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SOLAR BARKS PROW TO PROW¹

By ELIZABETH THOMAS

THE extensive use quite naturally given the boat in fact and in image by all Egyptians has most recently been indicated by Dr. Abubakr.² In the nautical solar imagery of Ancient Egypt, of course the two boats used respectively by the sun-god during day and night had an important place from the time of the First Dynasty.³

When the New Kingdom frequently placed these two barks prow to prow, it only followed and perhaps elaborated an old tradition⁴ that is, it would appear, to be interpreted as it stands. Since the direction of solar motion actually reverses above and below the earth—E. to W., W. to E.—the juxtaposed barks do not depict simply sunrise or sunset, I believe, but instead represent almost literally solar motion above, below, and around the earth, a suggestion I find Schäfer made without pursuing the matter.⁵

Thus all solar motion above the earth in Egypt appears to be from E. to W., while

¹ This paper, first written and accepted by *JEA* in 1952, could not, as it turned out, be included in vol. 39, 1953. In 1953–4 the opportunity to collate and add at first hand in Egypt presented itself, an opportunity greatly enhanced by the kind co-operation of Dr. Mustafa Amer and other members of the Antiquities Department. New examples of the boats seemed to fall into place as found and to be numerous enough to justify recall of the original manuscript for revision. Of course, these examples did not include the Cheops discovery of 1954; this wooden boat, now in process of examination, appears to be funerary (*Archaeology*, 9, 206–9).

² *Archaeology*, 8, 96–101.


³ Petrie, *Royal Tombs*, II, pls. 10–11. Professor Emery tells me that a single boat N. of the tomb and oriented E.–W. was apparently a regular part of the royal mastaba complex at Saqqārah in Dyn. I (cf. *Hor-aha*, pp. 8. 18; pl. 3; *Great Tombs of the First Dynasty*, p. 75; pl. 19, A; *Illustrated London News*, no. 6048 (March 19, 1955), pp. 500–1). Professor Zaki Saad showed me that a similar procedure was frequently followed at Helwan in private tombs of the first two dynasties; up to May 1954 he had excavated about thirty boats oriented E.–W. and several oriented N.–S., the great majority N. of the related tomb (cf. *Royal Excavations at Saqqara and Helwan (1941–1945)*, *Supplément aux ASAE*, no. 3), p. 111, pls. 40, 59; *Royal Excavations . . . (1945–1947)*, (*Supplément . . .*, no. 14), pp. 41–42, pls. 59–60, plans 17–18, and maps).

⁴ Certain in M.K., diagram Ca; probable in O.K., Aa–h, Ba. Bark references in addition to others below include: *Ann. Serv.* 26, 101; *Bull. Inst. fr.* 15, 139–52; Hassan, *Excavations at Giza*, vol. VI, pt. 1; de Morgan, *Fouilles à Dahchour, mars–juin 1894*, pp. 81–83, pls. 28–31; *Urk.* I, 249, 1–3. Meaning of the words *msktt* and *m'ndt*: *Mél. Maspero*, I, 381; *Rec. trav.* 25, 152–4; to avoid discussion not pertinent to this paper, the full spellings of the two barks will be used throughout, and they will be taken to mean night and day barks, respectively, unless the reverse is stated.

⁵ Considered to be sunrise by Erman, *Ausführl. Verz. des äg. Mus.* 2nd ed., 270–1, and by Sethe, *Lauf der Sonne* (Sitzb., Berlin, 1928), 277–81; midday by Schäfer, *Weltgebäude*, 2nd ed., 112. Later, *ZÄS* 71, 35, Schäfer reached this conclusion: 'Nicht ein Einzelvorgang ist gemeint, sondern die Gesamtvorstellung daß die Sonne auf ihren beiden Schiffen in ewiger Fahrt zwischen Ost und Westen, Aufgang und Untergang, und umgekehrt, ihre Bahn zieht.' But perhaps because Schäfer, like Sethe, published the bark register of Berlin 29—the depiction in question—without the gods of N. and S., shown in diagram Cj below, he did not relate this opinion specifically to the motions of the barks above and below the earth; nor did he repeat it in his two subsequent discussions of the depiction (*ZÄS* 73, 97–102; *Deutsches Inst. . . Mitt.* 8, 147–55; cf. *Bull. Inst. fr.* 38, 65–70), where he thought that the two boats, though shown prow to prow, were actually considered by the Egyptians to be parallel, rather like those on the ceiling of Corridor F (not C), tomb of Ramesses VI.

below the earth the reverse is true, and movement is W. to E.:¹ the sun always 'sails' W. above the earth, E. below it. What simpler and clearer way to show this entire solar course, once the idea is understood, than by boats placed prow to prow?² At the same time, the representation is easily adaptable artistically—as barks placed one above the other could not be³—to the Egyptian sense of symmetry and balance. Not uncommonly goddesses stand in the prows and their outstretched hands almost meet under a disk which may serve as sun of both day and night, or which may contain the night sun as ram or as child before rebirth at dawn.⁴

If the two ever-recurring motions, E.–W. and W.–E., are indeed meant, it would seem that the primary stress lies on these, and then that the disk indicates the ever-recurring change from boat to boat, rather than the specific changes at precise points in sunrise and sunset, though the idea of the specific changes is certainly present, too. If asked to give the meaning of the representation, the Egyptian might have put it into words even less definite than these: 'Here is the sun sailing around the earth in his two boats from E. to W. and W. to E., and moving from one boat to the other at sunrise and sunset.'

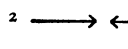


The schematic list which follows, certainly not complete, gives, I think, definite support to this theory, if not positive proof. It contains all pairs of solar barks known to me which are, or could be, prow to prow in the broad or narrow sense.⁵ An arrow represents a boat, with its direction of motion, unless a mat on the prow is certain, when  is used. The order of the divisions is roughly chronological; within them that of closest similarity is usually followed. The fullest examples are used as diagrams, while only elements which seem pertinent are included and divergences are simply described in footnotes unless they seem to warrant individual drawing.

A. ROCK-CUT BOATS



Aa. Dyn. IV. Gīzah. Cheops. S.–N. of funerary temple.⁶

¹ That is, E.–W. and W.–E. broadly speaking; for the N.–S. motions see below. The W.–E. direction above the earth of the midnight sun was called to my attention by Professor Henry N. Russell, who very kindly checked all astronomical details for me. 'Motion' is used throughout for 'apparent motion'.

²  of course corresponding to:  or .

³ See diagrams Ee, Fb.

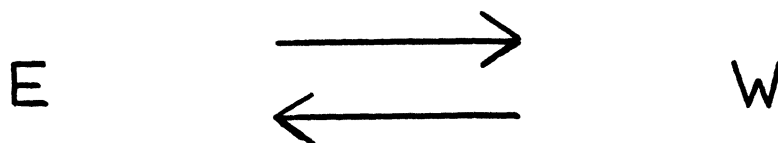
⁴ Cj–k, Eb, Ed, Ef, Eh–l. The disk placed exactly between the two boats without indication of direction of its motion can serve equally well for sunrise or sunset, or both. In this position I believe it does represent both suns and both motions when empty, and the day sun when a representation of the night sun or the rising sun is enclosed.

⁵ Three possible examples from the Ḥathōr Temple at Denderah are omitted: two use the boats as offerings and do not seem pertinent; my notes for the third, unpublished, now appear inadequate.

