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Credits

editor + creator

Gareth Damian Martin

associate editor

Chris Priestman

contributors

Ario Elami, Konstantinos Dimopoulos,
Dan Solberg, Robert Yang

art direction

Gareth Damian Martin

thanks

Mavros Sedeño, Tsutomu Nihei
Kodansha Ltd.

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On Memory

introduction Gareth Damian Martin

I wasn't sure we'd make it this far, back when I emailed two of the most talented writers I knew and asked them to give me their best. Those pieces became issue 001, a structure into which I poured my own desire to see a new criticism of game spaces, informed, richly visual, connective, and ambitious. That issue, and its surprising success, are a memory now, but one that anchors this project as it moves onward.

Memory as an anchor, as a structure, seems to have become the underlying theme of this issue. It wasn't planned like that, but as I read Ario Elami's informed exploration of *Metroid* and brutalism (p14), it brought back powerful memories of inhabiting the spaces of the series' 3D debut *Metroid Prime*. Those memories became my photo series on p24. Meanwhile, Dan Solberg's *Wipeout XL* feature (p4)—the first of three new sections to the zine; *history*, *materiality*, and *mapping*—deals with how past futures become shared memories. In the *materiality* section (p55), the developer Robert Yang considers how chairs as digital objects might be reinvented, and finishing up this set of three, in *mapping,* urban planner Konstantinos Dimopoulos returns to *The Old City: Leviathan* (p112) and finds it a tricky memory to map.

Our cover feature, and a realization of a dream for me, is a set of three pieces on the exceptional *NaissanceE,* starting on p68. This is a game masterfully designed to play with memory, using architecture as its tool. It's the kind of game which epitomizes the connective, structural, and spatial thinking this project is all about, and it was a pleasure to discuss it with its creator Mavros Sedeño.

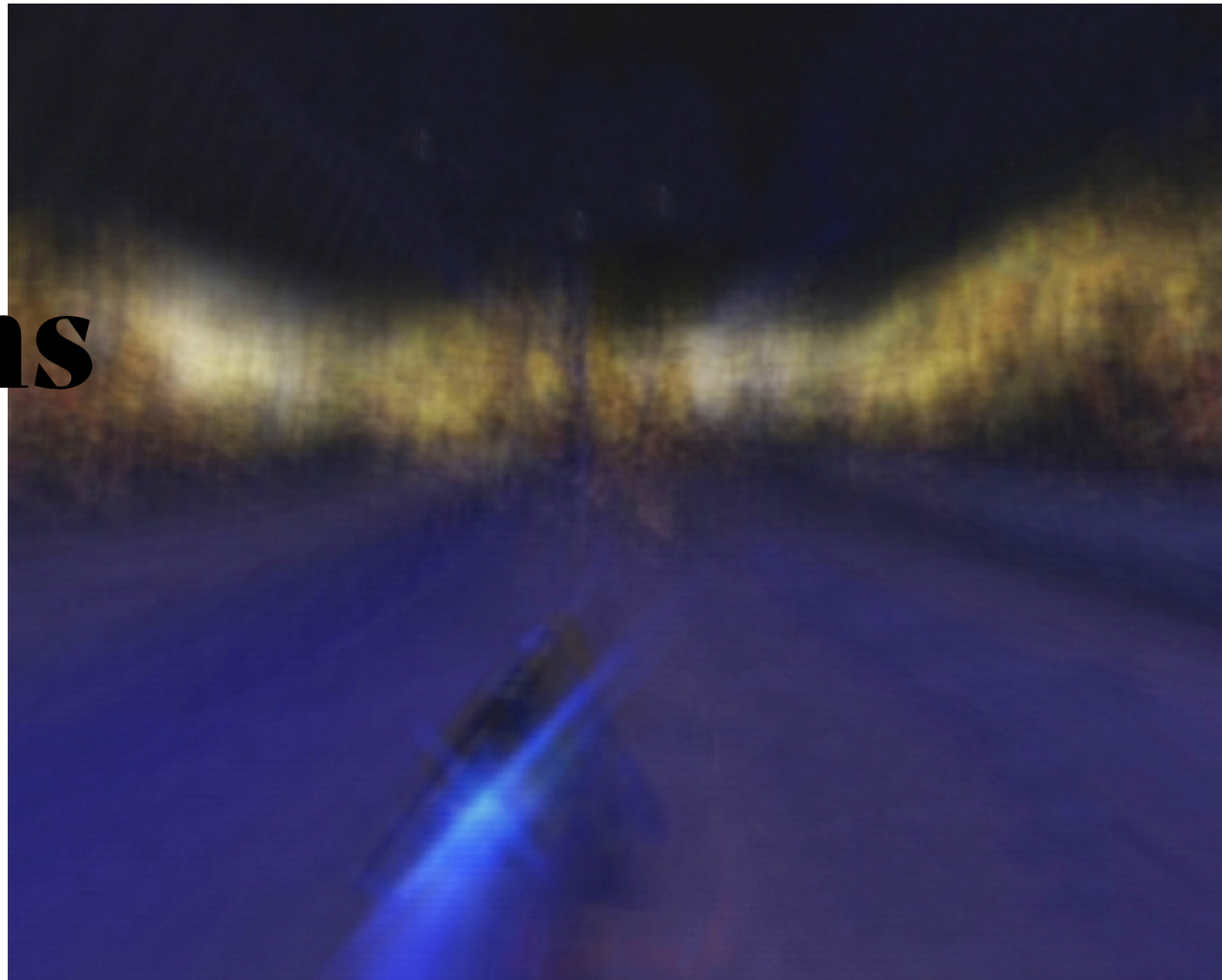
All that's left is to say thank you for supporting us, and to remind you to enjoy this moment, at the beginning of something: it will all be a memory soon enough.

GDM

Gareth Damian Martin is a writer, designer, and artist. He is the creator and editor of Heterotopias.

Tunnel Visions

history Wipeout XL | Dan Solberg



In the 1972 film *Solaris*, directed by Andrei Tarkovsky, there is an extensive scene early on where we ride along in disgraced cosmonaut Anri Berton's car for five minutes or so, simply watching the road in approach to a Japanese metropolis. For this scene, Tarkovsky shot footage driving along the highways in Tokyo and Osaka, Japan, then seen as the height of technological innovation in the world. There are a few cutaways to Berton and his son in the car, but in large part, the camera watches through the front windshield as the concrete and asphalt perpetually winds its way toward and around the vehicle.

The highway is a corridor of sorts, with tall barricade walls and multiple tunnels framing the path forward as condensed and urban. Synthesizer whirs and chimes accent the road noise and create an eerie mechanized ambience. Japanese text on signage is clearly visible, creating a sense of dislocation from the Russian setting where we know Berton to be. To explain this, I can only guess that the characters aren't physically driving into Tokyo, but that the scene is a metaphorical representation of the film's subsequent voyage to a state-of-the-art research facility orbiting the distant planet Solaris.

The inference here is that the film's protagonist, Kris Kelvin, leaves his pastoral lakeside cottage and is transported to a technologically advanced, man-made environment. The tunnel shots are particularly illustrative in this scene as ceiling lights trail past like a line of stars, making Tarkovsky's own star gate sequence à la *2001: A Space Odyssey*, but grounded in our worldly reality rather than sci-fi pastiche. The only special effect that Tarkovsky employs here is the switch from black-and-white to colored images—a running motif in the film. The black-and-white section represents a past that is committed to memory and subject to misremembrance, while the color shots show the here and now. The psychological effects the planet Solaris has on anyone who comes near it play with this dichotomy as the film goes on, but for this driving sequence it depicts a progression from a present that already feels like the past, to a present that looks like the future.

"The year? 2097.

No room for maneuver. The world is shrinking...like a raisin from a grape.

From East to West...from North to South...meeting your shadow and the echo of your mind before you even knew you'd left.

Landscapes curling through space, hewn from rock, cut from ice.

Ships smear like blurs of hurled paint. Tracking the globe, soundtracking your dreams and your visions...

Never dwell on past days. Leave those damp brown days alone. Our future has more color. More speed. More noise. Our future has more...

From jungle to city to the recesses in your mind. Shake your head and free yourself.

Free yourself."

This is the opening salvo from the instruction manual of futuristic racing game *Wipeout XL*, originally released in 1996 for Sony's PlayStation. UK-based developer Psygnosis essentially made a grubby techno future vision of Formula 1 racing, where players control rocket-powered, weaponized hovercraft that compete across international circuits as part of the Anti-Gravity Racing League. It's a framework that, at least on paper, stayed pretty consistent with the series as it was iterated upon from console to console, keeping pace with advances in graphics technology over the subsequent 16 years. *Wipeout XL* (*Wipeout 2097* in Europe and Japan) is the second

From jungle to city to the recesses in your mind. Shake your head and free yourself.

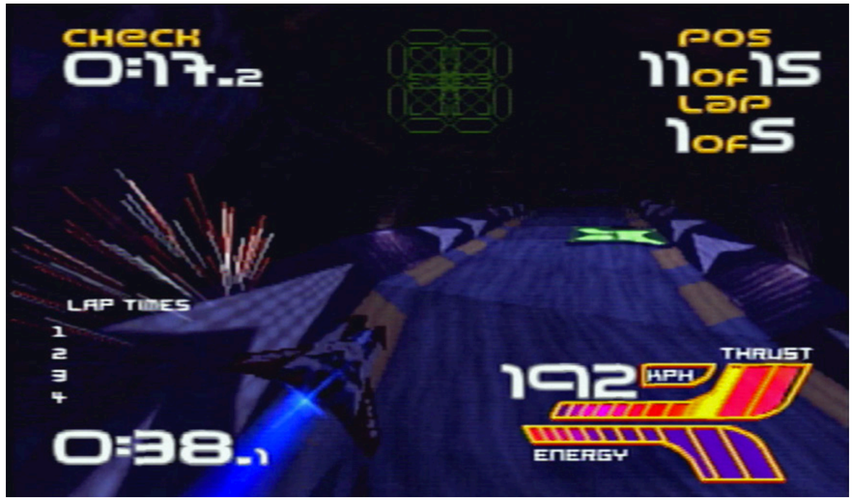
Previous page: Video average of Wipeout XL (Dan Solberg).

Looking more closely at Wipeout XL elicits more appreciation for grit than polish.

entry in the racing game series, and the definitive style icon of the lot, refining the basic tenets of the original game into a punctuated vision of acid-house motorsport. Sheffield-based design studio, The Designers Republic, reprised their role from the first game, stylizing the sequel and its promotional materials with their unique take on Tokyo's neon-lit typography and electronica-inspired text and logo treatments. The licensed soundtrack is loaded with big-name dance music acts born out of UK rave culture, including The Prodigy, The Chemical Brothers, and Underworld. Red Bull product placement is everywhere, even though the energy drink wouldn't debut in America until the following year. *Wipeout* and *Wipeout XL* helped sell the Sony PlayStation as a home console for grown-up sensibilities by latching on to cool trends from outside of videogames.

But trends fall out of favor and technology turns obsolete. Playing *XL* in 2017 is an experience in time compression: a 20-year-old game with a vision of a muddied future that remains prescient now. The same could be said for the game's soundtrack, which may trigger nostalgia for those who grew up listening to it, but is also bizarrely current thanks to its pervasive reuse of early rave samples—the sampling of early rave music reached fever pitch in the past few years. Hell, even The Prodigy, The Chemical Brothers, and Underworld released new albums last year, dating the *Wipeout XL* days as "early career."

Wipeout XL remains physically tied to dated media and is likely to be seen as antiquated compared to the later entries in the series. There are 1990s PC and Sega Saturn ports of *XL*, but the game has never seen an official reissuing onto modern HD-capable consoles, and it shows. There were no analog stick controls on the first PlayStation controllers, so even now *Wipeout XL* only uses the four-directional input pad, making precision steering



Right: The grit and darkness of Wipeout XL (Dan Solberg).

Left and above: the tunnels of Wipeout XL (Dan Solberg).

more difficult, but not impossible. There's also a glaring anachronism in that the analog video output of the PlayStation console displays digital clock-like weapon icons and signage on screen. *Wipeout XL*'s structural contrasts inform the sparsely illustrated world that it depicts and the unsmoothed play experience therein. The game has been left behind by the times, but rather than campaign for an update, *XL* basks in the constraints of its aged architecture.

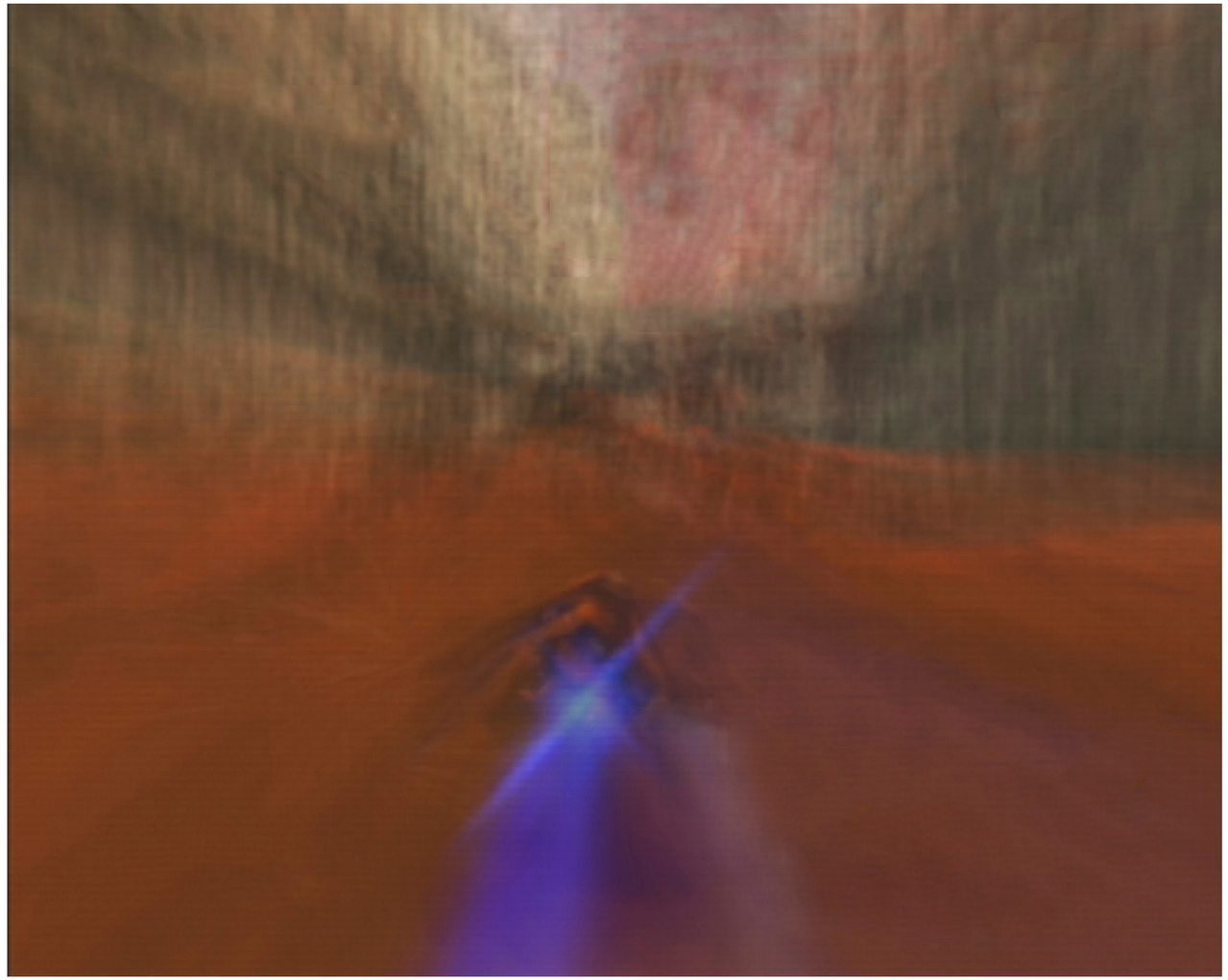
What *Wipeout XL* does is use the PlayStation's technological strengths as well as its limitations to achieve its unique aesthetic. Its look is fast and raw. Textures are grimy and architecture is low-poly and hard-edged. The world feels on the verge of collapse as the road beyond manifests out of the ether, a perpetual three seconds ahead of your arrival. Underlying skeletons of the circuits hide themselves with aliasing panels as fissures in the road surfaces blink in-and-out of existence. *XL* was the first *Wipeout* game where ships would explode if they took enough damage, paralleling the environment's structural fragility. There is a physical dynamic at work in *XL* between human player, game console, and virtual space that can't be replicated through emulation or HD updates.

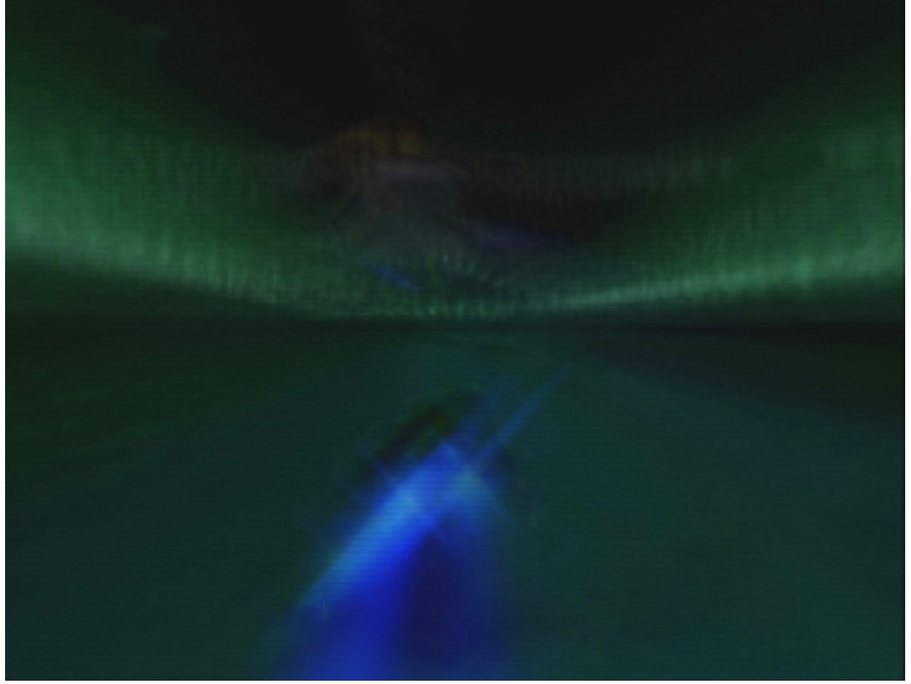
Psygnosis (aka Studio Liverpool since 2000) was shuttered by Sony in 2012, but a remastered bundle of the studio's final games, *Wipeout HD Fury* and *Wipeout 2048*, will be released this summer as *Wipeout Omega Collection*. It will serve as a benchmark of the ultimate refinement of a series that grew more technically and aesthetically polished with each iteration. Instead of *XL*'s dingy ductwork and subterranean caverns, *HD Fury* offers Sol 2, a shimmering roller coaster lined with solar panels, backed by a perpetually cerulean sky. Yet, continued refinement has also dulled the edges of the series that, particularly with *Wipeout XL*, captured a cultural moment by wrangling the limited power of the PlayStation hardware to channel the underground UK rave scene. The games of *Wipeout Omega Collection* depict futuristic motorsport as gleamingly spotless, personified most explicitly by the Zone mode, which transforms regular circuits into flat-shaded, *Tron*-like race simulations. There is no such sheen to *Wipeout XL*, and no way to 'pretty it up' aside from a total visual overhaul, yet it remains the pinnacle of the series' cultural and technological relevance.

A 4K-ready reissuing of later entries in the *Wipeout* series makes sense for those games which depict a future that might as well be atemporal. But looking more closely at *Wipeout XL* elicits more appreciation for grit than polish. *XL* has players air braking around turns and shooting through narrow causeways all the same, but unlike the *Omega Collection*, its destination is a nonfictional, albeit ephemeral place—an illegal warehouse party on the other side of the world. The only way to get there is through a system of historical, virtual, and prospective tunnels, each sparking their own memories and visions.

Take, for example, the race circuit Odessa Keys. It's suspended high above a dark expanse; the game's version of the Black Sea rendered as a void. If there's water down on Earth's surface, it's not visible from the course you race around. Remember, *Wipeout XL* is set in the year 2097, and for all we know, the Black Sea could be little more than an ashen crater that retained its name out of sheer habit. The only indication of land or life outside of the track is a city skyline emerging from the darkness far in the distance. The buildings are ringed in a red dusk, leaving everything above and below its horizon masked by thick shadow. It's an ominous landscape, but one that you only get passing glimpses of as you surface for air like a jet-propelled dolphin between tunnel dives. The outer walls of the track lock you into their confines, leaving nowhere

The world feels on the verge of collapse as the road beyond manifests out of the ether.





Landscapes curling through space, hewn from rock, cut from ice. Ships smear like blurs of hurled paint.

Above and right: Averaging out Wipeout XL reveals the strength of its perspective lines (Dan Solberg).

to go but forward into junctions unknown. Ultimately, the track's Black Sea feels like a symbolic one: a yawning void awaiting any racer who might dare to go off track, to slow down.

All the restrictions and barriers in *Wipeout XL* run a stark contrast to the instruction manual's grandiose promise of freedom, but the game does prompt a pursuit of release through speed and flow. These states are difficult to achieve and typically only last seconds before they're interrupted by a wall or a rocket. The persistent breakbeat electronica maintains a pace that demands to be matched. By directly channeling UK rave culture, *Wipeout XL*'s soundtrack is also inextricably tied to an ecstasy-fueled drug culture. The precariously capitalized "E" in the stylization of the *Wipeout* logo is merely a coincidence of the font treatment according to the developers, but it plants the seed all the same. The tracks themselves are circuits, looping around and around as a collection of memorizable samples, hiding a high that can only be achieved through precise synchronization of fingers with the flow of track. Nevermind whatever befell the Black Sea; ecstasy awaits in the tunnels.

"One sensation I remember influencing me was being in a car with my mates, going to one of the Blackburn raves somewhere over the hills of the Pennines, and hurtling down the motorway at night," *Wipeout* lead designer Nick Burcombe told VICE in 2014. "We were riding up and down the hills, seeing the angles of the embankments, which were very much like the *Wipeout* tracks, with those little dotted white lines and the cats eyes rushing past us, with the music cranked up. It's all very visceral, and I think in some ways I subconsciously tried to bring those sensations into the track design and to the speed of the ships."

Instead of literally reconstructing that night-time drive to Blackburn in *Wipeout*, Burcombe and team translated the sensation of the trip into a futuristic tunnel racer, borrowing iconography and actual music from the rave scene and infusing it with weapons and a steep difficulty curve to create an illicit challenge. In *Wipeout XL*, there's no guarantee that you'll see the finish line in a given competition. Ruthless checkpoints will disqualify dalliers and enough damage from banging against track walls and rival missile attacks with blow up your craft. There is a perpetual danger in *Wipeout XL*, illustrated redundantly in signage that exclaims "DANGER" over gaps, but more subtly in the caution stripes that line so many of the circuits' edges.

On the track Gare d'Europa there's a tunnel painted entirely in alternating red-and-black rings, which creates an enveloping blinking effect as you bolt through it, like a dancer lit by strobe light, only decipherable in split-second increments. According to in-world fiction, Gare d'Europa was repurposed from a decommissioned French Metro system that had housed an underground criminal network before being cleaned out to construct the course. The circuit is thrilling both for what it is, what it was, and where it leads.

"Firestarter" was the lynchpin of the *Wipeout XL* soundtrack, though Future Sound of London's "We Have Explosive" was paired with the opening cinematic. Even in advance of The Prodigy's album *The Fat of the Land*, "Firestarter" was a massive hit, making waves in the United States where electronic dance music rarely caught on with pop audiences. The music video for "Firestarter" introduced many new listeners to the band, but also painted a picture of the British music scene as edgy, underground, and dangerous. Though "Firestarter" debuted well after the height of the illegal rave scene in the UK (the Blackburn raves Burcombe refers to were held between 1988 and 1990), it codified and repackaged dance-party-as-

Forget the Black Sea; ecstasy awaits in the tunnels.

rebellion for a wide audience. The "Firestarter" music video showcases the band members running through and posing within an abandoned subway tunnel at Aldwych in central London, not a far cry from the scene in Gare d'Europa. Shot in stark black and white, the video opens with a progression of lights turning on heading down the tube, illuminating the corrugated curvature of the walls before snaking out of view. We are invited in, but the accompanying guitar wail sample acts as a warning klaxon, raising suspicions towards the dangers of proceeding deeper. Sure enough, dancer-turned-vocalist Keith Flint appears, looking like a proper demon with hair sculpted into horns and an unhinged look in his eyes. But the video, much like the late-night country drive to an unsanctioned warehouse party, is intent on daring viewers into a thrill, the rush-risky excitement fueled by the curiosity about what's at the other end of that disused subway tunnel. *Wipeout XL* expertly captures this feeling, the delayed pop-in of the track in the distance leaving players in perpetual anxious anticipation.

Returning to northern England, a section of the Pennines mountain range is the proposed site of what would be the world's longest highway tunnel at 18 miles long, beating out Norway's 15-mile long Lærdal tunnel for the record. The Pennines tunnel would connect Sheffield (home of The Designers Republic) with the greater Manchester area. Roads over and around the Pennines inspired the creation of *Wipeout*, and so this tunnel would, in a sense, transform Burcombe's adaptation into physical reality. Divorced from the time of illegal raves, the Pennines tunnel would provide its own kind of historical recreation of a *Wipeout* track.

Due to its length, it's expected that the Pennines tunnel would follow the lead of the Lærdal tunnel and allow periodic breaks from the monotony in the form of mood-lit cavern segments. In the Lærdal tunnel these sections reveal the bored-through stone of the mountain in contrast to the industrial concrete of the rest of the tunnel, and are illuminated in vibrant rainbow of colors like James Turrell installations. The caverns are outworldly places that physically transport travellers through their own sort of time compression and spatial dissociation. This same design applied to the Pennines tunnel would approximate the raver's path, while acting as a repeatable game-like circuit itself. The warehouse parties were busted by the cops ages ago, so they're no longer the physical destination. Instead, the tunnel acts as a merger of Tarkovsky's interstellar portal, and *Wipeout XL*'s bliss-seeking dramatization, grounded in the earthly reality of automobiles and daily commutes, but coated in the glowstick neon of raves long gone.

Of all the *Wipeout* games, *XL* specifically acted as a portal for North American players to experience an otherwise inaccessible, particularly British cultural moment. *Wipeout XL*'s tracks are full of tunnels and colored lighting, sure, but the game itself acted—and still acts—as a trans-continental tunnel. It transported players to a place that, like Berton's car driving through Tokyo in *Solaris*, might not address its locative disconnections, but does merge collective memory with the sensation that our techno future has already arrived.

The year? 2017.

Free yourself.

DS

Dan Solberg is an interdisciplinary artist, freelance writer, and digital media professor, producing works about videogames, music, and art.

- Romain Enselme, Le Chant du Cygne, developing *Havre* (pictured overleaf)

Secret Geometries

feature Metroid and Brutalism | Ario Elami

Few things in videogames feel as intimate as curling Samus up into a ball and navigating, or simply inhabiting, a tunnel in the *Metroid* series. There is a hint of childhood play to the act; much like how children will delight in huddling under a table or blanket fort, directing Samus into and through a snug root-passage offers a little thrill where the world's enormity and threats have been momentarily stayed by the miniaturization of Samus and the space she occupies. But it is still a tunnel, and, rather than a child, Samus has become more like a mole, or an abstraction of a spelunker within a supercave's shaft, belly to the ground. The intimacy is bound to mystery—the mystery of an alien world's geometries. Each obscured pocket-path contributes to a question: just what is the true shape of this place?

Like some other videogames from an era of labyrinthine level design and abstruse secrets (*Tower of Druaga*, *Legacy of the Wizard*, etc.), the *Metroid* series' 2D efforts stress worlds of mass and recess; worlds where topography may be carved away to unveil hidden routes and embedded objects of interest. The more you unearth, and the more unusual passages you pass through, the more you suspect, and inspect, and find yourself playing the role of an archaeologist.

You can look at *Milon's Secret Castle*—released the same year as *Metroid*, 1986—for an extreme example of this, a game whose every inch is suspect and approached by the informed player with tedious obsession. Here, one ascends a four-story castle, weaving between its outer walls and convoluted interior, all the while firing bubbles at surfaces to pick up concealed, assistive items like keys or currency. But there's never any indication as to which tiles are two-faced; you simply realize early on that most are. 1994's *Super Metroid* is different: arbitrary yet particular, it leads you to be suspicious, to discriminate on the basis of subversive precedents. If you look at each of the original 2D *Metroid* games, you can pick out various architectural-geologic themes. In the original *Metroid*, it's the slight mundanity of a cavernous room contrasted against its oddities—say, that a statue's podium has a destructible channel underneath, suggested by a differing metallic texture—and artifacts. In *Metroid II: Return of Samus*, the complexity has expanded to include temple-like structures nestled among the largest chambers, evoking a contained, intramural sense that recalls Turkey's rock-cut Lycian tombs. In *Super Metroid*, the room types' greater diversity works in tandem with Samus' new acrobatic abilities, some unintended, so that a space's interactive potential includes how Samus may creatively traverse it. And in *Metroid Fusion*, the simple fact of Samus navigating a majority of artificial/industrial zones recontextualizes the subversions; rather than revealing an alien earth's secrets, she is reusing built space for her own ends, a little similar to *Die Hard*'s John McClane.

It's only recently, in time spent away from these games, that their qualities have cohered in a way that seems strikingly similar to the best qualities of brutalist architecture. It's not really the *Metroid* games' exact appearance as much as its navigationally compelling mystery, done through volumetric spaces, that feels brutalist. Brutalism has had a minor resurgence of popularity lately (the preservational efforts directed at the Robin Hood Gardens, for instance, or publications like Peter Chadwick's *This Brutal World*), and although the interest is mostly coming from historians and architects, it's shared by a range of otherwise uninvolved appreciators. This isn't totally surprising: with maligned styles, it's often only a matter of time until they're embraced one way or another. But it's not just that brutalism's time has

Previous page: Annotated image of the National Theatre, London (Ario Elami).

come, according to a formula for fashion; it's that its traits are ones to be reconsidered in contrast to current fashions—ones which have outright discarded brutalism's positives.

Brutalism has its negatives. The style's bunker-like predisposition for thick walls and thin, slit-like windows means many buildings have a minimal admittance of sunlight. Apartment complexes are often overly gloomy, bordering on dystopic. The exteriors tend to look dirty, because they are—ironically, this stems from a disdainful neglect which only serves to make the buildings today appear better off demolished. There can be an admittance of cold, leakage, and mold that older structural designs had mostly solved, or better countered. And, although it's too uncomfortable for a certain kind of enthusiast to accept, brutalism has a hand in modernism's macho ideological legacy—that utter dismissal of feminine, queer, or decorative elements, that censure of ornament, that push for an uncompromising virility.

Yet it is this uncompromising, attention-demanding quality that announces brutalism's excellences, its structures which share an eye for the strange and the humane. It's not stretching the truth too far to say that a number of brutalism's negatives are avoidable with material upkeep and, on the architects' end, a subduing of ego, a broadening of formal and ethical principles, and more considerate, accessible planning. If a portion of brutalism's ideological legacy is daft machismo, another portion is utopian ambition—certainly not an inexplicable goal. In the West alone, utopics can be found in the late 19th and early 20th-century City Beautiful or Garden City movements, both stressing proportionate, radial urban plans; the 18th century's visionary French designs which prized the visual effects of large, simplified masses; or Europe's Renaissance-initiated, centuries-long obsession with mining Greco-Roman material so as to approximate a supposed bygone virtuousness. The tripartite facade of Washington Union Station, for example, with its three arched portals separated by statue-capped columns, is based on the Arch of Constantine from 1600 years earlier. What is inexplicable to many is that brutalism's utopian side is fastened to an architecture that looks unprecedented. As is true of modernism in general, brutalism perhaps happened too fast.

It can be hard to see, with our eyes pressed-up against the present, how we're among utopics now. The most intellectually pervasive of these is probably the "smart city"—see New York City's Hudson Yards, for example, or the integrative efforts of Alphabet, a spinoff of Google—whose advocates' apparent confidence in its ability to solve all, or nearly all, urban problems through a certain technophilic framework strangely resembles the overestimations of Le Corbusier and Ludwig Hilberseimer's generation (by now, the rhetoric of TED talks—"Just sit back and let the monolith of technology proceed to fix everything!"—has become something of a joke). In the place of "magnificence," "dignity," or "harmony," there is now "optimization," "ubiquitousness," or "sustainability"—a push to find a neater proportionality between civil engineering and the domains of digital technology, green practices, and industrial design trends.

Brutalism was, in effect and at best, a return to mystery, the transfiguration of an interest in durable, utilitarian aesthetics, brought away from the reductive logical positivism of the Bauhaus building in Dessau and steeped in something almost resembling a medieval reverie. The friction of fort-like buildings including the Church of St. Nicolas (Hérémence), Robarts Library (Toronto), or the National Theater (London) is that they appear so anomalous, almost licentious, yet vital to the landscape now that

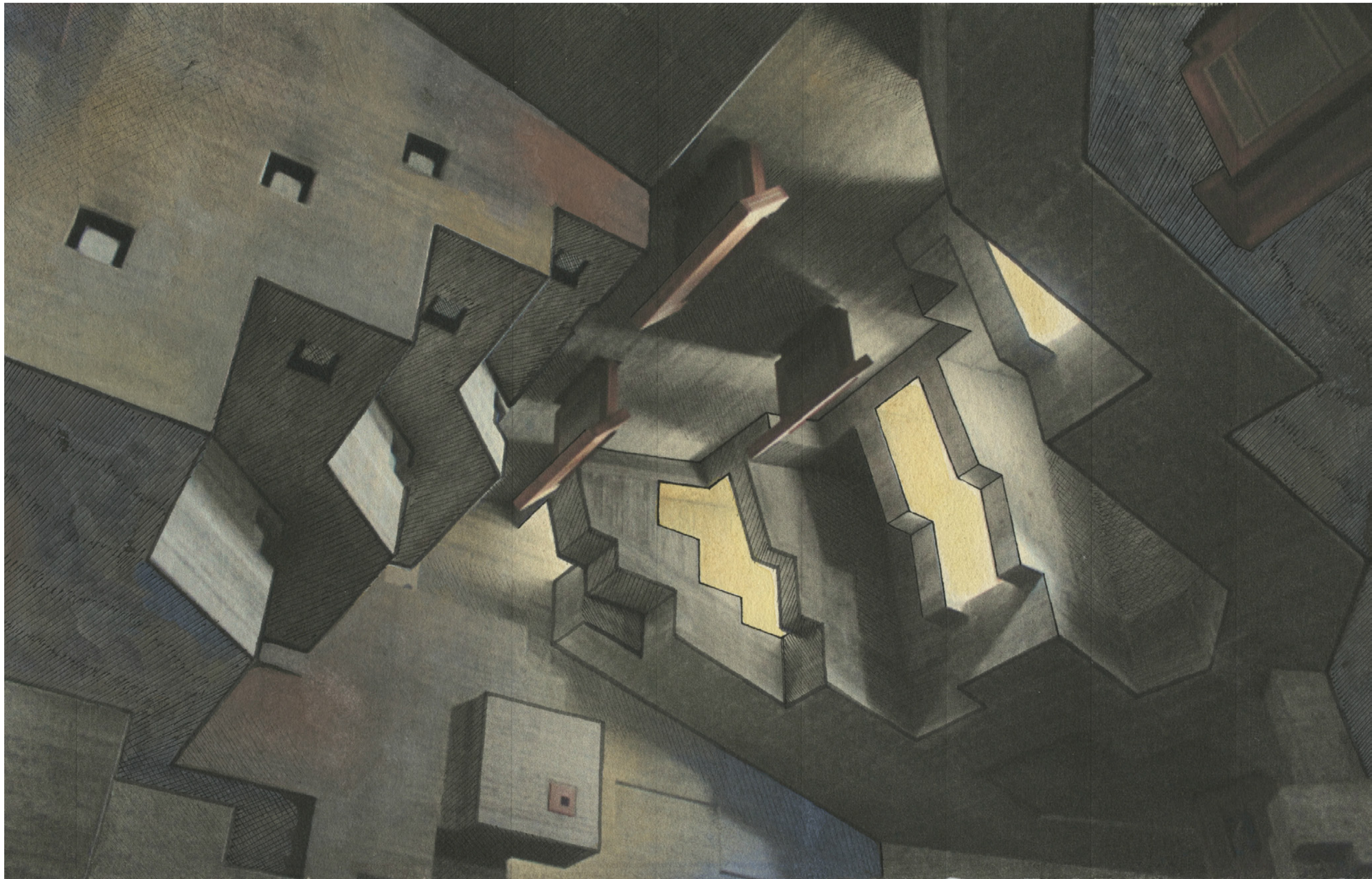
Brutalism has a hand in modernism's macho ideological legacy.

Prompt us to playfully occupy sculptural space in an unresolvable whole.

Left: Annotated image of the University of Scarborough, Ontario (Ario Elami).

