

DON POOLE

Spatial AI Researcher & Designer | Domain-Grounded Generative 3D Environments

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Spatial systems researcher and designer with 25 years building large-scale, real-time 3D environments for AAA studios including Naughty Dog, Sucker Punch, and Kojima Productions, now applying that expertise to generative AI. Currently directing independent research at Squid Black Spatial into domain-knowledge extraction from large multimodal models: a repeatable methodology, Latent Space Archaeology, for surfacing architecturally and geographically accurate spatial knowledge already encoded in generative systems and translating it into structured prompts for AI image and 3D world generation, including Google's Gemini image models and World Labs' Marble. A fine art photography background (University of New Mexico, studying under Patrick Nagatani, Tom Barrow, and art historian Eugenia Parry Janis) grounds the work in a long-standing conviction that imaging tools evolve and that practitioners drive that evolution rather than just adopt it.

EXPERIENCE

Independent Researcher, Spatial AI Systems | QuidVicious LLC (Squid Black Spatial)*Dec 2025 – Present*

- Developed Latent Space Archaeology (LSA), a repeatable methodology for extracting domain-specific spatial, architectural, and cultural knowledge already encoded in large multimodal generative models, then translating it into structured prompts and JSON-based “domain keys” to improve geometric and cultural accuracy in AI-generated images and 3D environments.
- Architected a multi-stage research pipeline that excavates historical and geographic domain knowledge for a target location and routes it into prompts for image generation and 3D world generation, directing implementation through AI-assisted, agentic coding workflows.
- Established a geo-anchored capture and verification protocol pairing real-world aerial and ground reference imagery with generated output, producing documented case studies (Edinburgh's Moray Feu New Town) that surface model errors at sub-regional precision: useful findings, not failures, demonstrating how deeply cultural and historical knowledge is embedded in current generative models.
- Identified architectural pre-visualization, real estate, game environment, film, and robotics-simulation training data as commercial applications of the methodology; in active outreach with spatial AI research groups including World Labs and Google DeepMind.

Pod Captain & Game/Level Designer | Another Axiom *March 2023 – Nov 2025*

- Led cross-disciplinary pods designing and shipping 5+ new levels and movement systems (swimming, gliding, hoverboard) for Gorilla Tag, one of VR's largest live concurrent-user titles, balancing real-time physics, spatial readability, and performance at scale.
- Overhauled core navigation and store architecture across the game's central hub, applying spatial flow principles to a live product serving millions of recurring users.
- Defined visual and gameplay metrics governing how a real-time VR environment communicates scale, distance, and depth to the human body: the same perceptual problem now central to spatially-grounded generative AI.

Lead Designer, Web3 Metaverse Prototype | WEVR *Dec 2021 – May 2022*

- Designed UI, gameplay loops, and DeFi integration for a persistent, multi-platform Metaverse environment spanning Mobile, PC, and MR/VR, establishing a shared spatial visual language across device classes.

Lead Designer, VR Simulator Prototype | WEVR *Aug 2020 – March 2021*

- Designed a 3-point VR input and full-body IK avatar system for accurate real-time pose prediction; built gesture-based interaction and calibration systems balancing embodiment with accessibility, problems directly adjacent to current robotics and embodied-AI simulation work.

Sr. Designer, Level and AI Interaction | Gnomes & Goblins VR (WEVR)*Nov 2019 – Aug 2020*

- Designed 20+ scripted multi-agent AI events simulating a living goblin society, and goblin-scaled interior spaces for high-fidelity player interaction: early multi-agent behavior and spatial-scale design work. Contributed to the title's nomination for Best VR Experience, Venice Biennale/Film Festival 2020.

Mixed Reality Designer | Independent *July 2017 – Nov 2019*

- Built a mixed-reality character framework in Unity using ARCore for real-time spatial awareness, with procedural non-verbal communication driving believable animation responses to user proximity and action: foundational embodied-agent and spatial-perception work.

Lead Designer, VR/AR | Rascali / Studio Roqovan

Jan 2015 – July 2017

- Directed creative vision, UX, and production for B2B educational VR/AR applications (Boulevard VR, The American Experience, Rubin Museum, Gateway to Himalayan Art) and multiplayer VR levels for World War Toons (PS VR), improving customer ratings from 1.5 to 3.75 stars through targeted design work.

Prior AAA Studio Experience

- **Kojima Productions** (Sr. Game Designer, 2012–2014): Multiplayer map and environment design, Metal Gear Solid Online 3.
- **Sucker Punch Productions** (Sr. Environment/Mission Designer, 2007–2011): Open-world environment and mission design at scale, inFamous 1 & 2.
- **Naughty Dog** (Level Lead & Environment Artist, 2000–2007): End-to-end level development, Jak & Daxter and Uncharted franchises.

SKILLS

- **Spatial AI & Generative Systems:** domain-knowledge prompt architecture, multimodal grounding, JSON-based structured prompting, Gemini image models, World Labs Marble, geospatial reference platforms (Cesium ion), AI-assisted/agentive development workflows.
- **Real-Time 3D & Engines:** Unity 3D, Unreal Engine 4/5, Maya, Blueprint visual scripting, C#.
- **Spatial & Visual Craft:** architectural and geographic domain research, large-scale environment and level design, photographic composition methodology (Zone System-informed visual evaluation).
- **Production & Tools:** Git, Perforce, Adobe Creative Suite, Agile/Scrum methodologies.

EDUCATION

M.S. Engineering Technology | East Tennessee State University

Focus: Product Design, Industrial Design, 3D Modeling & Animation (Maya). Alias/Wavefront Center of Excellence: one of a handful of designated centers worldwide.

B.A.F.A. Fine Art Studio | University of New Mexico

Non-traditional photographic techniques and mixed media; studied under Patrick Nagatani, Tom Barrow, and art historian Eugenia Parry Janis.

Grounded in the conviction that the medium evolves; artists don't just follow, they drive it.