⁶ Hassan, *op. cit.* 40–43; diagram shows prow of N. boat, now filled, to be S. The N. boat could not be examined in 1953–4, when I was again certain that the deeply cut prow of the S. boat is N. beyond question. For criticism of a contrary view, received after this paper was completed, and further discussion of the rock-cut boats, see 'A Further Note on Rock-cut Boats', p. 117.

Ab. Dyn. IV. Abu Roāsh. Djedefrē. S.[-N.] of funerary temple.¹

Ac. Dyn. IV. Gīzah. Chephren. S.-N. of funerary temple.²



Ad. Dyn. IV. Gīzah. Cheops. Possible pair S.-N. of second Queen's Pyramid.³

Ae. Dyn. V. Saḳḳārah. Onnos. S. of causeway, 140 m. E. of funerary temple.⁴

Af. Dyn. VI. Saḳḳārah. Cf. boats or pits on top of mastaba of Kagemni.⁵



Ag-h. Dyn. IV. Gīzah. Chephren. Two pairs, N., S. of funerary temple.⁶

¹ Chassinat, *Monuments et Mémoires*, in *Fondation Piot*, xxv, 57; Grinsell, *Egyptian Pyramids*, 98-99; photograph 1954 (all photographs and hand copies mine unless otherwise noted). Examination of this boat showed the deep prow to be N., a conclusion concurred in by Mrs. Dorothy Eady. The boat's position, corresponding to that of the S. boat of Cheops and Chephren, makes it virtually certain that a counterpart to the N. was cut or planned.

² Hassan, op. cit. 56-57, 64-65; notes and diagrams kindly sent me by Mrs. Eady; S. boat, photograph, 1949. While the N. boat could be only a fault in the rock, Hassan and Eady suggest, instead, that inferior limestone—seen in other Chephren boats—caused it to be abandoned after preliminary cutting and before the two ends were distinguished. Hassan believes the prow of the S. boat to be S.; Eady thinks it almost certainly N. for reasons that appear valid: the S. end is higher and somewhat askew, like the stern of the S. Cheops boat.

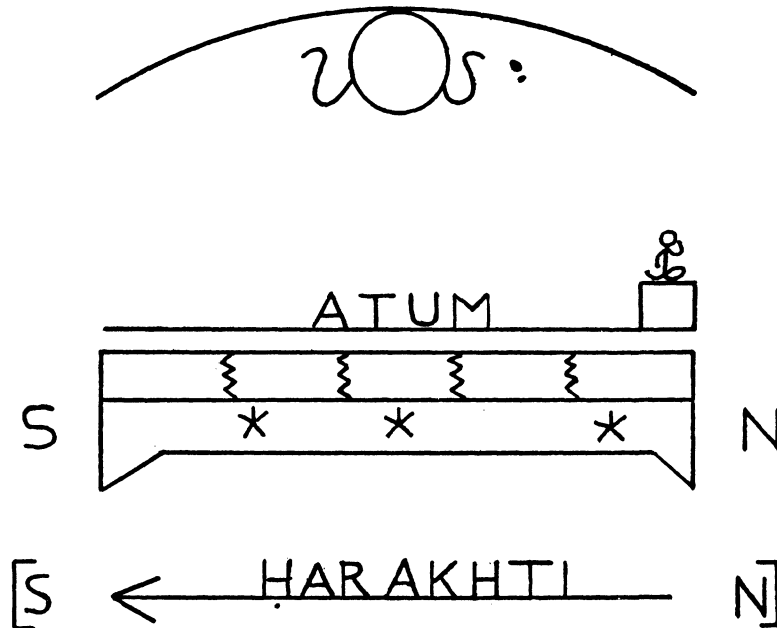
³ N. boat: *Life*, June 14, 1954, p. 22; Grinsell, op. cit. 102; Eady, op. cit., shows prow to be certainly E., as does examination of the boat itself. S. boat: *Orientalia*, 23, 71; position shown in sketch, the *New York Times*, May 30, 1954, p. 2. Excavated late in 1952 and filled almost immediately, the direction of the S. boat is said to be definitely W. The centre of the N. boat is roughly in line with the centre of the subsidiary pyramids; that of the S. boat is farther W., so that the prow extends beyond the W. face of the small pyramids. But it would seem likely that the two were meant as a pair, for single boats commonly face E.

⁴ N. boat: Hassan, op. cit., p. 82, pls. 2-3. Both: *Forschungsergebnisse in Ägypten in den Nachkriegsjahren* (Gebr. Gerstenberg, Marburg, 1951), p. 9, fig. 5; *Orientalia*, 19, p. 120, pl. 1, fig. 2, this reference due to Černý, *JEA* 41, 79, n. 6. Without giving evidence Hassan told me in 1954, with kind permission to quote, that the prow of the N. boat is E., that of the S. boat W., as would be expected. From the boats themselves, now partly filled with sand, I could conclude only that directions could quite possibly be determined here, and in Af, by surveying. Neither Ae nor Af is rock-cut strictly speaking, for Ae is lined with stone blocks much like those with which Af is built.

⁵ Firth and Gunn, *Teti Pyramid Cemeteries*, p. 21; pl. 51.

⁶ Hassan, op. cit. 56-64; Eady, op. cit. Hassan believes that the prow of the E. boat, S. of the temple, is W.; Eady, that the wider W. end indicates the prow to be E. In its present eroded condition I could be sure only that the E. end is narrow, less than 2 ft. across. However, both Hassan's and Eady's diagrams show the E. end to be higher, like all sterns, an indication that the W. direction is correct. Direction of the other three is certainly that shown in the diagrams.

B. BOATS MAKING CIRCUIT OF ROOM, TOMB, OR COFFIN



Ba. Dyn. VI. Saqqārah. Phiops II. [Sanctuary, funerary temple.]¹

Bb. Dyn. XVIII. Dēr el-Baḥri. Ḥatshepsut. Tympana of W. [and E.] walls, Chapel of Ḥatshepsut, funerary temple.² Diagram.

Bc. *ibid.* [Tympana of W. and E. walls, Chapel of Tuthmosis I.]³

Bd. *ibid.* Sh. 'Abd el-Ḳurnah. Tuthmosis III. [Tympana of W. and E. walls, sanctuary, funerary temple.]⁴

Be. Dyn. XXVI. Theban Tomb cc, *Bs-s* or *Bsł*. Tympana of S. [and N.] walls, first room.⁵

Bf. Dyn. XXV. El Kurru. Tanwetamani, KU 16. Tympana of W. and E. walls, Room B, pyramid sub-structure.⁶

Bg. Dyn. XXV. Meroë and Barkal. Tympana of W. or E. walls, pyramid chapels.⁷

¹ Jéquier, *Mon. fun. de Pépi II*, II, p. 65, pl. 105, fragments of two boats going in opposite directions found in the sanctuary.

² Naville, *Deir el Bahari*, IV, pp. 10–11, pls. 114–16; Werbrouck, *Le Temple d'Ḥatshepsout à Deir el Bahari*, pp. 100–1, 105–6, pl. 26. For simplicity, the diagrams will take Atum and Ḥarakhti to be the gods of night and day, apparently the case as a rule.

³ *JEA* 15, p. 57, pls. 11–13. The convincing evidence for reconstruction is further supported, I believe, by fragments of inscriptions to the rising sun on the E. wall similar to those in the same place in the Ḥatshepsut Chapel.