Sporting tiered extrusions which look as if the surfaces have birthed latent, bizarre shapes.

Right: Annotated image of the Holy Cross Church in Chur, Switzerland (Ario Elami).



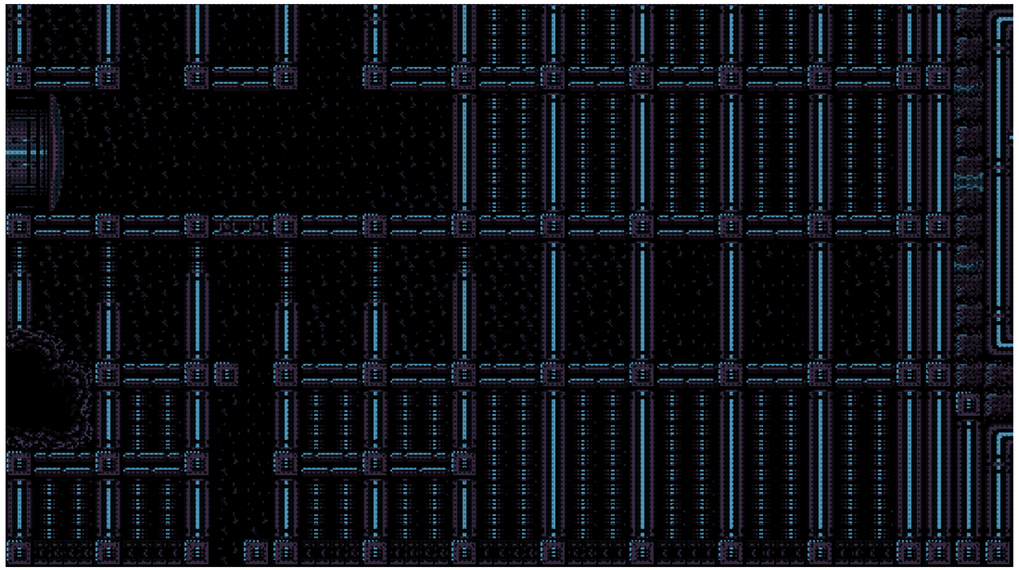
they exist. Each building offers something peculiar, whether it's the theater's exterior that resembles a Frank Lloyd Wright house made huger, harsher, and even more tight-lipped, the library's vertical reiterative massing, like an array of futuristic turrets, or the walls and ceiling of the church's main interior, pocked, grooved, and sporting tiered extrusions which look as if the surfaces have birthed latent, bizarre shapes. Visiting these sites might give you a taste of what Friedrich Gilly experienced, more than 200 years ago, while among the Polish castles of Marienburg and Marienwerder, admiring each complex's irregularities, massiveness, whimsies, and secretive air.

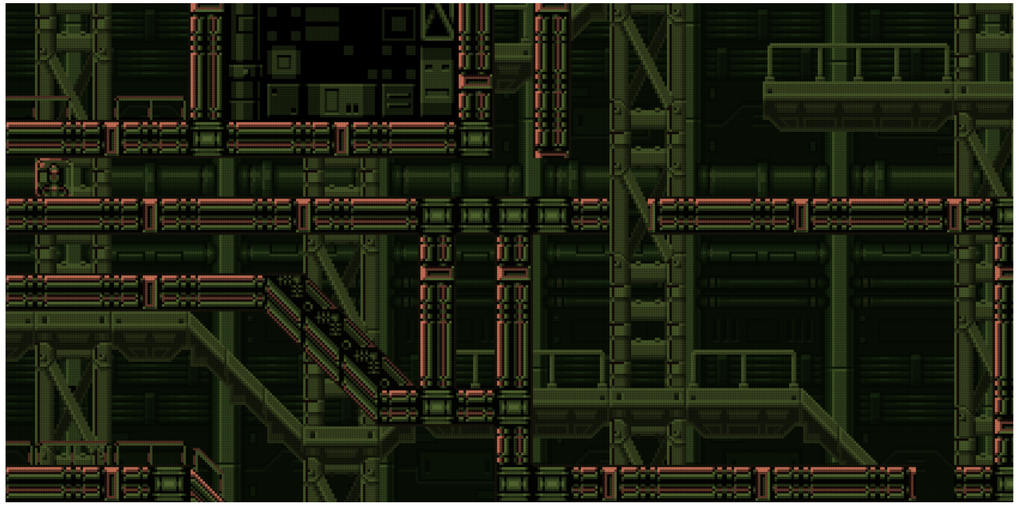
We are now witnessing a utopic ideal which calls upon the word's original meaning in Greek: "no place." Today's architecture shrinks away from the syllabically segmented, click-clack phonetic quality of "architecture," as a word, and airily redefines itself as "built space." The building has become a pathologically hygienic, diaphragmed rise of partitions sporting a bland, calculated arbitrariness: a plasticine window frame there, but not one here. Strangeness is often restricted to sites like the ventricular Kunsthaus Graz or turbine-cum-dildo Gherkin, which are just over-aggressive interpretations of modernity as the friction of paradox. Ambiguity, by and large, cannot be tolerated, because ambiguity is the enemy of user interface design.

What brutalism and *Metroid* share is to encourage a specific, enthusiastic-intimate relationship with their environments, and prompt us to playfully occupy sculptural space in an unresolvable whole. By doing so, they bring us back into a mystery. For brutalism, we could look to Seattle's Freeway Park, reminiscent of basalt columns and riverside boulders, compelling us to climb and settle around its blockscape; or Boston's City Hall, whose coffered vestibule is built like an inverted elevated playground and draws us further in with a broad, rising staircase. For *Metroid*, there is the heart of *Super Metroid*'s aquatic Maridia zone, which has us negotiate a network of pink-purple tubes to discern which portions disintegrate by being stepped upon (we might further discern that the bottommost pipe can be gotten under; that the sandbed contains pits which fall into separate formicaries; that there is yet more quicksand, more caves, beneath these); or a moment in *Super Metroid: Eris*, a 2009 hack of *Super Metroid*, where revisiting a dim room, maybe one that once generated power, with swifter feet granted by the Speed Booster ability splinters a thin bridge's joint, and reveals a drop into a tiny room below. If we're curious and proactive, we'll find that a missile upgrade is embedded in a bulbous part of the ceiling.

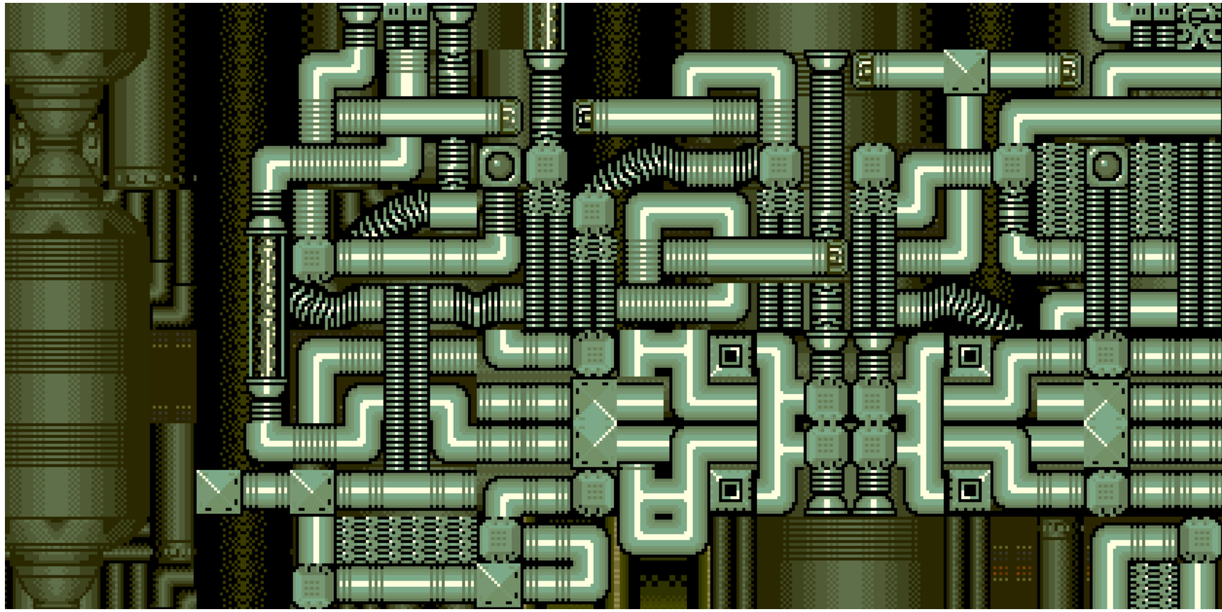
These aren't videogames that wear their appeal all out in the open, the first two least of all. *Super Metroid* perplexed me for the longest time. It was far from the personableness and gambolling pace of my then-favorite, *The Legend of Zelda: A Link to the Past*. It required an adaptive process: from understanding that I was expected to probe and poke environments, to seeing the whole layout blossom into a network of eccentric possibilities in the context of speedrunning, to admiring the smallest of its level design's topographical textures.

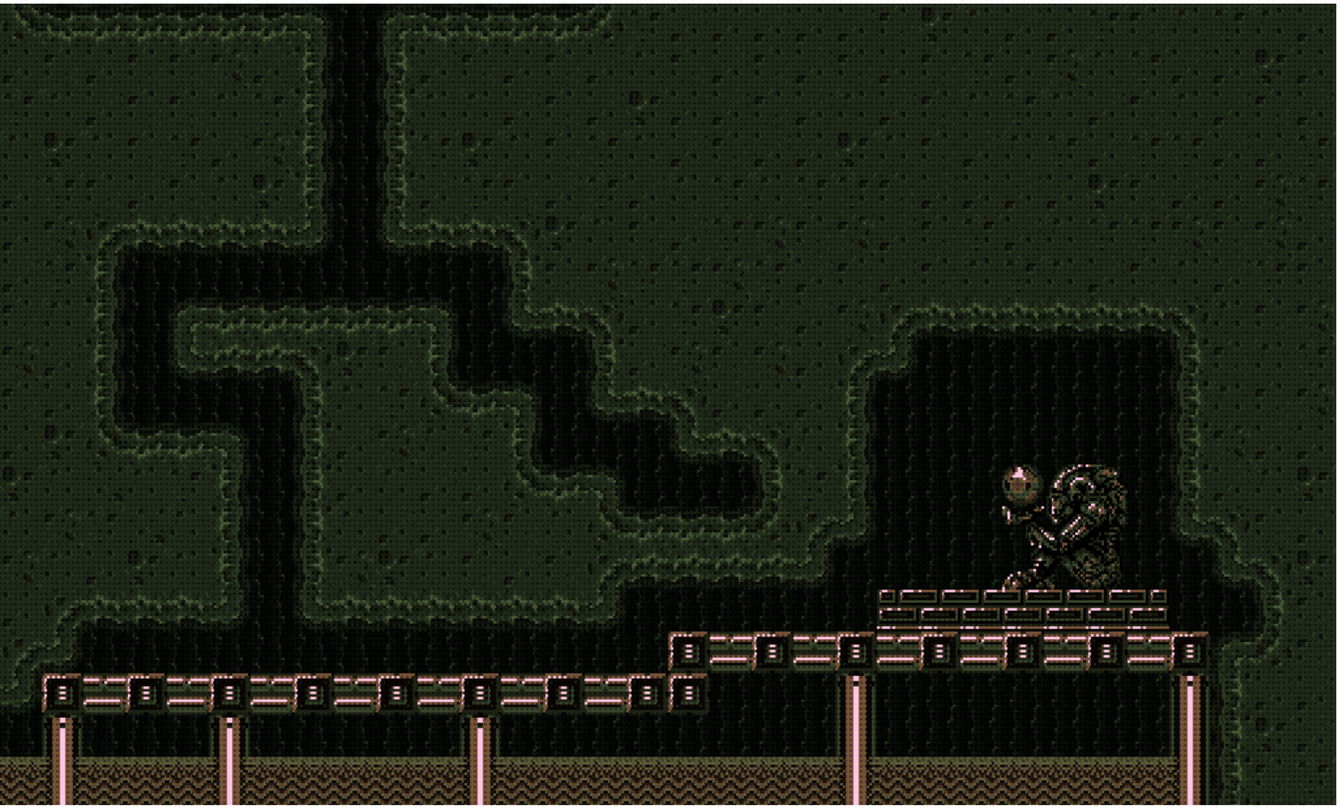
It didn't really matter to me, then, that *Super Metroid: Eris* had a fair share of questionable design decisions which couldn't be explained away by the game's specialized target audience. What took hold instead was a sense that some supernatural order lay behind this grotesque tangle of caves and corridors, all pushing the limits of navigable geometry. There was a romance of the designer accenting the subtext and almost not being able to stop fussing over the level design's granularity. Uncovering





Left and below: Edited screenshots of Metroid: Eris and Super Metroid's enviroments (Ario Elami).





Eris' secrets was like overturning a rotted log in a forest and finding a centipede—crimson, startling, ancient—nestled in its decomposition. It was intimacy born of curiosity among a massive, apertured, unlovely vastness: the small arched openings that vent the terraced sides of Scarborough College, Ontario; the slanted recesses perforating the nave's walls of St. Bride's Church, East Kilbride; the projected reading rooms in Countway Medical Library that both expose and enclose their occupants.

It's true: there are other architectures, ones a little or much older than those aforementioned, that are volumetric, cavitary, secretive, and somehow comparable to the *Metroid* series. Just the gnarled natural symmetries and meandering patterns in *Super Metroid*'s Norfair, the game's most chthonic zone, are enough to broadly recall the Khmer and Dravidian architecture of Cambodia and India. We could also look at photographs by the late Hilla and Bernd Becher depicting early-20th-century blast furnaces. The comparison to, say, *Metroid*'s final area, Tourian, or the lower portion of *Metroid Fusion*'s main deck, is a bit easy on the surface, but it does bring to attention the series' visceral aspects—its guts of tubes and hatches which admit and expel Samus, as well as hosts of native critters. Architects Joshua Comaroff and Ong Ker-Shing discuss this in their book *Horror in Architecture*, referring to the modern building's "revolting technical interior," home to "unspeakable cavities" and familiar to only a select few.

Brutalism is my focal point here, though, for a combination of its formal qualities—ancient and futuristic—its historical nearness, and its invocation of the present-day sense that we passed something by and set our sights elsewhere with a premature swiftness. Practically all architectural histories reveal a trend of longing for the past's

It was intimacy born of curiosity among a massive, apertured, unlovely vastness.

Left: Edited screenshot of Marida from Super Metroid, (Ario Elami)

comforts and splendors. The present is mediocre and in desperate need of fixing; the past is unduly transient and fantastic. Compare the comments section for an article on the aforementioned Robin Hood Gardens' replacement housing to the Gothic revivalists' anti-neoclassical grumblings. "Christ. What was the brief?" one poster groans. "Square, with square bits sticking out?" We're smitten by the look of a gable or some stonework and, before long, we've developed a romance for a time and place we never belonged to. It's easy to view photographs of the since-demolished Kowloon Walled City and be taken by the vertiginous density: 30,000 existences all squashed together. It's certainly interesting as an image, but what were its residents' lived realities?

That tension between enchantment, desire, the present's disappointments, and the past's realities seems so very applicable to the *Metroid* series and its relation to its own medium. *Metroid*, *Metroid II*, *Super Metroid*, even *Metroid Fusion* from 2002—each reminds me of a time when less codified design, crude visual ambiguities, and the treatment of videogames as boxes of curiosities seemed poised to lead the medium in other directions. But I'm also reminded that, like so many formally seductive photographs of architecture, representations and thoughts about a thing can be separate from the thing itself. Today, I can't even engage *Metroid* or *Metroid II* as pieces of completable entertainment. In truth, I've only ever played either long enough, on multiple occasions, to feel fatigued by their scopes. *Metroid II*'s Spider Ball mechanic alone, which allows Samus to adhere to and roll along any wall or ceiling, makes exploring planet SR388's subterrain seem a horrifyingly limitless affair.

Yet I keep returning to these games and to that image of Samus within the tunnel, within that "unresolvable whole," and I think it's here that the *Metroid*-brutalism comparison most resonates; for relating to both seems so much like a sublimely extended game of hide-and-seek. To explore these real and virtual places is to once again be like that child discretely inhabiting niches, shielded from threatening possibilities—but it's to also try to come to terms with something primeval, advanced, monstrous, and irregular by means of an elicited, inquisitive playfulness. We aren't necessarily being pursued (though we are in *Metroid Fusion*, where Samus is set against an antagonistic doppelgänger). Rather, it's that we seem to be doing both the hiding and the seeking; as if nestling into a misleading, staircase-shaped tunnel among one of Maridia's furthest extents, or rounding Boston City Hall's northwestern side and stepping into a recess that's shielded by a great brick block, is a way of getting closer to some sort of meaning.

It's a meaning that's as alluring as it is alien, as harsh as it is strangely accommodating, and as difficult to write out as it is able to be felt. As there are multitudes of architectures and imaginations, there are multitudes of mysteries. This is *Metroid* and brutalism's shared enigma: somewhere in between a dream and a nightmare—repulsive and attractive, hive-like—full of weight, wedges, and crevices, all set against stark backdrops. In the absence of a full comprehension, yearning for those true shapes, what can we do but proceed further inward?

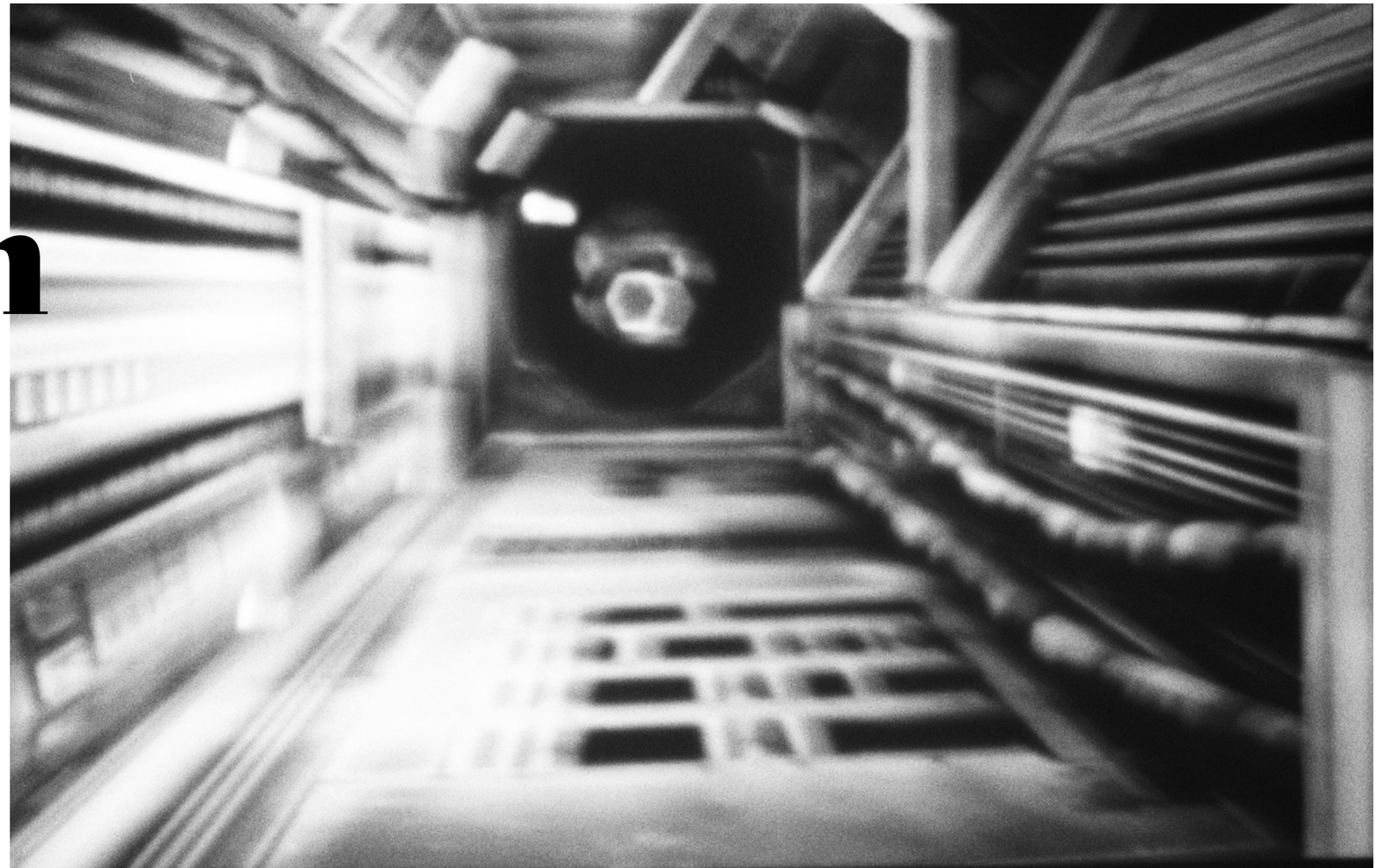
AE

Ario Elami is an American-Iranian artist, writer, and composer.

Following page: Annotated image of Boston City Hall (Ario Elami).

Memories of a broken planet

feature Metroid Prime | Gareth Damian Martin



There are spaces that haunt us. Our childhood homes, the halls of educational institutions, the apartments of lost lovers. They sit in the memory, ready to be evoked by the correct arrangement of forms, the right quality of light, a significant configuration of walls. Some of these spaces aren't even real.

Metroid Prime's Tallon IV is one of those spaces. Even as I call it by its name, the name of a planet, a name that evokes something vast, unfamiliar, open, I feel like I'm failing to describe it. That's because in reality, *Metroid Prime*'s "planet" is made up of a rabbit warren of interiors, joined by improbable and illogical elevators; a string of corridors and rooms that, in the map screen, glow like the blueprint of some ornate factory, suspended in a lightless void. In comparison to the planets that the likes of *No Man's Sky*, *Elite Dangerous*, or *Mass Effect: Andromeda* now offer up for us to roam, 15 years later, *Metroid Prime*'s world is a work in miniature. It is science fiction as tunneling into, not infinitely expanding, the landscape of our daily lives. Its rooms, marked by suggestive labels like "Gathering Hall" or "Central Dynamo," which tend to split usage into ritual or industrial functions, are characterful to the extreme. They brim with detail that emerges on repeat visits, from ornate machinery ceiling-mounted out of view, to single water drips, falling into fetid puddles between worn paving slabs.

The fidelity of these spaces is startling for a game of its age, thanks to a hand-crafted look that models details in crisp, graphic geometry, before draping it in impressionistic, soft textures. Though here an example of working with limited resources, it's a style we've seen re-emerge since, in *Firewatch*, *Dishonored*, and even *The Legend of Zelda: Breath of the Wild*. Though in none of these works does each face seem to be filled with the same amount of suggested, implied, and even imagined detail. That is how I remember *Metroid Prime*: boldly sculpted, knowable, even memorable rooms, filled with loose, unknowable complexity. The void between the map screen, beautiful in its minimalism and selective in its details, and the actual world of steaming machinery and golden sun you clank through, is the one that animates this most exceptional of games.

That void, that gap, is also the gap I encountered when I returned to the game. Loading up my original save file, a glowing 100 percent completion suggesting that it should deliver me a world stripped of its secrets, I found myself lost once more, in rooms I knew but corners I didn't. Perhaps it's because *Metroid Prime*'s levels exist in a potent space between representation and abstraction. Each room might work as a singular contained world, but over the course of a single journey through ancient ruins, magma lakes, snowy temples, and darkened machinery, the spaces become an illogical list, a series of qualities and atmospheres laid end to end, not a linear fiction. This is deepened by those rare moments that a cracked ceiling, or crumbling wall allows you to glimpse the exterior of a space you have visited or are just about to visit. The realization this triggers; that these seemingly endless interiors have exteriors, evokes a particular kind of vertigo. Together these properties mean that *Metroid Prime*'s architecture is always operating at a level close to the logic and structure of memory, even in the immediate moment you are exploring it.

As I followed my own footsteps through these half-known spaces I enacted a series of realizations. Remembering how this path connects to this room, or recalling how a secret was behind this or that panel. I started to remember how hard won that 100 percent was; how, when left with a single missing secret, I found myself

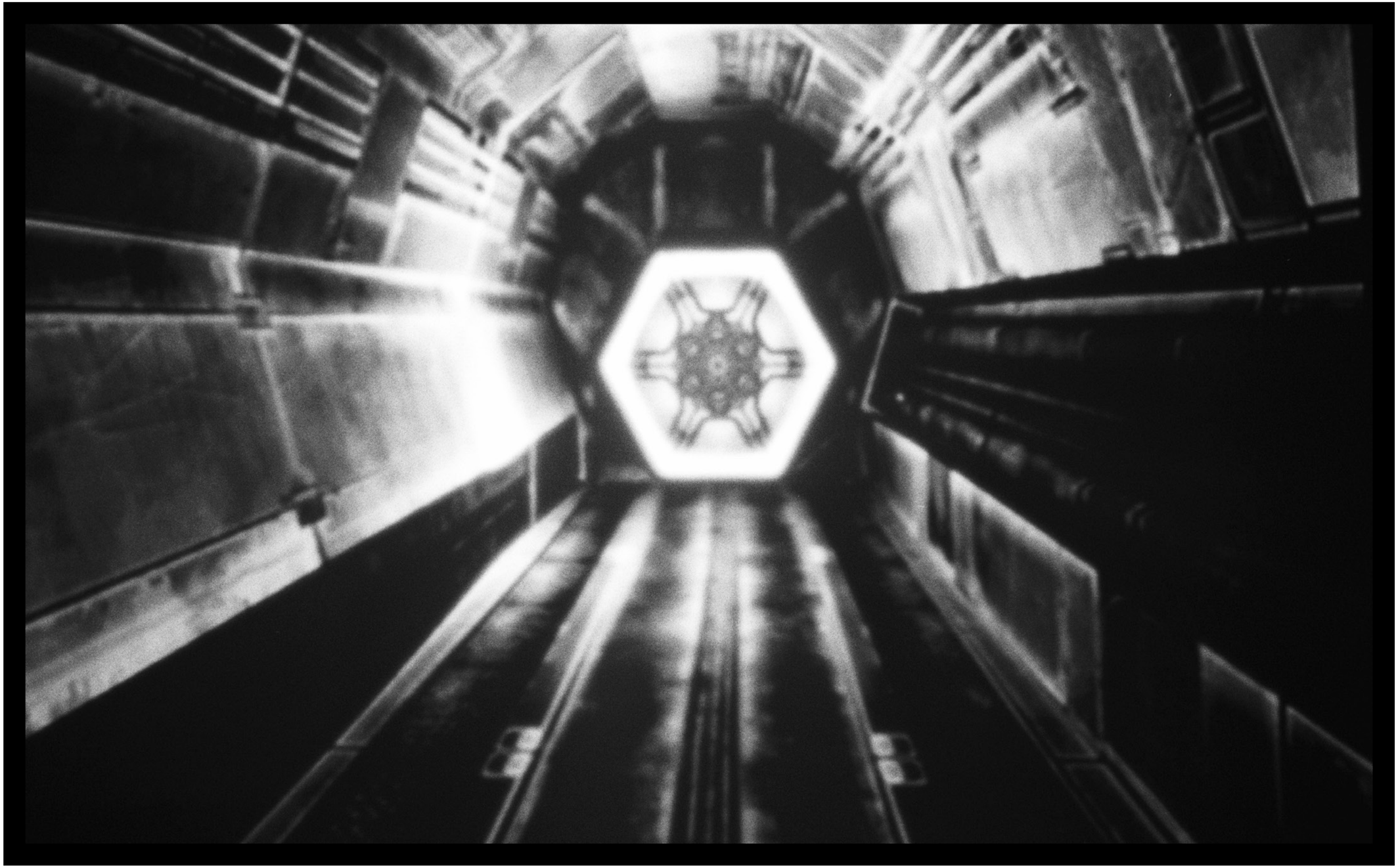
I found myself lost once more, in rooms I knew but corners I didn't.

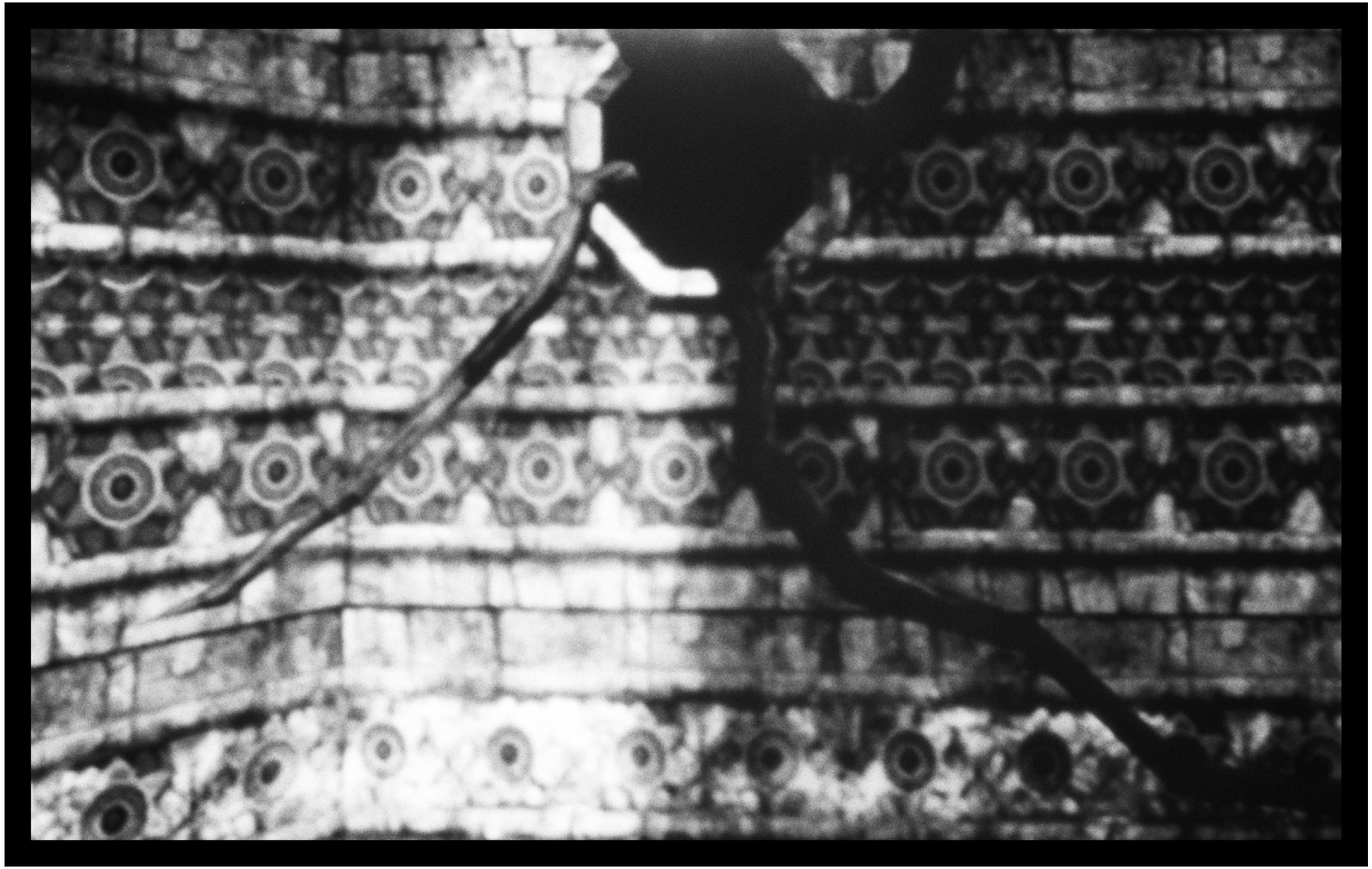
Previous and following pages: Photographs of Metroid Prime, Fujica STX-1 (Gareth Damian Martin).

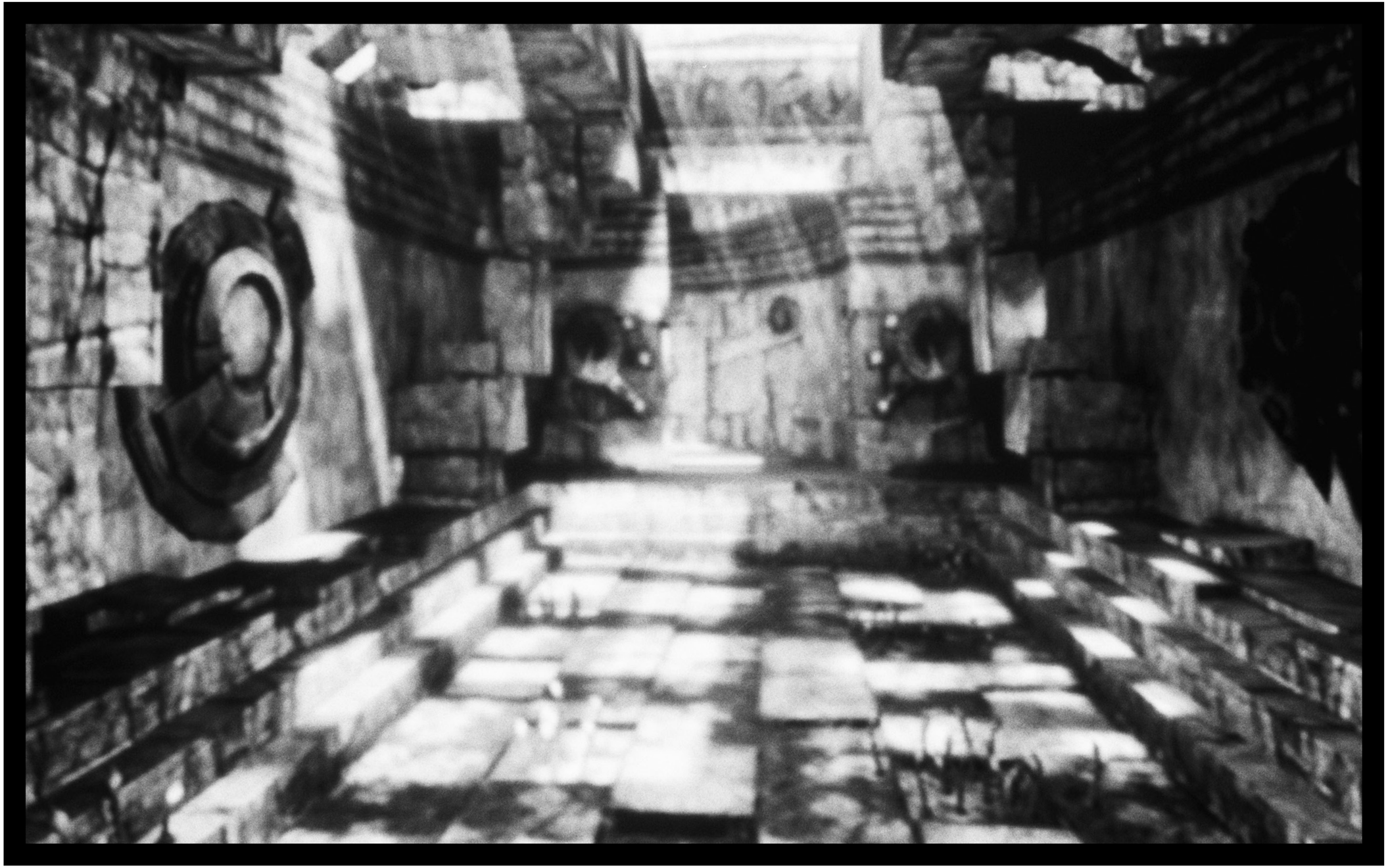
having to go through a magazine checklist and re-find each empty treasure room until I found the one I had missed all along. Unsurprisingly, it turned out to be one that I was sure I had already collected, so sure in fact that I had memories of getting it, no doubt fabricated by pouring over the images and maps of the guide I turned to in desperation.

