

ABSTRACT (shorter version)

This article considers the motivation for retrograde writing in hieroglyphic inscriptions by examining the pattern of its use in different copies of a single composition. In a retrograde text the hieroglyphs face the end rather than, as normal, the beginning; this orientation is well known in certain types of papyrus but has not been extensively studied in inscriptions. The work studied is the description of the king's worship of the rising sun often known as the "King as Sun-priest", which was chosen because copies of it are distributed over several different archaeological and decorative contexts and a long timespan; moreover, only some of these are written retrograde. It appears that retrograde orientation is associated exclusively with copies where the text intervenes between images of the king and the sun-god, serving as a sort of shared caption linking the two; in these cases the orientation allows important sections of the text, especially the names of king and god, to be positioned next to the relevant images. Such pragmatic considerations apparently overrode the normal preference for prograde writing, and may also have been a reason for the orientation of other retrograde inscriptions.

ABSTRACT (longer version)

This article considers the motivation for the use of retrograde writing in hieroglyphic inscriptions by reference to its use or non-use in different copies of a single composition. The term retrograde is understood to mean text in which the hieroglyphs are oriented to face the end of the text instead of the beginning as normal; such a format is well-known for certain types of text on papyrus but also sometimes occurs in inscriptions, where the reasons for its use have not been extensively studied. The work chosen for consideration is the text describing the king's worship of the rising sun, often known as the 'king as sun-priest' after the title of its initial publication by Jan Assmann; it is particularly suitable for such a study because it occurs in several copies from different contexts (royal mortuary temples, state Amun temples, royal and private burials) and is attested over a long period (from the reign of Hatshepsut to the end of the Pharaonic period). Only some copies use retrograde format, so any explanation relating to the work as such (e.g. in terms of its genre) seems to be ruled out. Moreover, there is no correlation between orientation of the text and date of the inscription. Instead, an explanation is sought that takes into account the presentational context of the various copies, in particular their relationship to accompanying images. It is noted that this work is written retrograde only where the text intervenes between a figure of the king worshipping the sun-god in his barque, and the barque itself; in other arrangements, where there is no figure of the sun-god, or where the text is located behind the king, prograde (normal) orientation is used. It is suggested that the reason for retrograde format in the former group is to allow the text to function as a sort of dual caption linking the two halves of the scene: the beginning, which names the monarch and describes his activity of worship, is positioned next to the relevant figure, whereas the end, which names the sun-god and describes his activity of rising, is placed next to the barque; both these sections thus serve as captions to their respective images like the short captions which typically accompany such scenes. This arrangement requires the text to be read in the direction moving from the king towards the sun-god; however, since the work as a whole primarily concerns the king the normal convention was followed, that the hieroglyphs should align with the figure of the king. The conclusion is that in the case of this

particular arrangement of text and image this combination of pragmatic considerations seems to have overridden the normal preference for prograde format, whereas in the other types of arrangement found for this work it would not be possible for the text to serve as a link in the same way, and there was thus no reason to abandon prograde format. It is further suggested that when other retrograde texts are analysed such pragmatic concerns should be taken into consideration.

ARTICLE

Retrograde writing is the term used for hieroglyphic writing in which the individual hieroglyphs face towards the end of the text, instead of towards the beginning as in normal (prograde) writing; this type of format occurs most often in text written in vertical columns. It is a fairly standard feature of religious texts written on papyrus,¹ including ritual texts and most Book of the Dead manuscripts (although not all: the BD papyrus of Nakht, BM EA 10471, is arranged prograde, for example,² as is most of the papyrus of Qenna, Leiden T2, Naville's La³). Retrograde writing is rather rarer in inscriptions, however, whether religious or not. The most extensive treatment of retrograde writing in inscriptions is by Henry Fischer;⁴ however, it concentrates on cases where individual phrases or sections of text have retrograde format, not on relatively long texts written retrograde in their entirety, which is what will be considered here. Another important contribution, by Florence Mauric-Barberio,⁵ examines the use and effects of retrograde writing in the specific context of the underworld books inscribed in royal tombs of the New Kingdom. In the hope of shedding further light on the matter I will here examine the phenomenon of retrograde format as manifested in the inscribed versions of a text which will be familiar to Mark Smith since it is regularly read as part of the Egyptology syllabus at Oxford, namely the royal sunrise text first edited in 1970 by Jan Assmann⁶ and most recently by Janusz Karkowski.⁷

The sunrise text is interesting to study with regard to the matter of retrograde writing because it is attested in several different copies spread over a long period of time (from the Eighteenth Dynasty to the end of the pharaonic period), in various different contexts (royal mortuary temple, royal sarcophagus, private tomb, non-mortuary temple), and occurs in both retrograde and prograde format. I will deal here only with examples preserved in inscriptions, which I list below, in chronological order, each item being identified by an extended version of the code letters first used by Assmann; Karkowski's equivalents are given in square brackets. The footnotes do not supply full bibliographies but are intended to indicate the best reproductions of the decorative schemes in which the texts are found (best, that is, for the purposes of this type of comparison).