⁴ Ricke, *Der Totentempel Thutmoses' III*, pp. 11–12, pls. 2, 8, fragments indicating repetition of barks and hours here, also. Ricke notes two similar representations, but boats were not included in the first and it seems unlikely that they are in the second, a late Saqqārah tomb, Lepsius 24, *Bk-n-rmf*, now destroyed and inaccessible, for they are not mentioned specifically in Porter and Moss, *Top. Bibl.* III, 171, or included in the listed hour publications.

⁵ Hand copy. The boat and the wall fragments parallel Bb so closely that the corresponding boat on the N. wall seems a virtual certainty; the ceiling's present condition precludes all evidence for or against original inclusion of the hours, which occur, or are extant, only when noted in the following depictions of this section.

⁶ Dunham, *The Royal Cemeteries of Kush: el Kurru*, I, pl. 18.

⁷ Chapman, *The Royal Cemeteries of Kush: Decorated Chapels of the Meroitic Pyramids at Meroë and Barkal*, III, pls. 3 (C, E, H), 4 (C), 5 (B), 6 (C), 14 (C, D), 18 (F), 19 (C). In the last example the boat goes S. on the E. wall; in the others, it is N. on the W. In all cases, opposite walls are lacking; offerings comparable to those of Dēr el-Baḥri usually have prominent places on the side walls.

- Bh. Dyn. XIX. Bibān el-Mulūk. Meneptah. Cf. S. and N. walls, Sarcophagus Room.¹
 Bi. ibid. Tausert-Setnakht. Cf. S. and N. walls, Room J.¹
 Bj. ibid. Ramesses III. Cf. S. and N. walls, Sarcophagus Room.¹
 Bk. Dyn. XIX. Cf. Theban Tomb 106, boats N.-S.²
 Bl. Dyn. XX. Cf. Theban Tomb 65.³
 Bm. Dyn. XVIII-XXVIII. Cf. representations on arched coffin and sarcophagus lids: Abydos;⁴ Bologna;⁵ Cairo 41001-2, 41009, 41014, 41018, 41022, 41028, 41031, 41040;⁶ Leyden M 20;⁷ sarcophagi: Anlamanī, Nu. VI, Merawi Museum;⁸ Aspalta, MFA 23.729.⁹

C. BOATS IN DEPICTIONS OF THE FOUR POINTS OF THE COMPASS



Ca. Dyn. XIII. Saḳḳārah. Khendjer. E. face of pyramidion.¹⁰

Cb. Dyn. XIX. Abydos. Sethos I. E. side of ceiling, Sarcophagus Room, cenotaph.¹¹

¹ All three rooms in the royal tombs were obviously decorated according to the same plan, though colour differed and much destruction has occurred in the kings' sarcophagus rooms. The Tausert-Setnakht reliefs (Lefébure, *Hypogées Royaux*, II, pl. 67) are virtually complete, however, as is the boat on the S. wall of the Meneptah tomb (hand copy).

² Atum goes N. on the E. wall to the right on entering the tomb, sec. 7, Porter and Moss, op. cit. I, 134-5; on sec. 11, E. face of the architrave between the central pillars, the bark of Rē goes S. Thus the boats are not precisely opposite each other. Further references include unpublished photographs in the Metropolitan Museum of Art: T 2910-2, T 2950-1.

³ A solar boat goes W. and E. on the S. and N. (MMA photo T 1719) faces of the capitals of the central pillars; cf. text S. and N. of large horizon-sign on ceiling beyond and between these pillars (MMA photo T 3153); second room, five solar boats go W. on S. wall, five E. on N. wall (MMA photos T 3155-64).

⁴ Petrie, *Abydos*, I, fragments of two coffins: p. 48, pls. 71-72, 74.

⁵ Szedlo, *Il grande sarcofago del Museo Civico di Bologna*, pl. I, 3.

⁶ Moret, *Sarcophages de l'époque bubastite* (CCG).

⁷ Pleyte, *Mon. ég. du Musée à Leide: Cercueils de momies égyptiennes*, pl. 6.

⁸ Mr. Dunham tells me that MFA rubbings closely parallel the Aspalta sarcophagus, below.

⁹ MFA photograph of drawing from rubbing. Hours and other solar texts are also found on the lid.

¹⁰ Jéquier, *Deux pyramides du Moyen-Empire*, 21. Simplest form of the diagram: winged disk, Atum and Rē-Harakhti above boats.

¹¹ Frankfort, *Cenotaph of Seti I*, II, pls. 74-75. Tall sign on extreme right is illegible, but that for W. seems, unaccountably, to be on the left. A break across the top of the relief makes it impossible to determine whether or not anything was put above the winged disk.

Cc. Dyn. XX. Bibān el-Mulūk. Ramesses VI. Ceiling, Hall H.¹ Diagram.

Cd. *ibid.* Ramesses IX. Ceiling, Corridor B.²

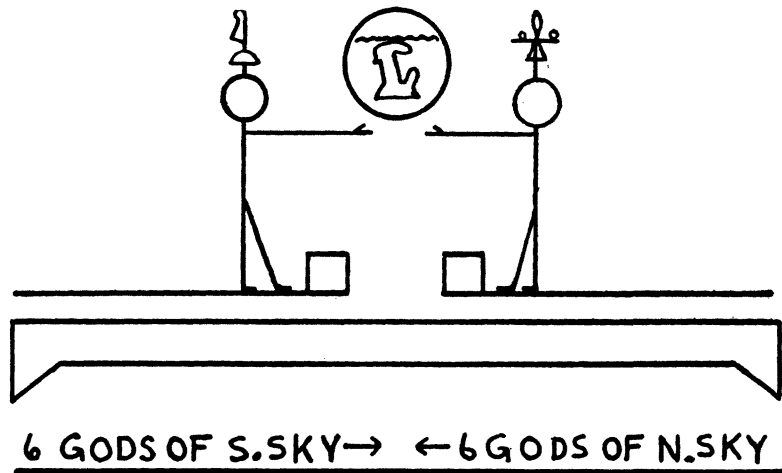
Ce. *ibid.* E. wall, Hall F.³

Cf. Dyn. XXII. Tanis. Amenemophis, tomb 4. S. wall.⁴

Cg. Dyn. XXVI. Theban Tomb 33. E. wall, Hall XIX.⁵

Ch. Persian-Ptolemaic. Cairo 29316. Sarcophagus lid, head end.⁶

Ci. Dyn. XXV, Taharqa. Cf. Theban Tomb 132. Tympanum of S. wall, Sepulchral Chamber.⁷



Cj. Dyn. XXVI. Berlin 29. Sarcophagus, foot end.⁸

Ck. Persian-Ptolemaic. Saqqārah. Cairo 29306. Sarcophagus lid, foot end.⁹

Cl. Dyn. XXII. Thebes. Cf. top of cartonnage of *Nht-f-Mwt*.¹⁰

¹ Piankoff, *The Tomb of Ramesses VI* (Bollingen Series XL), II, pls. 183-4. Tall sign for E. on extreme left is restored from Cg; in no examples are both intact.

² Photographs by courtesy of Dr. George R. Hughes, the Epigraphic Survey, Oriental Institute, Luxor; description, Lefébure, *op. cit.* II, 21. Enough of the damaged relief remains to show virtual identity with the Ramesses VI depiction, including the starred sky and the disks in the upper corners; the unusual polychrome is quite impressive.

³ Photograph by courtesy of Natacha Rambova; Lefébure, *op. cit.* pl. 21. No inscriptions above boats; six gods of N., eight of S.

⁴ Hand copy, photographs, 1954. Corner disks and star omitted.

⁵ Hand copy, photographs, 1954. Essentially as diagram; bottom right is destroyed.