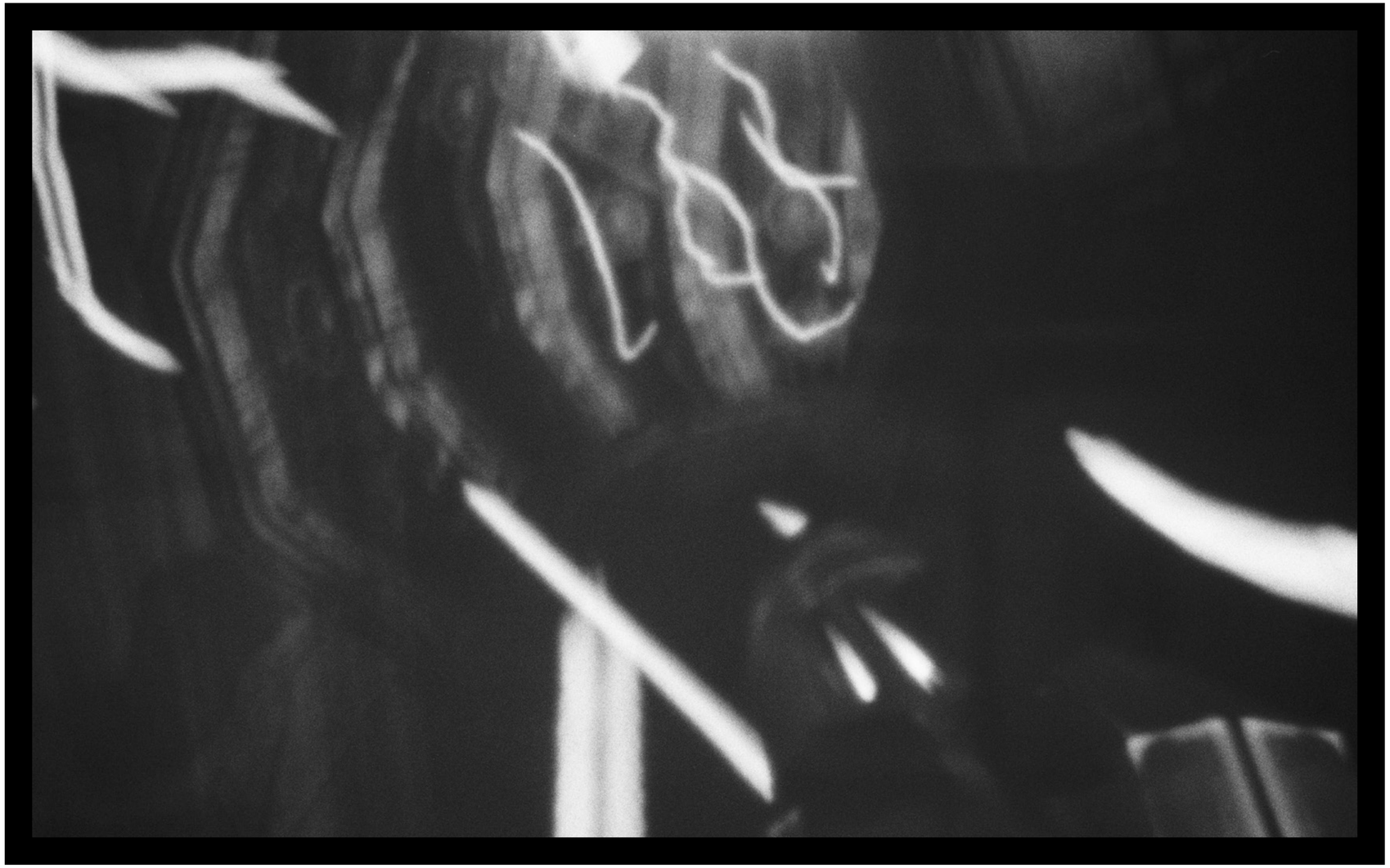
Now, these memories, false, true, and otherwise, are overlaid, and I find myself in a personal space as potent as any I know. Turning my camera to it, my grandfather's camera, the one I was learning to use back in 2002—loaded with the same black-and-white films I coveted as a teenager—is just another logical step. Its light leaks, soft lens, and the dreamlike haze it layers over its subjects, become tools for this particular kind of architectural hauntology. Of course, there is nothing authentic here, and the spectre of age the film gives the game's spaces is a false one. And yet, I have often found the screenshots of remasters or emulations of old games lack the layers of memory, meaning, and reference that are accrued over time. Perhaps this is a way of representing that. What follows then is an attempt to capture not just *Metroid Prime*'s spaces, but their ghosts, their ambiguities, and ultimately the unsolvable secrets that haunt me still.

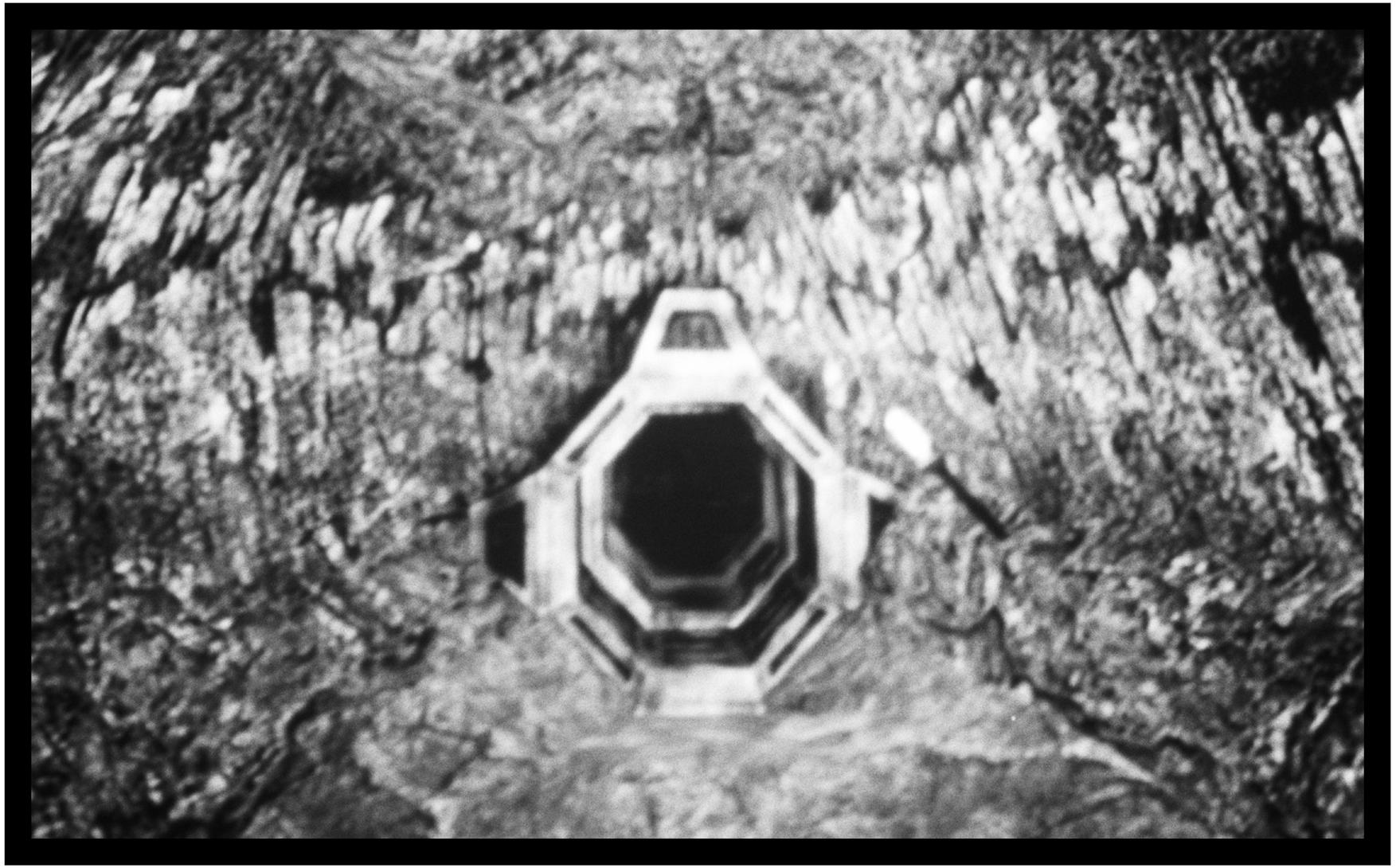
GDM

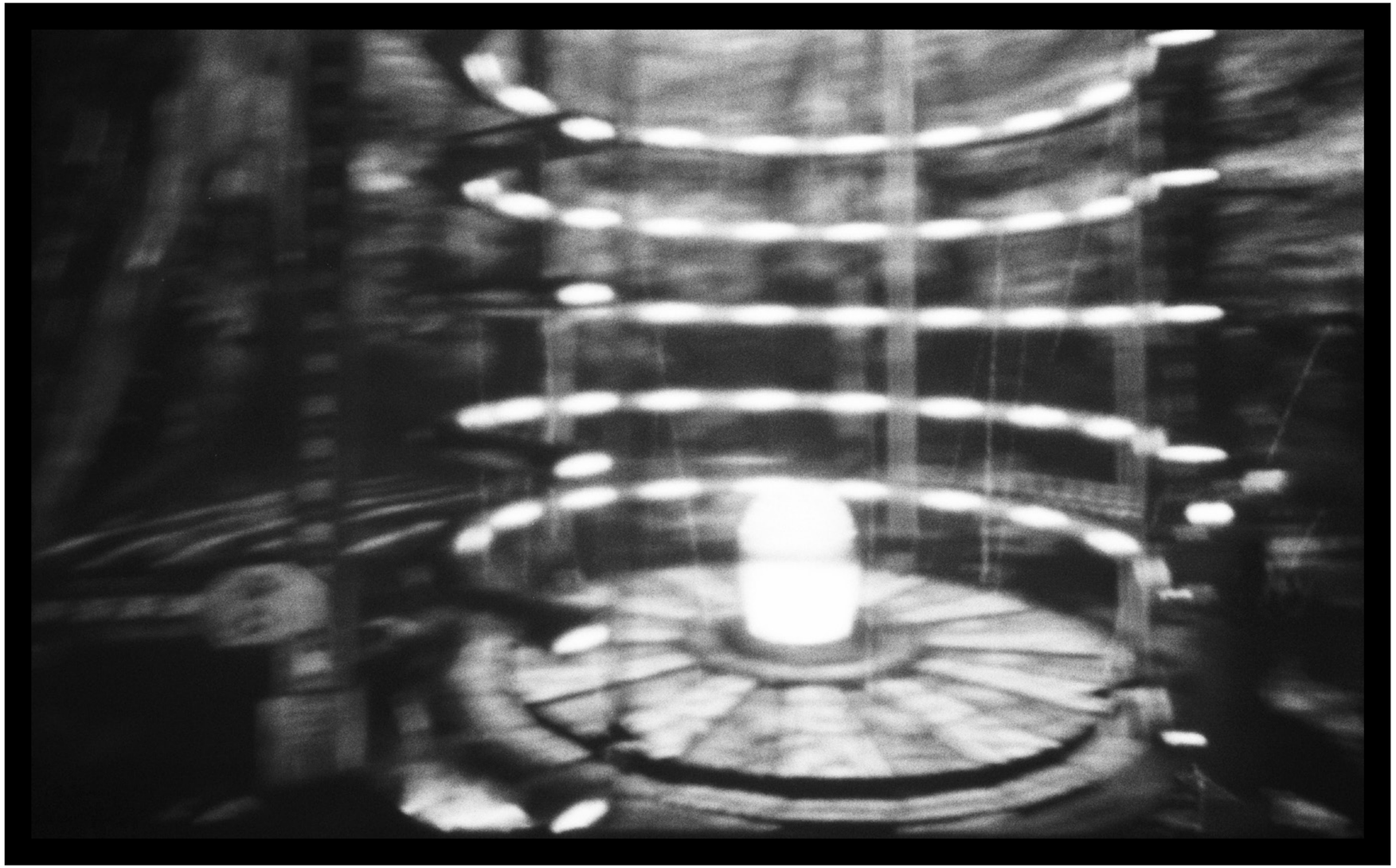


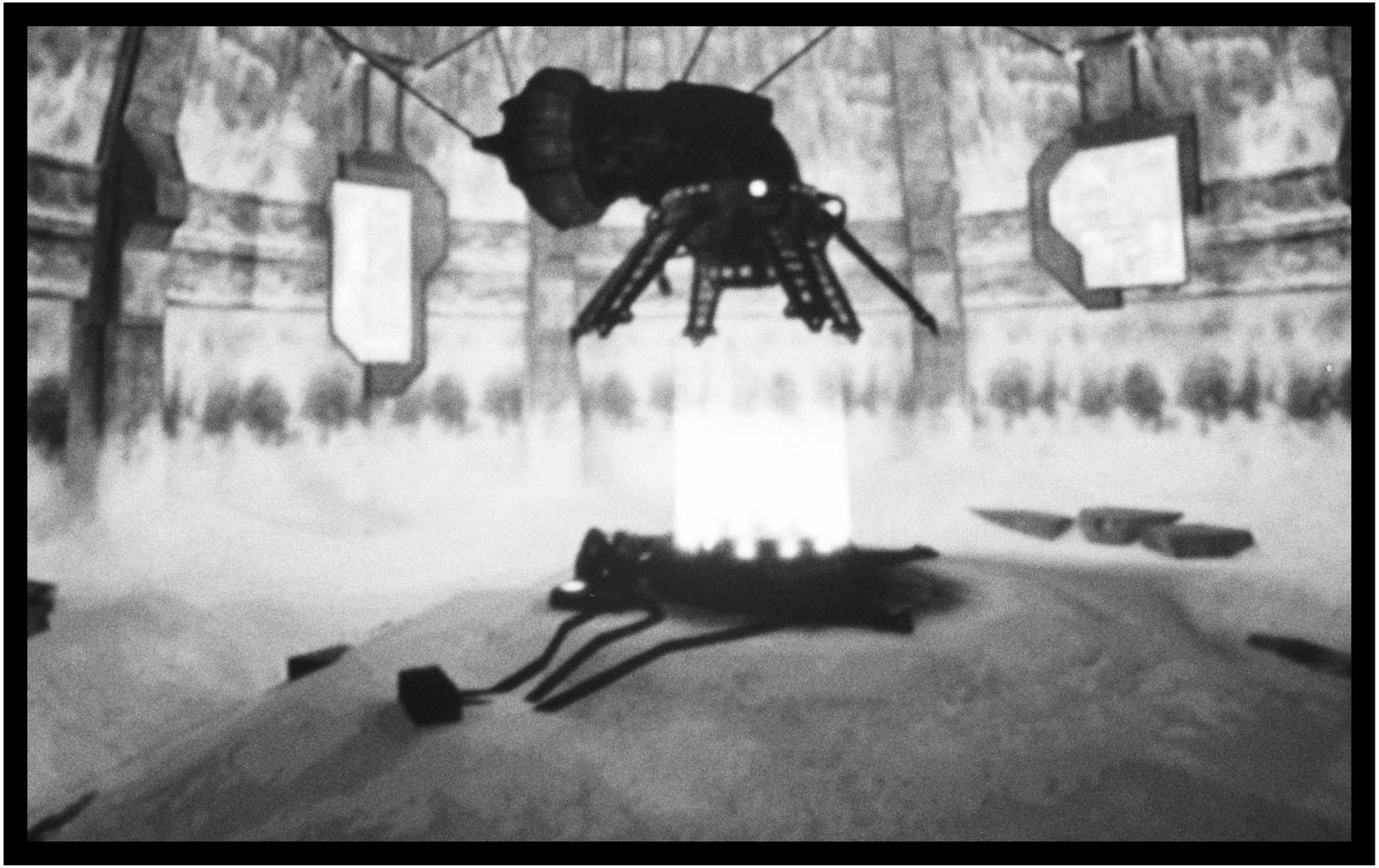


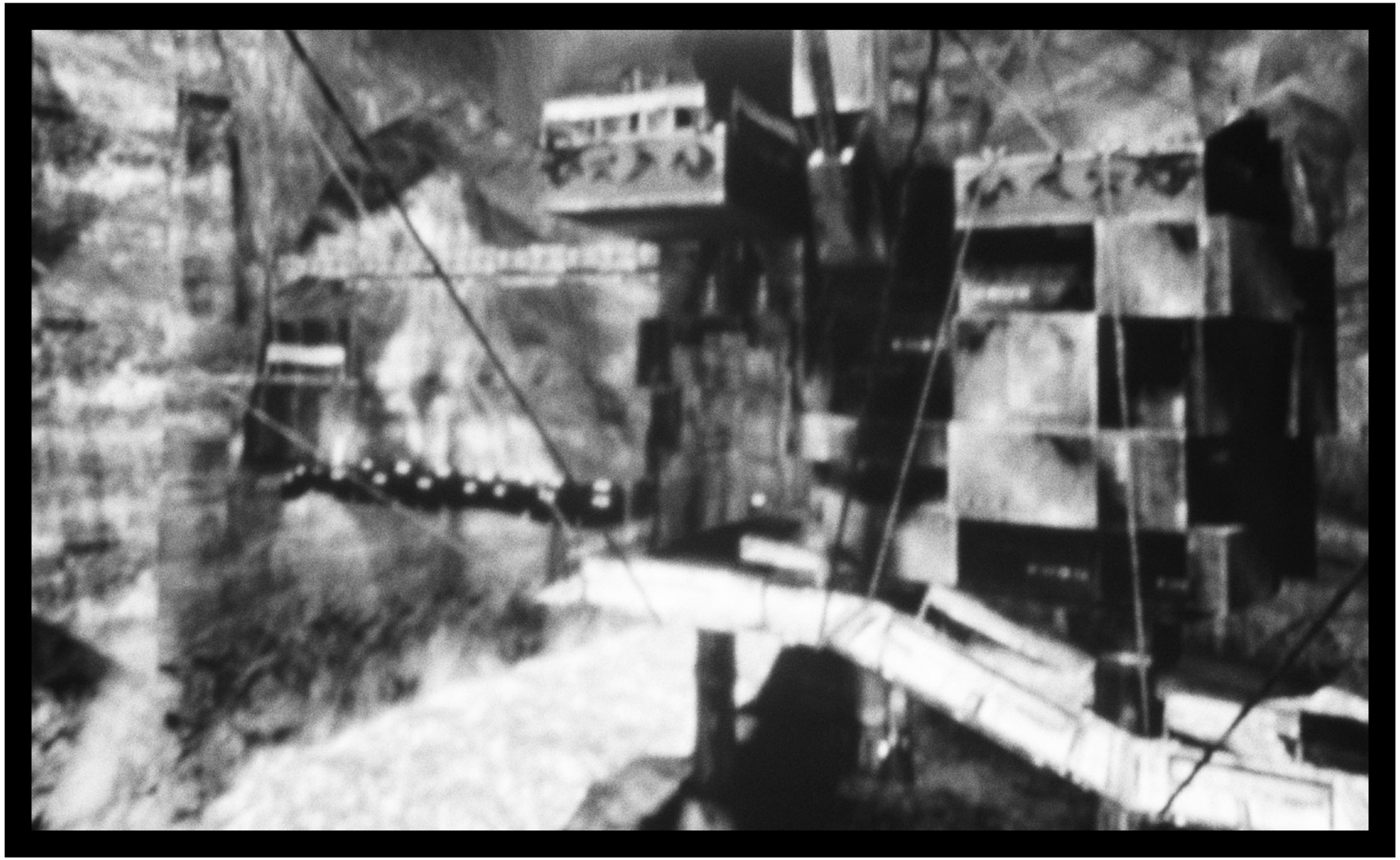


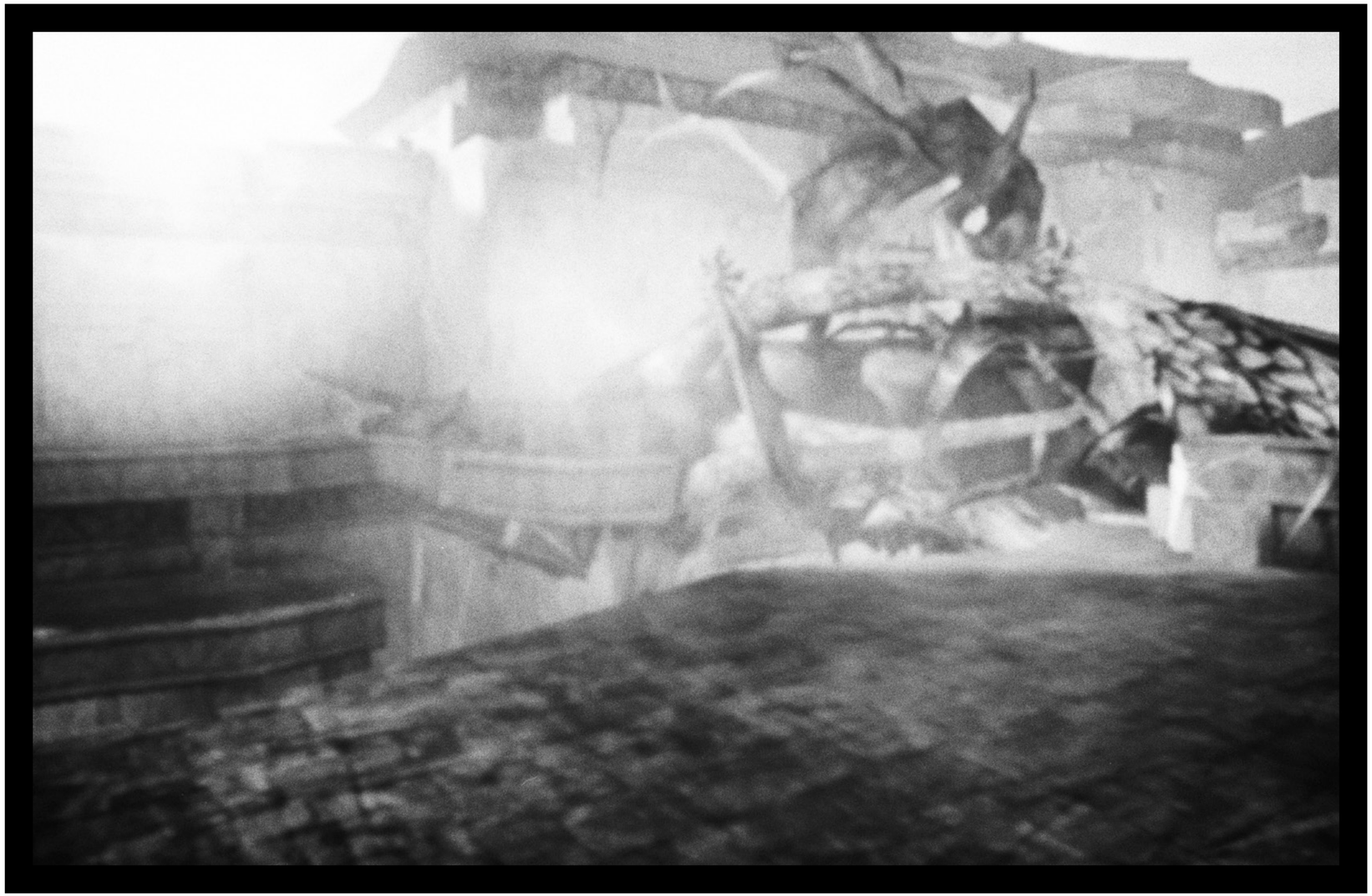


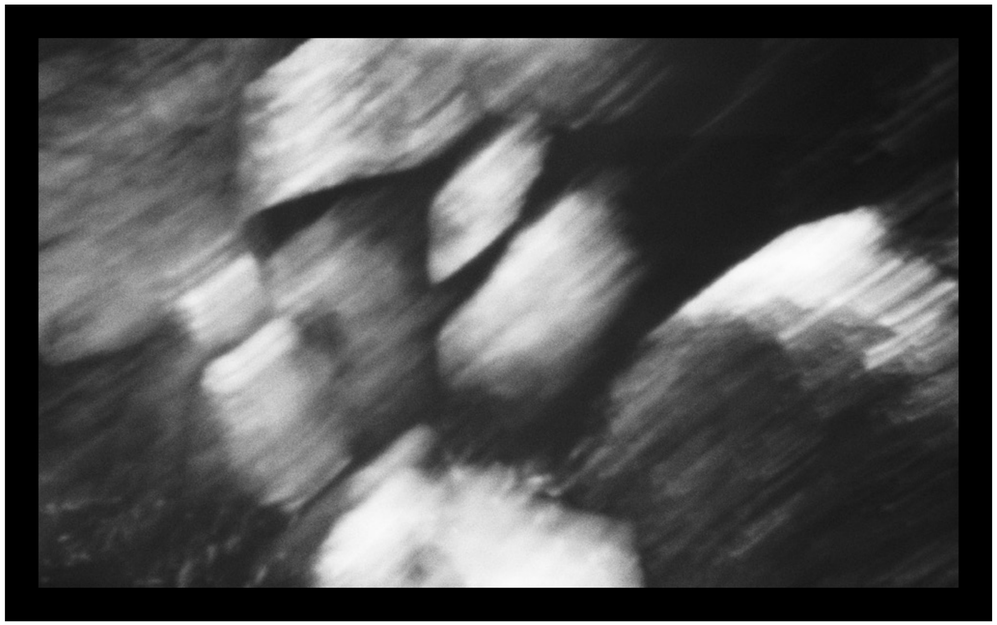


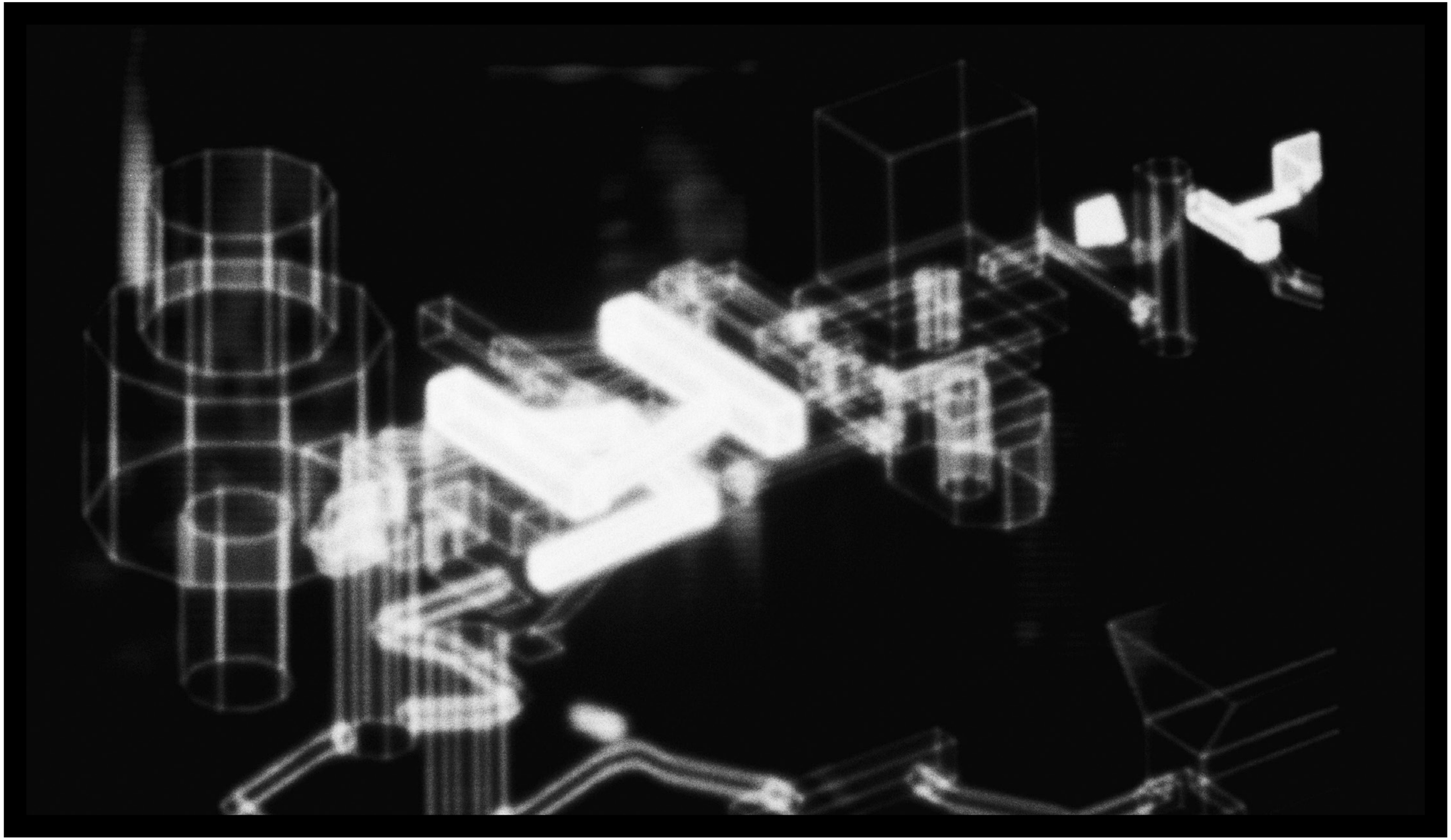


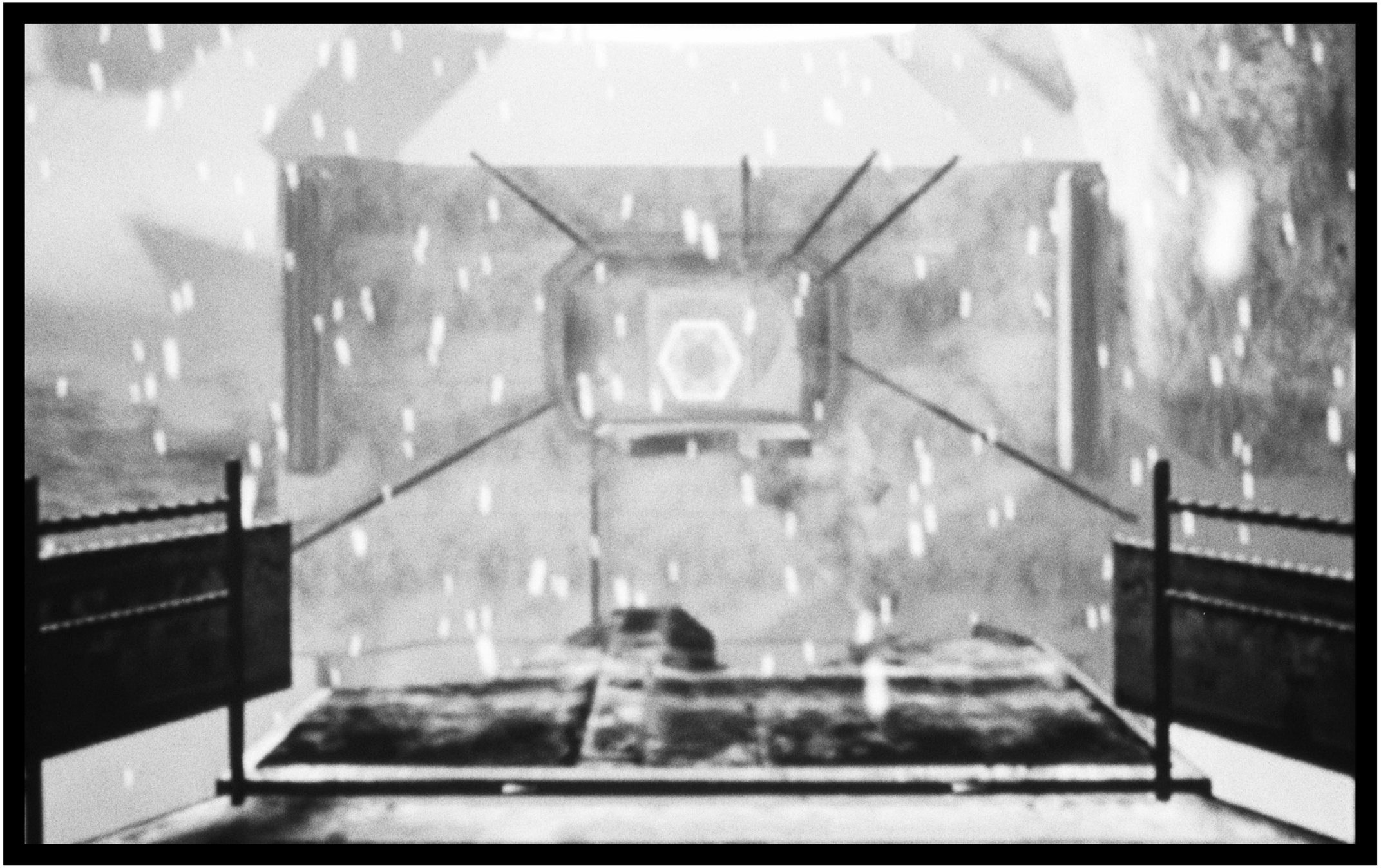












Consider the Chair

materiality Half-Life 2 | Robert Yang

Chairs create places. Chairs let us sit there in that specific place. Park benches create scenic views, rows of seats create theaters, and office chairs create workspaces.

Some games certainly make the most of sitting. Fumito Ueda's *Ico* cleverly uses stone benches to double as its in-game save points. When the two protagonists sit together to load or save player progress, we share their relief and take a rest to prepare ourselves for what comes next. In a way, it's like we're sitting there on the bench, together, all three of us.

But among videogames, *Ico* almost sits alone. Few games let their players sit their virtual avatar in the virtual chair. Are chairs still chairs if we cannot actually sit in them? Well, when we cannot sit in the chairs, I think we still manage to play with them somehow. That is, we imagine the possibility of sitting there, even if we can't sit there.

In the behind-the-scenes commentary for *Half-Life 2: Episode Two*, Valve developer Mike Dunkle offers the following imagined sitting scenario and comments on its intended effect on the player:

"We always look for opportunities to add narrative touches in our levels. The idea behind this chair, the submachine gun, and the beer bottles is that someone used to sit here, drink beer, and drop grenades into the pit of zombies. We give the player the opportunity to re-enact this experience by giving out unlimited grenades and spawning zombies as soon as the player reaches this spot."

While 'some guy got drunk and shot zombies' is not the most compelling story ever told, it does reveal a sort of design consciousness on Valve's part. It shows that they ascribe a kind of narrative power to chairs, and what chairs can signify. Here, a chair is an opportunity to re-enact a suggested performance, even if that performance is not sitting. To help sell that implied narrative, it's important that the chair looks like a well-worn modern metal folding chair, instead of a meticulous carved gold settee from Versailles. A dirty metal chair looks lightweight and durable, and plausibly salvaged from the surrounding industrial complex. It's also crucial to place and angle the chair to suggest a sightline out over the pit of zombies. Combined with the beer bottles and gun, all these factors help the chair tell its story, no matter how small or simple a story it is.

But why stop there, at that chair? Let's consider other chairs too, and the stories they tell.

The beginning chapters of *Half-Life 2* lean heavily on one very simple wooden chair with dark wood and a thin, threadbare woven seat. The simple straight lines and square angles evoke a classic Shaker ladderback chair: a style of early American furniture known for its use of common wood types, sparse use of ornament, and solid craftsmanship. The Shakers sect, along with the Quakers they broke away from, were known for their modest style of living. Their austere architecture and furniture embodies craft as an act of prayer and humility. A simple Shaker chair, then, was understood as a radically traditional step away from the trendy ornate carved chairs that were fashionable at the time in Europe.

Here, in *Half-Life 2*, this simple chair's frequent use evokes a similar quiet dignity, and we learn to associate that dignity with the chairs' owners: oppressed civilians trying to make the most of living in a dystopian city under strict authoritarian rule. As we walk through their apartments, each chair suggests a small domestic scene from their impoverished daily lives, and the repetition emphasizes their mundane sameness.

Again, the player's avatar cannot sit in these chairs. Even when

'Some guy got drunk and shot zombies' is not the most compelling story ever told.

Previous page: A chair, some beer and a submachine gun, Half-Life 2 (Robert Yang).

Below and right: Shaker ladderback chairs, Half-Life 2 (Robert Yang).

The simple straight lines and square angles evoke a classic Shaker ladderback chair.

Half-Life 2's characters appear to be sitting in the chairs, they aren't even sitting in any meaningful sense. They've just been told by the level designer to perform a sitting pose—they might as well sit while floating in mid-air, as far as their AI is concerned. These chairs are just decorative props.

This decorative function is still crucial, because even these fake chairs help establish scale and context in the game world. An office is not an office without office chairs, a dining room needs armless side chairs, and a royal throne room certainly needs a throne. While we cannot sit in these chairs, at least we can notice them and culturally situate them.

Valve punctuates their chair décor with occasional use of a second type of chair—a light wooden chair with a round seat and beautifully curved back made of a thin piece of bent wood. This chair seems more elegant than the other chair, and in the game it is usually placed alone, by itself.

This particular chair design is a clear imitation of one of the most popular chairs of 19th and 20th century Europe, the No. 14 "bistro chair" designed by Michael Thonet in 1859. Its innovative use of a heated pressure machine technique meant workers could quickly learn to press the handful of pieces into the necessary "bentwood" shapes. Since the design only required a few parts and used common European woods, Thonet sold millions of these bentwood chairs at a low cost, for roughly the price of a bottle of wine. They quickly became the cheap but stylish chair of choice in restaurants and homes around Europe, and represented the best of technology enabling new styles of craft and living standards to flourish. The French modernist architect Le Corbusier famously proclaimed, "Never was a better and more elegant design and a more precisely crafted and practical item created."

Halfway through *Half-Life 2*, a window in a decaying coastal

Right: A bentwood chair, spotlit, in a coastal cottage, Half-Life 2 (Robert Yang).

Was Valve trying to tell a story about a contemplative milk-drinker medic resting in that chair?

cottage casts a gorgeous blue light that practically spotlights the chair. Perhaps you could sit in that chair to look out the window, but the chair is also too low to easily look out that window at that height. There's also a pile of old milk cartons next to the chair, and a couple health-kit powerups in front of the chair.

Now, was Valve trying to tell a story about a contemplative milk-drinker medic resting in that chair? I think this is an instance where overly formal theories of environmental storytelling in level design collapse. Visually, this is a beautifully-lit scene that seems uncommonly composed. Someone constructed and lit this little corner with a lot of intent. But what happened here seems either nonsensical or irrelevant. The specific events don't matter and don't cohere; what matters more is the mood and tone of that light coming through the window.