¹ See H. Altenmüller, 'Zum Beschriftungssystem bei religiösen Texten', in *XVII. Deutscher Orientalistentag*, ed. W. Voigt (ZDMG Suppl. 1; Würzburg, 1969), 58–67.

² See A. W. Shorter, *Catalogue of Egyptian religious papyri in the British Museum: Copies of the book pr(t)-m-hrw from the XVIIIth to the XXIIInd Dynasty* (ICBD 1; London, 1938), 12 with pl. 7.

³ See facsimile in C. **Error! Main Document Only.** Leemans, *Aegyptische monumenten van het Nederlandsche Museum van Oudheden te Leiden*, III: *Monumenten behoorende tot de graven* (1867?), section T2.

⁴ H. G. Fischer, *L'Écriture et l'art de l'Égypte ancienne: Quatre leçons sur la paléographie et l'épigraphie pharaoniques* (Collège de France, Essais et Conférences; Paris, 1986), esp. 105–30.

⁵ 'Copie de textes à l'envers dans les tombes royales', *Deir el-Médineh et la Vallée des Rois: la vie en Égypte au temps des pharaons du Nouvel Empire* (Louvre, conférences et colloques; Paris, 2003), 173–94.

⁶ in *Der König als Sonnenpriester* (ADAIK 7; Glückstadt, 1970); as a result the piece is often referred to as the sun-priest text.

⁷ in *Deir el-Bahari*, VI: *The temple of Hatshepsut: The solar complex* (Warsaw, 2003), 180–211, as text 6.

H [H]: Deir el-Bahari, mortuary temple of Hatshepsut, southern half of east wall of room VI ('Night-sun chapel')⁸

B [AIII]: Luxor temple, east wall (overflowing onto north wall) of room XVII, top register (Amenophis III)⁹

C [RIII]: Medinet Habu, eastern half of south wall of 'room' 18 (in fact a mostly open court) (Ramesses III)¹⁰

E [Tj]: tomb of Tjaynefer (TT 158), left (south) reveal of entrance doorway (*temp.* Ramesses III?)¹¹

F [T]: 'Edifice of Taharqa' at Karnak, eastern half of south wall of room D (in the terminology used by Parker, Leclant, and Goyon; in that of the *Topographical Bibliography*, room III in the Temple of Re-Harakhti)¹²

G [Pd]: tomb of Pedamenemopet (TT 33), southern half of east wall of hall I (26th Dyn.)¹³

J and K [An and As]: Nuri pyramids nos. 6 and 8, of the Nubian kings Anlamani¹⁴ and his successor Aspelta,¹⁵ exterior surface of sarcophagus lids (both *contemp.* 26th Dyn.)

L [Sh]: tomb of Sheshonq (TT 27), north wall of forecourt (26th Dyn., *temp.* Apries/Amasis)¹⁶

M [Pa]: tomb of Pasherientaisu (Saqqara, BN 2), exterior face of left (south) entrance jamb (30th Dyn. or early Ptolemaic)¹⁷

Some of these versions of the sunrise text are accompanied by a parallel section of decoration that includes a sunset text, with the orientation of which they can be compared. In H, B, F, and M the corresponding sunset text is a formula¹⁸ found only as a companion to the royal sunrise text, the two together forming what Karkowski has termed a 'theological treatise'¹⁹ (previously—at a time when the sunset part was still unedited—he had used the term 'cosmographical text' for the sunrise part²⁰).

⁸ Karkowski, *Solar Complex*, pls 34, 37, 39.

⁹ H. Brunner, *Die südlichen Räume des Tempels von Luxor* (AV 18; Mainz, 1977), pls 16, 65, 66, 75 (pls 75 + 65 are reprinted by M. C. Betrò, *I testi solari del portale di Pasherientaisu (BN 2)* (Saqqara III; Pisa, 1989), 88 fig. 4 [designated pl. 41 in error for pl. 65]).

¹⁰ *Medinet Habu*, 6 (OIP 84; Chicago, 1963), pls 424/C, 420 (pl. 424/C is reprinted by Betrò, *Testi Solari*, 95 fig. 7).

¹¹ K. C. Seele, *The tomb of Tjanefer at Thebes* (OIP 86; Chicago, 1959), pl. 10.