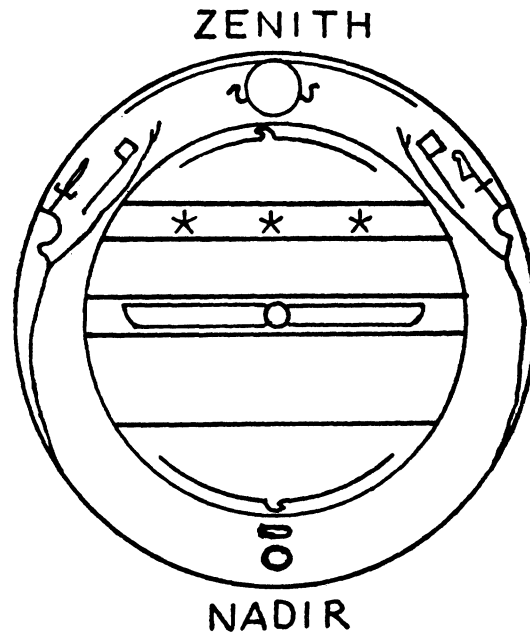
⁶ Maspero, *Sarcophages des époques persane et ptolémaïque* (CCG), II, pp. 106-8, pl. 32, 1. Stars omitted; twelve gods of N. and S. replaced by six 'who follow Rē^c in sky' and six 'who follow Rē^c in sky (and) Atum in Manu'. Space and shape perhaps influenced the reduction.

⁷ Hand copy; W. wall taking tomb entrance to be E., not S.E. Compressed to little more than symbolic confrontation of E. and W. horizons, put above a complete depiction of the revivification of Osiris-N (Porter and Moss, *op. cit.* I, 143, 'king on couch') also shown below Cb-c, Ce-f, Ch.

⁸ Photographs by courtesy of the Museum; description, Erman, *op. cit.* 270.

⁹ Maspero, *op. cit.* I, pp. 236-9; pl. 19, 1. E. and W. are reverse of diagram.

¹⁰ Quibell, *The Ramesseum*, pl. 16. Boats, separated by top part of lid, carry respectively disk, disk over crescent moon; below, signs for E. and W.

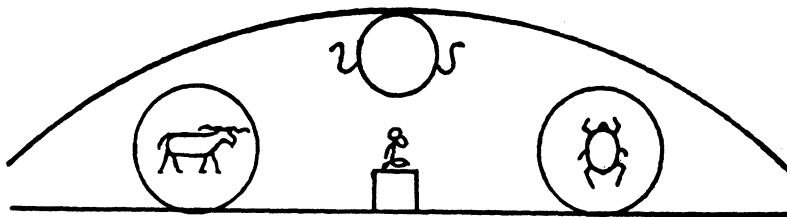


Cm. Dyn. XXX. Saqqārah. Cf. MMA 14.7.1. Top of sarcophagus lid.¹

Cn. Graeco-Roman. Philae. Cf. centre section of ceiling II', pronaos of Great Temple.²

Co. *ibid.* Kom Ombo. Cf. Temple fragment no. 983.³

D. BOATS CARRYING DISKS



Da. Dyn. XIX. Theban Tomb 4. Ceiling.⁴

Db. Dyn. XIX. Bibān el-Mulūk. Menepthah. Top of anthropoid sarcophagus lid.⁵

Dc. Dyn. XIX-XX. BD 130, Lc.⁶

Dd. Graeco-Roman. Philae. Top section of ceiling II', pronaos of Great Temple.⁷

¹ *Bull. MMA* 9, 112-20. Even without the bending Nūt figure above, stars, *tj*-sign, and disk apparently show the other two points of this unique representation to be zenith and nadir, rather than N. and S.

² Bénéдите, *Le Temple de Philae*, p. 136, pl. 50. Boats held by Isis and Nephthys between two bending figures of Nūt; twenty-four circles coloured to represent day and night are on the back of the second figure; on either hand Gēb, below, holds disks which texts indicate to be sun and moon.

³ De Morgan, *et al.*, *Catalogue des Monuments*, II, 331; fragment obviously from a ceiling similar to that of Philae above.

⁴ Hand copy. Prow-to-prow boats hold a disk, go N. and S., are adored respectively by man and woman. Winged disk, child, and single prow occur only in De.

⁵ Hand copy; E. boat is visible in *Bull. MMA* 14 (1956), 115. Taking the head as N., as it is in the tomb, boats carrying a hawk-headed man with *ḥ*-sign on knee go E. and W.

⁶ Naville, *Todt.* I, pl. 144. Disks are empty; man facing right stands between boats which text indicates to be *m'ndt* and *mskt*.

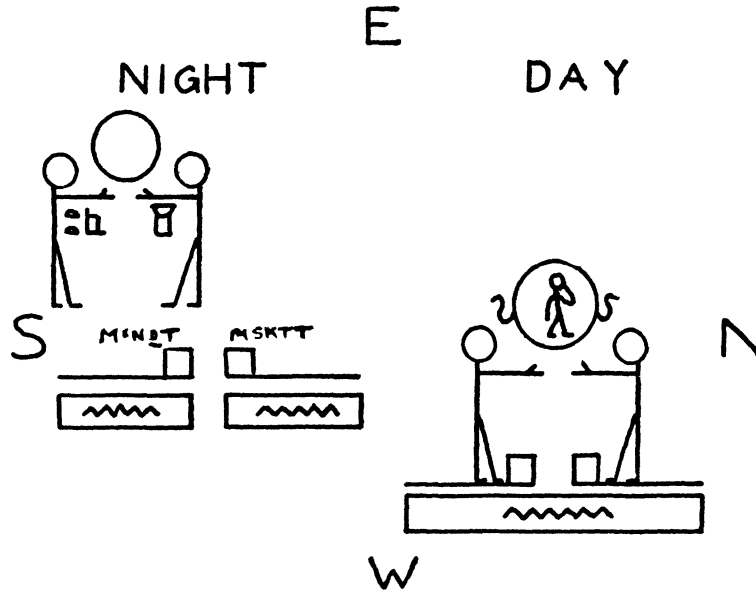
⁷ Bénéдите, *loc. cit.* Boats, each under a winged disk and stars, carry an empty disk; child on each prow.

De. *ibid.* Ekhmīm stelae: B.M. 1001;¹ Cairo 22017, 22032, 22052, 22069, 22074, 22095, 22114, 22122, 22136, 22141, 22168;² Leyden 8;³ Meux 51-2;⁴ Vatican 121;⁵ Diagram, typical only.

Df. Roman. Theban Tomb 1447, shroud.⁶

Dg. Dyn. XX-XXI. Cf. Berlin 8, coffin.⁷

E. BOATS AT LAST HOUR OF NIGHT AND FIRST OF DAY



Ea-b. Dyn. XX. Bibān el-Mulūk. Ramesses VI. Ceiling, Corridor C.⁸ Diagrams.

Ec-d. *Ibid.* Ceiling, Hall I.⁹

Ee-f. Dyn. XXII. Tanis. Osorkon II, Tomb 1. W. wall, Room 1.¹⁰

Eg. Dyn. XXV. Taharqa. Theban Tomb 132. W. wall, Sepulchral Chamber.¹¹

¹ *Brit. Mus.: A Guide to the Egyptian Galleries (Sculpture)*, 1909, p. 268; pl. 37.

² Karnal, *Stèles ptolémaïques et romaines (CCG)*, 2 vols.