And, sometimes, it's not about the chair's lighting nor its imagined backstory. Late in *Half-Life 2: Episode Two*, there's a short scene where some rebel resistance fighters argue over how best to kill a monster. The scene is staged like a briefing, with an informal audience seated on modern military-style chests. The choice to seat them on chests, instead of chairs, is significant.

Before the Industrial Revolution, chairs in Europe were relatively special objects, individually crafted by skilled artisans. Poorer people mostly sat on simple stools or benches. In medieval Europe, it was also common to sit on top of chests. Owning a special piece of furniture with a seat and back was unnecessary or even a bit extravagant. In this way, chairs functioned as status symbols, and those with little status couldn't afford them.

That's why it's significant to pose the rebels sitting on these military-style supply footlockers—it is a utilitarian and improvised use of the chests. There's even a perfectly

Right: "Authentic" rebels sitting on chests, Half-Life 2 (Robert Yang).

Left: Breen's "throne", Half Life 2 (Robert Yang).

good metal folding chair nearby, and these people are purposely not sitting on them, that's how real and authentic the rebels are! Much like with the simple wooden chairs we discussed earlier, these are all positive character traits we're supposed to associate with the sitters (the human resistance) in the game.

Similarly, the best way to understand and despise the main villain of *Half-Life 2* is through his chair.

When you meet *Half-Life 2*'s antagonist Dr. Breen, he sits between a large, evil-looking alien Combine computer console and a gigantic man-made mahogany desk, where he looks more like a sinister bureaucrat or a CEO than a specialist in theoretical physics. A tall full-back leather-upholstered executive office chair overshadows his figure.

Office chairs (swiveling chairs with wheeled castors) were invented relatively late in the history of the chair, when companies began staffing offices and administrators during the Industrial Revolution. To maximize productivity and efficiency, it was essential to keep workers seated and comfortable at their desks for as long as possible. Breen's chair exists in this tradition of office chairs, at the top of the office chair hierarchy: while other chairs are common and mass-produced, this chair is unique and one-of-a-kind, used nowhere else in the game.

The chair rests at the back of the room, with a red carpet runner leading up to it, which makes it feel a bit like a throne in a throne room. If chairs before the Industrial Revolution represented social capital, then the throne was certainly the most prestigious. Medieval architects (and medieval painters) raised thrones on top of a dais, to make sure the ruler literally sat taller than everyone else in the room. The executive office chair mimics this royal logic with its sheer height, extending far above what would be needed to support the sitter's head. This chair towers over others like a skyscraper.

Although *Half-Life 2* seems to understand this symbolic and political potential of chairs, it also seems to conspicuously omit the opposite of the dark-leathered luxurious executive office chair: the white monobloc plastic chair.

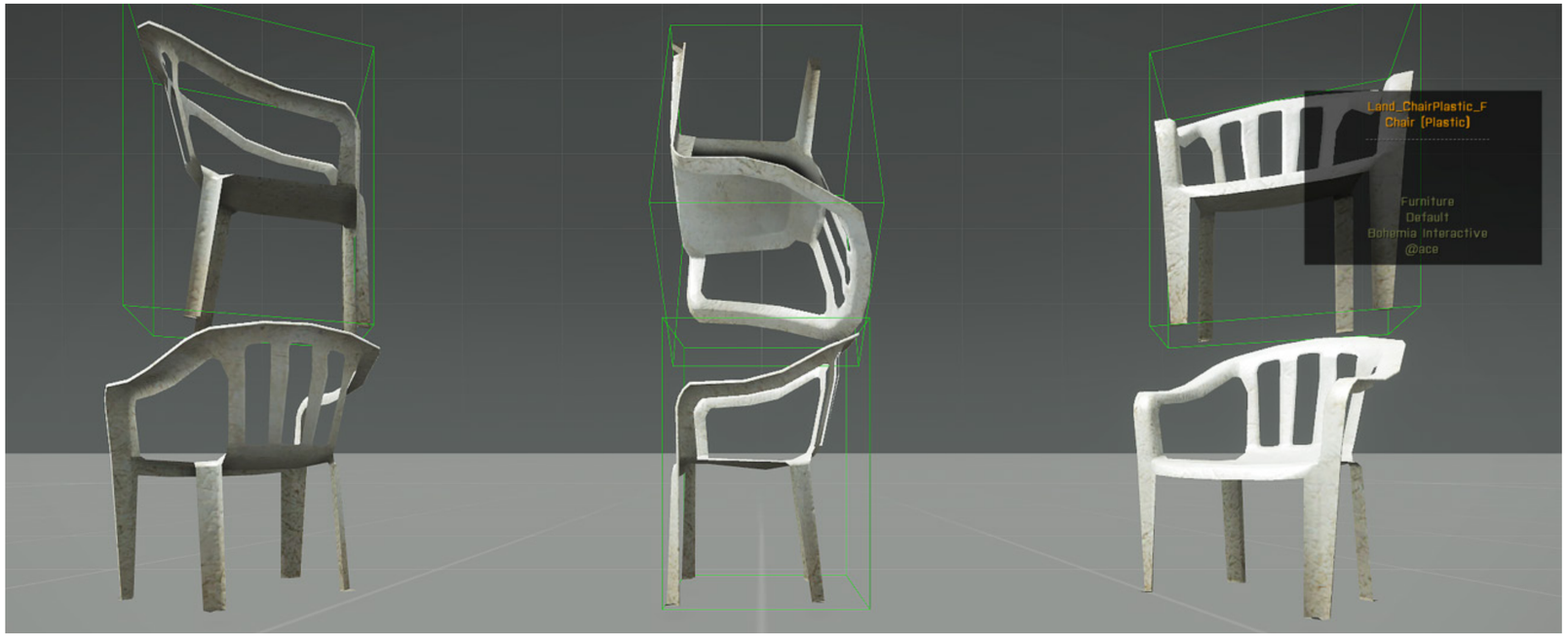
The monobloc was a chair molded from one block of plastic, originally invented by D.C. Simpson in 1946. Today, its better known descendant is the "Grosfillex resin garden chair," which was mass-produced by the millions in the 1970s and 1980s, and continues to multiply and spawn across the world today. Using modern injection molding techniques, it now takes a few dollars and less than a minute to mold this extremely ubiquitous white plastic (polypropylene) chair. It is an extremely cheap, light, durable, and convenient product, and possibly the cheapest chair ever made.

How ubiquitous and popular is this chair? It is so widespread around the world that theorist Ethan Zuckerman calls it a "context-free" object:

"Virtually every object suggests a time and place... The shape of electrical outlets, labels on any consumer products, fabrics, clothing all [are] clues as to whether a photo was taken in the 1970s or last week, in Sweden or Schenectady. The Monobloc is one of the few objects I can think of that is free of any specific context. Seeing a white plastic chair in a photograph offers you no clues about where or when you are."

If the white plastic chair has no rich cultural or historical context, then it's difficult to tell stories with it. A chair used to mean all these different things, and mark you as a rich upper class European or even a king, and now the white plastic chair marks you as... nothing? Maybe that's why the Grosfillex resin garden chair is not in *Half-Life 2*, it would have been

Half-Life 2 seems to understand this symbolic and political potential of chairs.



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Seeing a white plastic chair in a photograph offers you no clues about where or when you are.

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Above and far right: the Grosfillex in Arma 3 (Robert Yang).

Right: The same design of chair in Homefront 2 (Robert Yang).

a reminder that the Combine are already here, erasing context and dehumanizing us.

Game engines freely reproduce this dehumanized context of the white plastic chair—or as the *Arma 3* engine calls it, "A3_Structures_F_Furniture / Land_ChairPlastic_F." Here, it is merely another generic furniture object owned by the Civilian faction with a scope of "2" ("public"), which is basically the same data as its cousin "Land_ChairWood_F."

These chairs' cultures and histories do not matter as much as how they are categorized as land, chair, and furniture. But it is hopefully obvious by now that this is an extremely reductionist idea of furniture and what Zuckerman means by "context-free." Context-free is just another context in of itself, and in the West, the context-free context of the white plastic chair is that its lack of culture or history marks it as trashy and invites judgment upon the owner.

The gritty 2016 open-world, first-person shooter *Homefront 2: The Revolution* uses the Grosfillex resin garden chair to signal poverty and despair—its frequent appearances in garbage-strewn rebel safehouses help chart the depths of a fallen United States ravaged by North Korean invaders. That is the menace that North Korea symbolizes to Americans: it will force us to rely on white plastic chairs for sitting again, and reverse the modern American narrative of steadily rising living standards. How monstrous.

Presumably, the Grosfillex resin garden chair used to be a sleek modern form using new technological materials. Today, it is stained by the politics of contemporary economics and environmentalism: it is a "disposable" $10 chair (4 for $30!) that takes thousands of years to biodegrade as it leaks toxic chemicals into the ocean. We now understand these chairs as garbage waiting to be activated as garbage. Older antique chairs often feel better as they become more used and worn-in, but when plastic chairs break they usually just fracture suddenly and without warning.

How sad, how boring, how predictable. In a way, don't these faithfully replicated chairs of *Ico*, *Half-Life 2*, *ARMA 3*, and *Homefront 2*, also represent a profound failure of imagination in games? We become slaves to realism and the fidelity of our representation. We fixate on how the object's real-world meaning informs its meaning in the game, and fail to imagine new possibilities for objects like white plastic chairs. Outside of games, chairs are re-imagined all the time.

Real-world architect Caroline O'Donnell of CODA led the design of the URCHIN, a temporary pavilion at Cornell University in 2016 that re-purposed white plastic chairs as a structural material with unique affordances and aesthetics. If you can't sit in them, are they still chairs? If you can transform a cinder block into a stool just by sitting on it, then can you transform a chair into a cinder block just by building with it?

O'Donnell also managed to explore this domain while dealing with pesky real-world issues like material cost, weather, weight, and load. As digital artists who should feel freed from those constraints, what exactly is our excuse? Like O'Donnell, we should reclaim and repurpose seemingly stable meanings of chairs. We should be imagining new experiences with chairs in games, as well as new relationships to chairs in games: we mustn't simply play with chairs in the same way, over and over.

But I think the greatest example of transformative chair-play is in the expression, to "give" (someone) "the chair." It comes from professional wrestling culture, when a wrestler retrieves a metal folding chair from outside of the ring, and ideally sneaks up on their unsuspecting opponent. This prompts fevered fans to

sitting in a chair is quite possibly the least interesting thing that one can do with a chair.

Left: the URCHIN pavilion by CODA (© Joe Wilensky).

stand up from their seats, to cheer the dramatic build-up of that moment until they can finally "give him the chair" and hit someone with it. The improvised use of a common metal folding chair helps us pretend the moment is a spontaneous spectacle.

However, I think wrestling culture manages to build on top of that, and play with chairs even further. Specifically, there was one famous moment in wrestling history, at ECW Hardcore Heaven in 1994, when a wrestler, about to finish off his opponent, cheekily asked, "someone throw me a chair." What erupted was totally surreal.

The audience began throwing their chairs into the ring. First a few chairs, then more chairs, then even more chairs. The ring announcer pleaded with the fans to stop, but they kept going, burying the other wrestler and the entire stage in at least a hundred metal folding chairs. At that point, the show was essentially over. While this scene may seem scary or violent past the point of playfulness, it is still beloved by many wrestling fans, even prompting a (safer) re-enactment years later at TNA Hardcore War in 2006.

What I admire about the moment is less the prospect of uncontrolled mob violence, and more the emergent meaning and performance now imbued into chairs. Because of that moment, chairs now mean something new and different in pro wrestling culture. Instead of merely invoking a past history of chairs, they are essentially creating a new future of chairs unique to wrestling. Game developers aspire to make every game object functional, every door openable, every chair sittable—but these architects and wrestlers have shown us that sitting in a chair is quite possibly the least interesting thing that one can do with a chair.

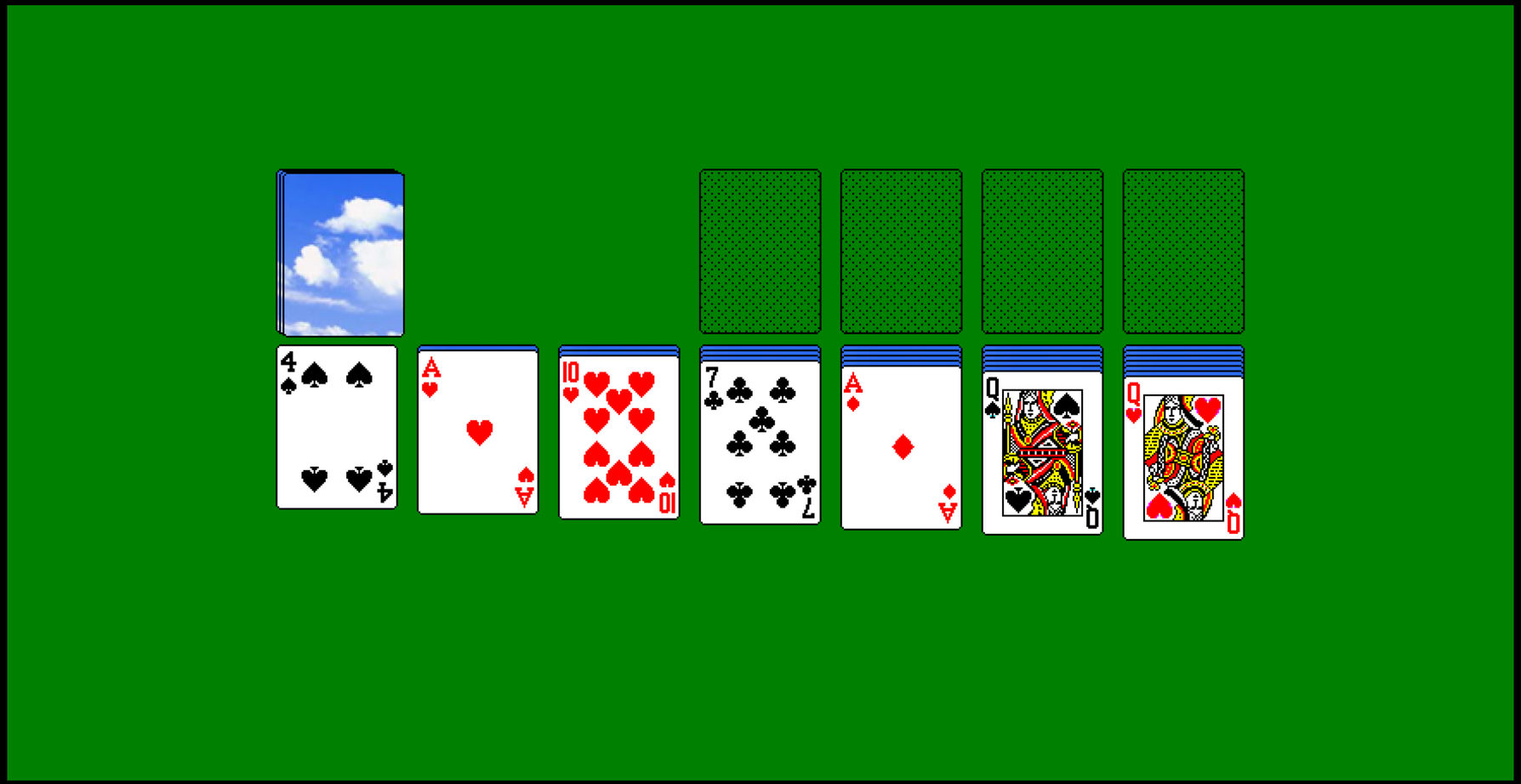
So let us take lessons from architects and wrestlers. Let us imagine new chairs and new relationships with the world around us. Let us make games to dance with chairs, but also sing with dirt and nap with volcanos—and maybe one day, just maybe, that visionary game will let us cry for the chair too. I predict the '*Citizen Kane* of games about chairs' will let us cradle a dying white plastic chair in our arms. Then, as a lone violin weeps in the darkness, you tenderly kiss the chair on its broken leg, and whisper:

Good night, sweet chair.

RY

Robert Yang is an indie game developer and academic in New York City.

- Andrew Reinhard, creator of www.archaeogaming.com and
lead archaeologist of the Atari Burial Ground excavation.



The Terminal Space

cover

NaissanceE | Gareth Damian Martin

NaissanceE gestures towards both the end of architecture and its beginning. Across the several hours it takes to descend through its urban strata, the player is witness to a kind of architectural history.

We start in a primitive construction of cubes and sheer, white faces. These basic forms slowly complicate into monolithic edifices that resemble modernist takes on Mayan temples, all cyclopean blocks and angular steps. From there we pass through Hugh Ferriss' fantasy New York, as depicted in his iconic 1929 book *The Metropolis of Tomorrow*, slipping between monumental massings of some unknown material. After a detour through apartments arranged with utmost efficiency, high-tech architecture takes hold. Buildings become server stacks, power nodes, thrumming super-conductors. Like a Higgs Boson, we fire ourselves along the length of a burnished tube, dodging between rotating deflectors. Eventually, we reach the inevitable collapse, a "Desert of the Real" if there ever was one. Our final act is to watch as a machine dismantles architecture entirely, tearing away exterior to reveal an endless void of inner space.

This history is, of course, not the history of architecture as we know it, with its epochs and movements, classicism and minimalism. It is instead a kind of history of virtual architecture, from its primitive low-poly forms, through its obsession with mirroring the tech that produces it, to the open, empty, and increasingly vast landscapes it now seeks to represent. A collapse of inner and outer space, as we witness in *NaissanceE*'s final chapter would be the terminal victory of virtual architecture, its chance to reign supreme as a totalizing structure of infinite forms. If this sounds heady for what is ostensibly a first-person platforming game, then it is because *NaissanceE* is. And yet it carries this thematic weight with a lightness, an imaginative, enticing mood that buoys up rather than weighs down. While many games reach towards emptiness, and open narratives in service of simplicity, *NaissanceE* allows its absences to complicate its themes.

Perhaps that is due to its complete rejection of world-building as a process of accruing lore, information, and exposition through space. It builds a world, that much is true, one that feels concrete under your non-existent virtual feet, and that gives you the desire to invent its hidden spaces for yourself. But rather than turning its system of reference inward, and only evoking the connections and structures of some ornate, fanciful, imagined reality, it turns them outwards, and points to the other art and architecture that surround our lives. The most obvious of these reference points is Tsutomu Nihei's *Blame!* (a feature about which you can find on p94), but it is not the game's only inspiration—*NaissanceE*'s lone creator, Mavros Sedeño, is a thoughtful, literate, and quietly intelligent figure. He is also culturally omnivorous, pulling ideas from across a wide spectrum (you can read the extensive conversation I had with him about the game and his work just after this piece). While discussing this feature, he sent me some pictures of a snowbound abandoned swimming pool he once visited, as if it might reveal some aspect of his interior life. Architecture, for him it seems, is a personal as well as cultural history. And ultimately that is also the central tension in *NassianceE*. While it points to vast processes of recursion, renewal, and terminal collapse, it does so while providing a journey which connects to the player directly, personally, emotionally. It allows them to inhabit the spaces of its world, and so, to invest in them.

While the architectural narrative of *NaissanceE* is one that, for me, has deepened with each playthrough, in my first experiences with the game I wasn't thinking about the

Buildings become server stacks, power nodes, thrumming super-conductors.

Previous and following pages:
NaissanceE (Gareth Damian Martin).

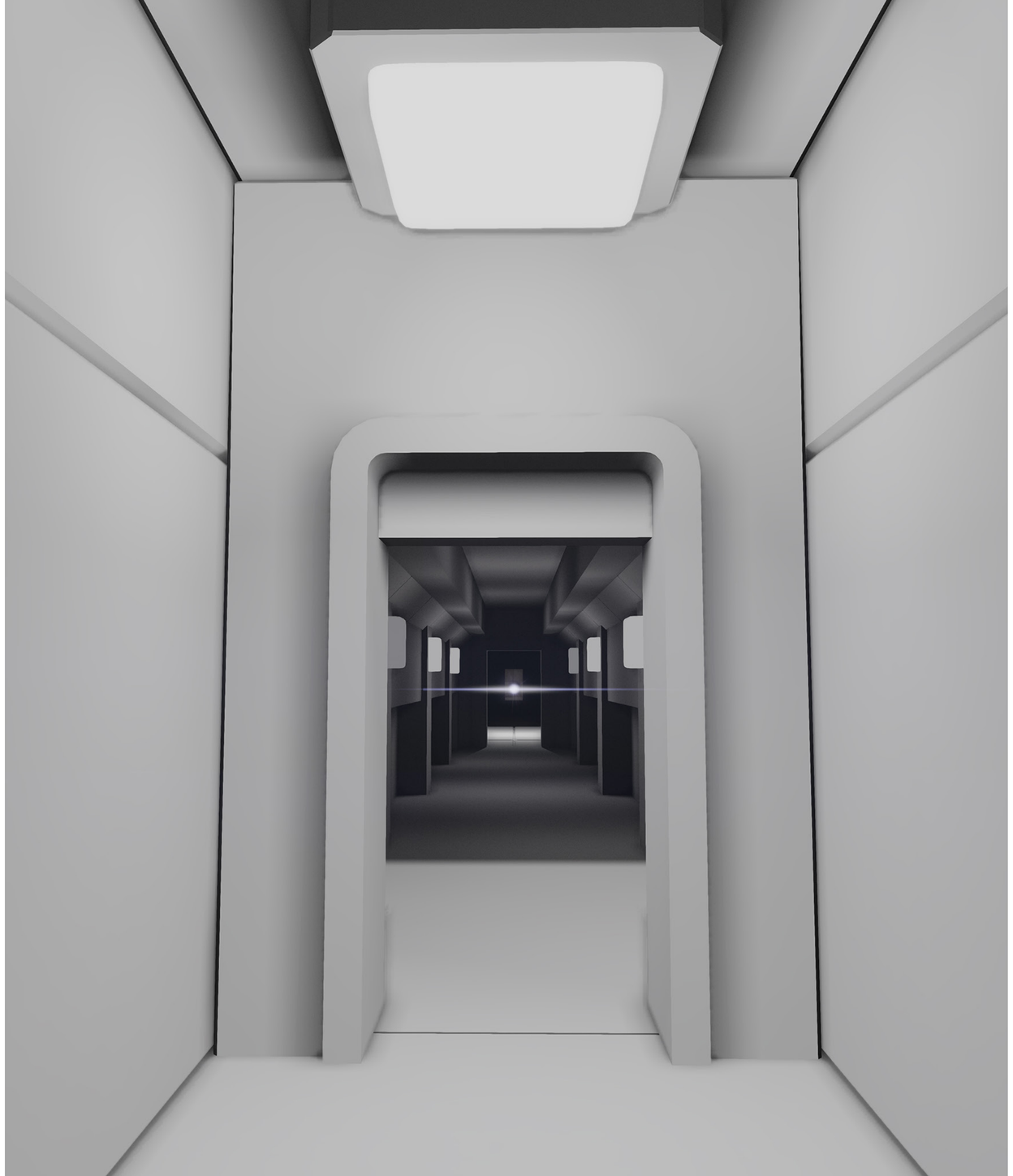
death of architecture, but instead was simply gripped by a distinct feeling of wonder. *NaissanceE*'s vast spaces arrange themselves on a spectrum with the other awe-inspiring impossible imagined architectures of the world: Mervyn Peake's Gormenghast, Mark Z. Danielweski's house from *House of Leaves*, Jorge Luis Borges' Library of Babel. The impact of space on the mind is played out expertly in *NaissanceE* and remains un-subjugated to other concerns of narrative, character, or plot.

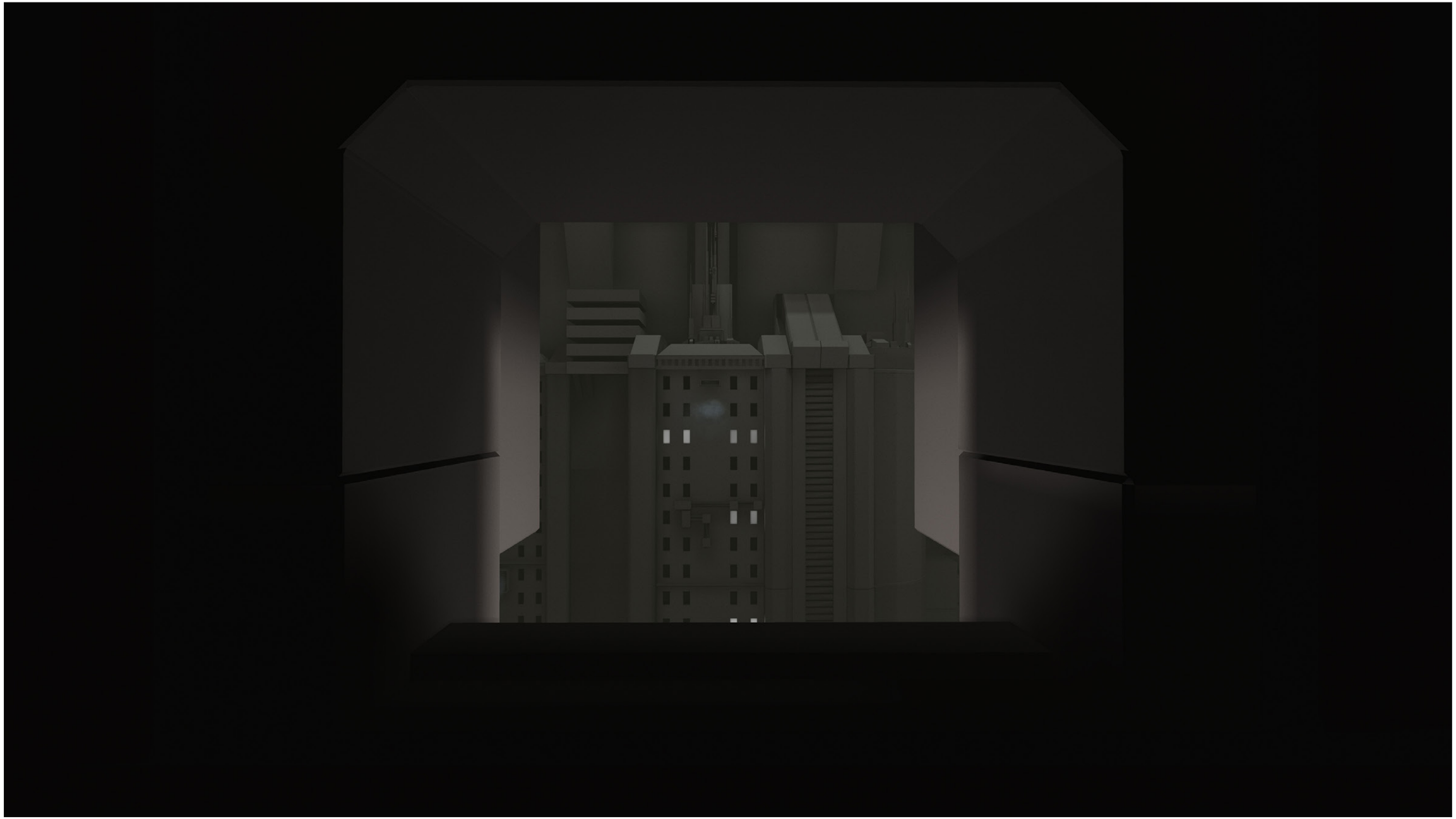
Of course, there are many games, and many more that are arriving by the year, which allow the player to explore intriguing spaces at their own pace. In fact, first-person exploration has become a kind of central genre for those intending to experiment with narrative, space, and linearity in games. *NaissanceE*, even three years after its release, beyond its visual and spatial sophistication, marks itself out from this gathering crowd through a combination of threat, challenge, and opacity.

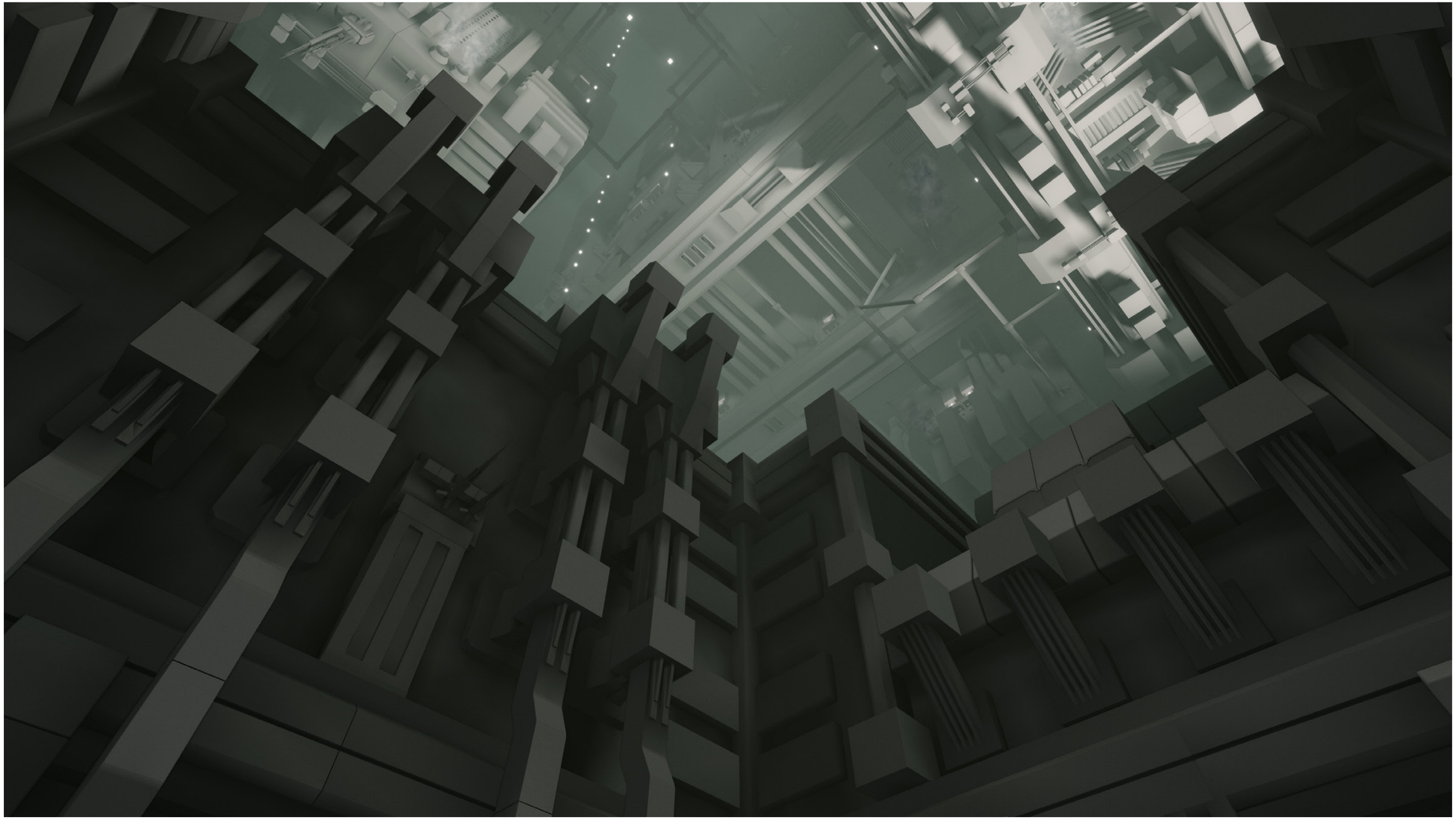
As its creator points out in our coversation on p94, you can die easily in *NaissanceE*, and you will, when your curiosity takes you too close to an open edge. Equally the game dares to frustrate, asking for mastery in precise platforming to progress. These might seem at odds with a sense of wonder, but *NaissanceE* shows a precise understanding of the difference wandering through architecture and engaging with it.

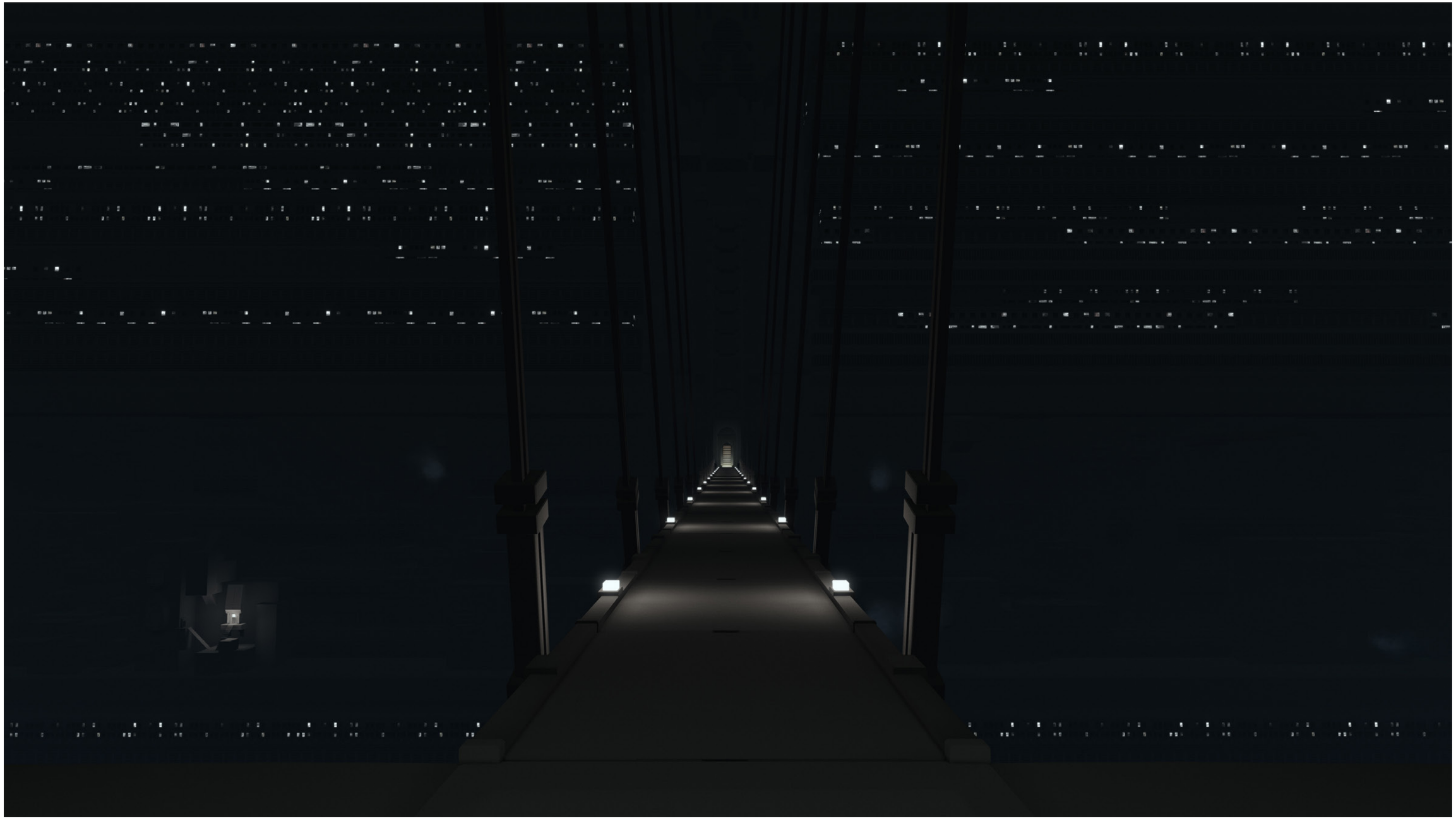
This sense of engagement, of negotiation with hostility and wonder, is something I wanted to communicate when documenting the game's spaces. The images beyond this point are the result of this attempt, as well as a document of the terminal architecture the game proposes. Though they aim to be comprehensive, I would recommend that you take the opportunity to one day enter these spaces in person, and witness the end of architecture for yourself.

