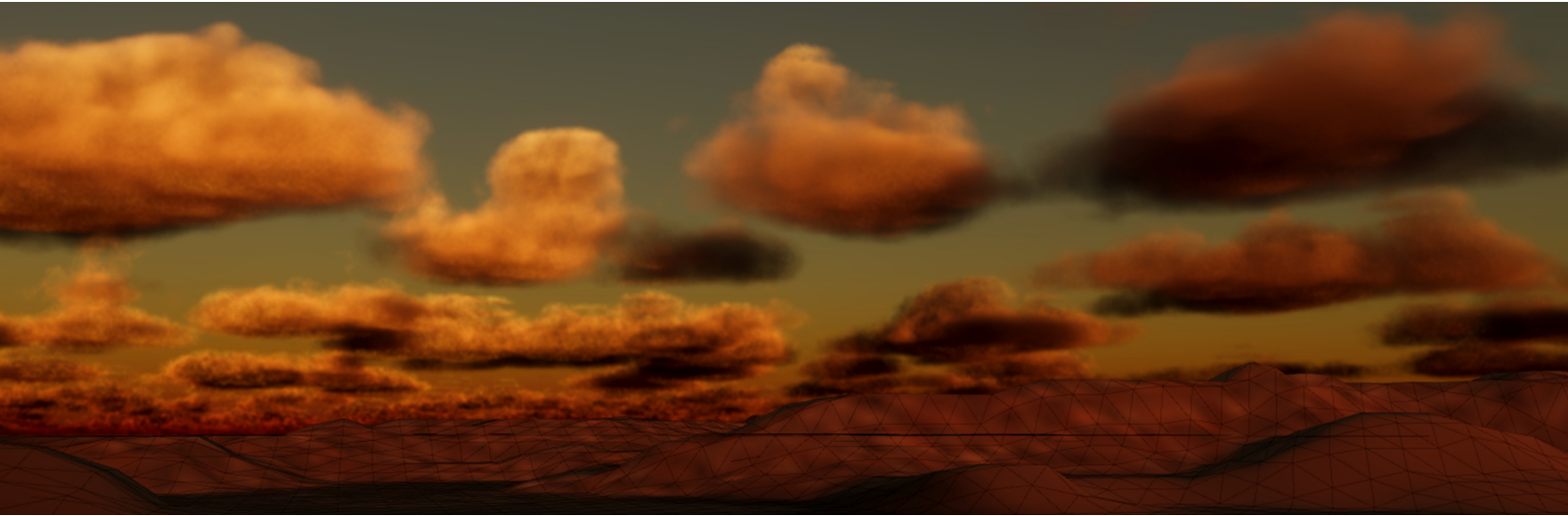


This Game Comes With the Worst Prizes
Politics of the Moving-Image in the Gamified Field of Everyday Life
No Player/ No Exit

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The Bayan Obo mine in the Mongolian desert is one of the world's largest rare earth deposits. The dirt extracted here transubstantiates into the infrastructures sustaining planetary computation, green-tech dreams, and interplanetary fantasies. It stands as a perpetually open scar on the face of the capitalocenic Earth, powerful as land art, irreversible as catastrophe.

The atoms of that dirt become the bits that circulate as the computational substrate of contemporary life, powering cryptocurrency mining, stock trading, video games, warfare. Our so-called IRL existences run on decisions made in those circuits, and those circuits run on planetarily distributed sacrifice zones. There is no outside position from which to observe. We are already playing.

This project reconstructs the mine within Unity's 3D game engine. For most people, Bayan Obo is never encountered directly – or at all. It exists through images: satellite composites, mapping interfaces, industrial documentation. These images do not simply represent the mine but organize

how it can be known, measured, and acted upon, converting aeons-old geological formations into analyzable data processed into extractable value. The mine is not only a physical site but becomes a visual and computational object circulating across infrastructures of sensing, finance, and logistics. The problem is therefore not representation alone, but participation.

Landsat spectral bands sensitive to shortwave infrared reflectance isolate mineral alteration zones. From this vantage, terrain appears as a distribution of extractable values. Slopes, dust, spoil, and groundwater become indicators in a matrix of opportunity. Geography circulates as executable code, continuously parsed and routed across the speculative infrastructures of finance, logistics, and planetary computation.