³ Boeser, *Denkm. d. ägypt., griech., röm. und kopt. Zeit*, p. 4; pl. 14, 8.

⁴ Budge, *Egyptian Antiquities in the Possession of Lady Meux*, 114-34.

⁵ Botti, *Le Sculture del Museo Gregoriano Egizio*, pp. 73-74; pl. 57.

⁶ Bruyere, *Fouilles (1948-51)*, xxvi, pp. 107-8; pl. 24, 1. Taking head as N., boats on either side of woman's figure respectively carry E. and W. in disks Atum, not Osiris, and Khopri.

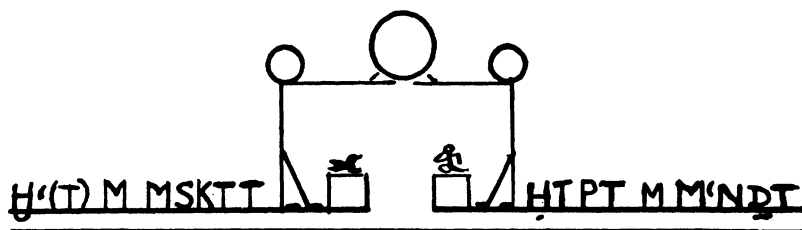
⁷ Schäfer, *op. cit.* 115; description, Erman, *op. cit.* 173-4. Boats carrying respectively Atum and H̄arakhti, probably, face each other on the back of a bending Nūt figure; instead of being in disks, the gods hold disks on their heads.

⁸ Piankoff, *op. cit.*, pls. 149-50.

⁹ *Ibid.*, pls. 187, 196; *Le Livre du jour et de la nuit*, pp. 1-3, 80; pls. 1, 8. Boats are E.-W. Ec: reverse goddesses, who stand to right of, not over, boats; disk is over arms of Nephthys. Ed: goddesses are Isis and Nephthys, wear feathers on heads; child is seated.

¹⁰ Montet, *Les Constructions et le tombeau d'Osorkon II à Tanis*, 1, pls. 21, 25. An apparent attempt to reproduce, and necessarily compress, the long corridor of Ramesses VI, of which Ea-b are part, on a short wall; Nūt shown with feet and hands toward the actual ground puts the boats on end and eliminates compass directions of motion. Ee: goddesses are left of, not above, boats; *msktt*, going down, is over *m'ndt* with prow up. Ef: remaining goddess wears feather; disk is empty.

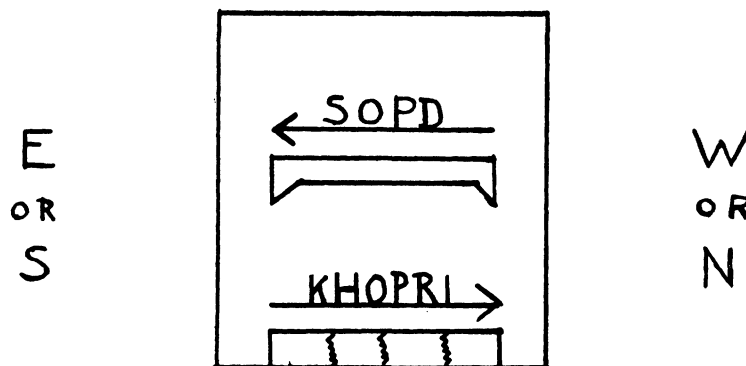
¹¹ Hand copy; Porter and Moss, *op. cit.* 1, 143, sec. 3, hours only. Boats corresponding to Ea face each other clearly; above, traces show goddesses, names destroyed, and a red disk. Day hours on E. wall, opposite, do not



- Eh. Dyn. XXVI. Louvre D 9. Sarcophagus, foot end.¹ Diagram.
 Ei. *ibid.* Louvre D 8. Sarcophagus lid, foot end.²
 Ej. *ibid.* Louvre. Sarcophagus lid, end.³
 Ek. Dyn. XXX. Saqqārah. MMA 14.7.1. Sarcophagus lid, foot end.⁴
 El. Ptolemaic. Ekhmīm. Cf. Ny Carlsberg 298. Top of cartonnage.⁵

F. MISCELLANEOUS

- Fa. Dyn. XX. Medīnet Habu. Ramesses III. E. wall of Rē^c Chapel, funerary temple.⁶



- Fb. Dyn. XX. Theban Tomb 359. Section VII, W. wall, Room 2.⁷

include prow-to-prow boats in the often highly compressed and strangely juxtaposed reliefs of this unusual tomb.

¹ Vigneau, *Encycl. fotogr. de l'art*; no. 5; *Les Antiquités égyptiennes du Musée du Louvre*, 152; Sharpe, *Eg. Inscr. Brit. Mus.*, pt. 2, pl. 21, reversed; *Ann. Serv.* 40, 667.

² Photograph by courtesy of the Museum; partial publication, Vigneau, *op. cit.* 145. Names only of *m'ndt* and *msktt*; child and jackal on prows.

³ Lanzone, *Diz. mit. eg.* I, pl. 111. Also *Dd-hr* and probably the same sarcophagus as Ei, though unaccountable omissions and divergences in the inscription seem to warrant tentative separate listing.

⁴ *Bull. MMA* 9, 119 Boats are not named; goddesses wear E. and W. signs on heads; standing child in disk, uraei outside.

⁵ Koefoed-Petersen, *Cat. des sarcophages et cercueils égyptiens*, pp. 38–39, pls. 87–88. *Mrty* extend arms to child in winged disk.

⁶ Line-drawing by courtesy of Dr. Hughes, Luxor. The curve of a boat's hull remains on the third register of the E. wall of the Rē^c chapel above M.H. A 475 (Porter and Moss, *op. cit.*, II, 187, court XXX, sec. 78). A vertical column of text to its right is followed by a fragment of two kneeling figures in the centre of the wall, then by destruction of the rest of the register. In the register below the figures, Nephthys and Isis support a disk, while signs for E. and W. stand under their arms and practically identical texts behind them greet Rē^c, rising. Thus prow-to-prow boats, perhaps C type, appear virtually certain in the third register. Three other boats are extant in the chapel. One, prow E. on third register of N. wall (A 477), concerns the overthrow of Apophis; it perhaps had a counterpart on the corresponding section of the S. wall, destroyed. The others (A 481, A 488) go S., not N., at sunset, as do the two night barks on the temple pylons (A 53, A 710); as yet I know neither explanation nor parallel.

⁷ Bruyère, *Fouilles (1930)*, VIII, pt. 3, pp. 61–64, pls. 18–19; in colour, Vandier, *Egypt: Paintings from Tombs and Temples*, pl. 30. More nearly W. wall by compass; N. if room-entrance is considered to be E.

Fc. Ramesside. Bibān el-Harīm. Tyti. W. wall, Hall.¹

Fd. Dyns. XXVII–XXX. Prow to prow boats on hypocephali.²

The boat pairs obviously show three distinct and easily identifiable traditions: B, C, E; or four if E is taken as night and day, rather than night–day. Of course, there are divergences among the examples as grouped and overlaps between examples in different groups. But virtual duplication is found in reliefs widely separated by time, notably in Bb–e, as restored, in Cb–i, and in large measure in Group E. It is possible that there were only three, or four, traditions: the A boats perhaps belong to one or more of them; Fa quite possibly follows C; the other examples appear derivative and abbreviated, rather than distinctive.