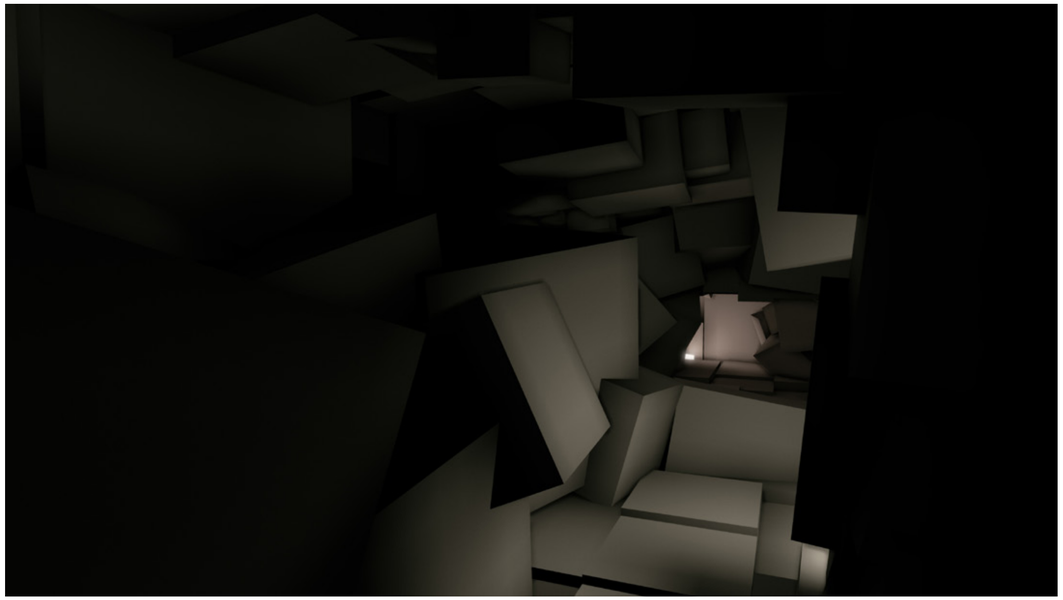
GDM

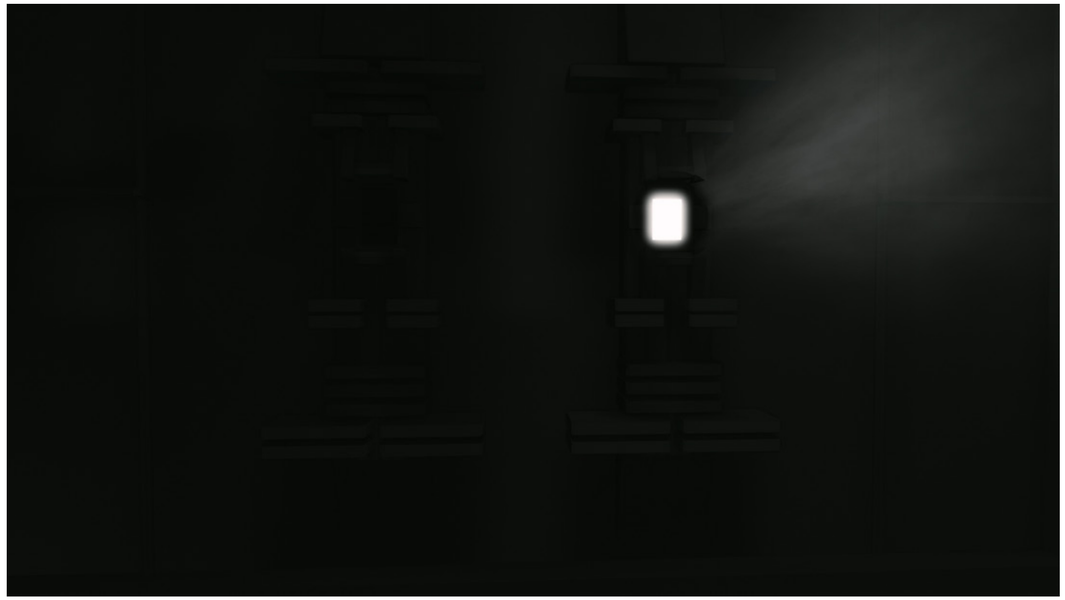


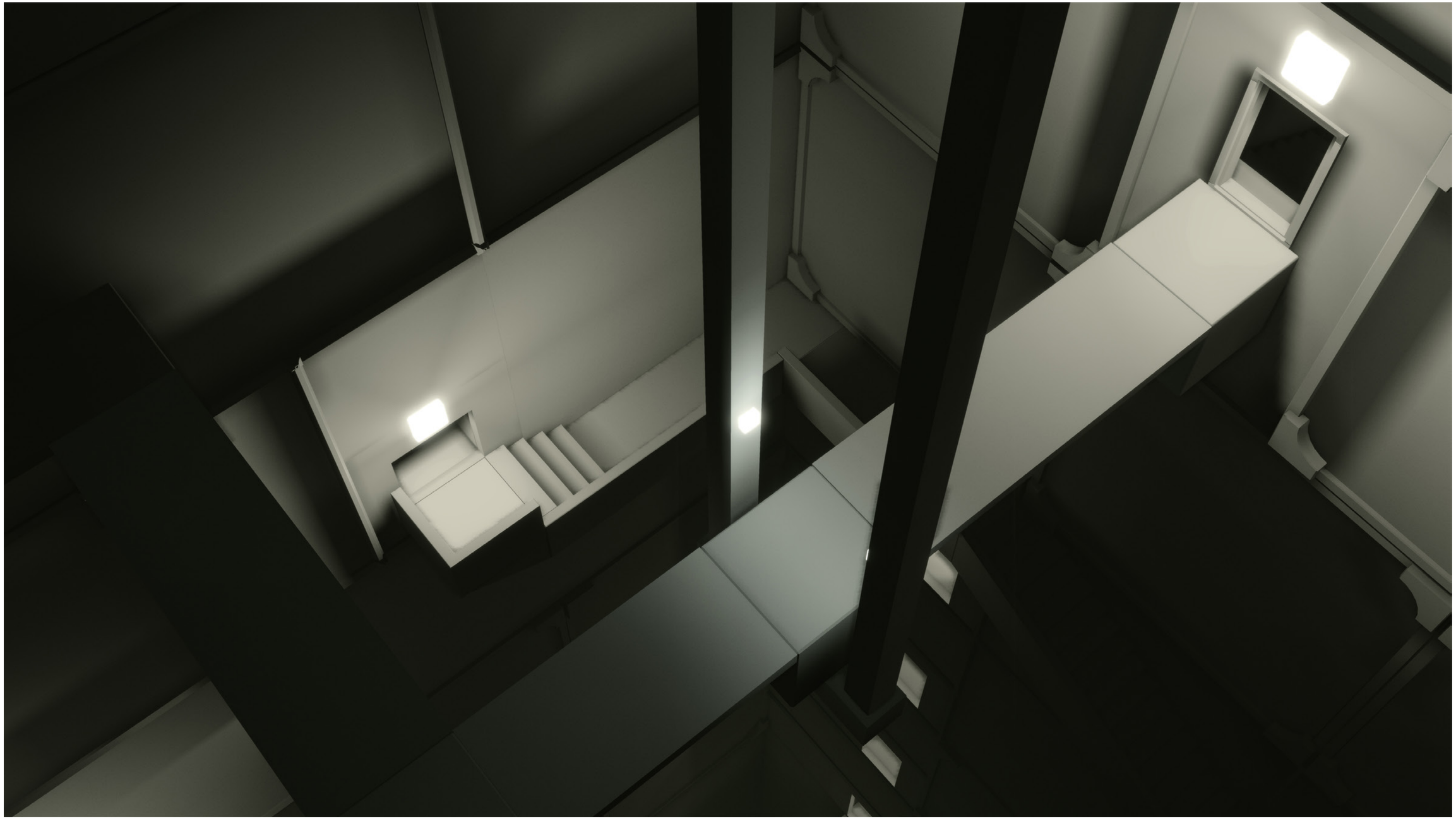


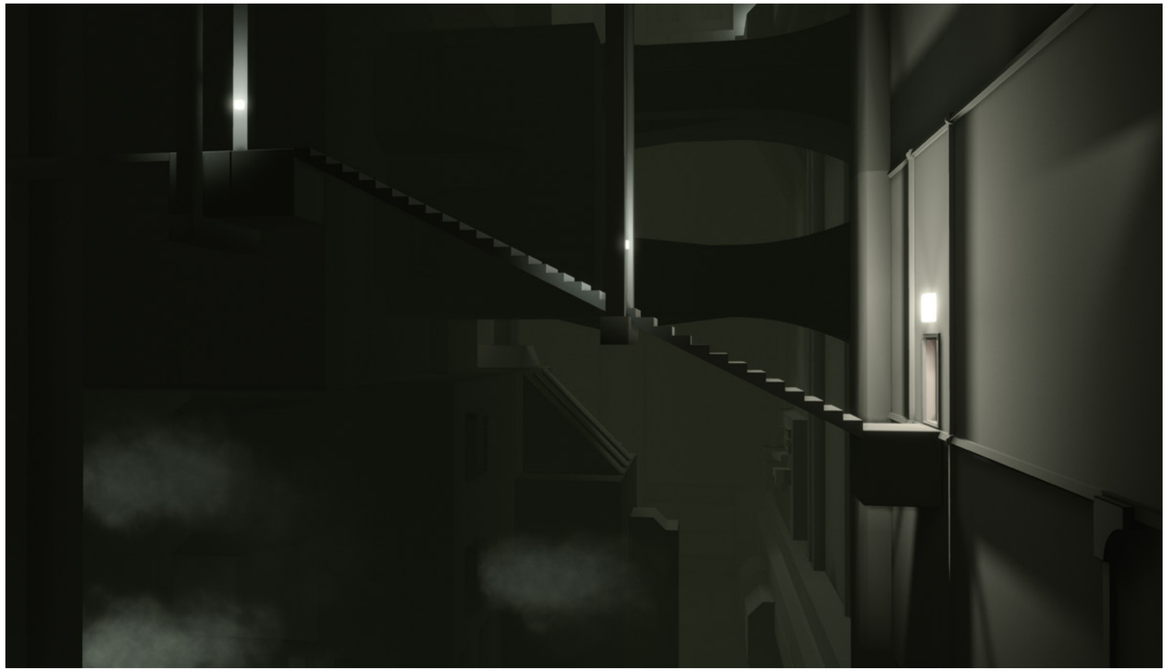


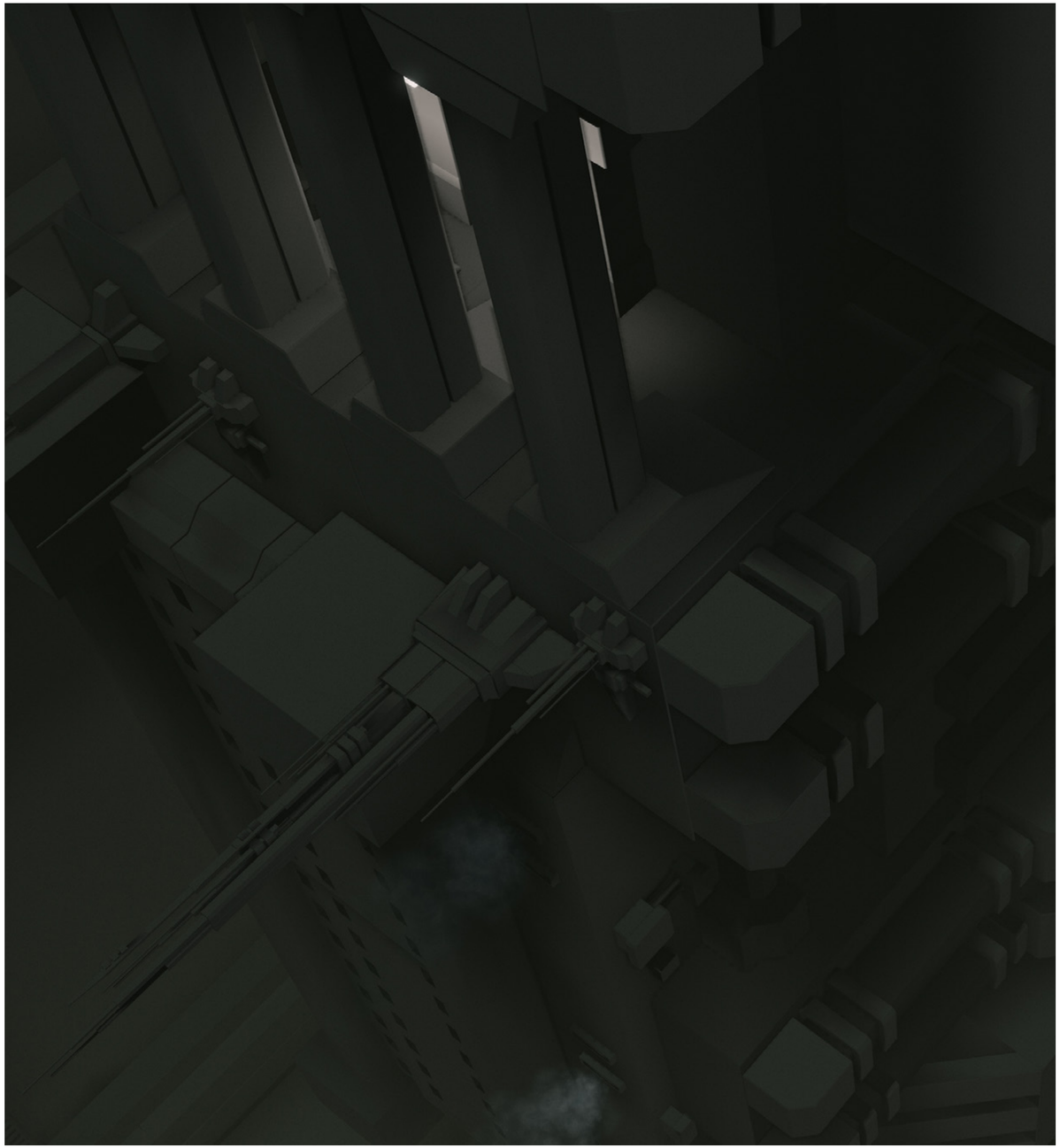


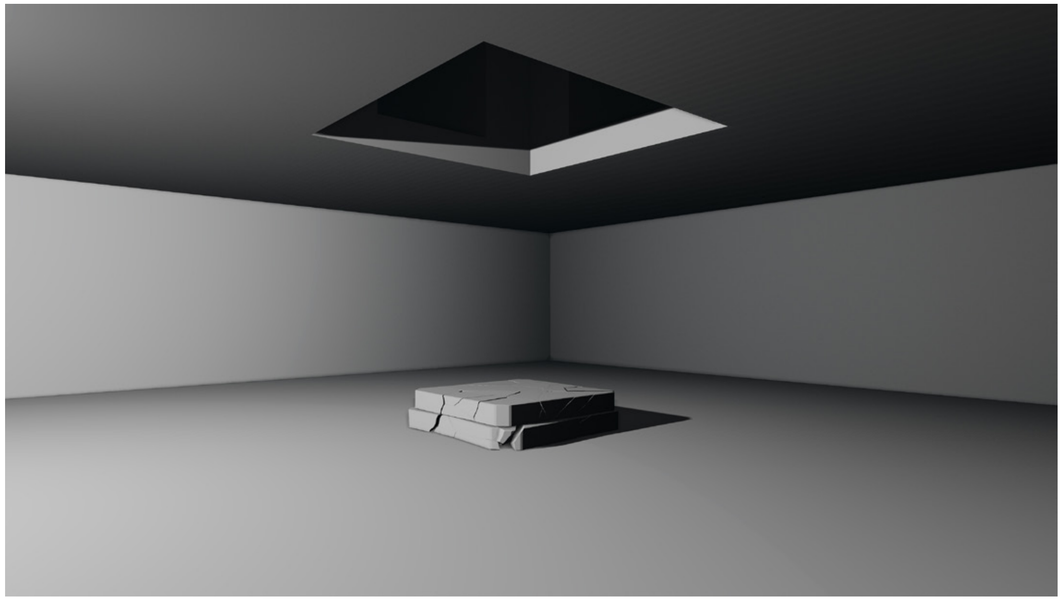


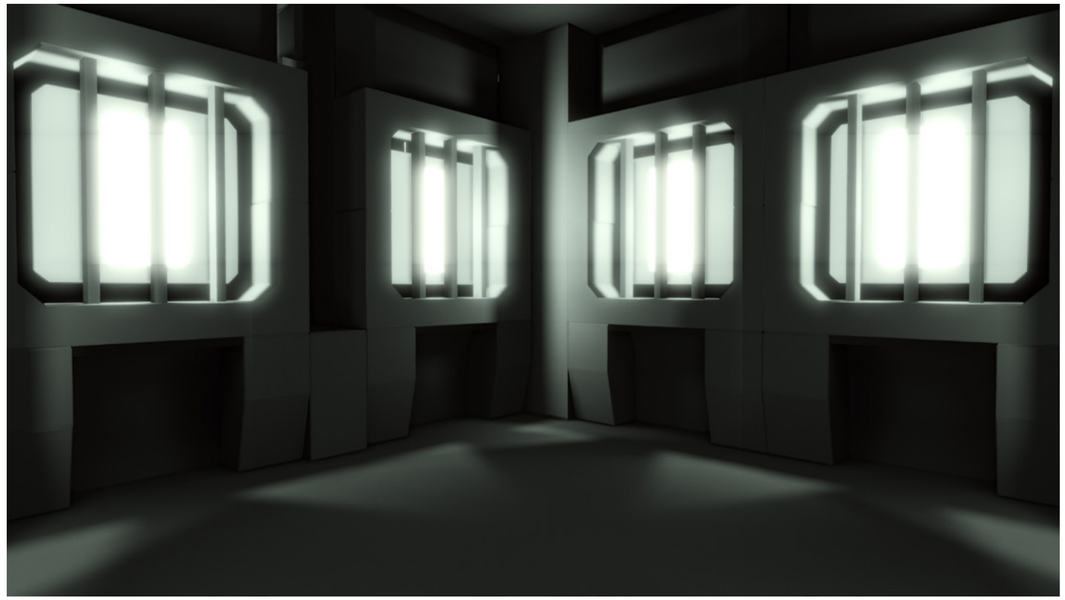


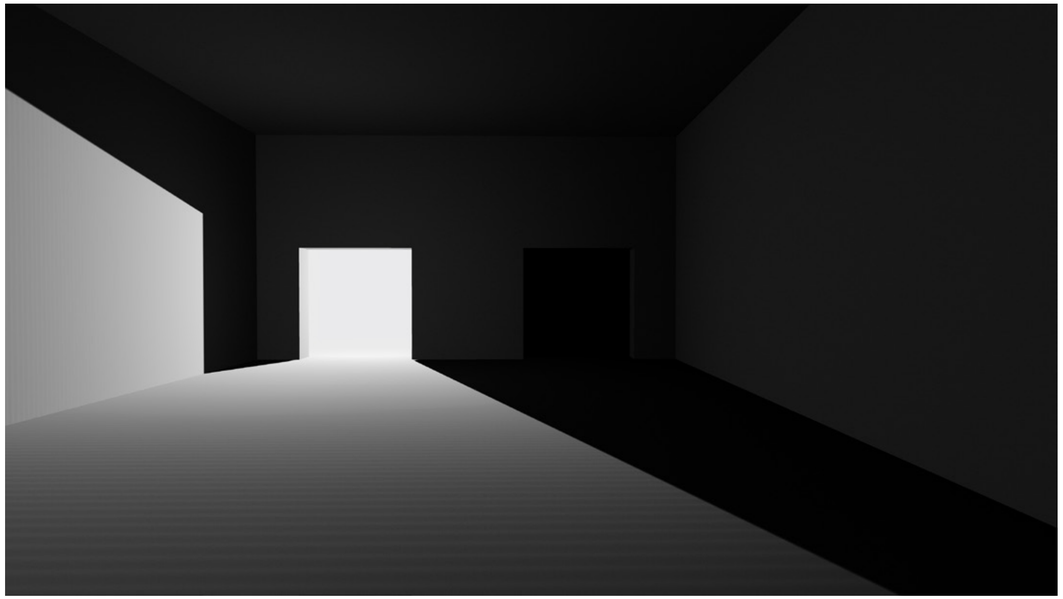


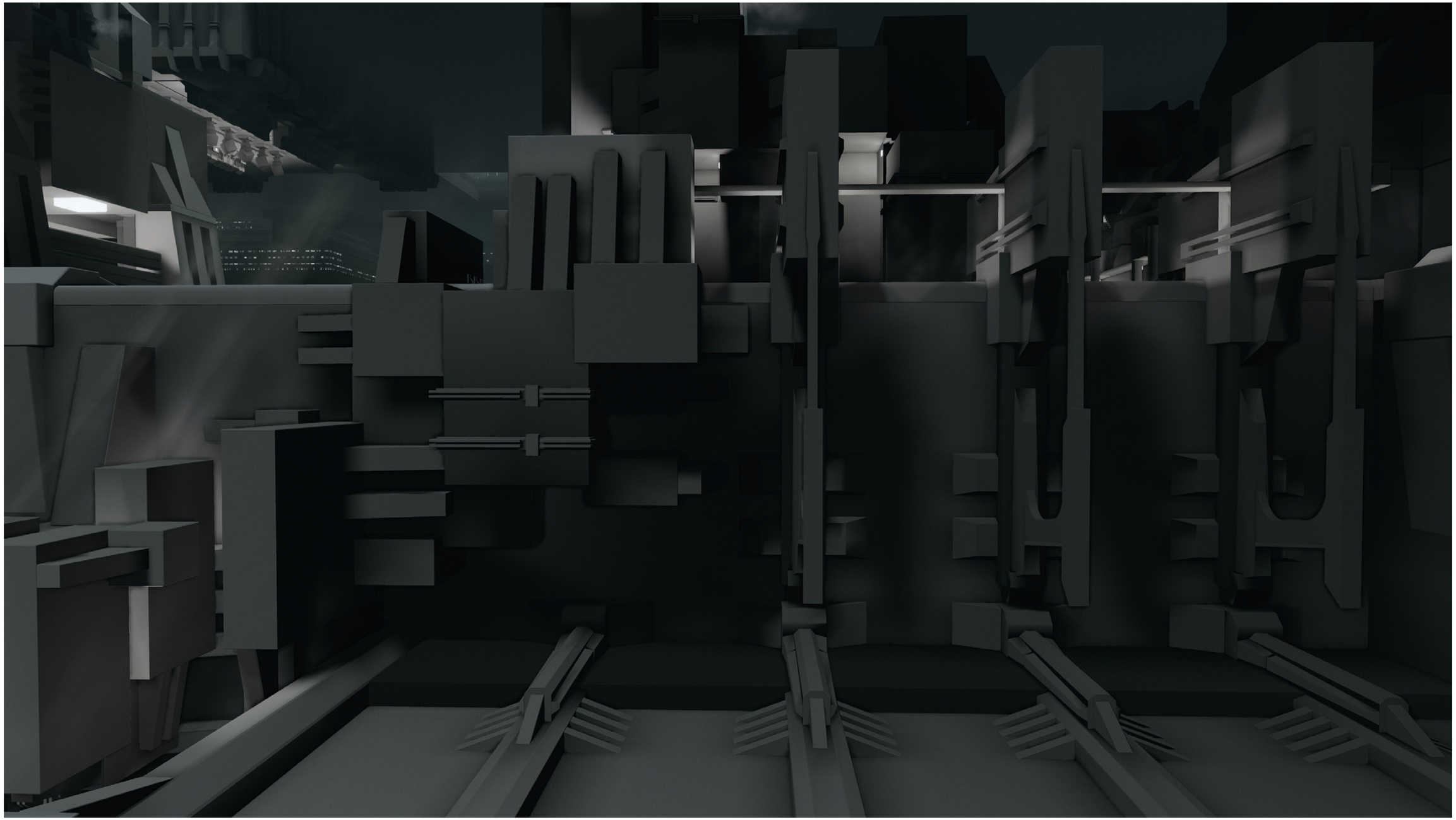


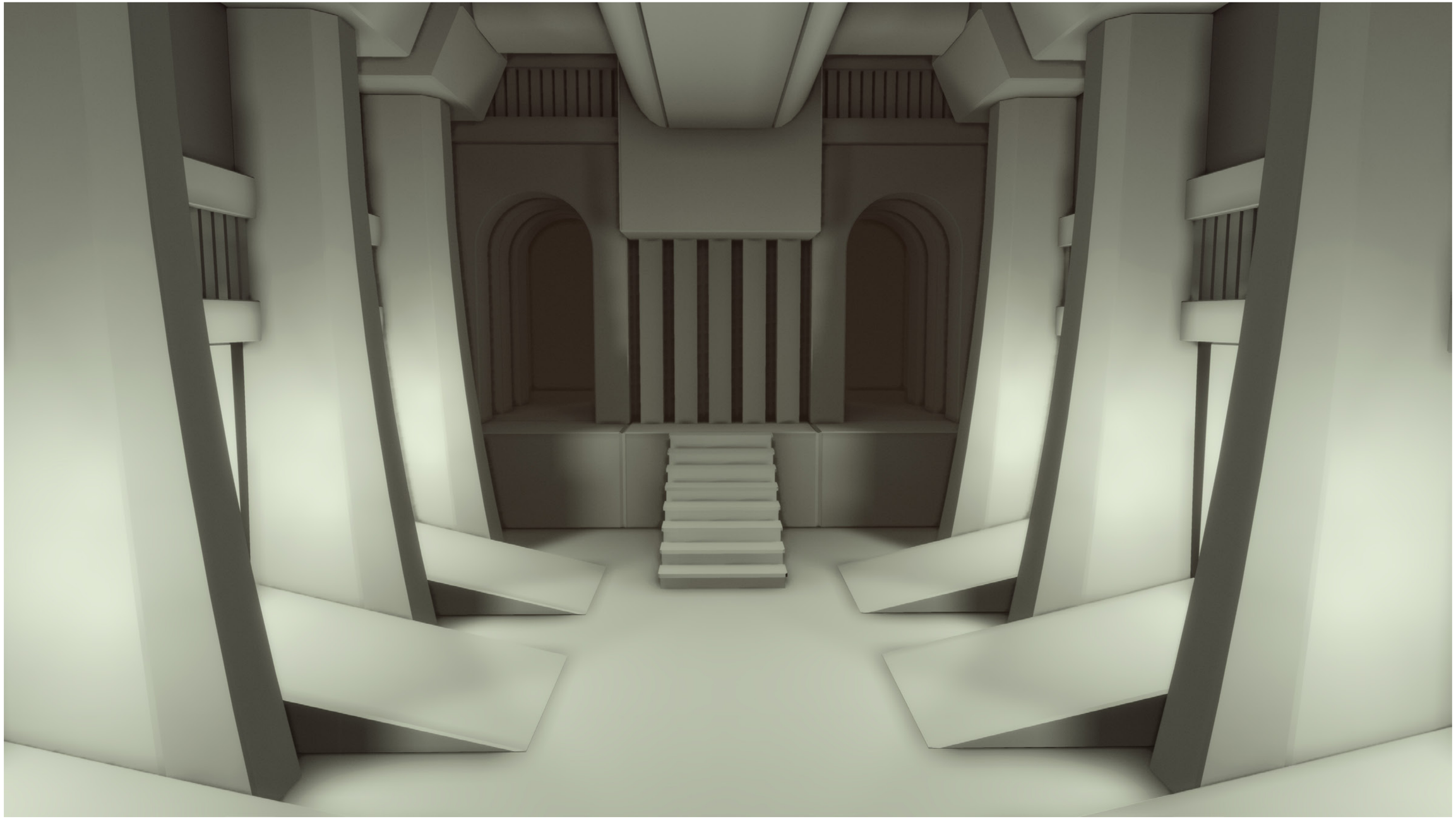


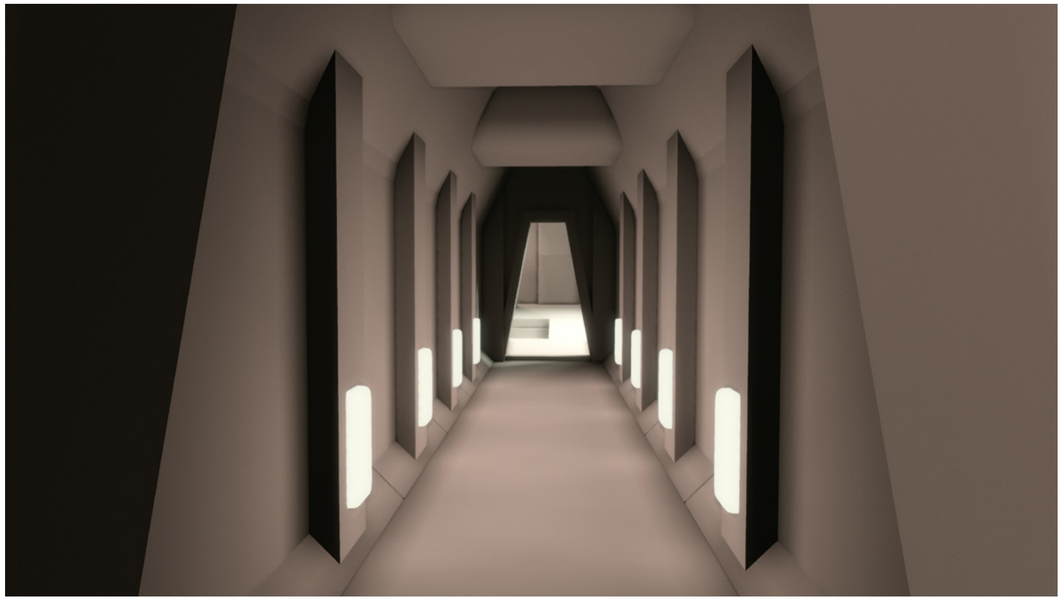


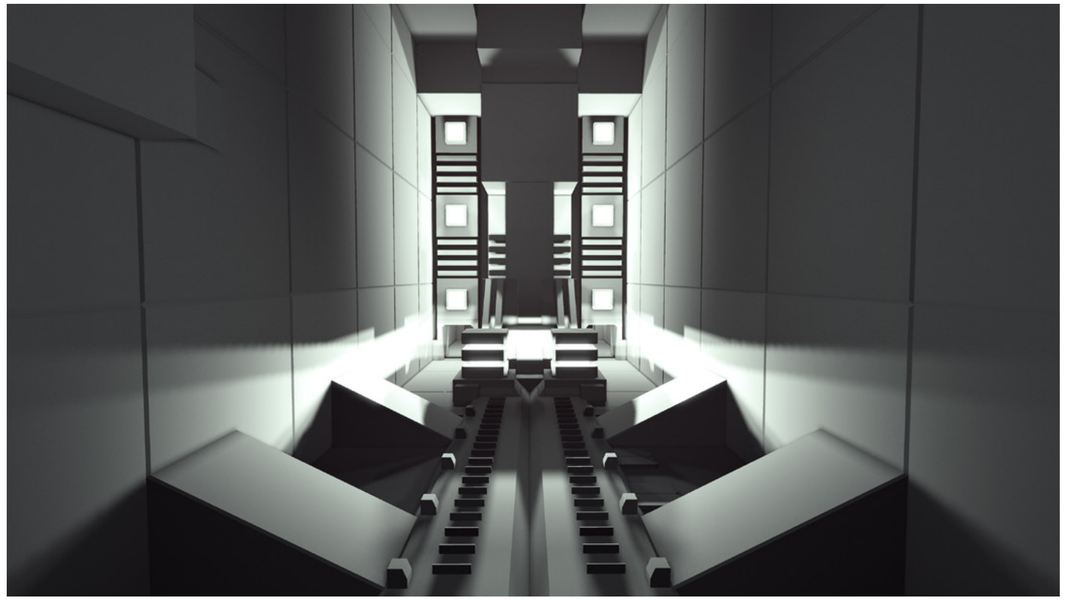


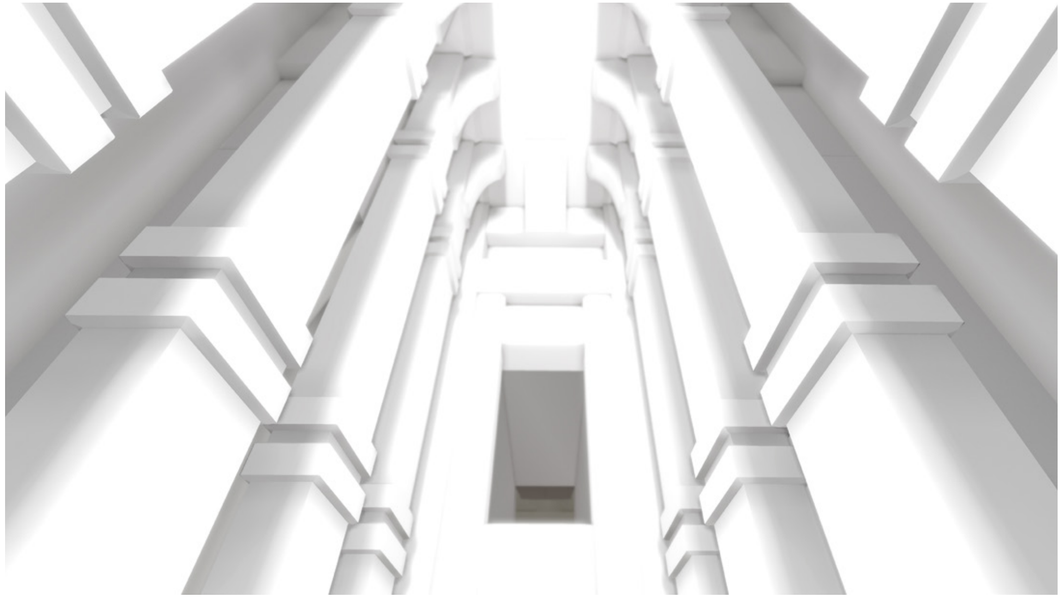


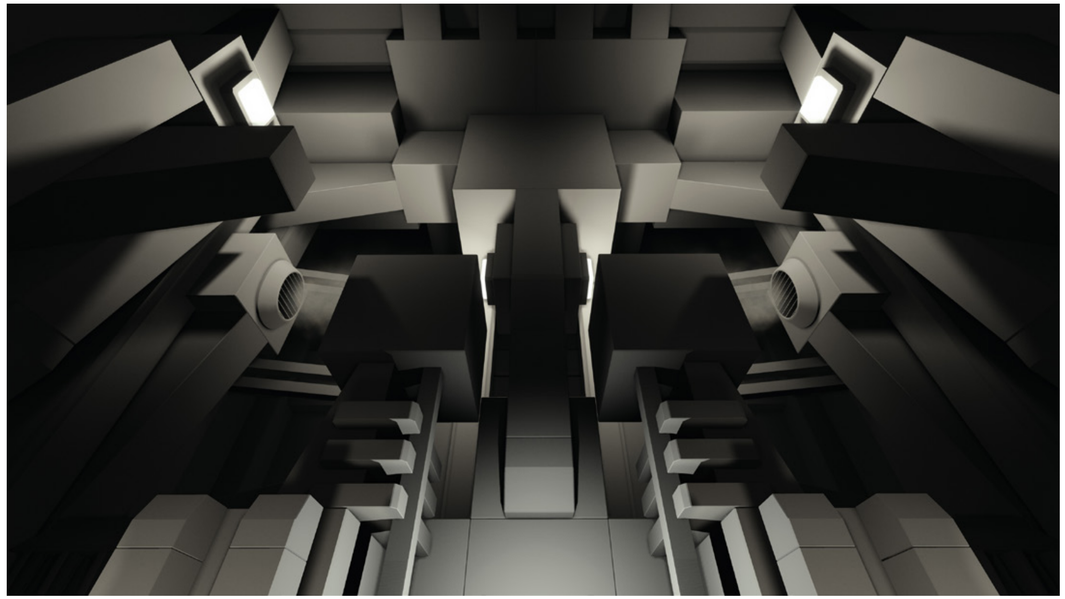


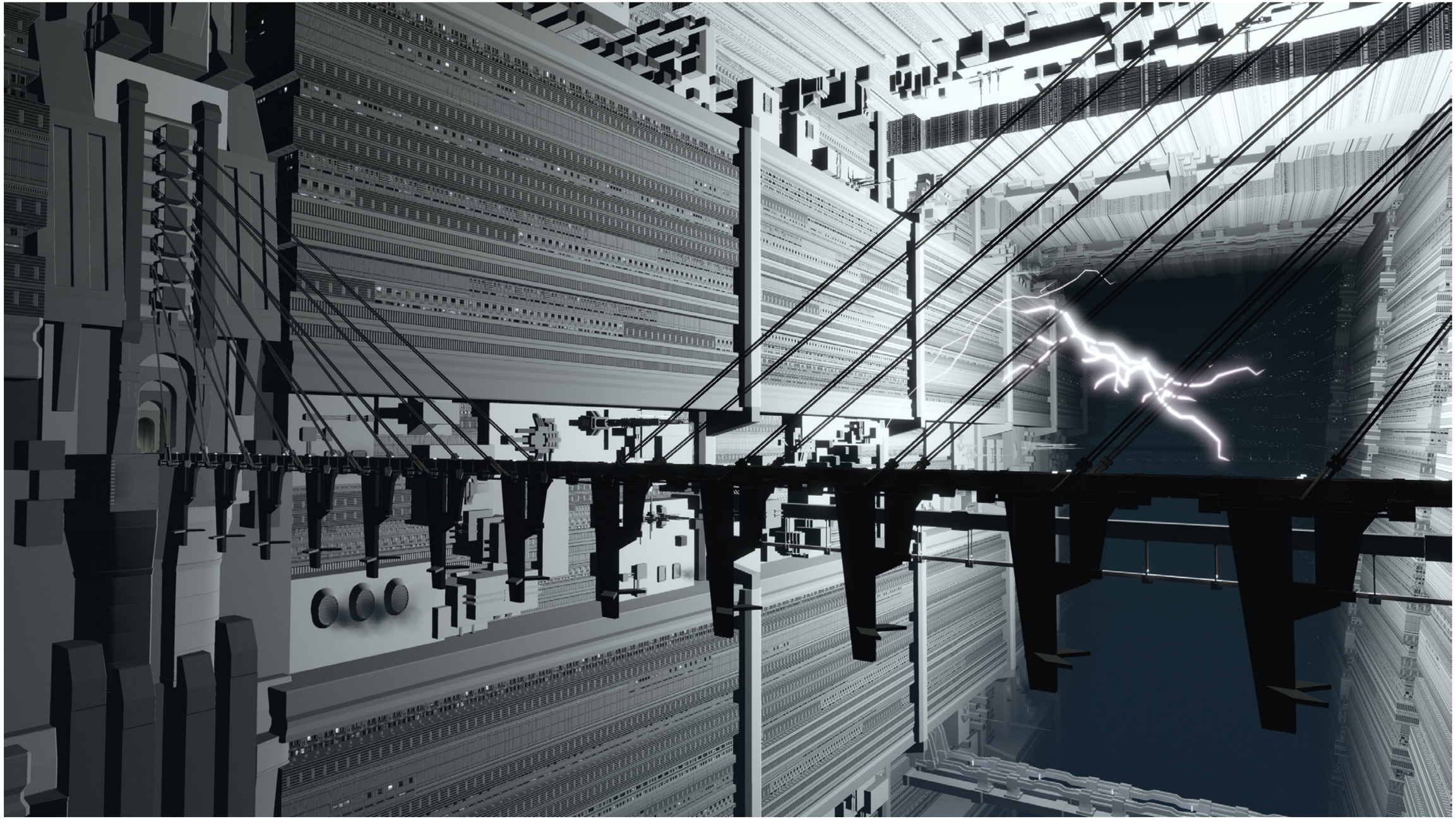


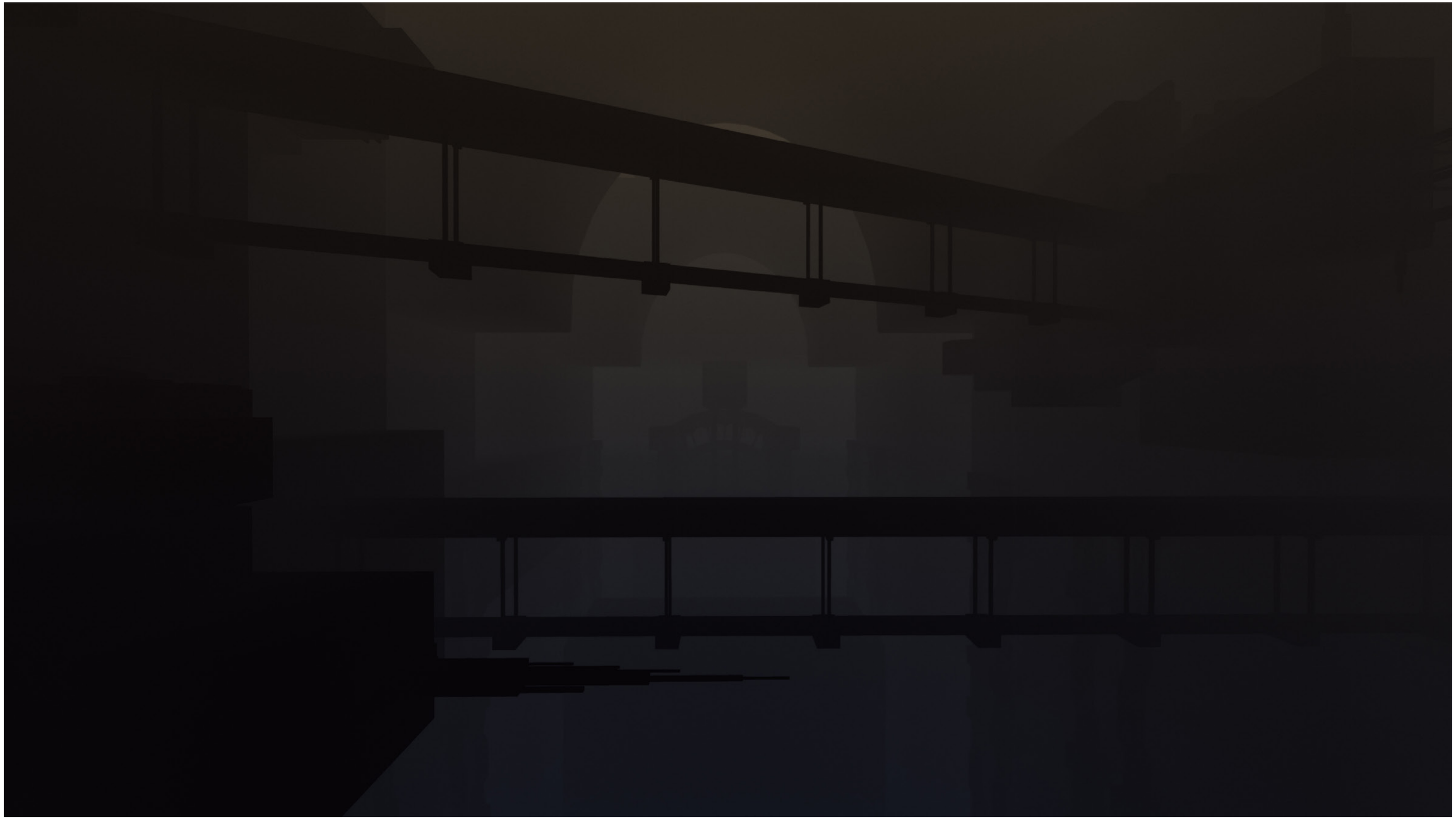


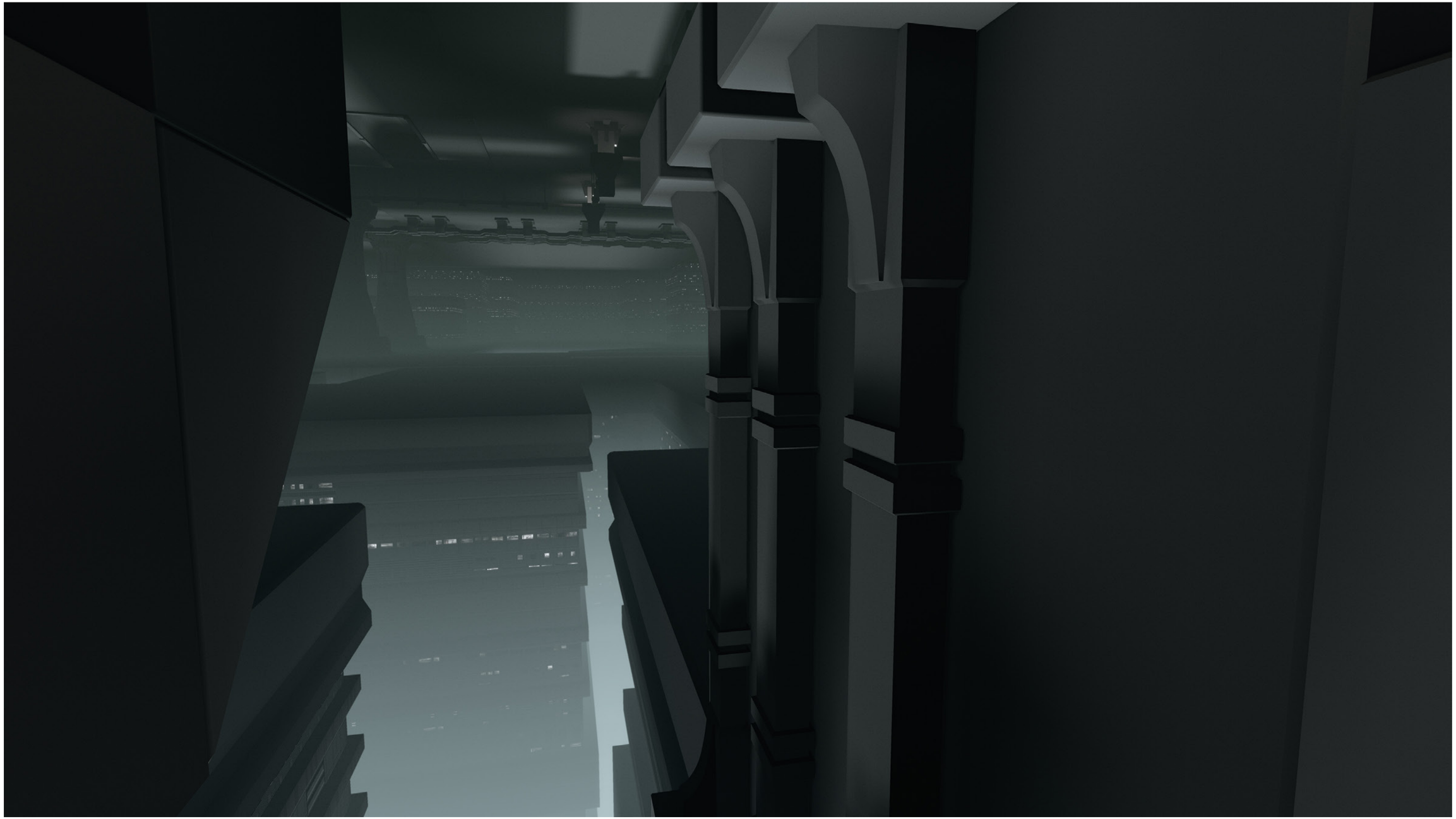


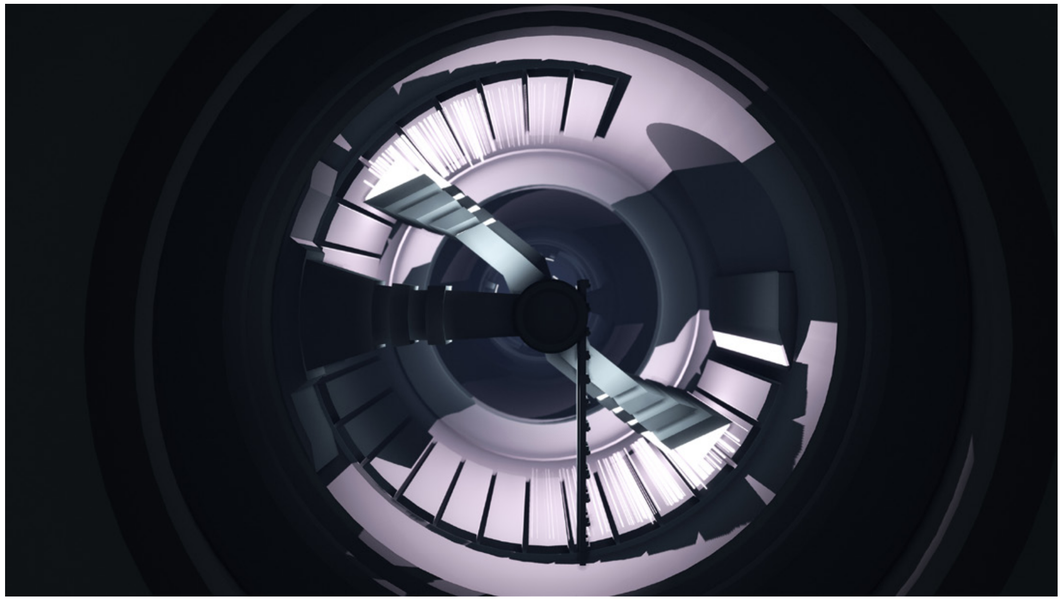


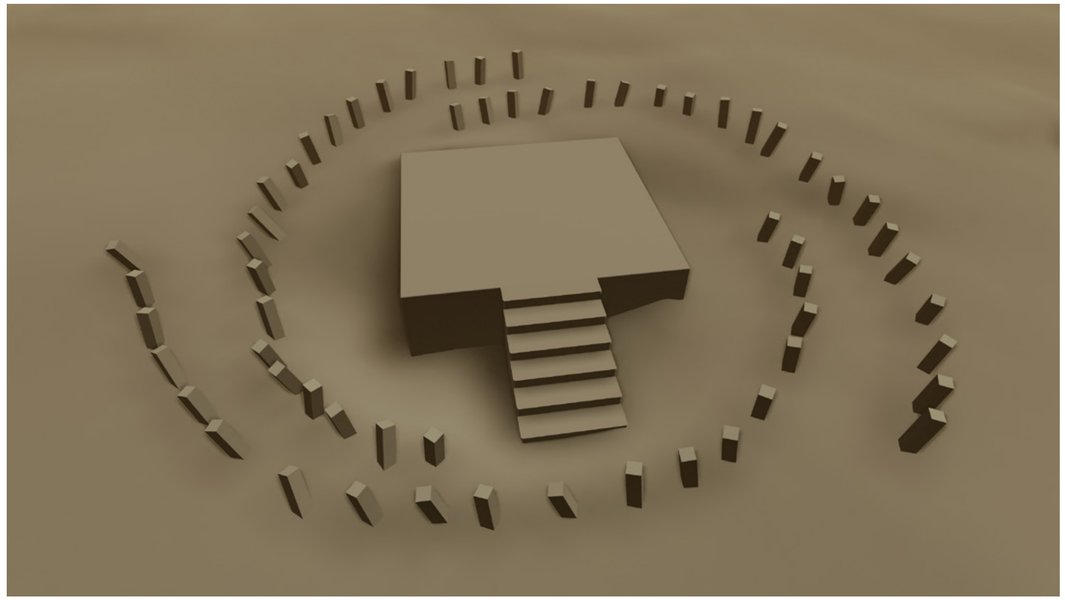


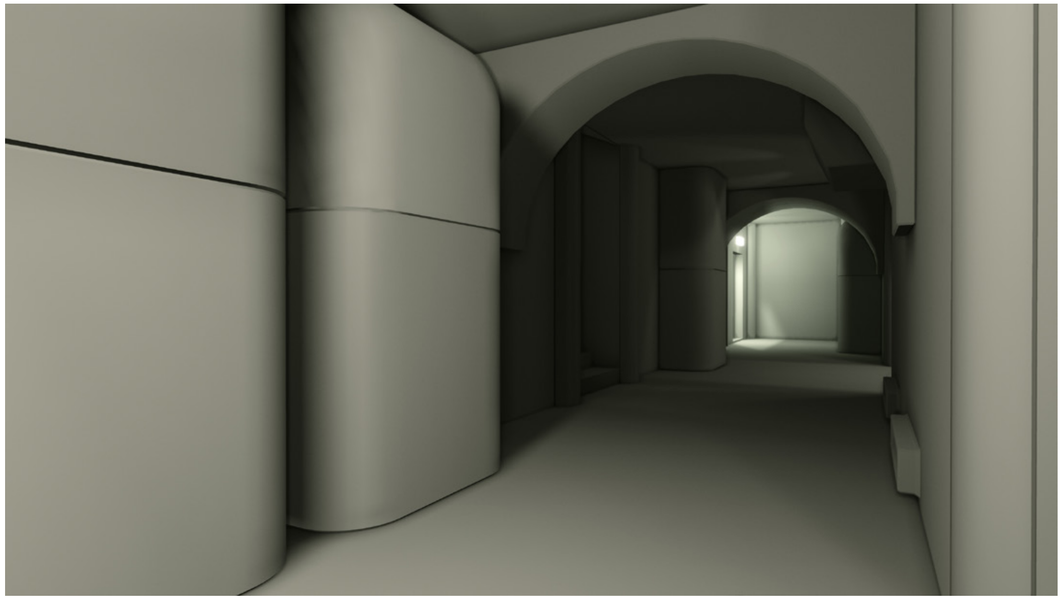


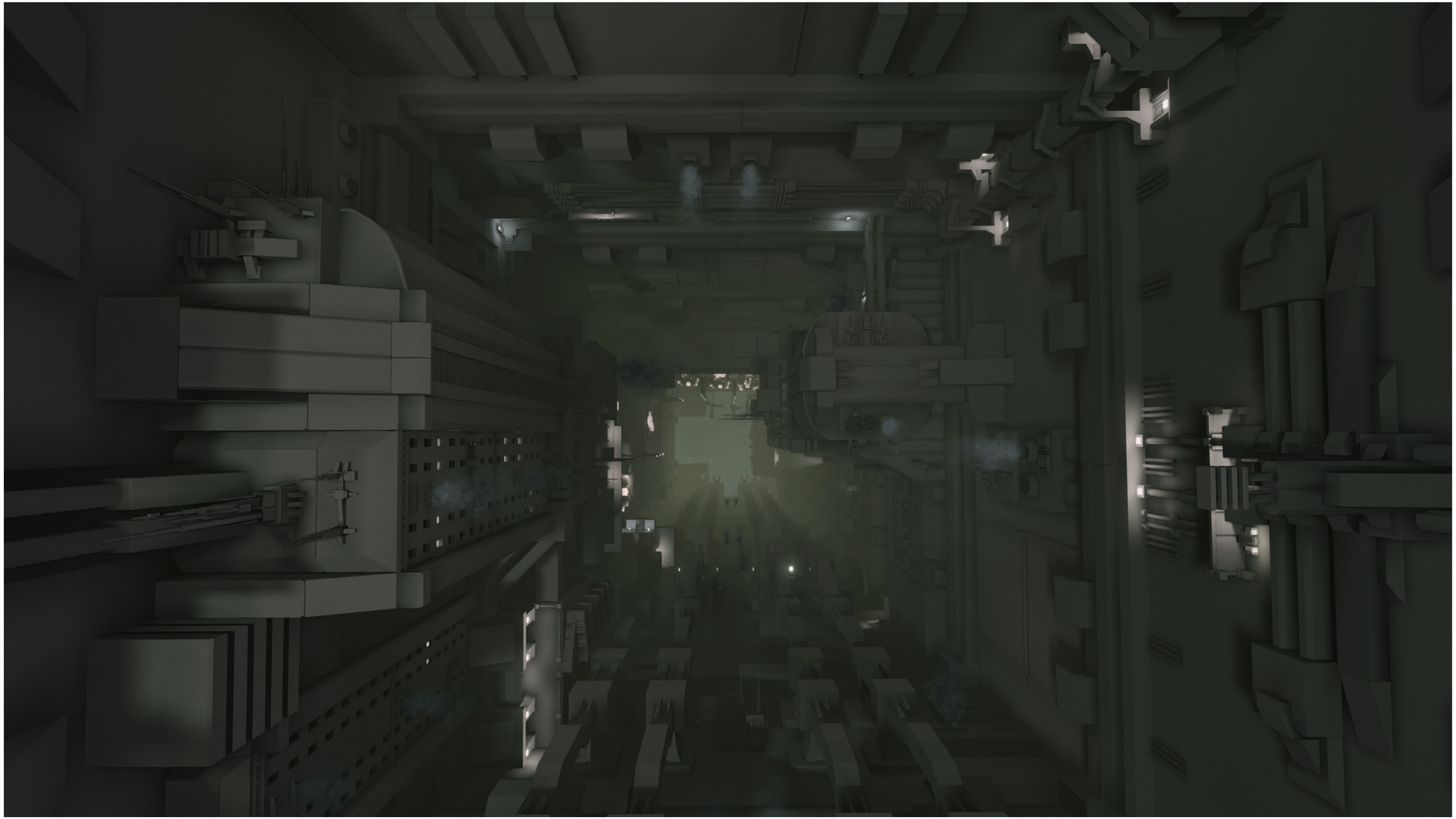


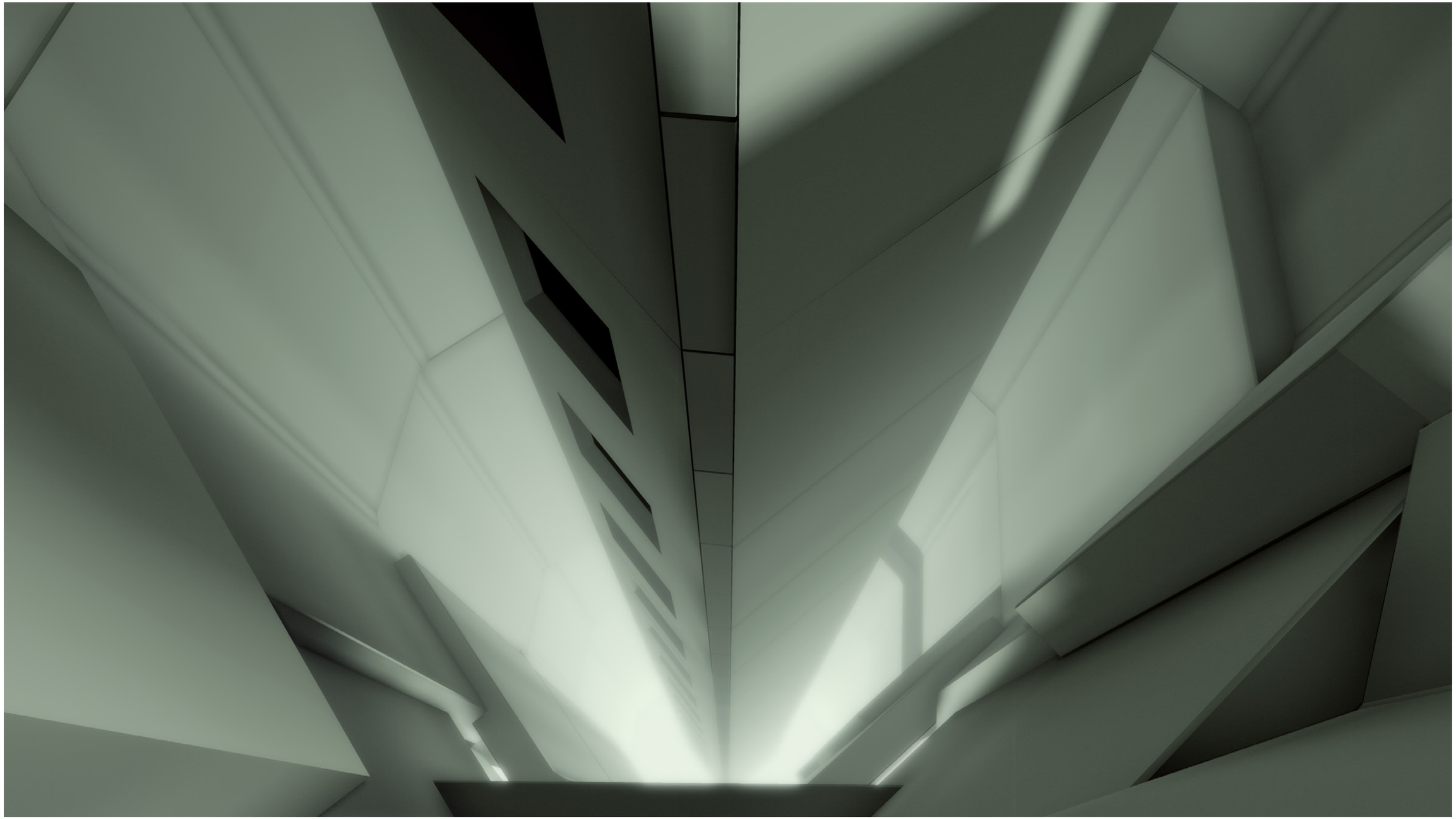


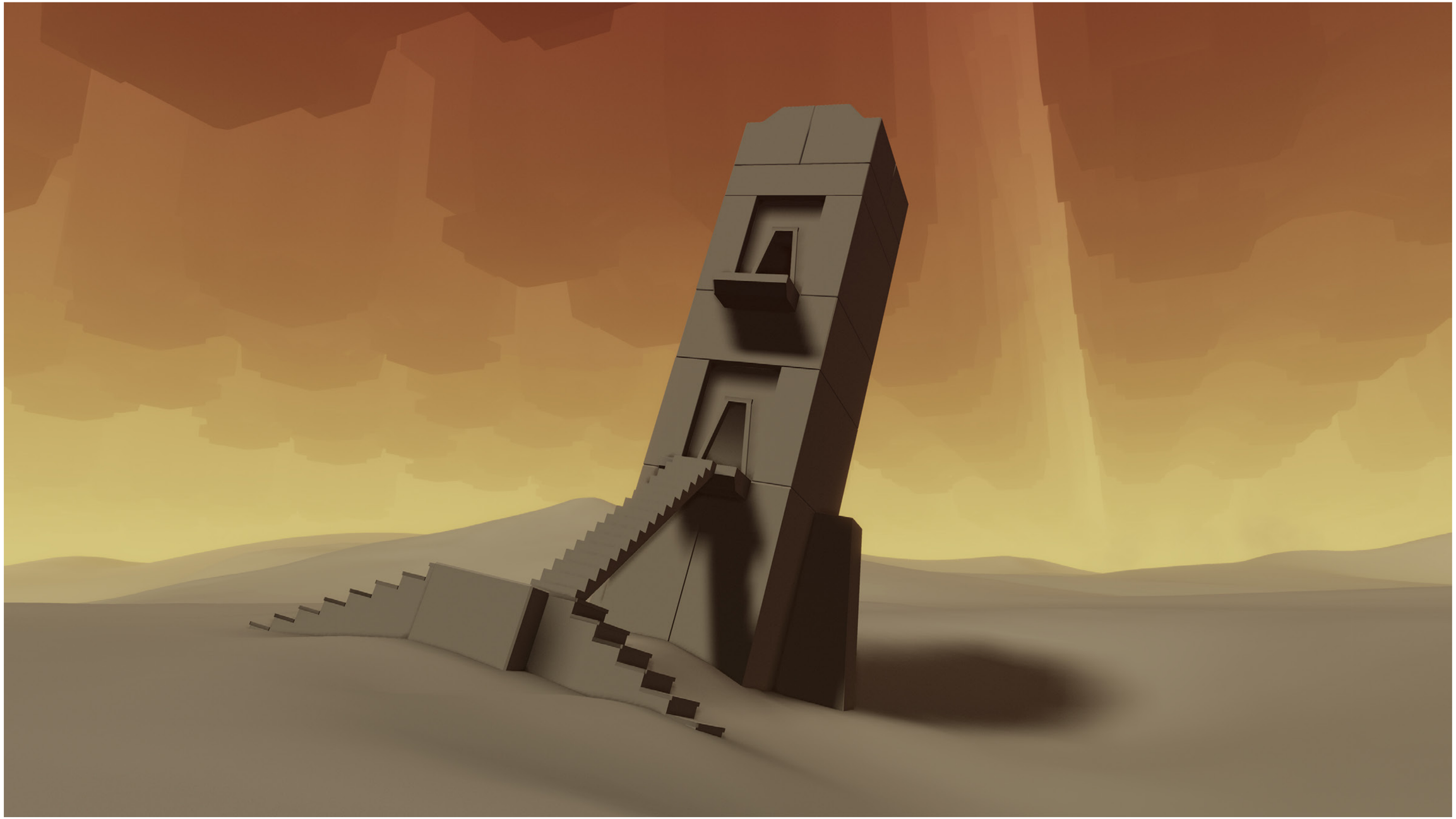


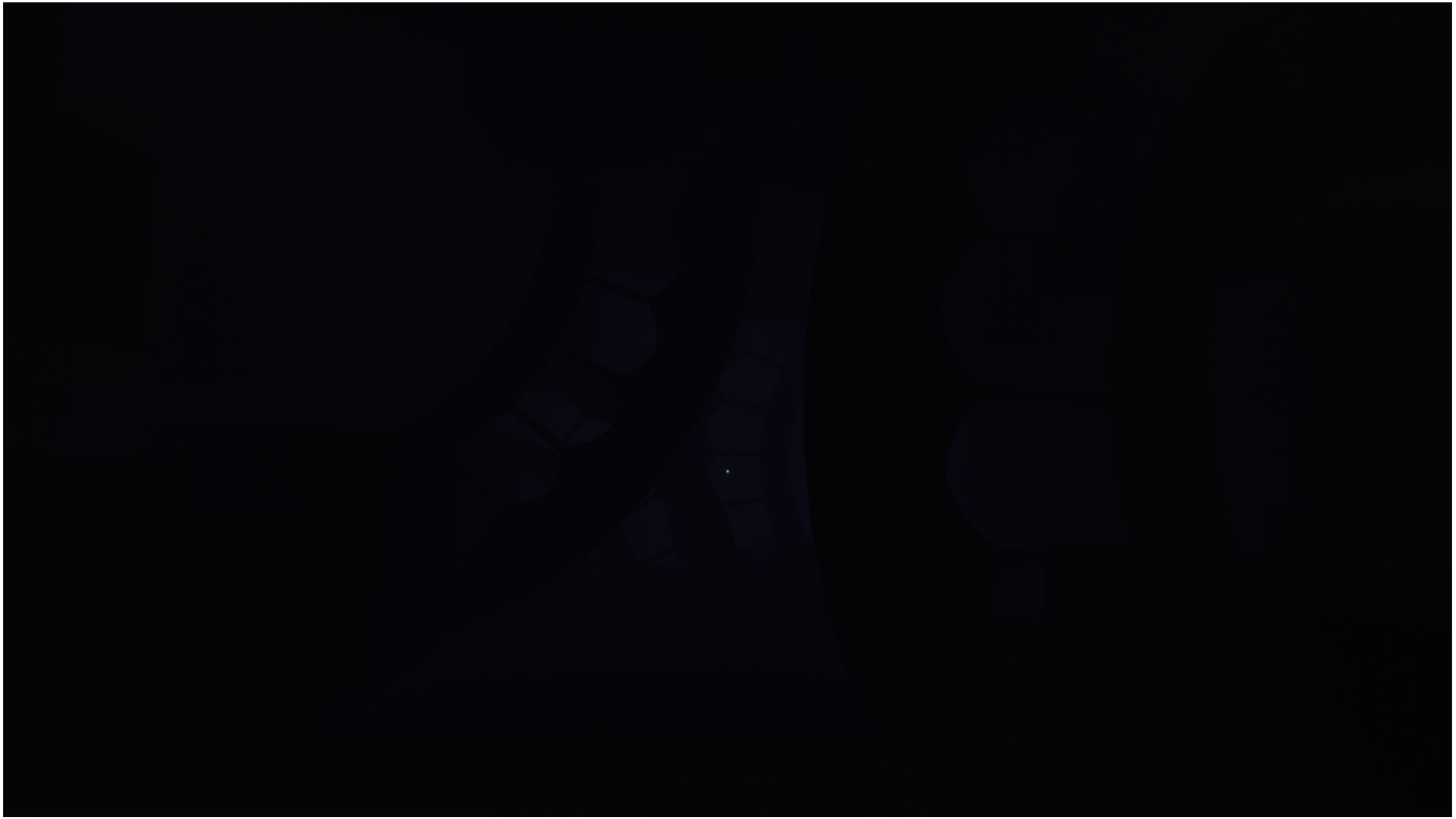












A Conversation with Mavros Sedeño

interview Gareth Damian Martin

GDM: So, I want to start in the middle. There's this moment in *NaissanceE*, I think it's the chapter called "Going Down," where we step out of a corridor into a huge well that looks like an inverted city. This moment, early on in the game, was where I suddenly realized that the game I was playing was not what I expected...

MS: The beginning is a bit hard, a bit harsh, it keeps the player inside this confined environment. The idea was to create a kind of claustrophobia, to make the player's progression hard in these confined dark environments. The world is meeting the player for the first time, and wants to know how he is reacting, to test his motivation and see if he deserves what follows. So the wide open well breaks that and comes as a reward. It surprises a player who has become used to small or closed rooms and makes him understand he's really lost inside something big.

GDM: Right, and the music at that point is very striking, it's very *Blade Runner*-esque. Did you always plan this piece of music for this moment?

MS: The music was very important in the creative process, and many times the music inspired both the environment and the action. But here the music was found specifically for the scene. I knew Pauline Oliveros' work would give the right mood in the game as it was one of my major inspirations. So, I searched through my selected pieces to find the best part to express what this place needed.

GDM: The other thing that struck me about this moment, "Going Down," is that it's the moment that other styles of architecture start to enter into the world. You begin with this quite minimalist and abstract space, that almost doesn't have a reference in real life, and then all of a sudden we are seeing skyscrapers that are halfway extruded from walls,

Mavros Sedeño is an independent game developer working in France. He created cult exploration game NaissanceE under the name Limasse Five. Previously he worked at Crytek on Crysis 2 and at Darkworks on I Am Alive.