¹² R. A. Parker, J. Leclant, and J.-C. Goyon, *The edifice of Taharqa by the sacred lake of Karnak* (BEStud 8; Providence and London, 1979), pls 18A–B, 21 (pl. 18B is reprinted by Betrò, *Testi Solari*, 98 fig. 8).

¹³ Assmann, *Sonnenpriester*, 16 fig. 8 (text only, no context published).

¹⁴ S. K. Doll, 'Texts and decoration on the Napatan sarcophagi of Anlamani and Aspelta', Ph.D. diss., Brandeis University (1978), 10 fig. 1 (whole lid), 16 fig. 2 (day barque), 66 fig. 3 (night barque); cf. D. Dunham, *The royal cemeteries of Kush, 2: Nuri* (Boston, 1955), pl. 76C (photograph of Anlamani lid from side).

¹⁵ Dunham, *Nuri*, 87 fig. 58, also pl. 78B (photograph of Aspelta lid from above).

¹⁶ Karkowski, *Solar Complex*, 181 fig. 5 (text only, no context published).

¹⁷ Betrò, *Testi Solari*, frontispiece (whole doorway), 7 fig. 1 (lintel reliefs).

¹⁸ edited most recently by Karkowski, *Solar Complex*, 167–78, as text 9.

¹⁹ *Solar Complex*, 61, 167, 180, etc.

²⁰ 'Studies on the decoration of the eastern wall of the vestibule of Re-Horakhty in Hatshepsut's temple at Deir el-Bahari', *ET* 9 (1976), 73–7.

It is possible that some of the other versions originally included the same sunset text before the latter was lost through damage to the relevant surfaces. Instead of this special royal sunset text, the sunrise text in J and K is paralleled by part of a sunset hymn (chap. 15h–i) from the later recension of the Book of the Dead; this, however, can be used in just the same way for studying the format of the writing. The surviving copies of the royal sunset text occur in the following positions, in the same rooms (etc.) as their corresponding sunrise text:

H: mortuary temple of Hatshepsut, northern half of east wall of room VI²¹

B: Luxor temple, west wall of room XVII²²

F: Edifice of Taharqa, western half of north wall of room D²³

M: tomb of Pasherientaisu, exterior face of right (north) entrance jamb²⁴

Of these ten versions, only four (H, B, J, and K) are inscribed in retrograde format; the remainder (C, E, F, G, L, and M—thus including some relatively early examples as well as the latest one—are prograde. This makes it clear that, at least as far as this text is concerned, the use or non-use of retrograde writing cannot be dependent on the character of the composition as such (for example, as a religious text, a royal text, a ‘secret’ text, or the like), but must arise from some other type of consideration. Nor is such a consideration likely to have much to do with the type of archaeological context from which the extant versions derive, since the provenances are fairly varied, including private tombs, royal burials, royal mortuary temples, and non-mortuary temples (and include Nubia as well as Egypt). On the other hand, since in each case the texts form part of a wider decorative scheme, one likely area to examine in the search for motivations of retrograde writing might be the decorative context and the way in which each version of the text interrelates with other elements of the overall scheme in which it is embedded; it is after all well known that hieroglyphic writing was distinguished by an unusual sensitivity to this kind of interrelation. It will therefore be necessary to examine the decorative context of each version; I will deal with the retrograde ones first.

The oldest surviving version, H, comes from what Karkowski terms a ‘solar complex’, that is, a structure used for sun worship (the term includes both independent structures, such as the Edifice of Taharqa at Karnak, and subsidiary areas of larger structures, such as the Luxor temple and most New Kingdom royal mortuary temples²⁵). Only fragments of the text and decorative scheme of H remain but there is enough to allow a convincing reconstruction (Karkowski, *Solar Complex*, pl. 39²⁶), of a double scene in which two large figures of the monarch in the centre of the east wall face outwards (back to back), the one on the right (south) making offerings to the day barque of the sun, which is adored by a row of baboons depicted below it. Offerings are shown in front of the monarch’s legs, and the sunrise text is inscribed in eleven columns above these. On the left (north) is a parallel scene featuring the night barque adored by a row of anthropoid figures, the main difference apart from this

²¹ Karkowski, *Solar Complex*, pls 29, 31, 39.

²² Brunner, *Südlichen Räume*, pls 12, 41 (pl. 41 is reprinted by Betrò, *Testi Solari*, 89 fig. 5 [designated pl. 35 in error for pl. 41]).

²³ Parker, Leclant, and Goyon, *Edifice of Taharqa*, pls 19, 20A–B (pl. 20A is reprinted by Betrò, *Testi Solari*, 100 fig. 9).

