from the foot below, and the length of the vertical sign was shorter than the other two scribes.

h) Face

Sign	Scribe 1	Scribe 2	Scribe 3	Scribe 4
	 Col.5.3	 Col.37.10	 Col.41.16	-

The face sign D2 and a phonetic complement *r* D21 are written by Scribes 1 and 2 in a similar way, as a small, rounded circle opening from the upper right depicting the face. The semi-rounded face of Scribe 4 was primarily formed in a circle opening to the inside. The oval shape of the mouth sign was drawn in all cases in one movement and looks very similar to the hieroglyph.







2.5.3.2 Group Writing and Ligature Signs




This part enables us to determine the range of variation in a single scribal hand. *p3*, *imn*, *nb nsw*, and *tn*.

The article p^3 :


Janssen (Janssen 1987, 11-16) said that the form of the article p^3 make it possible to distinguish the handwriting of multiple scribes. This papyrus contains multiple variant forms of the definite article p^3 , which are often characterised by varying degrees of full form, elaboration, and cursive form. The table below (Table 14) lists the number of variant forms included in the papyrus by the different scribes.

Table. 14 The examples of the article p^3 that are found in the manuscript

Type	Shape	Scribe	Description
D		3	The p^3 -bird is represented with a little stroke for the head and the tail at the end of the body which is triangular in shape. The wings of the p^3 -bird are lost. The β -bird's body is written in a z-shaped form.
A.1		1	The p^3 -bird's body is often represented by an acute-angle triangle with its' head on the top. The left sweeping tail is its legs, make a rounded pseudo ligature (Ewais and Nassar 2022, 45-81) between the p^3 -bird's body and the end of the z-shaped β -bird. The p^3 -bird's wings are further simplified into a single stroke.
A.2		1	The form of the p^3 -bird is structurally similar to type A.3 in the form of the head and the oval body as a result of attaching the tail to the body of the sign. The wings are made separately between the body and the following β -bird in one short stroke.
A.3		1	The three components of the sign are appeared, the p^3 -bird's body, its wings, and the β -bird. The body and legs of the p^3 bird appear as a small oval shape with a slight curve, making a U-shape that depicts its head. The wings are made with a single stroke attached to the end of the stroke. The β -bird has the same format as type A4. However, it is unknown whether the ligature was made intentionally as part of the author's style or unconsciously, primarily since the same scribe (1) represented the wings separately elsewhere (A.1, A.2, A.5).
A.4		1	This type shows slight variations in type D.3 in the form of the p^3 -bird. It takes its typical form; its head, legs, and wings. The difference here lies in the shape of the end of the tail, which takes the form of a brush stroke wrapped in a small rounded shape. Followed by the ligatured group; the p^3 -bird's wings and the β -bird.
A.5		1	Each part is written the same way as the above A.2 type, but the p^3 -bird's head appears on the far right in the form of a small dot.

B		3	The <i>p</i> ³ -bird is represented by a little stroke head and the tail at the end of the body, which is a triangular-shape. The wings of the <i>p</i> ³ -bird are lost. The <i>3</i> -bird's body is written in a z-shaped form.
c		1	This type is almost the same as Type A.2, but the <i>p</i> ³ -bird's wings have entirely disappeared.
D		4	




The table above interestingly shows that in a vast majority of examples, more than one variant form is used in a single scribe's writing. Where the first scribe used both the separate and connected forms in writing the components of the *p*³-sign, and at other times used the most abbreviated form, he also abandoned some of the elements of the sign represented in the wings of the *p*³-bird.

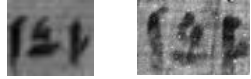
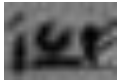


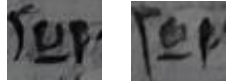

The ligature did not appear except in one type , where the *p*³-bird's sign was attached to the second *3*-bird's sign.

- The word *Imn*



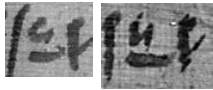

The following table (Table 15) shows four types of writing *imn*: 1) Full and Simple Type, 2) Intermediate Type, 3) Briefer Type, 4) Ligatured Type.

Table. 15 The styles of the word *imn* that are found in the manuscript

type	Shape	Scribe	Description
A		3	This represents the typical form of the group <i>imn</i> . It consists of the <i>i</i> -sign as a vertical stroke and a shorter diagonal stroke on the right side. The <i>mn</i> sign is written with three vertical strokes, with the middle stroke being slightly shorter than others, and the horizontal stroke beneath. On the top of the third vertical stroke is a small horizontal stroke facing inward. The second and third strokes of the <i>mn</i> sign are ligatured in a short horizontal line at the bottom. Below the sign and parallel to it, the <i>n</i> -sign is written separately. The divine determinative is drawn in its' typical form as a vertical stroke surmounted by a short diagonal stroke.
		3	The difference here from the previous one is just in the form of the dot that replaces the short horizontal stroke above the third stroke of the <i>mn</i> -sign.
B		1	The <i>mn</i> -sign has lost one of its three strokes, and the two vertical strokes of the <i>mn</i> -sign are ligatured together directly, making a u-shape. The divine determinative is written as a vertical stroke and a shorter rounded stroke attached on the right.