and we are going down into railway arches, and then into rooms with furniture, but none of them are quite complete, they are all bits and pieces of architecture. Where did this come from, this introduction of real architecture?

MS: I wanted the architecture to be in-between symbolic spaces and more real spaces. I never wanted the player to say "yeah, I know what this is" but I wanted them to say: "it reminds me of something." It's a way to play with the imagination of the player, instead of giving him something he can interpret with assurance, and know something is something. I always want to leave space for imagination, for questioning.

GDM: Right, because usually level design is in service of world-building, but with *NaissanceE* it feels to me almost like architectural jazz. It's not about relating a particular story but playing with atmospheres...

MS: Yes, I wanted to be free to build everything I wanted, or needed, for the gameplay and for the feeling, the atmosphere. So I never set limits on what could be built, as you have to do when you are creating something realistic. I just wanted the architecture to express the feeling you need to feel, in this place.

GDM: And what was the feeling, in that vast well, that you wanted to express?

MS: The idea was for the player to feel the sensation of being lost, of being very small, almost insignificant, in this world. But at the same time, to feel that world is leading you into itself. Into its heart, into its structures.

GDM: I like that idea, that the world is leading you. That's something I've been thinking about in relation to *NaissanceE* and Tsutomu Nihei's manga *Blame!* which is obviously a big influence. *Blame!* is a kind of world that we can play in, in a way. We don't necessarily have to follow the characters, we can look past them to the backgrounds. And *NaissanceE* is almost like a fulfillment of this dream, the dream of stepping inside these spaces and walking past the characters...

MS: This is something I like in videogames: you are creating a world from your imagination, and this world, it's possible to share it with people, and for them to explore it. It's not like in static pictures, even if the process of wandering exists when you are looking at a painting or a drawing, but in videogames you can experiment with interaction, action and reaction, and the mixture of different mediums: music, visuals, and interactivity. And everything helps you to believe you are in this world, even though it is not an actual reality.

GDM: There is an interesting tension there too, that you believe you are in the world and that the world is real, but in the case of *NaissanceE*, it's not trying to be representative, if that makes sense?

MS: Yes, because what makes you believe the world is real is your interpretation and your imagination. Even from a very simple drawing you can go into this drawing, and imagine the world around you.

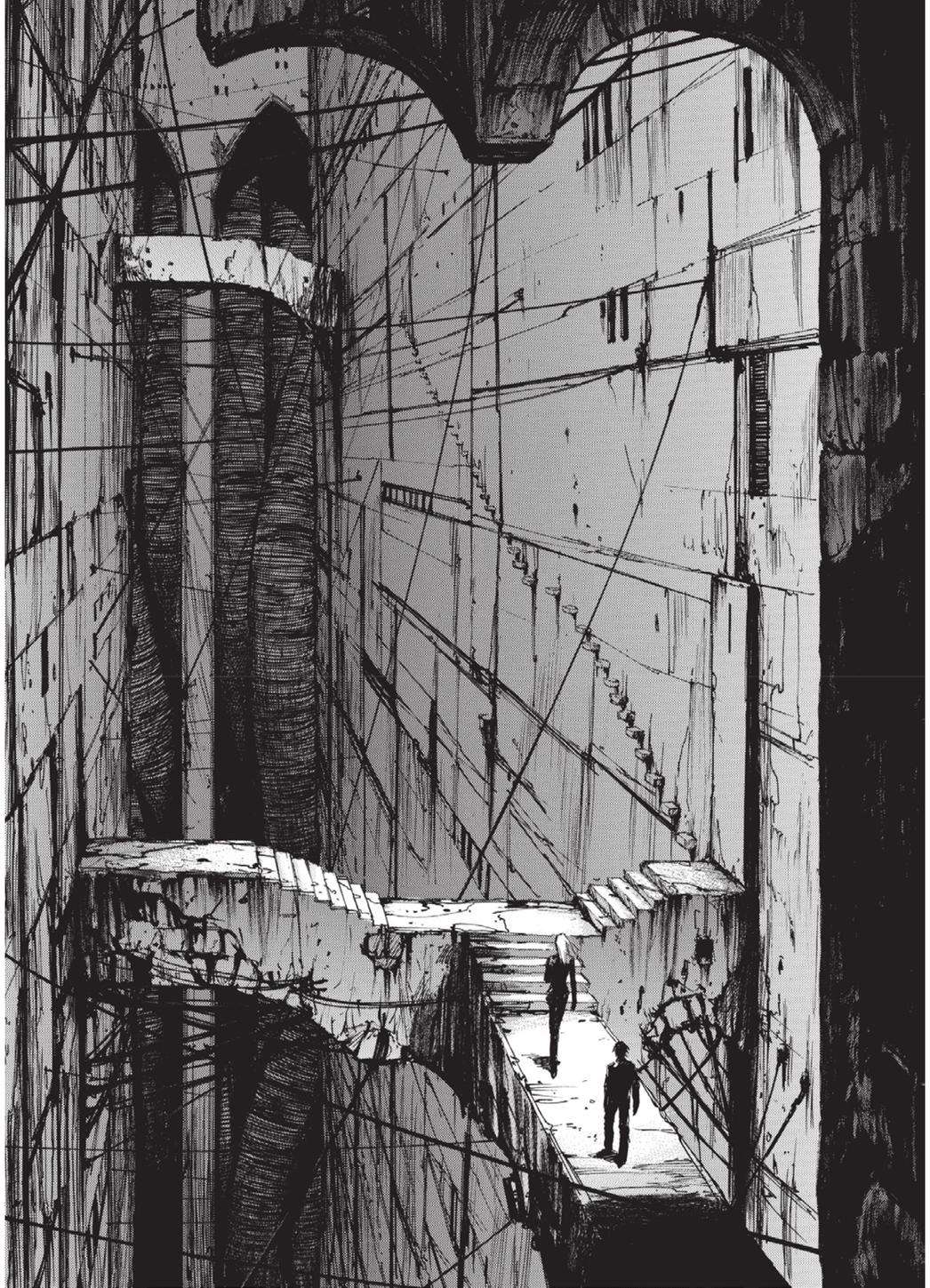
GDM: And speaking of drawing I noticed that you reference panels from *Blame!* throughout the game. There's one staircase from the second volume...