This visual regime supersedes the human observer. Most images today are not produced for human eyes at all. They circulate within machine-to-machine ecologies where Farocki's operational images, produced not for interpretation but for action, have migrated into planetary infrastructure. Paglen extended this: these systems register bodies and environments as extractable signals, shaping how spaces and subjects are managed long before anything becomes legible to a human being.

The rare earth elements mined at Bayan Obo manufacture the sensors and processors that enable this satellite surveillance, which in turn enables further extraction. The mine powers the systems that locate the next mine. Each cycle of resource depletion generates the instruments for its own intensification. Distance functions as an active technology of extraction. The further consumption sits from material origins, the more invisible the violence becomes and the more sustainable the extraction appears. Technobros get rich with magical internet monies so they can drive their Teslas around here, while the Mongolian desert is rendered another sacrifice zone. A poisoned wasteland for millennia.

Simulation emerges directly from this visual regime, and the game engine sits at its center. Deployed across military training, architectural visualization, and resource extraction, game engines normalize a perceptual logic built around feedback, optimization, and responsiveness. Pedercini argued that videogames function as the aesthetic form of rationalization. Despite their surface diversity they share a structural compulsion for efficiency, mastery, and control in which what appears as player agency enacts compliance rather than autonomy. Digital twins extend this logic into the mine itself. Operators in centralized control rooms navigate gamified 3D renderings of

extraction sites, interfacing with real-time sensor data that renders geological complexity into actionable terrain. Landscapes formed through aeons of sedimentation are collapsed into operational dashboards, what Milligan calls accelerated landscapes, terrains deliberately engineered to align with extractive capital's operational timescales. The colonial survey, the aerial reconnaissance photograph, the satellite band composite, and the game engine form one continuous visual inheritance in which each iteration rationalizes territory more completely than the last.

The control room operator navigates a digital twin of the site, while sitting at a remote workstation, itself indistinguishable from an videogame arcade cabinet with multiple screens, joystick inputs, and real-time feedback loops. Here the game mechanics of optimized routes, unlocked achievements, progress bars, and scores are the mine. Its gamification runs parallel with the gamification of everyday life.

This project analyzes technofrontiers from within their mediated conditions, treating digital environments not as representations of sites elsewhere but as the sites themselves. By technofrontiers I mean the zones where capital, computation, and governance converge to transform land, labor, and imagination into extractive infrastructures. The mine powers the network, the network governs thought, and cognition fuels the speculative engines that finance further material extraction.

I undertook this project not from a desire to walk geographical sites. What interested me is not the idea of proximity or the modern romanticism of being on the ground, but the conditions that make such a desire irrelevant, displaced, even structurally foreclosed. To imagine that insight depends on physical access is to miss the central violence of the technofrontier, the way it folds distance into its operations, turning dispossession into spectacle and mediation into control. I call this approach virtualizing the virtual. If reality now circulates as code and data streams, then constructing knowledge from those fragments is then a methodological commitment to meeting that reality on its own terms. The field is not a territory awaiting discovery but the analytic space produced through mediation itself, assembled where images, interfaces, and fragments coalesce into the terrain of inquiry.

The initial idea was to build a hyperrealistic game, to match the site's palettes and mineral hues, to

approximate the gradients and atmospheric tones that make aerial images of open-pit mines so visually compelling. The problem became obvious quickly. Replicating the mine's beauty would risk reinforcing the very aesthetic dissonance the work was set to critique. To reproduce the mine's visual seductions is to feed the spectacle that extracts meaning from devastation, to participate in the same perceptual economy that turns planetary harm into scenery. The sublime.

At Bayan Obo, the geometric precision and arresting color palette of its terraced extraction sites render planetary-scale violence into beauty. This is what I call aesthetic dissonance, where beauty and devastation converge into a single perceptual economy and to validate these aesthetics becomes to participate, as the gaze folds into the circuits of accumulation that sustain planetary destruction.