²⁴ Betrò, *Testi solari*, 52, 54–5 pls 2–4.

²⁵ Karkowski gives a brief survey of known or suspected examples in *Solar Complex*, 85–8, followed by more detailed descriptions and analyses of individual cases; cf. U. Hölscher, *The excavation of Medinet Habu*, 3: *The Mortuary Temple*, part I (OIP 54; Chicago, 1941), 22–5 with pl. 2; 31.

²⁶ For detailed description see *Solar Complex*, 157–8, 178–9.

being that the barque faces away from the monarch (and is thus oriented in the same northward direction as the day barque, no doubt to indicate continuation of the same course). The sunset text, also in eleven columns, occupies the space between the monarch and the barque above the offerings and is also inscribed in retrograde direction. In both cases the columns of text are to be read from the centre outwards but the individual hieroglyphs also face outwards.

The next version chronologically is B, which comes from one of the inner chambers of an Amun temple (for overviews of the relevant walls, see Brunner, *Südlichen Räume*, pls 16 and 12²⁷). In this case the two scenes, corresponding to sunrise and sunset, are not conjoined on one wall but face each other at opposite ends of a room, in each case situated high on the wall above the relevant doorway. In each case the barque is positioned in the centre, above the doorway, and faces north. The day barque (associated with the sunrise text), on the east wall, is adored by a row of baboons beneath it, but the night barque (associated with the sunset text), on the west wall, has no figures beneath it, rather two sub-registers of anthropoid figures worshipping behind it. In each case the king is shown at the far northern edge of the wall, offering towards the approaching barque; offerings and the relevant sunrise or sunset text occupy the space in between king and barque. The sunrise text²⁸ occupies fourteen columns between the king and the solar barque, and a further seven above and behind the king; the leftmost three of these overflow ‘behind’ the king onto the north wall round the adjacent corner,²⁹ but this was probably necessitated by lack of space on the east wall and not part of the original intention, as the parallel sunset text does not overflow in this way; another indication of the *ad hoc* nature of the arrangement is that the overflow columns are included under the sky sign that demarcates the top of the scene proper to that part of the north wall (the one from the east wall does not follow them round the corner). On the west wall the sunset text³⁰ also occupies fourteen columns between king and barque, but only three further columns, above the king, with no overflow.

The B version of both the sunrise and the sunset text is notable in being not only retrograde itself but demonstrably copied from a retrograde source. This is apparent from the fact that in its extant form it is garbled in a way that could have been caused only by mechanical copying from a retrograde original without allowing for its retrograde format,³¹ and without retaining the line-breaks of the original; the result is that the texts as they appear in B have in effect been sliced into small chunks which do not appear in their correct order.³² This garbling is confined to B among the extant versions and has not influenced the transmission of the others. Similar garbling, however, is known in other texts, for example in both versions of Book of the Dead chap. 180 as they occur in the papyrus of Nebseni,³³ and in sections of the Amduat and the Book of Gates as they appear in royal tombs of the

²⁷ For detailed descriptions see *Südlichen Räume*, 42 scene 30, 35 scene 7 + 69; Karkowski, *Solar Complex*, 108–10.

²⁸ For line facsimiles see Assmann, *Sonnenpriester*, 2 fig. 1, and Brunner, *Südlichen Räume*, pls 75 (the overflow columns), 65, 66; photographs: *Südlichen Räume*, pls 187a–b (these not including the overflow).

²⁹ forming ‘scene’ 40 in the numbering of Brunner: *Südlichen Räume*, 44 with pl. 9.

³⁰ For line facsimile see Brunner, *Südlichen Räume*, pl. 41.

³¹ i.e. starting from the end in terms of the content, as shown by the fact that the sunrise text overflows at the left side, so those columns which contain the beginning of the text must have been the last ones to be copied.

³² as explained and reconstructed, for the sunrise text, by Assmann, *Sonnenpriester*, 4–6 with fig. 2. The order in which such a garbled text must be read can be very complicated: the sunrise of text of B, for example, begins with the order BDACEHG ... As a result the underlying original can be difficult to recover with certainty, and reconstructions of the exemplar underlying the sunset text of B differ considerably as provided by Betrò (*Testi Solari*, 91 fig. 6) and by Karkowski (*Solar Complex*, 166 fig. 3). For general considerations regarding this type of garbling see Mauriac-Barberio, ‘Copie de textes’, 181–3.

³³ See G. Lapp, *The papyrus of Nebseni (BM EA 9900)* (CBD 3; London, 2004), §4.9.4.

New Kingdom.³⁴ The reconstructions of the original behind B (which Assmann labelled A) all show varying column heights, which would suggest that the B texts were copied either directly from another (presumably similar) temple scene, or else from an archive copy that took the form of a scene and text arranged together and not just the text by itself.