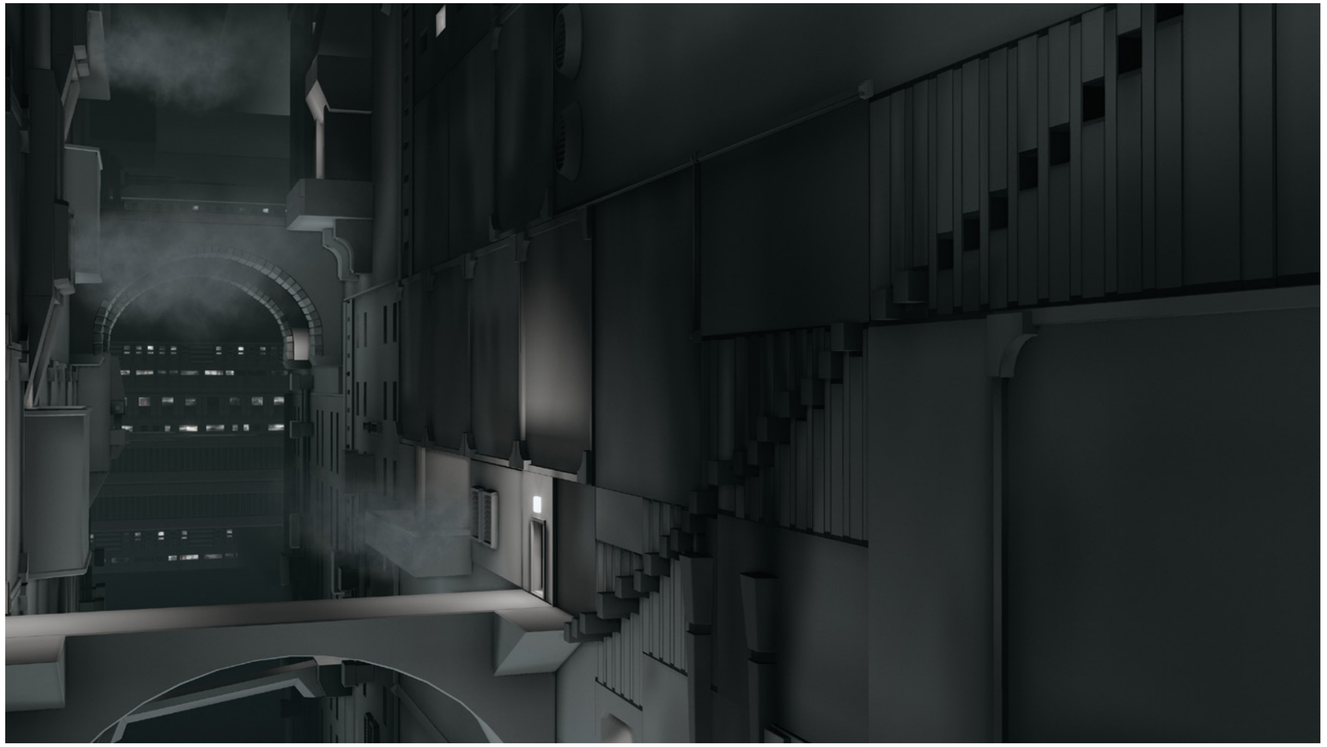
MS: Yes!

GDM: ...it's halfway sticking out of the wall, just a background detail. And what's funny, is no one ever walks on it in the manga, but the moment I saw it in your game, I knew I had to walk on it!

MS: Yes, I found it interesting in the creative process to get ideas

If you want to explore the world, you have to show the world you deserve to progress.





Above: NaissanceE's staircase (Gareth Damian Martin).

Left: A page from Blame! Volume 2
(BLAME! © Tsutomu Nihei/ Kodansha Ltd).

We don't know where we are, what we are, where we are coming from.

from some things that are a bit insignificant in the manga, and to try to take gameplay design from there. Here you have to make some precarious jumps, and walk very slowly, and wait for the steps to come out of the wall. It's one of the ways I have ideas for game design, sometimes it's from music, sometimes it's from a picture—in this case it's a picture. And I like this kind of creative game, of taking something from an image, but in the end, getting something playable.

GDM: But why that staircase, what about it made you want to take it from that image and put it in the game?

MS: When you see these ridiculous, impractical stairs, you really wonder what they are used for. I thought it would be interesting to give it a meaning, but as a game element, reinforcing the feeling of both being in a dangerous place and being unsure that the way you are taking is a good one to progress.

GDM: That's very noticeable in *NaissanceE*, that feeling of not knowing if you are going the way that you should be. Sometimes it almost feels like breaking the game, or hacking the architecture...

MS: Yeah, it would be interesting to go further with this way of making the game design. I was a bit limited in *NaissanceE*. I mean, players have habits, like having the way very well indicated, and there are a lot of "codes" in videogames, so you can easily lose the player, but not in the way you want! You are often balancing the design between breaking these codes and using them.

GDM: That's true, and the "codes" or rules you are using in *NaissanceE*, to talk to the player, are very much architectural codes. Do you feel like these codes are drawn from architecture in the world around you? Or are they exclusive to games?

MS: I guess the Parisian architecture around me when I developed the game influenced me, more or less unconsciously. For example, in most common buildings in Paris, staircases are very narrow and this is reflected in the game. It fits my intentions. but I'm not sure I did it intentionally with Parisian staircases as reference.

GDM: So, apart from this example, you generally you generally find your inspiration in imagined architecture?

MS: Not only, a lot of structures in *NaissanceE* are inspired by real architectures and architect's works, mainly Frank Loyd Wright. But indeed fictional architectures take a big place as influences.

GDM: I am curious, how does *NaissanceE* relate to your history as a level designer, professionally? Because it feels like a very personal game, and you mentioned that you allowed yourself no limits...

MS: I think the relationship between the two is related to this idea of no limits. Of course it's not really "no limits," there are always limits and constraints in making something work, and in a creative process, because it is from the limits and the constraints that you find the ideas that devbelop the work.

But in my previous work, maybe I felt some frustrations due to game design decisions I didn't like, or something like that, and so I wanted to be free of those limitations. Limits like the traditional codes in games.

GDM: That makes sense, because I often feel that *NaissanceE* proposes the idea of the level designer as an artist...

MS: Yes.

GDM: ...because it highlights level design above everything else. Was that your intention?

Left and Above: Sedeño's photos of Paris formed part of the development process of NaissanceE's architecture (Mavros Sedeño).

MS: It was not a conscious intention, but it emerged during the process. It was not something I aimed to achieve.

GDM: It must have been a huge volume of work, to make *NaissanceE*, just by yourself. What kept you making it?

MS: I don't know! It was not easy. Sometimes I almost abandoned it. But I had the global vision of the game in my head, and I thought it was interesting enough to show to people, so I continued to make the game! Sometimes it's hard, but it's also rewarding when all the prototypes are dressed with their visuals, and the music and the atmospheric sound is there, and you can navigate it, and the world comes to life. It's a very rewarding process, and an important part of the development of the game. So I guess that was enough for me to continue!

GDM: So, one thing that marks *NaissanceE* out among other first-person exploration games is that it forces us to pay attention to its architecture, through the running, the breathing, the jumping and the puzzles. Do you agree?

MS: A part of my intention was to explore the relationship between the environment and the player, and if you are just left to explore without any difficulties, you don't get the same feeling from the world. For example, you can die very easily in *NassianceE*, there are no invisible walls, no security, and this contributes to the feeling of being very vulnerable and fragile. It is the same with the puzzles; if you want to explore the world, you have to show the world you deserve to progress, to see what's next. The world is testing you, and trying to understand you, and show you the way, but only if you give something in exchange.

GDM: But there are a couple of moments in the game where all you are asked to do is walk, one stands out in particular because it is a replication of the first spread of *Blame!*, this bridge across a cavern filled with lightning, and in the game it is called "Interlude", or something similar...

MS: Yes, yes, yes!

GDM: ...and as this name suggests, it's a moment of pure atmosphere, so I'm curious about this section...

MS: As you said it's mainly an atmospheric piece, but it has a purpose in the player progression: It's a pause before something very different than the rest of the game, the Desert. It comes after the Madness section which is a bit disturbing and plays with the player's nerves, so you need a moment to breathe. The thunder is summoning you back to the "reality" and preparing you for the Desert.

GDM: But, again, why this *Blame!* bridge, with the lightning in particular?

MS: This picture, in the manga, is very strong, and I really wanted to bring it into the game, to let the player be a very small thing in the center of a very huge and frightening environment.

GDM: This feeling, of being a small thing in a very big place is a very important ambient atmosphere of *Blame!* and Tsutomu Nihei's work, and for a lot of other artists work as well. What do you think makes this atmosphere so attractive?

MS: It's the feeling you have when you think a bit about our universe, our world. We don't know where we are, what we are, where we are coming from, or what is beyond what we can observe or deduct from our universe. And the way we imagine our universe has changed throughout history. In the past we thought we were in the center of the universe, with the Sun orbiting around the Earth, but we discovered later it was wrong, and so on. And, in this way, we never know exactly what is outside and

Games are almost always a process of going from one point to another.

what is inside, because we can only observe at a certain level of matter. And when we think about these things, we are actually lost: We don't understand so much. We can only imagine our answers, or believe in other imaginary histories, or religion, or we can believe in logic, but logic is always limited and brings more questions. So I think this feeling of being lost in the universe, is one I wanted to express in the game.

GDM: But there's something particular about *NaissanceE* and these other examples, which is that they are built spaces, they are achitecture. Because we can have this experience of feeling very small in nature, standing on the shore of the ocean, but something different happens when the space we are standing in is built.

MS: Yes...

GDM: In short, why architecture?

MS: I don't know, but I think we are living in a very architectural world. Even when you are in the countryside and near to nature. I think this idea of smallness is a way of expressing the way we build the world around us: there are some things we didn't make, but where we are living in the world, we are living in our creation, human creation. Or, perhaps, it is because architecture is the basic element of games. Because games are almost always a process of going from one point to another. And in-between you have doors, you have puzzles, and it is always a journey, always a progression through space. Except in pure puzzle games, or text adventures, but in the majority of games it is the architecture you are experimenting with, though with new rules: with different gravity, with different ways to move. It's the essence of games. I played with this notion when I came to make *NaissanceE*.

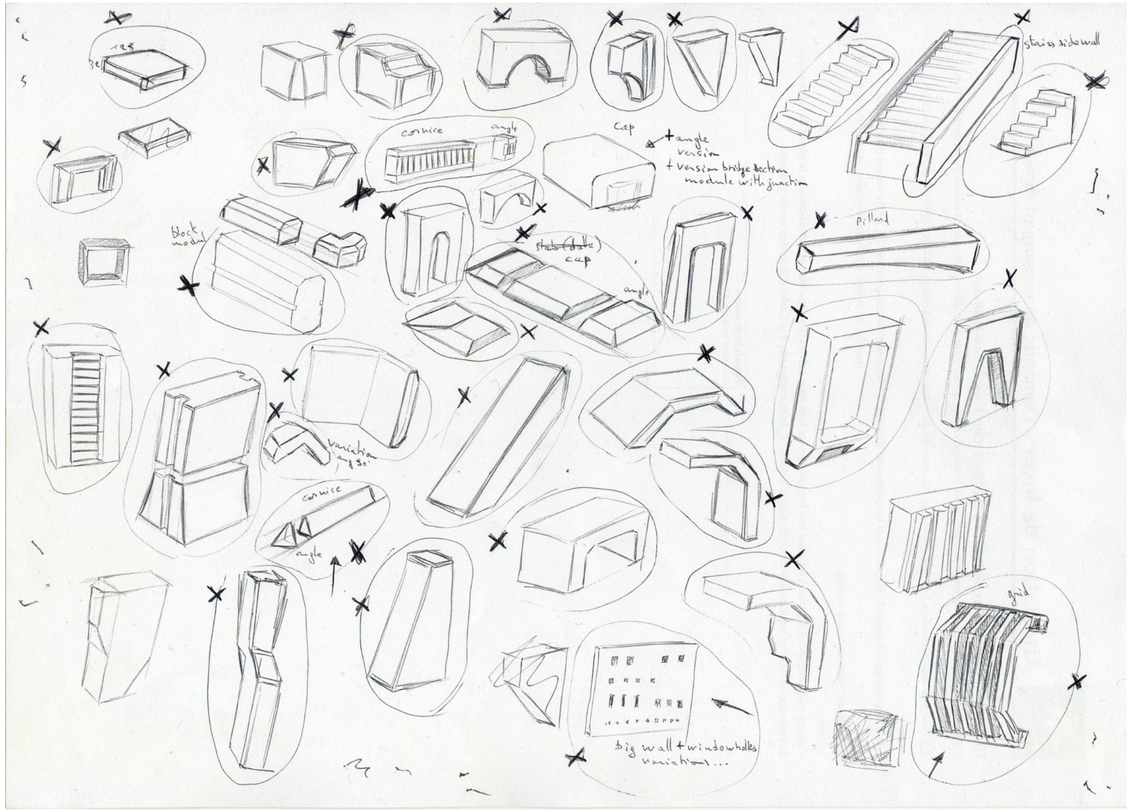
GDM: I'm curious about how you came to build these spaces, as a one-man team. There is a huge amount of complexity, especially in the well and larger structures. How did you approach building these spaces? Did you use a modular system?

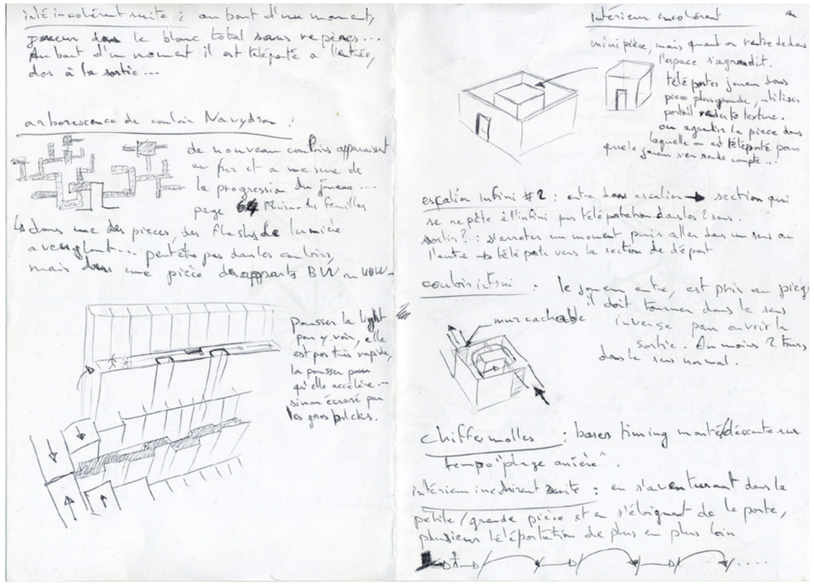
MS: I had in my mind the final images, somehow, and I built the basic level design, meaning not the graphical part, but just putting the big gameplay elements in place. After that I composed the levels, using improvisation, like jazz, to build the details.

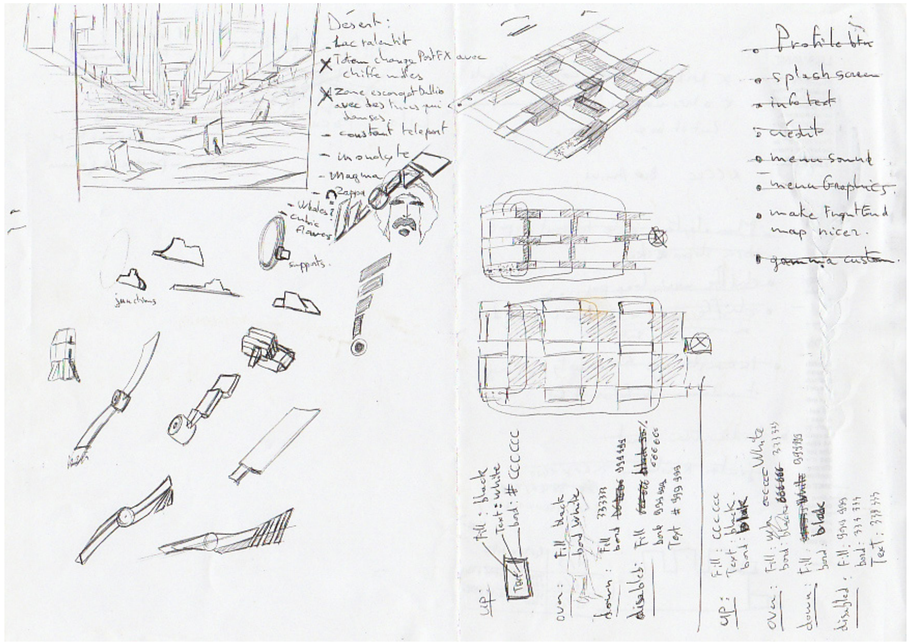
Most of the parts are a modular system, yes, made of very simple pieces. They are like brushes for a painter, allowing a lot of space for improvisation. I don't do many preparation drawings except for specific details or very simple illustrations, to help me remember ideas. I don't want to deform my first intentions with drawings or concept art as the goal is a 3D interactive scene and not a static picture, and I have less difficulty making the transcription directly in 3D. Sometimes I have an image from *Blame!* for example, or movies, that I want to put in the game and I just know, yes, this is the place where it will look like B*lade Runner*, or anything else, but I start with the game design.

I actually built almost all of the game in simple geometry before starting the graphic part, but with the big picture in mind from the beginning, and for many places, with a very accurate vision of the final design I wanted.

GDM: It's interesting that you work from memory, because the relationship between architecture and memory is very powerful in your work. Especially in *NaissanceE* because the referential spaces, those which connect to *Blade Runner*, *Blame!*, or real architecture, are often reminding the player of something they have seen before. It reaches outwards into memories of other things.







Right and Above: Though he does not produce concept art, Sedeño keeps detailed notes and sketches (Mavros Sedeño).

MS: Yes, this is one of the key elements of the game. Earlier I was talking about imagination and letting the player imagine what is beyond the picture they are seeing, and the reason I used some recognizable shapes and places, but also very unusual spaces, was to get a good mix between the symbolic and the abstract. And so to let the personal experience of the player make the experience of the game. Depending on your references in games, art, and architecture, and in life in general, you have a different experience. This is true for most art, games, and movies, but I wanted to investigate this particular idea.

GDM: I can see that, and by taking a drawing or a work of art and making it into a 3D object or environment, it becomes a kind of study of the original work.

MS: That's true. But even the process of listening to music, for example, changes the music somehow. Because it becomes a personal interpretation, and it depends on your references. You don't listen to music in the same way when you are young and when you are old, because you have listened to a lot of music in-between, and it changes the way you feel and understand the music. This is something interesting I wanted to explore in *NaissanceE*.

GDM: And the connection to music in the game is very strong. There is this idea of accompanying music with architecture...

MS: Yes, and with action. For example, the section of the game with the vents, which the critics hated because it was hard, it was totally built from the music I used in this section.

GDM: Is this something you have always done; listening to music and building levels while you imagine its imagery, or is that something specific to making *NaissanceE*?

MS: No, it is something natural to me when I listen to music. I always have pictures or atmospheres in my head, this is why I love music!

GDM: And you make music?

MS: Yes, a little. Just as an amateur...

GDM: And what are you doing now, it's been a few years since *NaissanceE*...

MS: Yeah, it was very difficult to start a new project. I started a lot of prototypes and spent a lot of time changing my mind, and having babies! But now I am working on a game which, of course, leaves space for the player's imagination, but it will be very different from *NaissanceE*. It will be more focused on music as a game element. I tried this in some scenes of *NaissanceE*, where you have the visuals and the action and the music matching in order to give a special experience, but I want to push it further, especially when it comes to playing with the music. Because in *NaissanceE* the music is mostly used for atmosphere, and not always as a game mechanic, only sometimes. So I will explore this now.

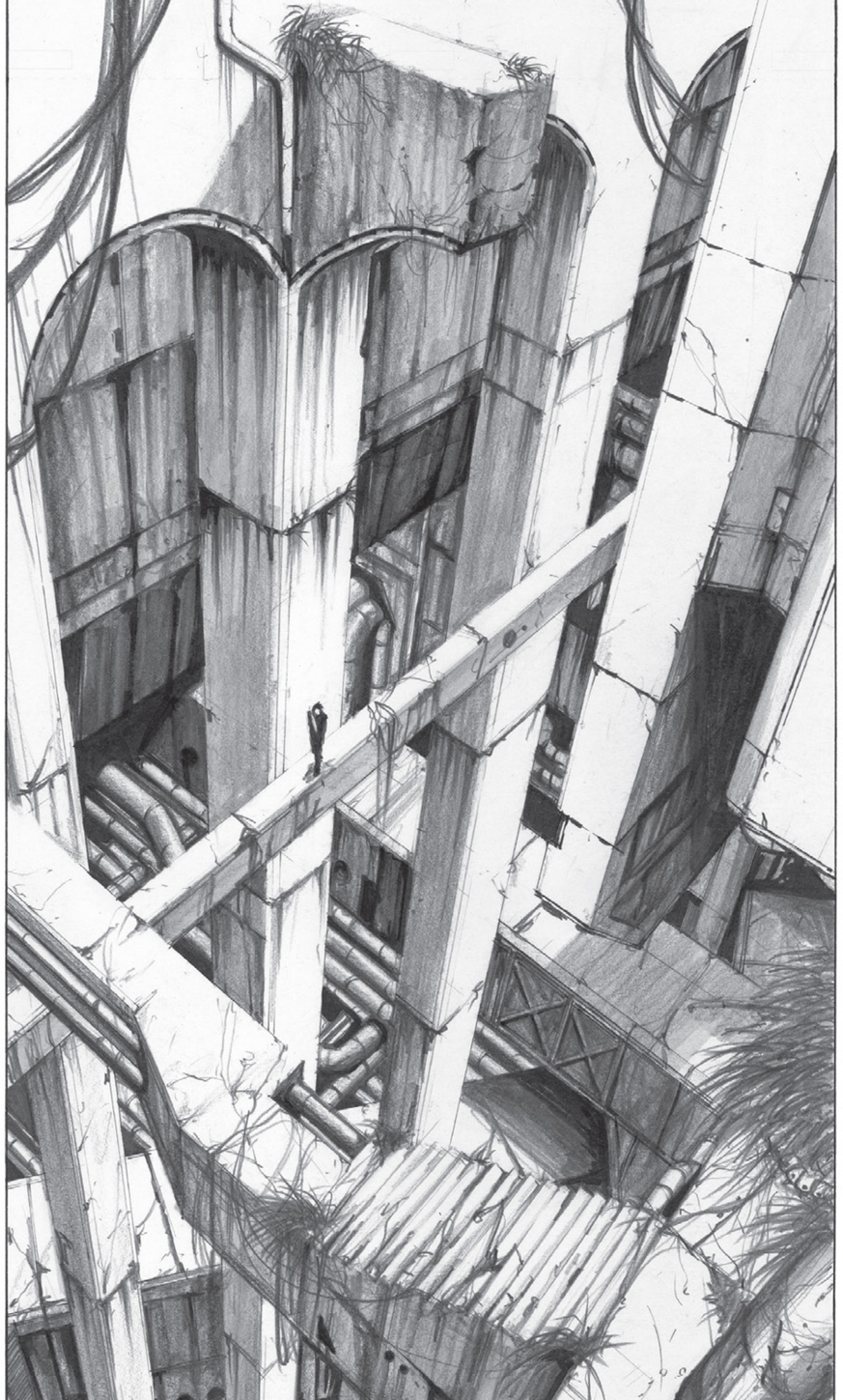
GDM: I look forward to hearing more about it.

MS: Ah, but not so soon, unfortunately!

I think we are living in a very architectural world.

The Architect's Dream

feature Blame! | Gareth Damian Martin



It was Mavros Sedeño who first introduced me to Tsutomu Nihei. It was in 2014, around the launch of *NaissanceE*, when the world was still only peeking into his cavernous creation, and I was interviewing him for a piece. Amazed at my ignorance, he passed on a link, and I was instantly mesmerized.

I don't think it's an exaggeration to say that no one draws architecture quite like Nihei. From the very first pages of *Blame!* we are lost, jammed into some vast interior with no horizon or sky, no reference points of earth or nature, only walls and passages of unrelenting detail, their paneled coverings suggesting yet more interiors and volumes, and the workings of a vast machine we can only guess at. That opening panel appears to be the inside of a vast server stack, or within the turbine of some huge power station. It instantly tells us that this space is both architecture and machine, living and dead. That image makes it into *NaissanceE* as a shifted, but powerfully recognizable space. It is the interlude Sedeño mentions in our conversation on p94, the rumbling thunder bringing the player back to reality. In *Blame!*, this image serves the opposite purpose, it is a beckoning into this fantasy world, a structure so vast, enticing, and terrifying that it grips us, haunts us, and compels us to go onward.

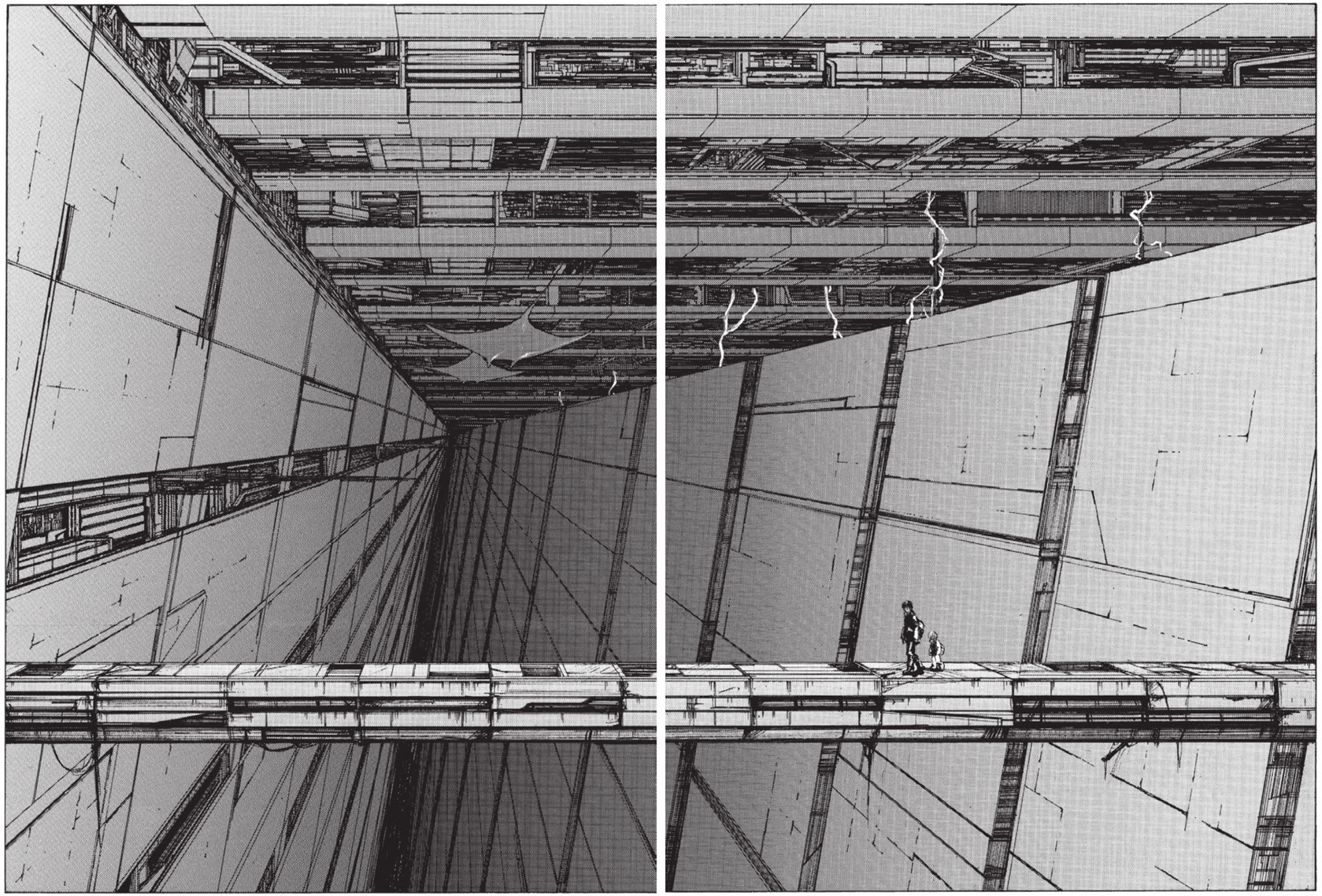
Appropriately, it was in Paris, the city in which *NaissanceE* was born that I found my first physical copy of *Blame!*—a dog-eared first volume, entirely in French. This was before Kodansha gifted the world their reprinted Master Editions of the series, sections of which you will see among these pages. It felt like an arcane object, dug from a mouldering pile of second-hand manga, along with a Japanese edition of *Berserk* (which is a story for another time). An edition from 1998, the debut year of the manga, it felt like it had the touch of history, and transmitted, in a way, the darkness of that pre-millennial space, before everything was connected, itemized, and stripped of its mysteries.

Not that you could strip *Blame!* of its mysteries. The first volume, which for me is the peak of the series, has a certain minimalism to it, a lack of explanation, plot and world-building that makes it enticingly opaque. You can gaze into its larger, architectural panels as if they were windows, your eyes following the reinforced lines of perspective into dark interiors that you can only imagine. Though it is dotted with kinetic, extreme violence, it is the quieter moments that leave their mark. The first EX-LOG, a kind of interlude in the story, simply follows the main character Killy as he spelunks through a few floors of the series' nameless, infinite, tumorous "city." He finds some kind of laboratory, storage, or cryogenics plant, activates the security and in defence, blows it up. That's the usual pattern of the first volume of *Blame!* exploration: wonder, death, and destruction. This is just the foreground however; Killy's run-ins with invincible androids and their limb-chopping friends. You might say that the real narrative of *Blame!* occurs in the background, in the meticulous, illogical, and endless architectures that threaten to upstage the characters. As *Blame!* moves through its volumes (10 in the original version, five in the new editions), Nihei does his best to redress this balance, pushing more characters to the front, and extending the balletic combat sequences over multiple volumes. But in some ways this feels like a game of falling returns, as with each passing volume we spend less time wandering, unfettered by narrative, through the incredible chambers of Nihei's mind.

Over the years, those chambers have lost none of their power. There's a resurgence of interest in Nihei at the moment, perhaps due to the success of his series *Knights of Sidonia*, which has also led to the soon-to-be released anime adaptation of *Blame!*. Both have

A structure so vast, enticing and terrifying that it grips us, haunts us, and compels us to go onward.

Previous page: Panel from Blame! volume 1 (BLAME! © Tsutomu Nihei/ Kodansha Ltd).



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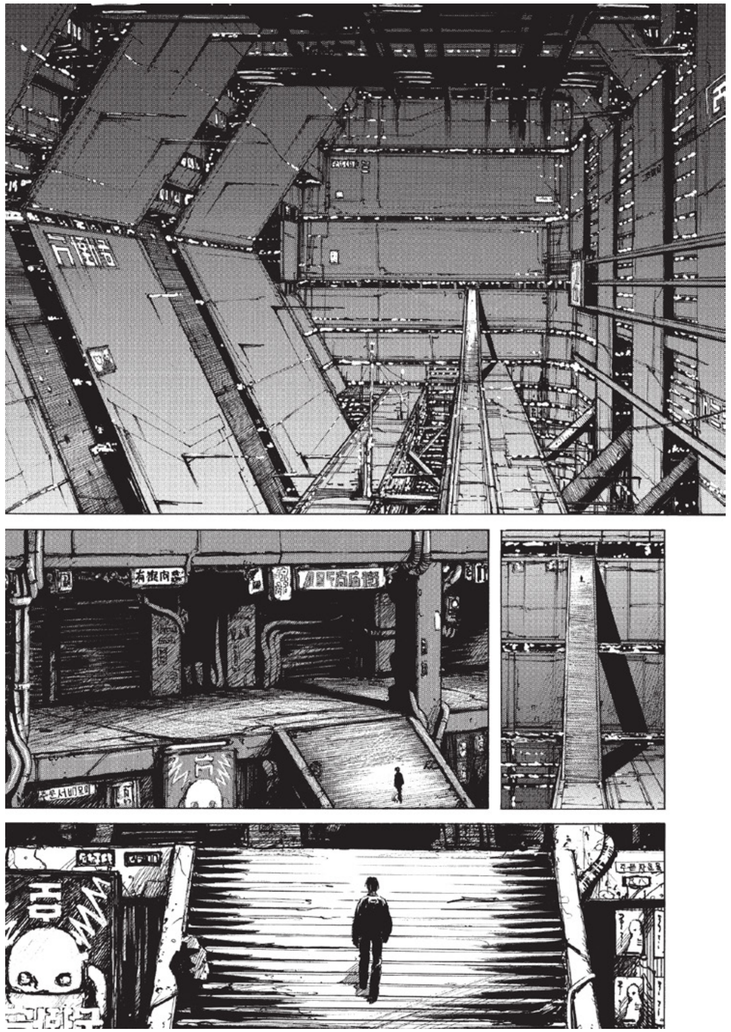
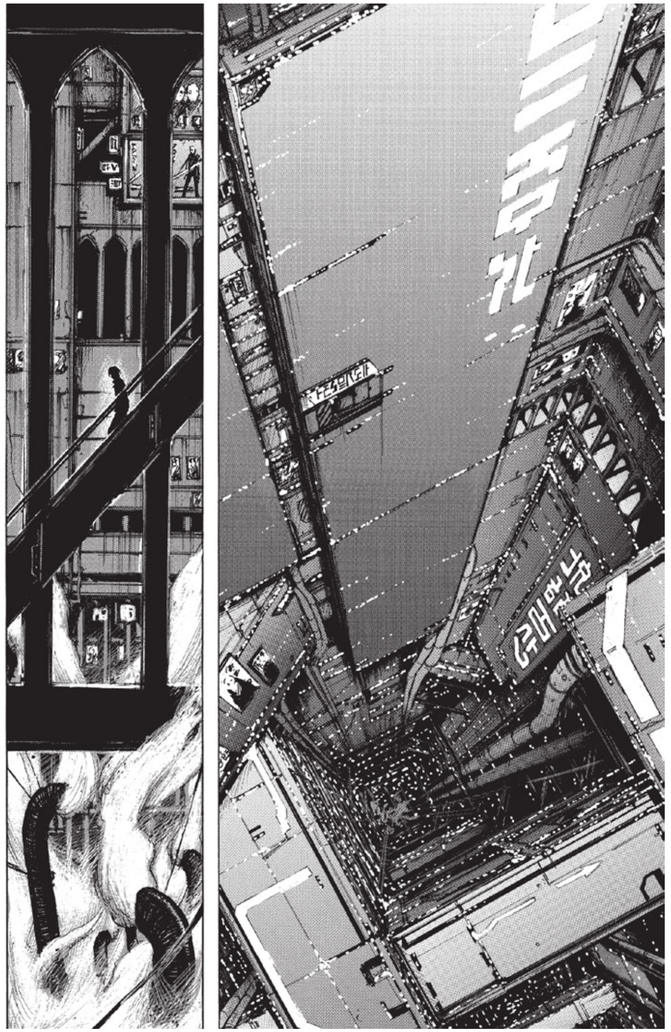
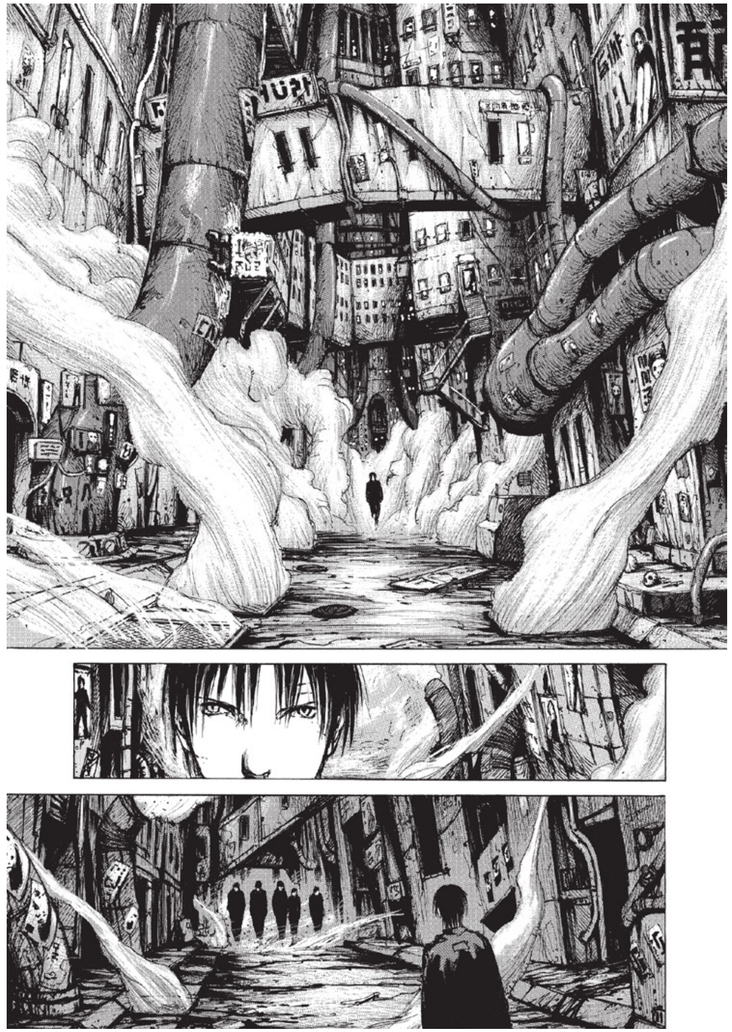
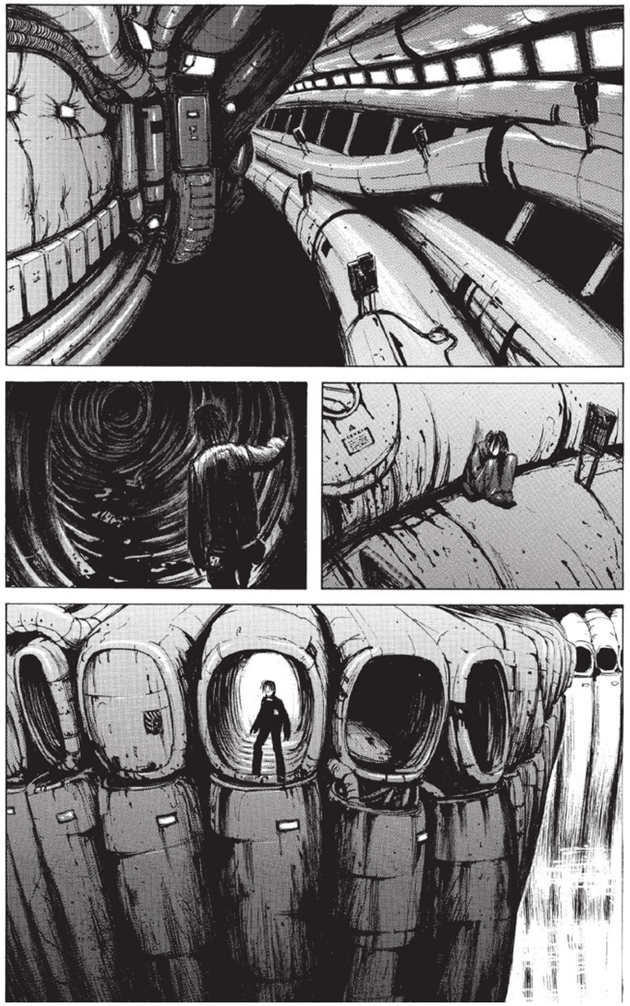
Left: The first spread of Blame! Volume 1 (BLAME! © Tsutomu Nihei/ Kodansha Ltd).

