

UNIVERSAL ATLAS — "Mars Civilization" (v9)

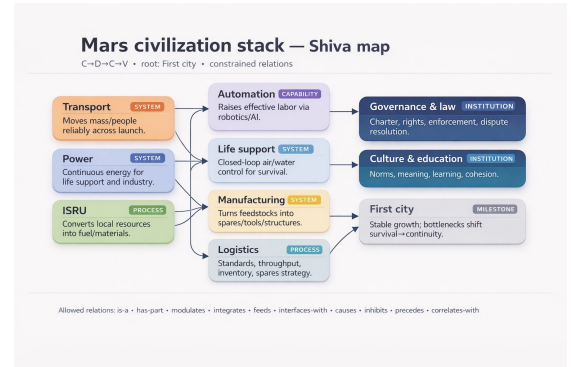
Phase-gated systems atlas for scaling a permanent Mars settlement to a self-sustaining city.

Core claim (Layer Zero)

Treat continuous power per person (kW/person) as a phase gate. Fragility <20 kW/p; resilience 40–60 kW/p; diminishing returns >60 kW/p. Rule: hit ~40 kW/p sustained before ramping population or launch cadence.

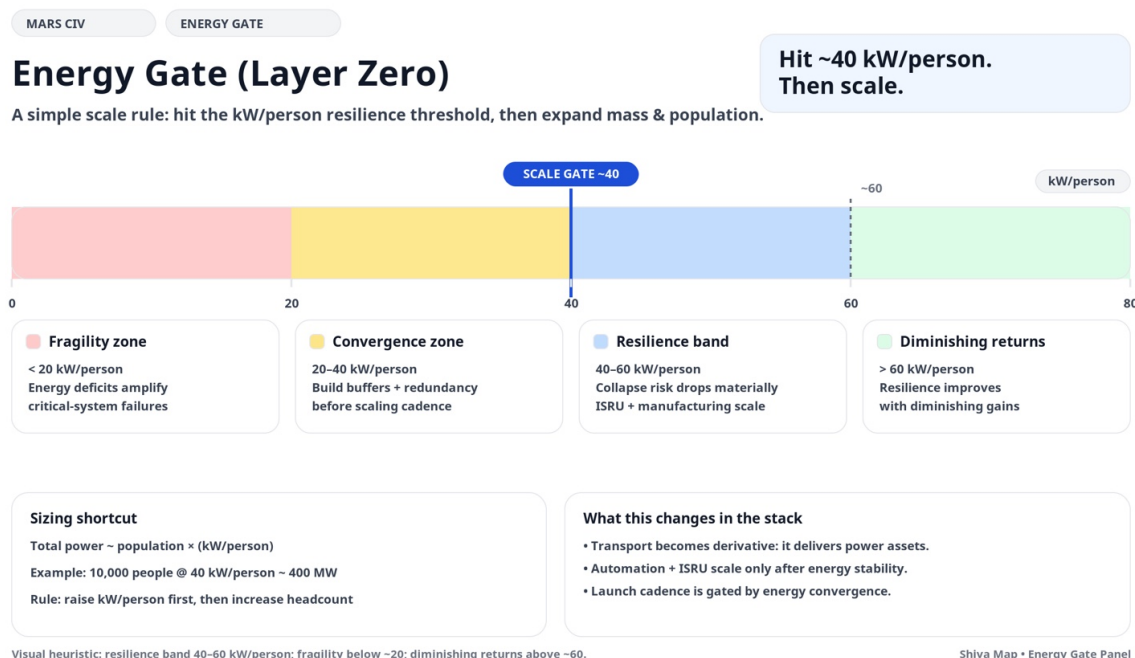
What this is

- Single-file HTML build: offline, JS-free, and print-vector (inline SVG).
- Build reports a sanity stamp (broken links: 0; missing SVG: 0; JS used: 0).
- Interactive logic via CSS toggles: phase-selectable panels and domain-dimming.
- Includes: Mass & Power Sankey per phase, thermal loops, Gantt by synod, terraforming gauges, governance map, culture/religion atlas, economics fan chart, and biomechanics pack.



Mars civilization stack — Shiva map (system → institution)

Energy Gate (Layer Zero) — visual heuristic



Why it matters

- Exposes phase-specific bottlenecks (power, life support, ISRU, logistics) before scale creates brittle dependencies.
- Couples engineering layers to institutions: governance & law, culture & education, economic continuity.
- Designed to be critiqued and validated: a decision-support artifact, not a narrative.

What I'm asking for

- A 20-minute critique: strongest assumptions, weakest assumptions, and what you would test first.
- Pointers to publication/presentation venues, and introductions to relevant researchers/teams.
- If useful, I can provide a short walkthrough video + the single-file atlas.

Contact: [Your Name] | [Email] | [LinkedIn/X] | [Atlas link] | Time zone: [UTC+...]

Note: design lens only; validate with mission-specific load models.