The final retrograde texts are J and K on the Nubian sarcophagus lids (see Doll, ‘Anlamani and Aspelta’, 10, fig. 1 for J/Anlamani,³⁵ and Dunham, *Nuri*, 87, fig. 58 for K/Aspelta). The decorative scheme which they share is somewhat simpler than that of H and B: the sarcophagus lid is divided into two halves lengthways, with figures and texts arranged so that the median line of the lid is ‘up’ and the outer edge ‘down’; on each side the upper register shows the king on the viewer’s left kneeling and worshipping (without offerings) towards the solar barque at the right; the day barque is shown without any accompaniment of baboons, although the night barque is drawn by jackals. In each case a block of text occupies the fairly long space between king and barque; the sunrise text forms the major portion of the series on the day side (starting at col. 13³⁶) and Book of the Dead chap. 15h–i takes up the whole space on the night side. On both day and night sides of the lid these texts are inscribed in retrograde format, but the short texts in the register beneath them, describing the hours of the day and the night, are prograde.

There are four further inscribed versions of the sunrise text whose decorative schemes have been published, all of which have prograde text; these derive from a variety of decorative contexts but none is exactly parallel with the versions that have retrograde format. The earliest of the prograde versions is C (see *Medinet Habu*, pl. 424C), which comes like H from a solar complex within a royal mortuary temple.³⁷ Only the bottom edge of the area in question now survives, but there seem to be some similarities in layout with the rather better preserved version F discussed below. From what remains we can see that the scheme of C involved the king facing left—that is, in terms of the layout of the room, towards representations of the sunrise on the east wall (pl. 420).³⁸ In front of the king are two offering tables, so he was presumably making offerings to the rising sun; behind him are two baboons, also facing left;³⁹ behind the baboons is the sunrise text, of which only the bottoms of the first seven columns remain, and beyond these the wall is lost (cf. pl. 423). It is possible that the corresponding sunset text was also once included in the decoration of the same room, but the wall surfaces in the areas where one might expect it to occur⁴⁰ have not survived.

³⁴ For examples and discussion see Mauriac-Barberio, ‘Copie de textes’, 183–6.

³⁵ whose decorative scheme can be seen to consist of ‘somewhat condensed parallels to those on the sarcophagus of Aspelta’, as noted by Dunham, *Nuri*, 58.

³⁶ It is preceded by a composition describing ‘the baboons that announce the sun’ (*ḥnw sryw Rʿ*) each morning; this baboon text appears next to the baboons in H, and elsewhere in the decoration of the same sites as C (twice) and F. It has been edited most recently by Karkowski, *Solar Complex*, 212–20, as text 7; its presence means that the baboons are represented textually in J and K although they do not appear there visually as they do in H, B, C, E, and F.

³⁷ For description see Karkowski, *Solar Complex*, 94–7; Hölscher, *Mortuary Temple*, 15.

³⁸ On this wall at the same level as the sunrise text there is a small scene showing the solar disc raised by Isis and Nephthys, flanked by the baboon text duplicated on each side. A much larger scene in the next register above seems to have shown the transfer of the young sun from the night barque to the day barque by (probably) Hehu and Hauhet (kneeling), but only the very lowest edge of this scene now remains.

³⁹ There were probably one or two higher sub-registers with more baboons above them, as in F.

⁴⁰ For example, analogy with F would suggest towards the western end of the north wall at the same level as the sunrise text (cf. *Medinet Habu*, pls 418 and 422 with Parker, Leclant, and Goyon, *Edifice of Taharqa*, pls 20A and 19).

Version E comes from a Theban private tomb⁴¹ (see Seele, *Tjanefer*, pl. 10); it shows the owner in a gesture of worship facing left (that is, out of the tomb) towards a large statue of Amen-Re (facing right/inwards towards the owner); six columns of text separate them, with further partial columns above the owner and beneath his extended arms; the area behind the owner is lost to damage. Four baboons ‘float’ in front of the god’s crown, anchored into the scheme only by their visual attachment to the top of the first column of the main text. The textual item which actually intervenes between the god and the king is in fact a long solar hymn, otherwise unattested;⁴² the royal sunrise text itself starts above the tomb owner (at col. 9, with a slightly divergent text *dw3 n N R^c m hpw* instead of *iw N dw3:f R^c m nhpw*). It then proceeds over his head (and, presumably, originally continued in longer columns down behind him, if the entire sunrise text was originally present in the damaged area, which I see no reason to doubt).