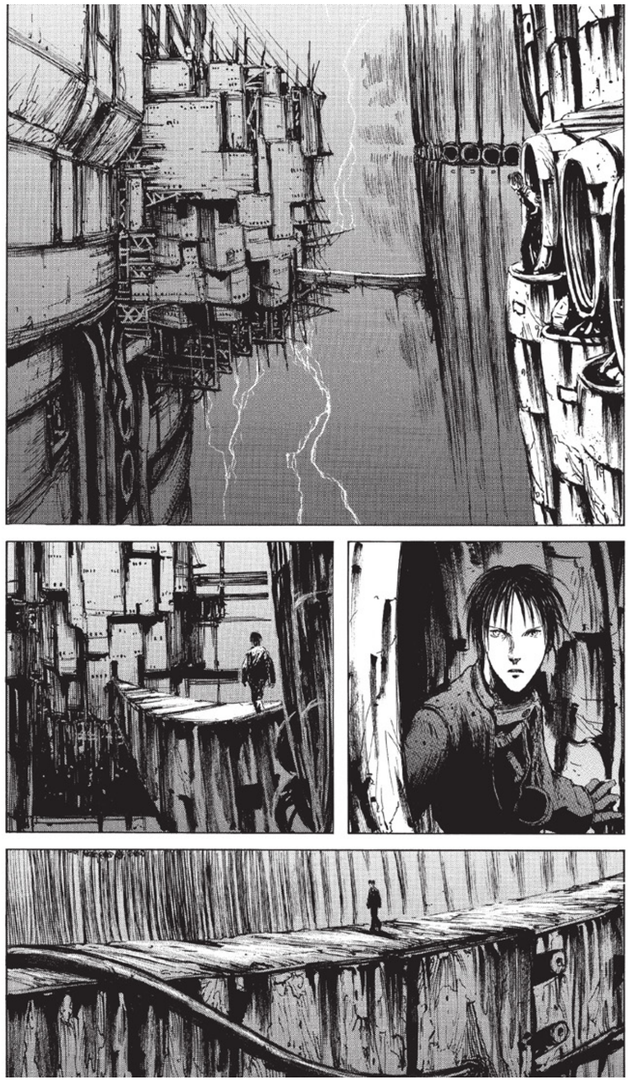


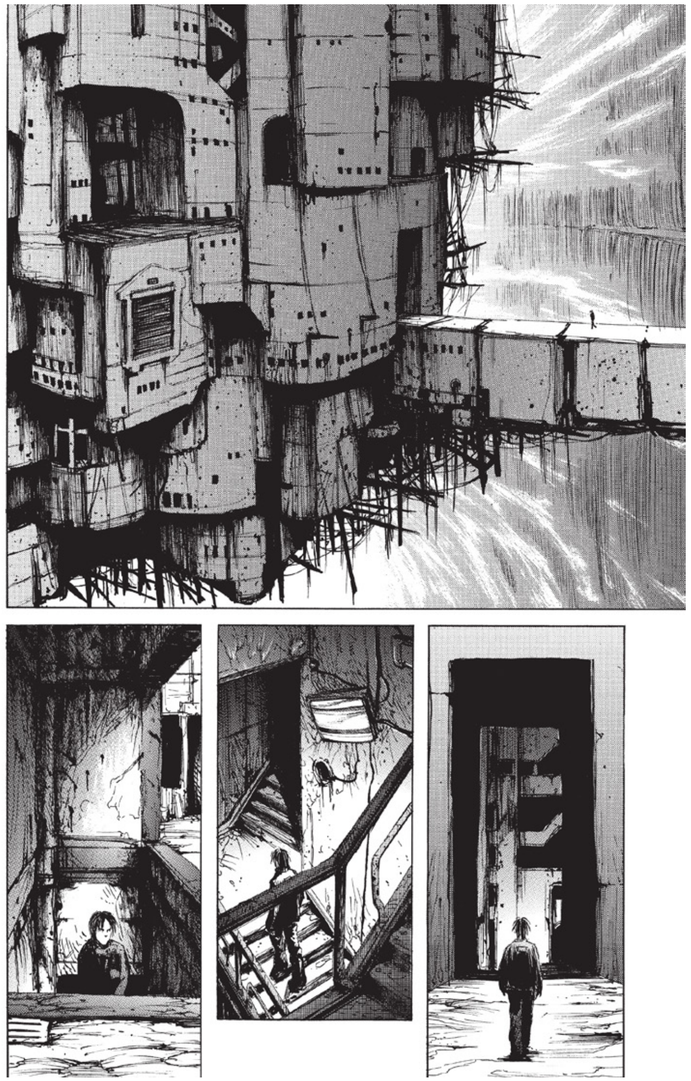




Above: Pages of architectural exploration from Blame! Volume 1 (BLAME! © Tsutomu Nihei/ Kodansha Ltd).







Above: Some of the many sections of Blame! Volume 1 that depict wordless journeys through ornate architecture (BLAME! © Tsutomu Nihei/ Kodansha Ltd).

In an age of total urbanization works like Blame! take on new relevance.

their own qualities, but the more genre-focused structure of *Knights of Sidonia*, and the unwelcome but predictable introduction of color into the *Blame!* anime, means that both fall short of the original work's stark beauty. What is surprising, then, is despite the growing reputation of Nihei and the visual richness of *Blame!,* outside of *NaissanceE,* there are few works bearing the obvious signs of his influence. In games, there are a handful of experiments and abandoned prototypes that bear his mark, with the opaque *Hiversaires*, a wordless exploration game by Devine Lu Linvega, being one of the lone few to make it to a full release. Meanwhile in comics, fragments and fingerprints of his images are scattered across volumes, but few have attempted to truly build on his style, or pursue his themes.

Though this might change as Nihei reaches the critical mass of fans and reputation needed to be a well-quoted influence, it means that discovering *Blame!* for the first time, as I did through *NaissanceE*, and as I hope some of you will do so through this article, still feels like leaning on what you thought was a wall, and watching it open up, to reveal another space behind.

The manga's architecture is designed to be interpreted through the imagination of its readers, to enter into and get lost. Despite its cold and sparse chambers, their ragged decay, their complete lack of comfort, softness, or nature, the spaces of *Blame!* are fantasies, dark and enticing all at once. The series' exclusive focus on built environments, and its cyberpunk elements of vast corporations, modified humans and rogue intelligences, also makes it a particularly pertinent fantasy. We are now living in the age of networked mega-cities. It was less than 10 years after the release of *Blame!*, in the year 2007 in fact, when the balance tipped, and the human population of Earth went from being a rural to an urban species.

The process of urbanization is an exponential one, and alongside it our architecture grows and distorts, into towering walls of apartments as seen in mega-cities such as Tokyo, Shanghai, and Jakarta. Though Nihei's impossibly large self-replicating city, one that reportedly stretches from the surface of the Earth to Jupiter, is not a conceivably real future, it is a powerfully symbolic one. In an age of total urbanization, works like *Blame!* take on new relevance, as we deal with the realities of living in increasingly inhuman scales of architectural construction.

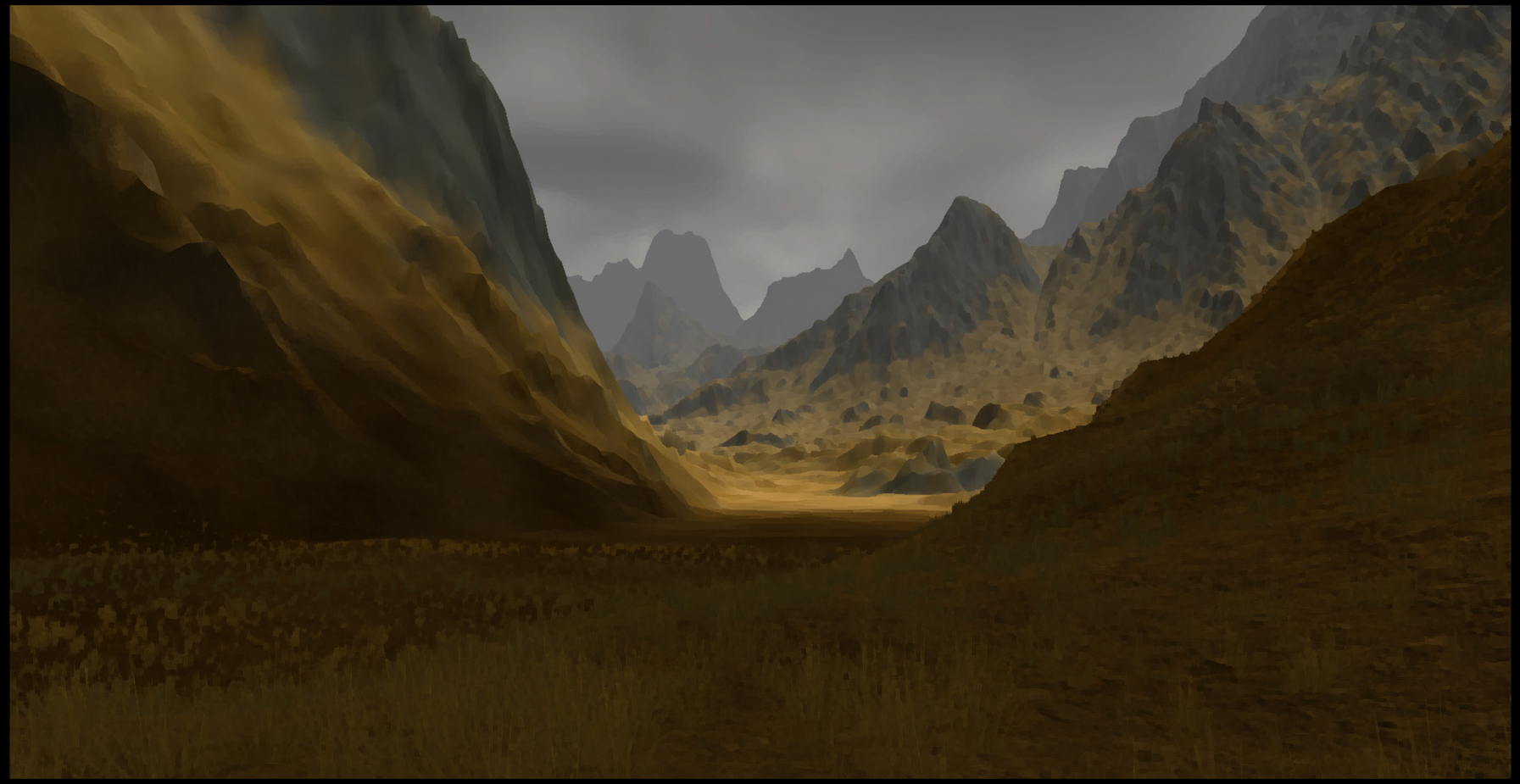
Having said that, *Blame!* remains, for the foreseeable future at least, deranged, beautiful, and ultimately fantastic. To open a volume of *Blame!* is to give in to the overwhelming power of imaginary architecture, to give ourselves over to impossible spaces and the impact they have on our minds, our emotions, our bodies. A trip through the first volume of *Blame!* can be one of endurance, of confusion, but it is also imbued with wonder. After seeing such strange places, ones that assert their strangeness and yet shine with an aura of being concrete, palpable, real, it is hard not to feel as if your mind is newly stocked with a catalog of incredible rooms, which in quiet moments, you might return to once more.

In short, to idle in the pages of *Blame!*, and to hang around in its corridors and chambers, to duck low beneath its arches and press on along its catwalks, is to dream the architect's most maddening, beautiful, impossible, inhuman dream.

GDM

Following page: A panel from Blame! volume 1 (BLAME! © *Tsutomu Nihei/ Kodansha Ltd*).

- Henry Okun, *Ossian in Painting*,
via Connor Sherlock's *Birthplace of Ossian*,
(pictured overleaf)



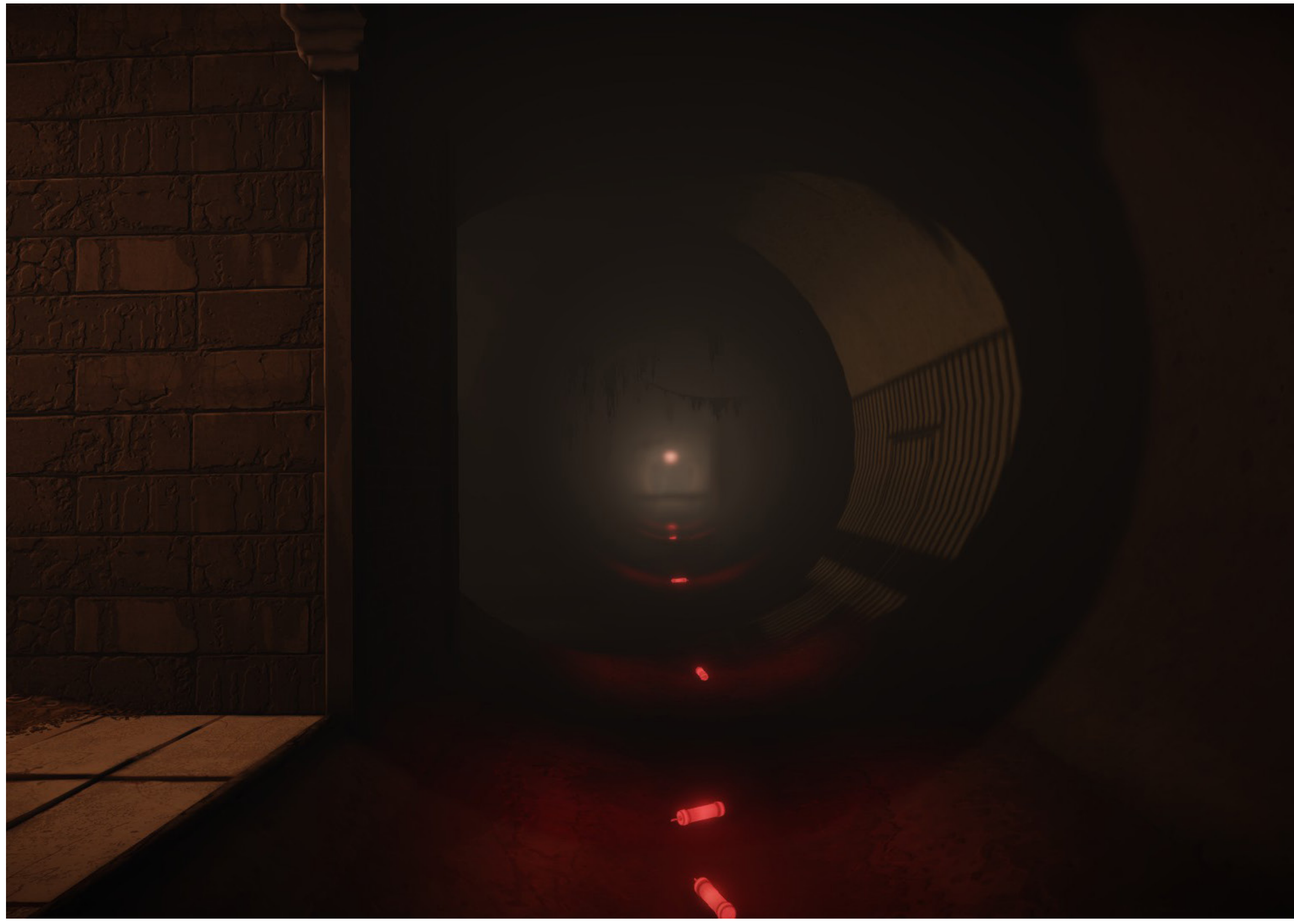
Adventures in Cartography

mapping The Old City: Leviathan | Konstantinos Dimopoulos

From its earliest promotional screenshots, it was obvious to me that *The Old City: Leviathan* would, at the very least, offer up a worthwhile setting to explore, even if only to appreciate its visual arts and survey its apparently weird urbanistic ideas. Having the word 'city' in its title did admittedly help steal my intrigue—having studied and researched cities since 1998, that single word's allusions are especially strong for me. The mention of that extinct sea monstrosity, the ancient Leviathan, also helped breed further curiosity. And so it was: from first blush, the game implied a meticulously constructed world built upon the foundations of the immersive sim, filled with thousands of cryptic words and a hidden history to piece together.

Upon venturing in, I found the city to be a place that, before falling from grace, was obviously built around a functioning economy that included shipping, fishing, and mining. Its ruins once housed a salt-of-the-earth population, the type that spit into rags and push each other off stools, and yet the inner monologue of the protagonist—a sewer-dwelling isolationist misanthrope who has somehow survived an apocalypse—forces an idealism onto the game that opposes its plebeian environments. The poetry almost takes a better turn when employing the central city-as-living-organism metaphor, but it doesn't do anything new and ends up feeling tired. Understandably, this metaphor is an alluring way of approaching urbanism, but one that cannot stand up to scrutiny.

The Old City's solipsistic philosophy goes some way to undo the imagined promise of its walls and walkways, then. But, thankfully, the architectural variety on display throughout its world—from brutalism to a weird medieval eclecticism—can be appreciated on its own terms. There's a striking solidity to the structures that border your path, the brilliant use of lighting through



Previous and following pages: Screenshots of The Old City: Leviathan (Konstantinos Dimopoulos).

stained-glass windows and strategically placed openings that illuminate points of interest allow for a wonderful play of shadow. As you follow the designated paths, there's a sophisticated interplay of architectural and urbanistic vignettes to consider, which are broken up with a topography that moves through mountains, valleys, and caves. All of this helps to bolster *The Old City* as a believable place, whose seemingly disjointed yet elaborately designed hyperrealist sets are far more interesting than its purposely misleading and intentionally cryptic core.

It's due to the fidelity and mosaic strength of those virtual spaces that, even after my disappointment, I knew *The Old City: Leviathan* was a game I had to revisit. I decided to return as an urban explorer; ignoring the protagonist this time around, and placing myself in the game instead, as a professional city planner and geographer ready to be wowed by the unreality that digital places can provide. I was an architectural tourist of sorts, willing to look at the game's titular Old City with an eye trained with 15 years of surveying urban environments. I had come to catalog buildings, styles, and uses in an attempt to understand how the component parts connected, in the meantime capturing the game's most beautifully sculpted civic moments.

Where I struggled was in figuring out how best to convey the Old City as a space. What method suited the experience of walking through it? My first thought was to apply Guy Debord's revolutionary détournement methods of hijacking the existing geography to tell a radically different, materialist tale of the city—or, according to another of Debord's teachings, to purposefully lose myself while wandering through its 3D world. But *The Old City*'s frigid linearity and lack of environmental interactions swiftly killed these ideas. One can only look at things and not re-arrange them; never subvert or experiment with them, stuck to a single unmovable path.

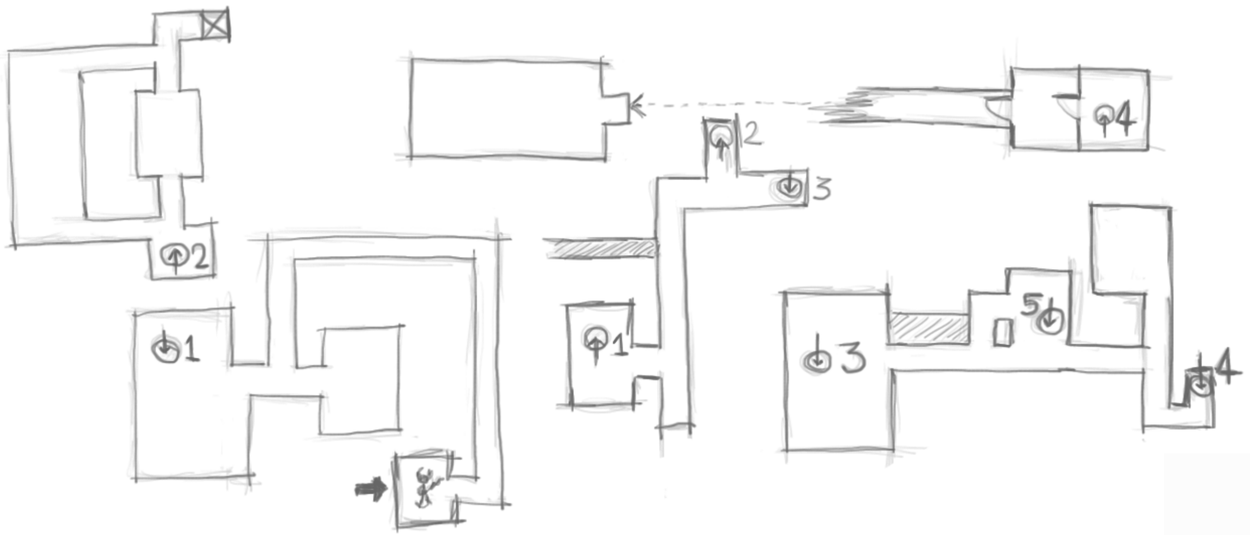
As the game's narrative unraveled, I blocked my ears to focus on methodically exploring the gaps in the architecture that my imagination filled, dreamspaces beyond my sight. It was then that mapping the contours of the Old City, and systematically photographing it, struck me as the best way to understand it. It would expose how the game's urbanistic authenticity is achieved, and in turn subvert its central metaphor, which frames the city as a living creature—I would, instead, reveal its limitations and underlying artificiality.

I started with sketches, quick hand-drawn maps, which are a crucial part of the urban planning process, and commonly supported by lots of photos. Additionally, I imposed the naturalistic rule of not cropping, or in any way editing the screenshots I took, or using angles not available to the in-game avatar. Pipes, foliage, and anything else that got in the way would have to stay there, and hopefully convey a reality as close as possible to the designers' vision for each space.

Deciding on the mapping technique ended up being much more tricky than first thought. A metropolis, either real or fictional, is a complex beast to grasp, and maps can only help illustrate mere facets or sectors of it. Still, my first attempt was that of the standard architectural sketch, while keeping in mind that a distinction between places that can be visited, and those that cannot, should be evident.

As it turned out, all I could map with this method were the walkable areas of levels, whose geometries were too simple to convey the intricacies of the game's imaginary geography. It's not where you can walk that matters, it's what you can see, feel, and imagine, and sketches like the following ones are simply not very useful. They fail to convey the reality of anything that is not an

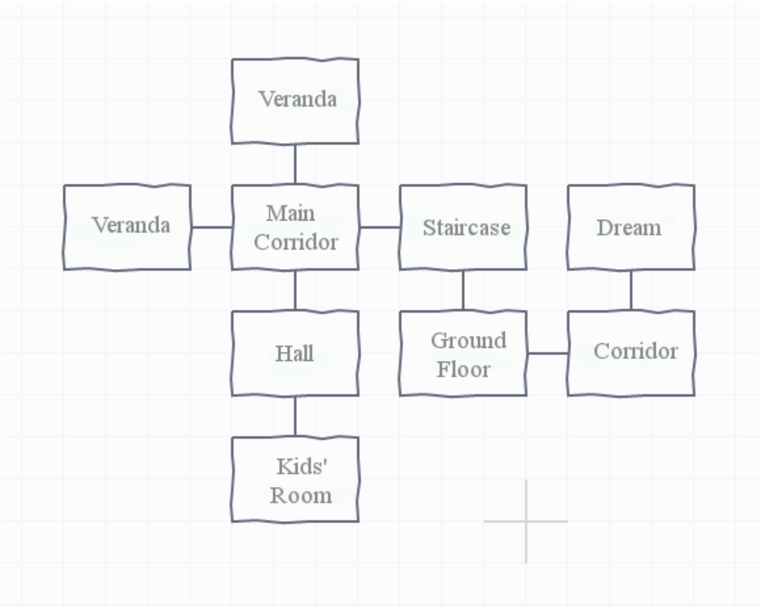
I blocked my ears to focus on methodically exploring the gaps in the architecture that my imagination filled.

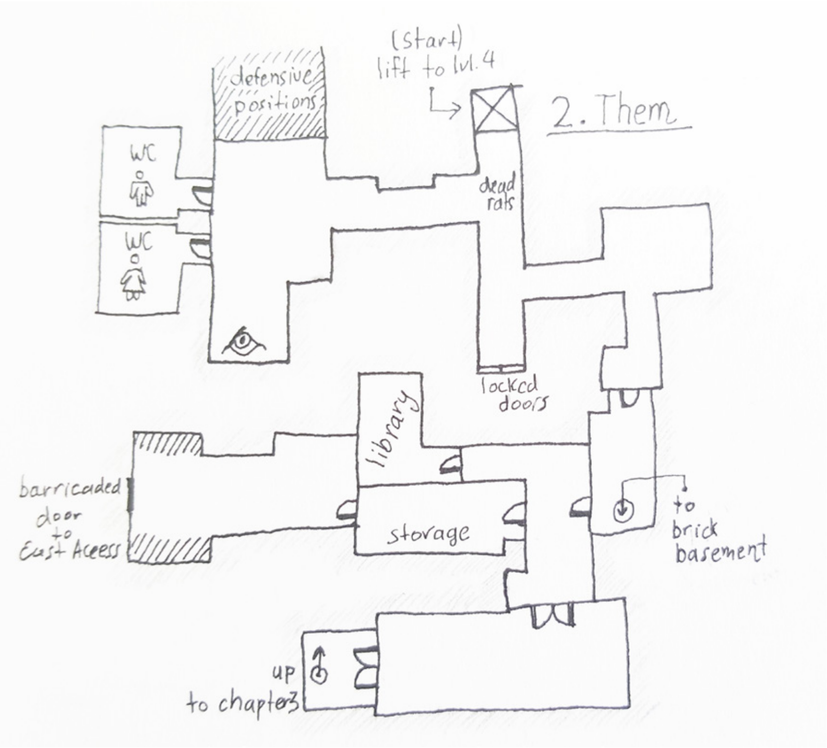


Left: A sketched map, The Old City: Leviathan (Konstantinos Dimopoulos).

Bottom left: An IF map, The Old City: Leviathan (Konstantinos Dimopoulos).

Below: A diegetic map, The Old City: Leviathan (Konstantinos Dimopoulos).





It was a rediscovery of a decaying city filled with visual wonder.

underground passage, and cannot even imply the wonders that could be surrounding the player while crossing a small, mappable bridge.

I then decided to experiment with the kind of map we find almost exclusively in gaming and spelunking. Many of *The Old City*'s levels—or chapters—strongly remind me of Infocom's 1980 text adventure *Zork*, with their dungeon-like structure, and abundance of pipes and unexpected infrastructure lurking around improbable corners.

The comparison invited the construction of a classic text-adventure map: a map made up of nodes each representing a logical in-game room. Sadly, it too failed to convey the essence of the places visited, not only due to the method's inherent oversimplification of forms, but mostly as real spaces rarely feel as distinct as the rooms in interactive fiction. *The Old City* proved itself closer to reality than Infocom's fondly remembered offering.

My next attempts were diegetic (or narrative) maps. These are maps that attempt to showcase a game's most mechanically and plot-wise intriguing points—maps that try to tell stories in space by mentioning where things happen, or for example, by noting enemy patrol routes and hidden treasure.

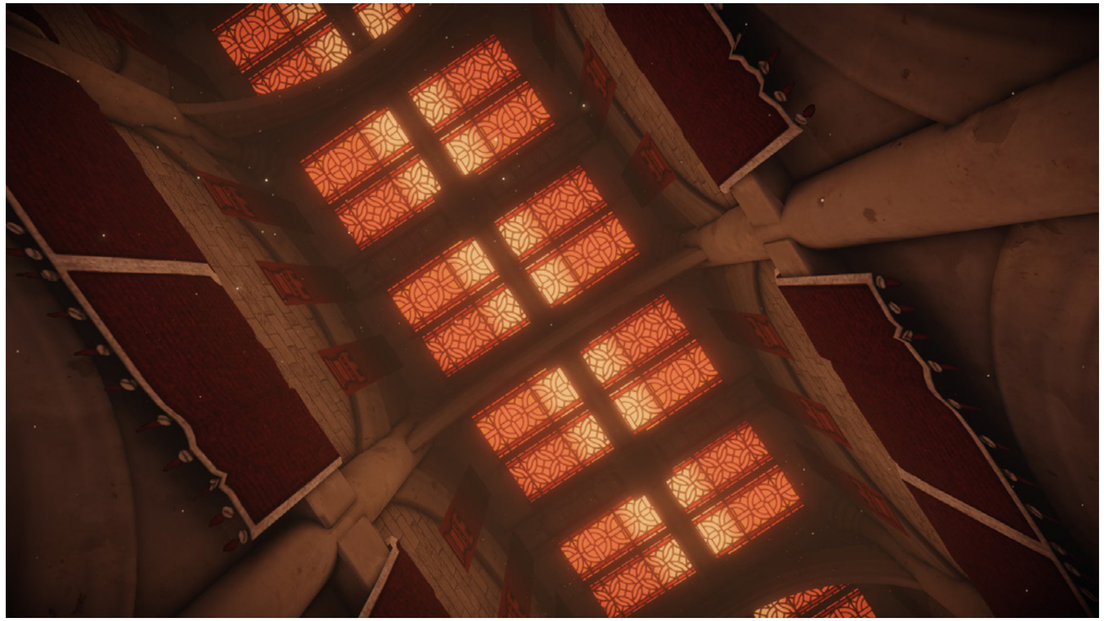
While enjoyable to construct, the diegetic maps weren't much help either. Especially considering that I had initially set out to ignore the game's plot, and that each chapter is mostly static; frozen in time, essentially. On top of that, it was only I that moved through the Old City's belly, only I that knew the candles I saw would never melt or be extinguished. The trains waiting in stations would never depart.

I then briefly considered tackling each of the game's segments in a different, cartographic way. The idea was to discover ways of extracting 3D game-map data. It was a pursuit that could be supported by my real-life surveying experience. The issue I found was that the possible methods of doing this would be an incongruous display. The first method would demand precise measurement of the time needed to cross in-game distances, and then mapping out said distances according to a roughly determined scale; say, one second for one meter. The second method would involve applying rulers to the screen to measure virtual distances; crude, and would require some loosely applied photogrammetry—the scientific method of using photographs to survey and determine distances—but the math would likely be too complex, and the assumptions too bold.

Retiring that idea, it occurred to me that my numerous journeys through the oneiric Old City were, after all, nowhere better documented than in my hundreds of screengrabs. Putting away notepad and chronograph, and travelling through the game's locations once again, taking note of and photographing everything that intrigued me, was much more pleasurable than trying to map the complete game. It was a rediscovery of a decaying city filled with visual wonder: intricate scaffolding, architectural details, unfamiliar sounds, pipes, stained-glass windows, little squares, urban battlefields, monumental walls, deserted medieval-inspired towns. The more relaxed and less metric pace of the exploration—if one could call it that after so many visits—allowed each individual place to make sense in its own idiosyncratic way. I couldn't help but notice the designers' attempt at environmental storytelling, not through small arranged scenes as is typical, but on a much larger urban scale.

Despite, or maybe due to, not paying attention to those uncanny story markers, the sense of purpose in my surroundings somehow became obvious. Not the purpose itself—no, it was the certainty that everything had been constructed in its particular place for a reason. Even if a

SEWER OUTLET



TRACK
3
A To Water Ave
B To 2nd St

few buildings or public spaces felt excessively staged, there's an overall sense of cohesion to be found beyond the initially jarring eclecticism. With enough study, one can pick out sensible, functional relationships between the city's individual parts, lending a believability to the locales separate from the effect achieved by the high-res textures and convincing diffusion of light.

I might not be able to tell why, for example, a timber-framed house had a collapsed floor, but the underground maintenance tunnel below it was certainly there to service that whole residential area. The utilities and storage buildings around the main waterworks manage to feel indispensable to the central facility's operations, and sensibly connect to a wider network of now-crumbling utility tunnels.

My journey also exposed the idea that the player's movement through space must have also been carefully planned, choreographed almost: the interplay between dark and brightly-lit areas, and the succession of narrow and confined spaces define one's path while showcasing an almost medieval urban logic. Gothic sensibilities—tall arches, external support systems, colorful stained glass—are never really at odds with the functionalist architecture of the city's underground sections.

You may think that at first, but seen holistically those details brilliantly juxtapose the surrounding Renaissance decorations and colossal walls, which appear straight out of a science-fiction movie. Your eyes are drawn to unexpected but believable contradictions, the aesthetically successful contrasts lending themselves to an uncanny sense of unreality amid the ordinary.

The succession of minor and major landmarks gives exploration its pace, as the sheer variety in the environments slowly becomes evident to even the most casual visitors. Metro stations, waterworks, palaces, crumbling houses, vibrant town squares, majestic verandas, abandoned coastal towns, and worker settlements hidden inside caves. The game's highest achievement is this collage of locations, and that each one is brought to life with an impressive attention to detail, not only in how the graphic design gives a true sense of place, but also how they're connected with a logic that defies real-world urban design and engineering.

The Old City's uneasy, dreamlike texture is structured enough to allow its stream-of-consciousness urbanism, epic-scale eclecticism, and constant merging of urban planning and architecture to be experienced as something whole. It is a surrealist painting we have been allowed to enter and explore.

As I learned, such a patchwork is not easy to map, but I've come to believe that even more thorough and detailed maps than the ones I drew would fail to capture *The Old City*'s essence. It is a place made to be walked through, where you trace the steps of a fictitious population, the imagined memory of them inviting you to reconstruct the game space and dream beyond it borders.

KD

Konstantinos Dimopoulos is an urban geographer, city planner, surveying engineer, game designer, and occasional writer, with a PhD in urban planning and geography.

Now Leaving...
The Old City
Good Luck!

Spread across this final page is the first image from the two films of *Metroid Prime* that I received back from the lab. Half-burnt by light, hazily out of focus, and depicting details difficult to place, it coheres into something that feels like little more than noise. I can't even tell if it is an image of a virtual space or a real one, the reference points having collapsed around it.

Through this confusion, it points to the strangeness of this project: a study of architecture, that by architecture's most basic definition; a physical structure, fails on all accounts. And yet there is a space here, a landscape being depicted, and like this project, it is one that exists precisely because this space is felt, experienced, remembered.

Perhaps this is why I find it oddly beautiful; a collection of chemical reactions to light that might invent a world. All it needs is our help.

GDM

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