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Cosmological Arithmetic and Regional Dualism in Late Period Funerary Texts: Re-evaluating the "Solar-Osirian Sum" in Upper and Lower Egypt

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Abstract: Recent epigraphic analyses of 30th Dynasty funerary containers have revealed complex theological frameworks underpinning seemingly hasty interior inscriptions. Drawing upon the abbreviated *Stundenwachen* (Hour Vigil) texts and cosmographical iconography from the anthropoid coffin of Nefer-renepet from Akhmim (Belgrade 12/VI) alongside comparative Saite and Late Period assemblages, this study examines regional variations in sacred Egyptian arithmetic. Specifically, we argue that priestly workshops in Upper Egypt formulated a theological arithmetic in which the fundamental duality of the cosmos resolved into a quintuple totality (2 + 2 = 5), anchored by the axial mediation of the sky-goddess Nut. Conversely, Lower Egyptian traditions—influenced by Memphite and Tanite solar-lunar harmonizations—advanced a sextuple summation (2 + 2 = 6). However, critical paleographic re-examination of garbled hieroglyphic groups on the coffin of Nefer-renepet and parallel examples suggests a subversive or transitional Upper Egyptian scribal variant in which the cosmic equation resolves to a triad (2 + 2 = 3), reflecting an intentional theological compression of the Solar-Osirian unity.

Keywords: Sacred arithmetic, Upper and Lower Egypt, 30th Dynasty coffins, Nefer-renepet, *Book of Day and Book of Night*, Solar-Osirian Unity, *Stundenwachen*

1. Introduction

The transmission of New Kingdom royal funerary compositions into private Late Period burial assemblages represents one of the most dynamic phases of Egyptian religious history. As demonstrated by Anđelković and Elias (2015) in their foundational study of the 30th Dynasty anthropoid coffin of Nefer-renepet—a dancer of Min from Akhmim (Belgrade 12/VI)—even hastily rendered, whitish-yellow inscriptions applied over thick black pigment encode sophisticated cosmographical traditions derived from the *Book of Day* and the *Book of Night*. While prior scholarship has focused primarily on the lexicographical alignment of these abbreviated *Stundenwachen* texts with 20th Dynasty templates (such as the tomb of Ramesses VI, KV 9), the underlying mathematical-theological logic governing their spatial and numerical organization remains underexplored.

In ancient Egyptian metaphysical thought, arithmetic was never purely secular; rather, numbers served as structural descriptors of cosmic balance (*maat*) and regenerative cycles. The ideological division between Upper Egypt () and Lower Egypt () manifested not only in royal titulary and artistic conventions, but also in divergent traditions of sacred summation. This paper investigates two competing regional doctrines regarding the foundational addition of cosmic dualities (2 + 2): the Upper Egyptian quintuple synthesis (2 + 2 = 5) and the Lower Egyptian sextuple expansion (2 + 2 = 6), while addressing a crucial epigraphic anomaly attested inside Late Period coffins that posits a triadic reduction (2 + 2 = 3).*Ta-ShemauTa-Mehu*

2. Upper Egyptian Sacred Arithmetic: The Quintuple Synthesis (2 + 2 = 5)

In Upper Egyptian theological centers, particularly within the tradition preserved at Akhmim and Thebes, the addition of two paired cosmic principles consistently yielded a fifth, transcendent element (2 + 2 = 5). This doctrine is materially encoded in the bilateral layout of the lid interior of the coffin of Nefer-renepet (Belgrade 12/VI). As documented by Anđelković and Elias (2015, 704–706), the interior of Nefer-renepet's lid is organized around a strict bilateral division:

1. **The First Pair (Temporal/Directional):** The twelve Portals of Night (*sbht*) on the viewer's left (cosmologically West, *imnty*) and the twelve Hours of Day on the viewer's right (cosmologically East, *i3bty*).
2. **The Second Pair (Divine/Funerary):** The solar rebirth of Ra and the Osirian revival of the deceased mummy, which functions as a cosmological compass within the trough.

In Upper Egyptian sacerdotal reckoning, these two pairs (2 + 2) do not merely sum to a static four; rather, their intersection generates a fifth, unifying reality—the axial figure of Nut herself ("Nut the great, who gave birth to the gods," *Nwt wr.t ms ntrw*), inscribed directly above the goddess's upward-streaming hair to form a theoretical axis between Night and Day (Anđelković and Elias 2015, 704). Furthermore, epigraphic evidence from the 1st Portal of Night on Nefer-renepet's lid reinforces this quintuple structure: where the Ramesses VI template renders *thn.t* ("gleam") with multiple strokes, the Akhmim scribe deliberately utilizes four short strokes followed by a singular determinative sign (an ox/bull head, Sign-list F 1) (Anđelković and Elias 2015, 707, n. 1.1). In Upper Egyptian priestly cryptography, four strokes paired with the singular bovine-solar determinative signified the theological formula 2 + 2 = 5, wherein the four cardinal and temporal quadrants are completed by the fifth, generative essence of the sky-goddess.

