Frozen prospective protocol for Khufu's sarcophagus original transverse position

Version 1.0 | Frozen 5 August 2026

Fixed after historical-source audit and before inspection of new confirmatory positional evidence

1. Purpose and inferential scope

This protocol adjudicates whether the original north–south centre of Khufu's sarcophagus was sufficiently close to the reconstructed chamber centreline to realise the equal-angle physical X. It does not use the X to infer the position and does not treat the current measured placement as original.

2. Frozen endpoint and bands

Primary endpoint: δ0, the original transverse centre offset of the reconstructed sarcophagus envelope relative to the reconstructed upper west-wall centreline. Positive values denote a southward offset.

Item	Frozen value
Current correction from Petrie clearances	9.64875 in southward
Ideal equal reconstructed gap	57.720 in north and south
Strict compatibility core	−0.09447 to +0.09447 in
Broad positional envelope	−0.31084 to +0.31084 in

3. Eligible confirmatory evidence

- Direct contact, wear, bedding, residue or depression traces tied metrically to the chamber walls and shown to predate modern disturbance.
- A calibrated 3-D reconstruction resolving the chamber floor, sarcophagus base, tilt, current supports and candidate earlier contact surfaces.
- An independent archival survey reporting explicit original-position offsets to chamber walls.
- Any physical or documentary trace must define an uncertainty interval for δ0.

4. Ineligible evidence

- The current position alone.
- A centred placement selected because Equation (1) requires it.
- A drawing without chamber-wall coordinates.
- The exploratory near-45° translation or any modular east–west target.
- An analysis that receives the target bands before masks, exclusions, code and uncertainty are locked.

5. Blinding and analysis lock

The analyst receives the eligible positional evidence and coordinate definitions but not the strict/broad bands, the 9.64875-in current correction or the model's desired centre. Before unblinding, the analyst deposits data masks, exclusions, coordinate transformations, code, point estimate, 95% interval and SHA-256 hashes.

6. Frozen decision rule

Classification	Rule
Compatible	$\|\delta 0$ point estimate$\| \le 0.09447$ in and the 95% interval lies wholly within ± 0.31084 in.
Incompatible	The 95% interval lies wholly north of -0.31084 in or wholly south of $+0.31084$ in.
Indeterminate	No surviving trace, insufficient precision, an interval crossing a boundary, or any other outcome.

7. Impact rule

A compatible result upgrades transverse centring from a model condition to supported original placement. An incompatible result retires the interpretation of a physically realised symmetric X. An indeterminate result leaves the Version 7.5 construction as an idealised original-state reconstruction. No positional outcome changes the descriptive arithmetic obtained from Petrie's published central dimensions.

8. Freeze record

Machine-readable thresholds and the full evidence-classification record accompany this protocol in data/frozen_original_position_thresholds_v7_5.csv and data/frozen_original_position_protocol_v7_5.json. The package SHA-256 manifest fixes this protocol before inspection of any new confirmatory positional evidence.