Version F comes from a crypt in a subsidiary solar temple at Karnak (see Parker, Leclant, and Goyon, *Edifice of Taharqa*, pls. 18A–B⁴³). This is situated on the south wall of the room and involves two figures of the king, the first making a gesture of worship; behind him are three sub-registers of baboons; behind them the text; and finally comes a table of offerings with another figure of the king, this time making an offering gesture.⁴⁴ The sunrise text is probably associated more closely with the second (offering) figure of the king, as it is separated from the first by the baboons, and by analogy with the sunset text which accompanies only one figure (see below), but it is impossible to be certain. All these elements face left towards (proximally) a door in the same wall,⁴⁵ and (beyond that) the east wall of the room, which includes a large representation of the rising sun in the form of a winged scarab raised by Hehu and Hauhet, kneeling,⁴⁶ and the baboon text to the lower right (pl. 21). The sunset text was situated in a roughly complementary position, on the part of the north wall adjacent to the west wall (pl. 20A–B). In this case, however, the layout is somewhat simpler, with only one figure of the king: the text is at the far left of the wall directly against the corner,⁴⁷ and to the right there is an offering table and a figure of the king making an offering gesture, much like the second figure of the king associated with the sunrise text. The scene would appear to be directed towards the west wall (pl. 19), the decoration of which is unfortunately mostly lost; however, traces of the solar barque with deities can still be made out in the area near the corner that adjoins the royal sunset text, although the barque-scene does not extend all the way to this corner as part of the text for the first hour of the night intervenes. Matters are complicated here by the fact that the central portion of the north wall is occupied by a representation of the sun-god in a barque, which abuts against the back of the figure of the king making offerings; however, as this figure is turned away from the barque I take it that the part of the wall which it occupies is to be interpreted as a separate scene linked more closely with the decoration on the west wall.

⁴¹ The owner may have been a high priest of Amun, and was certainly of high rank in the priesthood of Amun; see Seele, *Tjanefer*, 5.

⁴² with the caption *dw3 R^c hft wbn:f m 3ht ibtt nt pt in N*, etc. For this text see J. Zandee, ‘Prayers to the sun-god from Theban tombs’, *JEOL* 16 (1959–62), 58–9; also J. Assmann, *Sonnenhymnen in thebanischen Gräbern* (Theben 1; Mainz, 1983), 203–9; id., *Ägyptische Hymnen und Gebete*, 2nd rev. edn (OBO; Freiburg Sw. and Göttingen, 1999), no. 108.

⁴³ For further descriptions see *Edifice*, 37–48; Karkowski, *Solar Complex*, 115–17.

⁴⁴ What appears to be a small fragment from the top of a very similar scene is preserved on a single block from Karnak (Karkowski, *Solar Complex*, 181 fig. 4); just enough of the text from this version survives to show that it too had prograde format.

⁴⁵ This door gave access to the ramp that led to the surface and through which (indirect) sunlight might at least notionally be regarded as able to percolate.

⁴⁶ A very similar scene is included in the area above the day barque in Karkowski’s reconstruction of H.

⁴⁷ There is no doorway in this wall.

The latest version of the sunrise and sunset texts, here labelled M, comes from a private tomb at Saqqara. The texts are inscribed on the exterior surfaces of the door-jambs of the tomb entrance, that for the sunrise on the left (south) and that for the sunset on the right (north).⁴⁸ The decorative scheme is very simple, the jambs, and the part of the lintel block lying directly above the jambs, holding text only, in five very long columns each; the part of the lintel block directly overlying the entrance space is decorated with two parallel scenes (Betrò, *Testi Solari*, 7 fig. 1) facing outwards from the centre line. In each case one figure of the owner, seated receiving offerings from a table, is preceded by another figure of the owner standing in a gesture of worship, over a minimal representation of offerings;⁴⁹ the worship is apparently directed towards the top ends of the columns of text (which directly adjoin the figures) but is presumably meant to be understood as directed towards the physical sun, either in the sky outside the tomb in both cases, or else thus in only the sunrise case and in the other inwards towards the night sun, in the underworld as represented by the tomb interior. The jamb texts are read prograde (thus inwards towards the door space and the lintel reliefs).

Two further inscribed versions are known, both from Theban private tombs: G in the tomb of Padiamenemope and L in that of Sheshonq, but although the texts have been published (by Assmann and Karkowski respectively, see list above) and are clearly to be read prograde I have not been able to find any publications of the associated decorative schemes. It would appear that these are both in poor condition.