The remaining portions of the arched ceiling adjoining Bb, Dēr el-Baḥri, are as follows: S. side, hours 11–9 of day, a fragment of hour 8; N. side, hours 2–4 of night, a fragment of hour 5. Hours 12 of day and 1 of night are S. and N. of the night bark above the stela on the tympanum of the W. wall. There seems no reason to doubt the obvious meaning of this representation, that the sun circles from S. to N. to set and begin the night journey, or the fact that the three-dimensional depiction of the twenty-four-hour day was originally complete. The missing part of the arch and the E. tympanum must have held the other hours and the other bark.³ Both ships are intact in Bf, where the ceiling is starred.

However, as Jéquier thought, at least the B prototype probably occurs as early as Phiops II, for the wall reliefs of his sanctuary, where the boat fragments were found, are composed of offerings similar to those of Bb–g, though apparently no hour fragments from the ceiling remain. Both offerings and hours occur in the Tuthmosis III fragments, but the Anubis section inserted above the stela adds to the height of the stone and perhaps precludes virtual certainty that a boat was put above it. Be lacks the stela and now, at least, the hours; otherwise it is quite close to Bb, except that the tomb plan called for boats on the shorter S. and N. walls, not the W. and E.

Bh–l are parallel to Ba–g in having the barks circle the room, but offerings and hours were not included. Under an astronomical ceiling in the three royal tombs, the boat on the S. wall carries Atum W. on the desert in the second; register on the N., the boat of Rē^c goes E. to enter and come forth from Aker in the bottom register. In Bk, Tomb 106, the bark going N. has as two of its passengers the *kws* of E. and W. as Atum sails to 'the beautiful West' to set in Manu. On the E. side of the architrave in front of the tomb entrance a boat takes the disk S., while Rē^c is adored on rising by apes. In Bl, Tomb 65, solar barks go respectively W. and E. on the S. and on the N. face of the central columns; Rē^c is adored on rising on the E. face of the N. pillar—the corresponding section on the S. is destroyed—and on the W. face of its architrave. On the ceiling beyond and between these two columns, the deceased kneels S. and N. of a large

¹ Bénédite, *Tombeau de la reine Thiti*, pl. 6; correct orientation, Porter and Moss, *op. cit.* I, 42. Prow to prow on either side of door; not related to Fb.

² Petrie, *Abydos*, I, pp. 49–51, pls. 76–77, 79, three examples and further references. Numerous occurrences require much study and can only be thus noted here.

³ As Jéquier believed, *Mon. fun. de Pépi II*, II, 65.

horizon-sign to hail Rē^c respectively when he rises in the E. horizon and when he sets. In the room beyond, five solar barks go W. on the S. wall, five go E. on the N. wall. The tomb total is thus six boats in each direction.

In Bm the coffins also seem to show the complete circuit of the sun, though hour texts are found only on the sarcophagi. However, in all examples Ḥarakhti regularly has twelve towers for his boat on one side of the arch, while Atum has twelve on the other. Seen from above, the boats go in opposite directions; from the side they go around the lid as they do around the temple and tomb rooms.

Perhaps with a simple form like Ca as prototype, Cb–h and Cj–k came to represent in two dimensions the four points of the compass, readily made three-dimensional by turning the gods, in imagination, at right angles with the E.–W. line.¹ *Ḥct m mꜥndt m iḥt iḥtt n pt* on the left and *ḥtpꜥ m msktt m Mꜥnu* on the right in Cb–d, Cf–h² seem to show that the twenty-four-hour day is definitely meant, a conclusion presumably confirmed by the disks and stars in Cc–d and Cg, by disks only in Ch. Evidently the sun rises, crosses the sky, sets, is replaced by the starred sky. No texts are included on Cj.³ But in the vertical inscription over and behind the boats of Ck, the deceased kneels on the E. and W. sides of the relief to adore Rē^c ‘when he rises (*wbn·f*) in the eastern horizon of the sky’, and ‘when he sets (*ḥtp·f*) in the western horizon’.

In Cl–m and in Ek the E.–W. directions are specified without the N.–S. In Cm the prow-to-prow barks are symmetrically balanced upward on the arms of the goddesses, but the W. goddess must actually have sent her boat E. under the earth; compare Cn–o, where E.–W. are presumably represented by Isis–Nephthys.

In the Ramesses VI tomb the hours are depicted twice: on the ceiling of Corridors C–E, where both day and night are enclosed by a single Nūt figure placed E.–W.; on the ceiling of Hall I, sarcophagus room, where back-to-back Nūts, N.–S., hold the night hours on the W., the day on the E. Thus the Corridor C boats, Ea–b, are N.–S.; the Hall I, Ec–d, are E.–W.

In Ea, to consider first the night depictions, Isis–Nephthys are S.–N., left–right. In Ec Nephthys is on the E., left, corresponding to *mꜥndt*, Isis on the right, perhaps

¹ Cf. Bb–m and the three-dimensional representation of the four compass points on a sarcophagus lid, Cairo 5574 (Mariette, *Mon. Div.*, p. 13, p. 46; Maspero, *Guide du visiteur*, 378–9), exhibit no. 704. The hours of day and night are shown as usual in S. and N. in Bb–d, Ea–b, Cairo 5574, while the day and night journeys are made in S. and N. in Berlin 7358, below; but they are in N. and S. in Ea–b, in W. and E. in Ec–d, in E. and W. in Eg. Of course, the gods of S. and N. represent the hours of day and night: 12 each in Bm as towers, in Cb–d, Cf–g; 24 stars on the sky-sign of Cairo 22114, De; 24 circles in two colours on the back of Nūt, Cn[–o]; 6 gods each in Ch, Cj–k, 12 circles in Cairo 22136, De; 8 and 6 gods in Ce, perhaps due to wall space. That the actual points of the compass were a factor in tomb decoration is seen in designations, including NW., SE., and *iḥtt-mḥtt*, on the walls of the unfinished sarcophagus room of Ḥaremhab (Davis, *The Tombs of Haremhab and Touatânkhamanou*, p. 62).

² Reading from the photograph where the line-drawing is unintelligible in Cb. In Ch *msktt* is used on both sides, apparently a general word for ‘divine ship’ here, as Sethe, *op. cit.* 278, n. 5.

³ The lid decoration of this Berlin sarcophagus should be noted, however: a big Nūt similar to that in the Book of Caverns (Piankoff, *The Tomb of Ramesses VI*, II, pl. 27). The different forms of the sun depicted under her arms would leave no doubt of the meaning of the representation, the course of the sun by both day and night, even without the Berlin text: *Dd mdw in Rꜥ ḥnꜥ Itm hy Wsir N pr[·k] ḥnꜥ Rꜥ m dwꜥy ḥtp·k ḥnꜥ Itm m mmšrw* (sic) *rr nb dt*; cf. Erman, *op. cit.* 270.

by error.¹ In Ee, similar in plan to Ea, the corresponding compass points are eliminated by the wall position of the relief, but Isis and *mꜛndt* are in their customary places on the left when faced as the names are read. In Eg the goddesses' names are no longer legible. In Eh the two, unnamed, are on boats with inscriptions above comparable to those of Group C: *hr(t) m msktt*, *htpt m mꜛndt*.² In Ei–j the goddesses, again without names, stand on *mꜛndt* and *msktt*; no hours appear on these sarcophagi, but the text apparently used to join hour 12 of night with hour 1 of day in Ea, Ec, Ee, Eh is seen above the boats.