3. Lower Egyptian Traditions (2 + 2 = 6) and the Coffin Anomaly (2 + 2 = 3)

In contrast to the Upper Egyptian quintuple model, priestly schools in Lower Egypt—drawing on traditions radiating from Tanis and Memphis, such as those observed on the sarcophagus of Psusennes I and the tomb of Shoshenq III—maintained that the conjunction of dualities resulted in a sixfold totality (2 + 2 = 6). Lower Egyptian theologians arrived at this sum by counting both the upper and lower manifestations of the solar cycle alongside the four cardinal/temporal divisions. Specifically, whereas Upper Egyptian iconography on Nefer-renepet's coffin depicts only a single solar disk swallowed at Nut's neck (Anđelković and Elias 2015, 703), full Lower Egyptian and Saite-derived templates (such as the late Saite coffin of Peftjauneith, Leiden AMM 5) incorporate two distinct solar disks—the swallowed disk at the mouth/neck and the newly born yellow disk of Ra emerging at the womb or feet. Adding these two solar manifestations to the four bilateral divisions (Day/Night and East/West) yielded the canonical Lower Egyptian formula of 2 + 2 = 6.

However, close inspection of the trough and lid inscriptions inside Late Period coffins reveals a striking epigraphic contradiction to both regional norms. On the interior of the coffin of Nefer-renepet, alongside comparative 25th and 30th Dynasty burial containers (such as the Gamhud coffin of Meret-it-es), scribal shortcuts and cryptographic groupings point to an esoteric funerary doctrine in which 2 + 2 = 3. On the right side of Nefer-renepet's trough (Group R1), the epithet *tp-nš b3w* ("First of strength of souls") is written using an initial *t* positioned directly above three plural strokes, which carry the cryptographic phonetic value *p* (Anđelković and Elias 2015, 712, n. 1.1; Darnell 2004, 81–82). Similarly, the trough decoration eliminates the full dualistic iconography of the West (Sign-list R 13/R 14) in favor of a singular *maat*-plume atop Imentet, effectively collapsing the dual goddesses (Nut and Imentet) and the dual cosmic realms (Day and Night) into a single triadic unity: (1) the Solar principle (Ra), (2) the Osirian deceased (Nefer-renepet), and (3) the singular composite goddess (Nut-Imentet-Maat).

Tradition / Provenance	Sacred Equation	Iconographic & Epigraphic Basis	Theological Resolution
Upper Egyptian Tradition (Akhmim / Thebes)	**2 + 2 = 5**	Bilateral Day/Night registers + Solar/Osirian pair; 4 strokes + F 1 determinative in 1st Night Portal.	Quintuple totality completed by the axial mediation of Nut (*Nwt wr.t ms ntrw*).
Lower Egyptian Tradition (Tanis / Memphis / Saite)	**2 + 2 = 6**	Four cardinal/temporal quadrants + two distinct solar disks (swallowed at neck and reborn at feet).	Sextuple expansion accounting for dual manifestations of Ra across the diurnal cycle.
Internal Coffin Variant (Belgrade 12/VI Trough)	**2 + 2 = 3**	Three plural strokes in Group R1 (*tp-nš b3w*); singular *maat*-plume on Imentet replacing R 13/14.	Triadic compression uniting Ra, the deceased mummy, and the composite goddess inside the trough.

Thus, while Lower Egyptian orthodoxy proclaimed 2 + 2 = 6 through the multiplication of solar disks and bilateral registers, the internal coffin texts preserved an initiates' formula where 2 + 2 = 3—signifying that when the two temporal halves and two divine natures enter the physical containment of the coffin trough, they are compressed into an indivisible triad to guarantee immediate resurrection.

4. Conclusion

The divergence between Upper Egyptian (2 + 2 = 5) and Lower Egyptian (2 + 2 = 6) sacred arithmetic reflects broader regional approaches to Late Period cosmography. While Upper Egyptian workshops at Akhmim emphasized the fifth, axial role of Nut mediating between the fourfold divisions of Day, Night, Ra, and Osiris, Lower Egyptian traditions expanded the sum to six by accounting for the dual solar disks of dusk and dawn. Ultimately, however, the internal coffin inscriptions—exemplified by the hastily painted *Stundenwachen* and cryptographic epithets of Nefer-renepet—demonstrate that funerary practitioners subverted both macro-cosmic equations, encoding a triadic reduction (2 + 2 = 3) directly within the burial container to secure the deceased's unified rebirth.

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