Stage 11 — Stock vs. Geodesic: Final Verdict

This note provides a direct comparison between the stock model (Stage 10) and the geodesic well system (Stage 11). It summarizes key metrics, tradeoffs, and an overall conclusion on which approach is better at present.

Comparison of Metrics:

Metric	Stock (Stage 10)	Geodesic (Stage 11)	Verdict
Accuracy	≈0.20	0.29–0.36	Geodesic higher
Grid similarity	0.376	0.42–0.48	Geodesic higher
Precision	0.77	0.67–0.71	Stock higher
Recall	0.96	1.00	Geodesic perfect
F1	0.83	0.73–0.80	Stock slightly higher
Jaccard	0.74	0.67–0.71	Stock slightly higher
Hallucination	0.23	0.29	Stock lower
Omission	0.04	0.00	Geodesic perfect

Observations:

• Stock model is stronger on precision and produces fewer false positives (hallucinations).
• Geodesic is stronger on accuracy, grid similarity, recall, and determinism (no omissions).
• F1 and Jaccard favor stock slightly, but geodesic ensures truth is always captured.
• In reasoning systems, omissions are more damaging than extra noise, since omitted truths cannot be recovered downstream.

Verdict:

Overall, **Geodesic is better than Stock**. It achieves higher accuracy, captures all truths (recall = 1.0), and eliminates omissions. While stock maintains higher precision and fewer hallucinations, its tendency to miss truths limits reliability. Geodesic's deterministic well structure provides a stronger foundation for reasoning, even with a modest hallucination floor still present.