In the first four night depictions the goddesses stand near, not on, the boats as night ends and Nephthys passes the disk to Isis.³ But in Ee the prow-to-prow boats, clearly named, are placed one above the other, not in line. The prow directions remain the same; *msktt* has simply been shifted to a position above *mꜛndt* as if, as seems likely, the other figures left available only this space.⁴ Since the night boat above is meaningless, purposeful emendation of Ee would probably have put *mꜛndt* above and *msktt* below to show motion around the earth, or would have faced both prows the same way to indicate parallel boats at sunrise for change of disk. In Eh–j, sarcophagi, it is probable that the goddesses stand on the boats, rather than above, for reasons of space; certainly the Eh inscriptions point to the whole course of day and night, not to sunrise only.

In Eb, Ed, Ef, the first hour of day, goddesses and disk are in their usual positions on and between the boats, while sunrise, shown clearly in the birth taking place over the long boat above, is apparently emphasized by the child—omitted in Ef—within and the uraei outside the disk. Though Ek is without inscription, it apparently refers to the same period, for goddesses of E. and W. in the prows hold their hands out to a similar disk. Probably further stylization of the same idea is found in El, also lacking text, where the *mrty* reach up to a seated child in the winged disk over the boats. This depiction also appears to be related to Cb–h, in the cartouche between the boats and in the 'revivification' below.

Except for the stelae, the Group D barks do little more than face each other; even the two suns are distinguished only in De–g. But four Cairo stelae should be especially noted. Reference has already been made to 22114, most carefully worked of the series,

¹ Isis is, of course, usually associated with left, E., *mꜛndt*, Nephthys with right, W., *msktt*; see, for example, *Pyr.* 150a, 210a–c; cf. BD 130 (*Lc*), Naville, loc. cit.

² The roles of the two ships are apparently reversed here; see Sethe, op. cit. 278. When *hr* and *htp* are thus opposed, the meanings of 'rise' and 'set' appear certain; in an adjoining text *htp* apparently should be translated 'to rest', 'resting in Nūn'.

³ Actually shown, whether or not for reasons of space, in Ec and surely meant in the other examples as well. Cf. the parallel boats on the ceiling of Corridor F (*ZÄS* 73, pl. 10a; *Deutsches Inst. . . . Mitt.* 8, 147–8; *Bull. Inst. fr.* 38, pp. 65–70; pls. 5–6), where the change is presumably made, but is not shown. A disk is forward in each boat, while the space over the extended hands of the goddesses is empty; again the primary emphasis is apparently put on the ever-recurring aspect.

⁴ In Fb, the other example of boats one above the other going in opposite directions, space had no part. But this apparently has little, if any, relation to the other pairs, for it represents two aspects of the day sun, rather than the sun by day and night. It seems to come from the Book of the Dead, as do the surrounding texts and reliefs, and is perhaps a combination of depictions of Khopri and Sopd similar to those of *Pb* and *Pe* in Naville, *Todt.* 1, 113, BD 100. Likewise unrelated, apparently, are boats one above the other with prows in the same direction: Queens' Tombs 36 (Schiaparelli, *Relazione*, 1, fig. 87) and 40, Theban Tombs 159 and 373, all concerned with offerings; tomb of Ramesses VI (Piankoff, op. cit. II, pl. 121b), concerned with funerary ritual.

where a long sky-sign, stretching under the two boats and extending from tip to tip of the disk wings, contains twenty-four stars for the hours; and to 22136, where a band the same length is divided by vertical lines into twelve sections, each holding a small circle. In parallel inscriptions on 22114 and 22052 the deceased adores Rē^c when he rises and makes him content in the darkness; his *b* apparently goes to the sky with Rē^c as they presumably travel in *m^cndt* and then moor in *msktt*. In 22141 Rē^c, rising from Nūn and setting in the western horizon of the sky, is told: 'You come as Rē^c, you set as Atum', an idea repeated in numerous New Kingdom stelae under a single bark moving from left to right.¹

The earliest prow-to-prow boats known, the rock-cut, are without inscription and are not definite in themselves alone, as far as excavation and knowledge now go.² They lack, too, the positive form and furniture shown in solar bark reliefs and models;³ but in view of examples of single boats of the same period that are certainly solar,⁴ of the whole body of material in the diagrams, and of the frequent occurrence of the two boats in the Pyramid Texts and other Old Kingdom inscriptions, the solar explanation seems most likely by far.⁵

It will be seen that almost half the diagram barks go N. or S., rather than E. or W. In addition single barks are oriented N.–S. on four pyramidia: on three Ḥarakhti sails S., on one Rē^c goes N.⁶ And at least four inscriptions have to do with N.–S. motion: three, northward in *msktt*, southward in *m^cndt*; one, southward in *msktt*, northward in *m^cndt*.⁷

While the sun's principal apparent motion is E.–W., of course it also has a N.–S.

¹ Cf. Steindorff, *Anibe*, II, pl. 104, where a boat with identical ends holds a disk and the deceased addresses Ḥarakhti and Atum on either side of the wall below.

² The existence of further boats, or pits, is practically certain in pyramid complexes not fully explored, or not examined at all.

³ *Ann. Serv.* I, 26; 31–32; 37–38; Boreux, *Études de nautique égyptien*, 67–118; *Bull. Inst. fr.* 9, pp. 37–82; pl. 2; *Bull. MMA* 10 (sup., Feb. 1915), 10–12; Reisner, *Models of Ships and Boats (CCG)*, pp. iii; xxv–vii; 43–44; 101–11; pls. 22, 24; Hassan, op. cit. 148–56.


⁴ For example, *Urk.* I, 248, 15–16; von Bissing, *Re-Heiligtum des Ne-Woser-Re*, I, pp. 52–54; pl. 5, where the plan should be compared with boat models and furniture listed above and where the direction of the reconstructed boat is mistakenly W., not E. (Jéquier, *Considérations sur les religions égyptiennes*, 31, n. 2; *Sphinx*, 10, 184–225; Hassan, op. cit. 79).

⁵ For contrary views see Junker, *Giza*, IV, 74, and Černý as noted with further discussion below, p. 117. 'Rock-cut' is used purposely, for the detailed interior of the Gīzah boats, pointed out by Ali Marzouk years ago, convinced me that these, possibly supplemented by wood, must have served as boats, rather than boat graves; while the idea of stone boats, like the Djoser stone doors at Saḳḳārah, seems to accord well with that of the rest of the stone pyramid complex and that of Newoserrē^c in his brick-built ship. Further, boats could not have been lowered into the under-cut Djedefrē^c and Chephren examples, and construction of complete ships within, above the rock-cut thwarts, appears unlikely. Compare recent statements by Abubakr and Stock, 'Les Grandes Découvertes archéologiques de 1954', *La Revue du Caire*, Numéro spécial (Cairo, 1955), 35, 97. Onnos and Kagemni are less convincing at present, certainly, while in other cases details were definitely not included and boats have been found: Saḳḳārah North, Helwan, S. of Cheops pyramid.

⁶ Dyn. XX, Dēr el-Medīnah: Louvre D 19; Theban Tombs 217 and 1164; see Bruyère, *Fouilles*, II, pt. 2, p. 34; pp. 32–35; pls. 7–8; VI, pt. 2, pp. 95–96. Dyns. XIX–XX, *ibid.*: Theban Tomb 327, Bruyère, op. cit. XIV, pt. 1, p. 27, pls. 8–9.