Several things become apparent from this brief survey. For one, in all cases the individual hieroglyphs follow the normal convention in being aligned with (that is, oriented in the same direction as) the associated figure of the monarch or tomb owner. Another point is that each evening text, where one is preserved, always has the same format—prograde or retrograde—as its corresponding sunrise text, even when they are located on different walls (and even, in the case of J and K, when a different composition is used for the evening half of the arrangement). Finally, all four cases in which the royal sunrise text and a companion evening text are inscribed in retrograde format are examples of one particular type of decorative scheme, in that they all accompany scenes in which the king offers to the sun-god in a barque and the text in question intervenes; in all other cases, including ones in which the king makes offerings towards a representation of the sun-god which really forms part of a different scene (as in C and F), prograde format is used.

It is not at first glance easy to see quite why the arrangements of this type should receive special treatment with regard to the format of the text, since most of the individual features of these scenes can be paralleled in prograde versions: the placement of the text between the king and the god is paralleled in F (especially in the case of the sunset text) and (implicitly) also in M;⁵⁰ the presence of the solar barque is also paralleled in F (with regard to the sunset text); the presence of offerings is paralleled in C, F, and M; the length of the text (in terms of the ratio between its width and its height) is significantly greater in B, J, and K than in the other versions, but this does not really apply to H, where the text areas are not significantly wider than in F (and probably C too). Nevertheless, although degree of separation between the related figures cannot in itself provide the solution to the puzzle of retrograde format of the text, the solution probably does lie in the area of practicality, as may be seen by comparing these scenes with others that involve a separation of king and god by a wide area of

⁴⁸ For the general appearance of the whole doorway, see the photograph used as frontispiece by Betrò, *Testi Solari*.

⁴⁹ Presumably these offerings, unlike the ones on the table, are being made rather than received by Pasherientaisu, although his gesture is not a traditional one of offering.

⁵⁰ and in E, if one takes into account the whole block of writing and not just the sunrise text itself.

text. There does in fact seem to have been a great tolerance for such separations in cases where both figures have text (typically speech) associated with them and therefore the names, so to speak, meet in the middle at a kind of borderline between the areas governed by each figure.⁵¹ However, such is not the case with the solar texts under discussion here: they are not speeches but descriptive passages, one might say extended captions, outlining the relationship between the king (or tomb owner) and the sun-god; they contain not only the name of the former at the beginning, but also a designation for the latter at the end,⁵² a designation which I strongly suspect was meant to apply caption-wise to the depiction of the god—in other words these texts are not governed by one figure or the other but link them both into a single representation or scene, however far the two may be separated on the wall. It follows that if the texts of H, B, J, and K had been formatted prograde the name of the king would appear immediately next to the depiction of the sun-god and his barque, while at the same time the phrase describing the god would appear up against the figure of the king. I would judge it very likely that the ancient designers of these reliefs would have wished to avoid such an incongruity if at all possible, and it does not occur in any of the prograde versions.⁵³ (It must be admitted that in the case of B even with retrograde format the ideal placement of the captions is to some extent spoilt by the garbling of the text, which means that the names of the king and the god do not in fact occur in the first and last columns, and in the sunrise part also by the overflow of the text so that it actually begins on the far side of the king, but these features can hardly have been part of the intended design.)

Incidentally, the structure and function of this pair of texts as just outlined might also supply a clue about their origin: it is easy to see how a scene in which a king is depicted as offering to the sun-god at sunrise or sunset might attract a caption of the type *nsw N dw3:f R^c pr m Hpri*; the rest of the text, interpolated either all at once or over time, section by section,⁵⁴ might then be inserted into the middle, gradually separating the two figures visually by more and more width of text area, while simultaneously linking them more closely in conceptual terms by elaborating on the nature of their relationship. Whether or not that may be a correct guess as to the history of these texts, it does I think accurately encapsulate their structure and function in the form that they are preserved in H, B, and JK: the beginnings and ends can be seen as captions relating to their respective figures, with the main body of the text slung (so to speak) between them.⁵⁵ As the text became used more widely and started to appear in contexts where it did not directly link figures of the king (etc.) and the sun-god, retrograde format was no longer required to avoid mismatchment of captions, and in such cases prograde format, as being the general norm, was adopted; but if the original context was retained

⁵¹ A good example is provided by the speeches of Hatshepsut and (especially) Amen-Re at the beginning of the Punt reliefs at Deir el-Bahari; for layout see A. Mariette, *Deir el-Bahari: Documents topographiques, historiques, et ethnographiques* (Leipzig, 1877), pl. 10; É. Naville, *The temple of Deir el Bahari* (EEF; London [1894?]-1908), part III, pl. 84.

⁵² in the case of the sunrise text, *R^c sdty pr m Hpri* ‘Re, the child who has come forth as Khepri’; the sunset text ends with *R^c pr:f m sktt* ‘Re when he comes forth in the night-barque’.