So, decisions were made. I left the terrain as a mesh of unprocessed triangles, imported directly from satellite elevation data with no textures, edges visible, recalling Tron's wireframe aesthetic, invoking early CGI that children today scoff at. The sky received a different treatment. The procedural cloud system was used not because it would make the scene realistic, but because the choice itself exposes realism's fiction. When I studied in Singapore I saw an exhibition of old paintings depicting local landscapes by Chinese masters. The vertically composed scenes looked nothing like the mostly flat terrain of tropical Singapore. What the old masters had learned to see as valid was what their training had conditioned them to reproduce, rendered through the visual vocabulary of *shan shui*¹. In the game, the sky is composed of cumulus and stratocumulus formations at the edge of meteorological plausibility, with real-time volumetric light and slow gradients. A beautiful celestial dome suspended over deliberately broken ground, a sky of coherence over a terrain that refuses to resolve aesthetically.

This is Shklovsky's *ostranenie*, the deliberate defamiliarization that exposes mediation rather than concealing it. Photorealism does not reproduce the world. It reproduces the conventions through which cinema, photography, and CGI have trained audiences for a century to mistake mediated representation for reality. What is on view sits between the satellite's god's-eye perspective and the immersive logic of first-person simulation, a liminal visual field that holds the viewer at a remove

1 Shan shui (山水), literally "mountain-water," refers to a classical style of Chinese landscape painting in which mountains, rivers, and natural elements are depicted not for realistic accuracy but to convey the spirit of nature. Emphasizing expressive brushwork, shifting perspective, and philosophical reflection, shan shui landscapes often minimize human presence to foreground the harmony and dynamism of the natural world. See *Chinese Painting* (Cahill, 1996).

while denying the comforts of either omniscience or escape.

The dominant spatial imaginary of the video game is legibility. This affords an optimized condition where spatial cognition allows for maximum operational effectiveness. The map reveals itself as you explore, navigation is rewarded with operational knowledge in the form of spatial legibility, this legibility allows for the mastering of extractive operations. The core of colonial-capitalistic endeavors. The core of efficiency.

This is what this game refuses and how it acts as countermapping to the idea of entertainment through internalizing, reproducing, ludifying, thus trivializing the mechanics of capitalism through gamifying its units of operation. This Game Comes With the Worst Prizes refuses the premise of interactivity. Instead of mastery it offers duration, and instead of agency it offers suspension. This is not a game you can control. The environment reconstructs Bayan Obo using fragments of the visual archive through which the site already circulates: satellite imagery, mapping datasets, industrial photographs, none of which are neutral documentation and all of which belong to a longer history of visual practices through which territory becomes legible as resource.

Its mining operations today embody the logics and mechanics of video games. What would it mean to build a game about a site that has already been gamified elsewhere, not for play but for extraction? Or, is extraction the game? The project abandons the idea of building a visual simile or speculative scenario because Bayan Obo already circulates as abstraction, encoded, quantified, and operationalized beyond the visible. The game intervenes in its representation by resisting the seamless legibility promised by digital twins, introducing friction where fluency is expected and holding opacity where instrumental transparency is demanded. It removes the machinery of the progress questioned by Anna Tsing, while retaining its visual shell, revealing the ideological scaffolding beneath, and in doing so opens what McLuhan called the resonant interval, a temporal and perceptual space where the viewer confronts their own complicity in systems of vision, control, and extraction.

This work does not seek escape from digital mediation but operates through a critical inhabitation of it. The CPU and GPU rendering this terrain are themselves products of the extractive chains under analysis, binding representation to material conditions rather than standing apart from them. The contradiction is the point: the map refuses to perform its intended function of making extraction

legible for profit. The mine does not exist as a physical site on the ground and a digital object in orbit or on a screen, but as a single extractive formation articulated across media, scales, and temporalities, where material extraction and digital abstraction operate within the same system, accumulated over time, encoded in power, reproduced through recursive technical processes.

Virtualizing the virtual is not a metaphor. It is a methodological commitment to producing geographic knowledge from within the mediated terrains where contemporary power already circulates. The geographic field does not end. It extends into the digital, and that is precisely where the work must be done.

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