⁷ M.K. bowl, *JEA* 20, 158–62; Dyn. XVIII, Theban Tomb 99, Sethe, op. cit. 281; Berlin 7358: Roeder, *Aeg. Inschr. Berlin*, II, 310, and Sethe, op. cit. 282, '[S]ie fährt nordwärts in der Nacht in der *mskt*], sie fährt südwärts am Tage in der *m^cndt*.' De Buck, *Coffin Texts*, I, 184g.

motion. The E.-W. and W.-E. motions reverse at sunrise and sunset, the N.-S. and S.-N. at noon and midnight. Granted boats and gods of day and of night, E. and W. motions from horizon to horizon present no problem, whether above or below the earth. But there are no corresponding N.-S. boats and gods, nor are these turning-points on the celestial meridian as easily discerned as those of sunrise and sunset. Although N.-S. barks readily show that the sun has a N.-S. motion, they cannot depict it with an exactness comparable to that of E.-W. motion. In Ca, for example, Atum moves N.-S. to sunrise and Ḥarakhti has to go in the opposite direction, N., though he actually continues Atum's southward motion until noon.

Since, however, the sun's course by day lies almost entirely in the southern half of the sky in the northern hemisphere,¹ it should be noted that Ḥarakhti and *mꜥndt* sail S. in six of the eight examples above, perhaps meaning 'in the S. half of the sky' in this case. Of course, the hours of day and the hours of night are customarily put in S. and N., respectively, while they are represented by gods of S. and N. in Cb-h, Cj-k—by implication in Ch. Finally, all four directions are apparently indicated in the Medīnet Habu sun litany: *ind hr-k m dd n-k dštyw ššm·sn wšwy·k hr*  ·sn.² There would seem to be no doubt that the Egyptian was aware of the easily observed facts of the sun's motion in all four directions and that he depicted it in most cases as consistently as the media allowed.

Except for Philae and Kom Ombo the location of the boats is funerary in every case: rock-cut boats in the vicinity of funerary temples or mastaba, Aa-h; reliefs on pyramidion, Ca; in funerary temples, Ba-d, Fa; in tombs, cenotaph, or pyramids, Be-l, Cb-g, Ci, Da, Ea-g, Fb-c; on coffins or the like, Bm, Ch, Cj-m, Db, Df-g, Eh-l; on funerary papyri, Dc; on funerary stelae, De; on hypocephali, Fd. The change of medium is shown to be largely parallel to the change in time, but there is apparently no evidence to indicate that the meaning also changed.³

To summarize, solar barks, one above the other, move in opposite directions in Ee, Fb. They have circular motion around wall, tomb, coffin in Ba-m.⁴ Both rising in the eastern horizon and setting in Manu take place in Cb-d, Cf-h; in the eastern and

¹ It is always in the southern half by day for six months of the year and for most of the day during the other six, when it rises N. of E. and sets N. of W. Even in Upper Egypt the sun is always S. of the zenith at noon. At night the reverse is true; its course lies for the most part in the northern half of the 'under sky', while it is always N. of the nadir at midnight.

² A 491, l. 43, photograph by courtesy of Dr. Hughes, Luxor; note that 'four faces' is written with four *hr*-signs on the opposite wall, A 475, l. 2, N. end of wall. Černý, *op. cit.* 79, n. 1, has recalled for me the 'four roads' of *Pyr.* 1355a; he does not specify in n. 2 the 'four gates' (*šb*) of *Pyr.* 1252, or the 'four doors' (*ꜥ*) to be presumed in the parallel texts of *Pyr.* 1593 and 1603.

³ That it did not is apparently proved in Group C, for example: Ca, prototype, Dyn. XIII, pyramidion; Cb-g, almost identical, Dyns. XIX-XXVI, cenotaph or tombs; Ch, closely parallel to Cb-g, Persian-Ptolemaic, sarcophagus.

⁴ In Bb if one stands between the two boats—granted the second on the E. wall—then turns to follow their supposed motion, both go in the same direction, N., E., S., W., N.; if only the head is turned from wall to wall, however, the boats are in a sense prow to prow—stern to stern is nowhere seen—as they would be if transferred as they are to a single wall. The same thing applies to the arched coffin lids if one walks around them or looks down from above; and to the motion of the sun: in the same direction around the earth, but E.-W. and W.-E. if one looks up and down, in imagination, at it.

western horizons in Ck; in *mskt* and *mndt* in Eh; in Nūn and Manu in Cairo 22141, De. In addition, Cc–d, Cg–h show a disk, presumably rising and setting, at either horizon, so named; while the first three add stars between the disks—Cg in the sky-sign above the winged disk—apparently to show the night sky as well. The principal texts concern sunrise alone in Ea–f, Eh–j. But sunrise is not a static point; it is a motion, a part of the full motion of the sun, even though it marks a supremely important event for man, the return of the sun and its light. When the static aspect, as it were, is emphasized, the goddesses disembark and stand in another register to exchange the disk: Ea, Ec, Ee, Eg. In Ec they tower above the ships, the very proportions emphasizing, as customary in Egypt, the actual transfer of the sun as night becomes day, while the two barks, now empty, still confront each other and their motion, we may suppose, never ceases: *hct m mndt*, *htpt m mskt*.¹

Positive proof is not easily found in matters of Egyptian religion and thought processes. But from the material presented above only one conclusion seems possible, that over a very long period of time the Egyptian, however he may have ‘formulated’ it to himself, sought to represent by barks depicted prow to prow the complete and eternal course of the sun, E. to W., W. to E., N. to S., S. to N., above and below the earth, rising, setting, rising. Certainly this would accord with one of the primary Egyptian conceptions of life after death, the period with which these representations undoubtedly have to do, that of rebirth into eternal existence as companion of the sun god on his eternal journey through the sky, or the waters of the sky, above and below the earth, rising with Rē^c in the morning, setting with Atum in the evening every day for ever.² It accords, too, with the Egyptian emphasis on what is now called ‘eternal recurrence’, if an abstract term may be permitted an effort to lump the great variety of concrete ways used in Egypt to express the endless process of death and birth, sunset and sunrise.³

Evidence against this conclusion would seem to be negative, the fact that the representations could not be studied here in the full individual context each often deserves. But perhaps this broad, if often summary, presentation will provoke deeper study in both individual and broad contexts, for the Egyptian conception of solar barks and solar motion is apparently a not inconsiderable part of the cosmology that is to a large extent the framework of Egyptian religion.

¹ Cf. the last representation, sunrise, in the three N.K. underworld ‘books’: Caverns, Am-Duat, Gates. Jéquier’s opinion of the third appears to be true of the others as well: ‘. . . me paraît représenter non seulement la naissance du soleil, mais bien son lever et son coucher’ (*Le Livre de ce qu’il à dans l’Hadès*, 8). Here, too, the full motion is depicted at sunrise.

² Cf. p. 75, n. 3.

³ Other concrete examples include: frequent hymns to the setting and rising sun on opposite walls just inside or outside N.K. tomb entrances at Thebes; disk containing ram-headed man and scarab, commonly put over the entrance or just inside Bibān el-Mulūk tombs; disk at the centre of four pairs of arms in tombs and on papyri; inscriptions comparable to that around Tūtankhamūn’s sarcophagus lid: . . . *ch pr(t) m b: cnh r . . . Rē wbn:f htp:f m pt t: r nb* (hand copy). There have appeared to me indications that the Egyptian recognized, actually, for this rising and setting only one solar bark, *wi*, called *mndt* by day and *mskt* by night, in much the same way he recognized one sun god, Rē^c, often called Khopri or Ḥarakhti by day, Atum by night.