⁵³ It is instructive in this context to compare another relief from Hatshepsut’s temple at Deir el-Bahari, in room III in the suite south of the Upper Court, on the tympanum of the east wall (see Naville, *Deir el Bahari*, part IV, pl. 115). On the left is a representation of the queen worshipping the solar barque, with the goddess of the twelfth hour of the day in front of it; the queen is reciting the text of the hymn for that hour, which is written prograde in the space between queen and goddess. The superficial similarity of the context contrasts with a striking difference in writing format, as compared with the royal sunrise and sunset hymns. I would suggest that the reason is the different distribution of the names: in this other text those of the queen and the sun-god occur more than once, and in fact both names occur at the beginning and at the end of the hymn, whereas the name of the hour-goddess does not occur at all (it is written outside the boundaries of the hymn text in a separate column with the opposite orientation, aligning with the figure of the goddess). Hence in this case the distribution of names relative to the accompanying figures provides no motive to use retrograde format.

⁵⁴ These texts are easily divisible into neatly demarcated sections.

⁵⁵ in something like the manner of a suspension bridge, if the analogy does not seem too stretched.

retrograde format was also retained. In the case of J and K it was retained for the evening scene even when the original sunset text was replaced by a different one not ending with a designation of the sun-god;⁵⁶ this may have been due to the influence of tradition, or of the sunrise half of the scheme, or both.

The pragmatic reasons that I have suggested for the use of retrograde format in some versions of the royal sunrise and sunset texts are related to their unusual nature, and in the specific form outlined here can apply only to them or to texts of a similar type. Nevertheless I believe that the various layouts of these texts would suggest that pragmatic factors of one sort or another should be included in consideration whenever the reason for retrograde format of an inscription is sought.⁵⁷ Here I can examine only one other retrograde inscription, an item which also forms part of the Egyptology syllabus at Oxford, namely the well-known self-presentation of Ahmose son of Abana in New Kingdom tomb no. 5 at el-Kab. I would guess very few of those who read this work as undergraduates realise that the writing is retrograde, but such is the case.⁵⁸ As with the royal sunrise and sunset texts, the motivation for the use of retrograde format here cannot stem from the character of the text itself, as self-presentation is a very well attested genre and almost always has prograde format. Ahmose's words of self-presentation are inscribed in columns on the walls of the main tomb chamber, on the right-hand side from the standpoint of someone entering the tomb, and extend from the small doorway that gives access to a side-chamber, round the corner of the main chamber as far as the main doorway.⁵⁹ The self-presentation actually begins with a figure of the tomb owner next to the side doorway, standing facing outwards (that is, towards the main doorway). Since this figure is very large—of the same height as the text columns, occupying virtually the whole height of the wall—and is almost the only figure depicted on that side of the tomb, it attracts the viewer's immediate attention, and I would suggest that any perusal of the writing would be secondary (and was almost certainly expected to be so by the original designer). It follows that the viewer will naturally start 'hunting' for the beginning of the text in that area of the tomb, and not at the other end of the inscription, forty columns distant and moreover not even on the same wall, so that there would have been a considerable incentive to place the start of the text next to the image—this would be reinforced by the desire to include the owner's name reasonably close to the image, and following traditional style the self-presentation includes the owner's name at the beginning of the text.⁶⁰ Nevertheless, convention dictated that the individual hieroglyphs of the text should be aligned with the image, and the result is that only the use of retrograde writing would allow the text to begin anywhere near the most desirable place. In Ahmose's self-presentation, however, I have not found anything at the end of the text that suggests it would be especially desirable to situate that part near the entrance; therefore it does not provide a direct analogy with the royal sunrise and sunset texts, which unlike most inscriptions are, so to speak, anchored (or at least anchorable) at both ends.

⁵⁶ That is, BD 15i normally ends with the words *Itmw it ntrw* 'Atum, father of the gods', but these words are not included in the texts of J and K.

⁵⁷ Compare the similar conclusion, that practical motivations underlie the use of retrograde writing in New Kingdom royal tomb inscriptions, reached by Mauriac-Barberio, 'Copie de textes', 176–7.

⁵⁸ For line facsimile see Lepsius, *Denkmäler*, Abt. III, pls 12b–d; photographs: C. Vandersleyen, *Les Guerres d'Amosis: Fondateur de la XVIII^e dynastie* (MRE 1; Brussels, 1971), pls 2–3.

⁵⁹ The lists etc. associated with this text, which are situated on the other side of the main doorway, have horizontal format and need not concern us here.

⁶⁰ *N ḏd:f*, etc., probably to be interpreted as '[This image is] N, saying ...'