C		1	There is a pseudo ligature between the <i>mn</i> -sign with the two strokes and the <i>n</i> -sign.
		3	
D		2	The real ligature (Ewais and Nassar 2022, 45-81) occurs between the <i>i</i> -sign and the <i>n</i> -sign where the horizontal stroke of the <i>i</i> -sign was merged with the horizontal stroke that represents the <i>n</i> -sign in one horizontal line. There is a pseudo ligature between the <i>mn</i> -sign and <i>n</i> -sign.
E		1	The <i>mn</i> -sign has a semi-rounded shape.
		4	The <i>mn</i> -sign takes the form of a small square which is open on the far right with a minor looped stroke on the top of the second vertical stroke.
		4	The <i>mn</i> -sign is close to its complete form, with the <i>n</i> -sign attached to it.

The writing style used and preferred by Scribe 4 shows an intermediate or transitional stage between the complete and detailed form of the sign, and it is slightly close to the briefer form in a few details. Scribe 1 utilised two types for the single word, while Scribe 2 used only fullest type in writing the word.


Full and Simple Type	Intermediate Type	Briefer Type	Ligatured Type
 Scribe 3	 Scribe 4	 Scribe 1	 Scribe 1 Scribe 2



- the Article *tn*

The following table (Table 16) shows the four scribes writing for the *tn* sign in its typical form with two strokes, sometimes separately and again connected to the next sign.

Where Scribe 3 preferred the fullest form of the word and Scribe 4 used the briefer form of the *t*-sign, combing it with three strokes of indicating plural These have the same form as that used by Scribe 3. As for Scribe 1, he used a more abbreviated form of the plural sign and preferred to use the ligature between the *t* and *n* signs.

Table 16 The styles of the word *tn* that are found in the manuscript

type	Shape	Scribe	Description
		3	The scribe 2 used a complete form of the <i>tn</i> -group in a vertical rectangular shape. The <i>n</i> -sign is drawn in the middle between the <i>t</i> -sign

			and the plural marker separately. The <i>t</i> -sign is often abbreviated into a single dot or slight curve that opens towards the right. The horizontal form of the plural marker is often written in ligature.
		4	The pseudo ligature occurs between the <i>t</i> -sign and the <i>n</i> -sign while the real ligature is between the three horizontal strokes of the plural marker.
		1	The three horizontal strokes of the plural marker are merged into two strokes, making a real ligature.

Conclusion:

This papyrus shows that scribes were not limited to a single option in writing a papyrus and that some papyri combine portions of documents acquired from different papyri written by collections of scribes and artists. The layout of the papyrus shows that there are three different styles of format which reflect at least four different scribes. However, if we interpret the palaeographic peculiarities as evidence for individual writing styles, four phases appear to suggest four different scribes. Each scribe was responsible for a particular part of the papyrus. The first and second scribes used the same format. Although the handwriting of the second scribe takes different forms, his orthography is similar to the first one. The handwriting of the third scribe can be characterized as more calligraphy with a small number of ligatures and uses a different layout. The last scribe also uses a new format and his handwriting is very different from the other scribes.

Acknowledgement:

Many thanks to Susanne Toepfer and her team at Museo Egizio, Turin, for providing the images. I would like to express my gratitude to Dr. Maher Eissa for his reviewing the draft and providing valuable feedback.

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العمل الجماعي في إنتاج برديات كتاب الموتى خلال العصر البطلمي

بردية (p.Turin 1831) Peteamunnebnestawy

الملخص

تُعدُّ بردية تورين 1831 واحدةً من الوثائق الهامة في كتاب الموتى، والتي تُورخ إلى نهاية عصر الأسرة الثلاثين وبداية عصر البطلمية. وتخص كاهن الإله آمون (*P3- di- Imn- nb- nst- t3wy*) ابن سيدة المنزل وعازفة السيستروم للإله آمون رع (*t3- nt- Imn- nb- nst- t3wy*). وتُحفظُ البردية الآن في المتحف المصري بتورين في إيطاليا، حيث تم نقلها إليها عام ١٨٢٤م عن طريق Bernardino Drovetti. تُعدُّ هذه البردية من المصادر الهامة التي تُظهر العمل الجماعي في تنفيذ كتاب الموتى خلال العصر البطلمي. حيث تم تسجيل هذه الوثيقة بأيدي مجموعة مختلفة من الكتبة، ويتضح ذلك من خلال اختلاف التصميم والاختلافات الخطية، بالإضافة إلى التنوع في التهجئة. لذا، تهدف الدراسة إلى تحليل البردية بشكل عام، وتحليل بنية العلامات وتركيبها، وقواعد الإملاء، وتحليل خط اليد للناسخين لمعرفة عدد الكتبة الذين قاموا بنسخ هذه النصوص.

محمد علي نصار

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بيانات المقال

تاريخ المقال

تم الاستلام في ١٦ مايو ٢٠٢٣

تم استلام النسخة المنقحة في ١ ابريل ٢٠٢٤

تم قبول البحث في ٢٨ ابريل ٢٠٢٤

متاح على الإنترنت في ٢٨ مايو ٢٠٢٤

الكلمات الدالة

كتاب الموتى؛

العصر البطلمي؛

العمل الجماعي؛

الكتبة؛

p.Turin 1831

P3- di- Imn- nb- nst- t3wy