

**The Lingering Legacy of id Software's *Quake*:
A Glimpse Into Thirteen Years Of Darkness**

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In this talk I want to provide you with a look at a unique and remarkably resilient form of internet-base culture: custom level design for id Software's 1996 First Person Shooter (FPS) computer game *Quake*. I've been involved with the creative scene revolving around *Quake* almost since the start, so after thirteen years I thought it would be appropriate to prepare a talk reflecting on what it all has meant. There was a time (before I came to graduate school) when I actually considered trying to enter into game design professionally. Now, however, I'm really glad I didn't do this, as in the past ten years the industry has largely become a slave to the whims of the same lowest-common-denominator folks who brought us Michael Bay movies and Nickelback.

There are several reasons why *Quake* is almost alone in its importance for this type of culture. It's the most modified game of all time, and it has by far the most custom content available for it. There are literally hundreds of game modifications (mods) and thousands of custom levels (maps) available for *Quake*. Second, *Quake* introduced many of the hallmarks of modern games, including online multiplayer, hardware acceleration, and post-release software updates. *Quake*'s incredible longevity (modern games are lucky to last two years; *Quake* has lasted thirteen and probably has another five in it) comes from its modifiability; every aspect of the game's content and even its engine (the software which displays the content and is responsible for things like lighting, physics, animation, and so forth) is modifiable. It was this customizability, combined with its strong internet presence that made *Quake* revolutionary.

id Software released the source code to the game itself in 1999 and there are now many third-party engines available which update the game to be more on par with modern technology. These engines add new features such as high-resolution textures and artwork, fog, rain, and other weather effects; skyboxes, motion interpolation, improved lighting, and so forth. Occasionally, a *Quake* engine even preempts new games with a given feature. Shortly after id Software impressed the world with realtime lighting in a demo for its *Doom3* technology (a film was later made based on *Doom3*, rather than on

the earlier, more important *Doom* games in the series) in 2003, a third party programmer created the same effect in his own version of the *Quake* engine called *Tenebrae* – thus preempting the technology of an unreleased game in *Quake*. Versions of the *Quake* engine are still in use; the online game *Nexuiz*, often considered one of the best free games available, uses a version of the *Darkplaces Quake* engine. Scientists recently used the *Quake* engine to test the reactions of mice plugged into a *Quake*-derived world. In other words, *Quake* has evolved with time. Now, however, I'm going to start at the start.

The company that created *Quake*, id Software, is now an industry giant and blurs the lines between publisher and developer like many of today's most successful companies; they haven't done anything interesting to me in at least five years and are unlikely to do so in today's Hollywoodized games industry. But in the early 1990s the story was entirely different. Back then, the gaming industry was largely underground, even countercultural, and id Software was a handful of renegade programmers and artists who wanted to create games with then-unprecedented levels of realistic violence, led by programming prodigy John Carmack (who in later years pursued the X-prize as a hobby - literally acting as a rocket scientist for fun). They had done the sort of sidescroller games that marked the late 1980s, and wanted to try simulated 3d environments. In 1991 they released *Catacomb 3d*, a pseudo-3d game in which the player played as a magician and fought fantasy monsters. In 1992 they released *Wolfenstein 3d*, a sci-fi/occult game in which the player fought Nazis from the first person, again in primitive pseudo-3d.

Wanting to try something more ambitious, id Software attempted to obtain a license to do a game based on the films *Alien* (1979) and *Aliens* (1986). At this point the idea of a computer game company attempting to obtain a license for a highly successful film property like *Aliens* was commercially ludicrous (although now there is hardly a game that isn't based on a recently-released film), and so id Software was forced to change the theme of their next game. They ended up making a brilliant artistic decision because of this commercial blockage. Rather than using aliens as enemies for the player's space marine character, they changed the monsters to demons and changed the theme to a series of futuristic military bases on the moons of Mars invaded and corrupted by beings from hell. This was also a decision that would propel their next game, *Doom* (1993), into

the public consciousness, creating a great deal of controversy and connecting the company to the broader cultural revolt against censorship and social-conservative “family values” playing out in the early 1990s.

The game was also clearly influenced by Sam Raimi’s cult horror series *Evil Dead* – the player in *Doom*, like Bruce Campbell’s character, wields chainsaw and shotgun to blast through zombies and demons. The designs for the environments can be described as dark military bases (as in *Aliens*) transitioning into a medieval hell full of grotesque imagery inspired by Dante (the final level is called “Dis,” the final episode of is called “Inferno”) and Milton (with level names such as “Pandemonium”). The satanic artwork and unprecedentedly graphic violence of *Doom* made this id Software’s breakthrough game. After the success of this game, some members of this once-unknown band of enthusiastic nerds started Ferrari collections. Shortly afterwards id released *Doom II* (1994), with the unsubtle subtitle *Hell On Earth*.

After this id Software decided to resurrect their older idea (from 1990) of a fantasy action/role playing game. They wanted to make this game play in the first person using new, truly 3d technology. The *Doom* games had been a great step forward technologically, but were still not fully 3d. A first person, fully 3d action-roleplaying game was an incredibly ambitious idea for the time, and aside from one or two oddball attempts, no one created such a game for many years. Given the massive success of *Doom*, wild rumours flew around their next project, which they tentatively titled *Quake*. The world would be fully 3d and exceed the visual appeal of contemporary games which used Full Motion Video (at this time a whole genre of games existed which had basically no engines, and consisted of clicking one’s way through prerecorded scenes with actors). The player would wield Thor’s legendary hammer, Mjolnir. Expectations were high.

But id Software was plagued by uncertainties about the direction they had taken and especially by their ability to live up to the success of *Doom*, as well as by crippling internal tensions. Lead designer John Romero was focused on ambitious ideas regarding content, and was probably the driving force behind the direction of *Quake* as an roleplaying game. He would later prove that these design ambitions came at the expense

of pragmatism when, after leaving id Software after *Quake*'s release because of creative conflicts, he singlehandedly crashed a development studio, Ion Storm, with his content-related ambitions (he spent a huge amount of money on artists, and instructed them to spend a great deal of their time developing 3-4x the amount of content an average game had). Romero was also accused of egotism. Nevertheless, Romero's work on *Quake* was undeniably brilliant. In contrast, John Carmack, id Software's lead programmer, was a simple-gameplay purist. Upon solidifying his position so much after the release of *Quake* that id Software was referred to as "Carmack and Co," Carmack articulated this philosophy in a stronger and stronger manner, arguing against a "use" or "crouch" key. Carmack wanted things as simple as possible, almost like an arcade game, and he preferred making a straightforward sequel to *Doom* with newer technology.

Meanwhile, the contributions of Sandy Peterson, a longtime fan of H. P. Lovecraft, turned out to be perhaps the game's strongest artistic legacy. Under Peterson's influence, the form of evil that the player had to fight was not as sensationally satanic as that found in *Doom*, but rather was much darker, quieter, and creepier, in time-honored Lovecraftian fashion. Level names such as "The Vaults of Zin," "The Nameless City," and "The Elder God Shrine" are direct references to Lovecraft. The Lovecraftian element was strongest in the monster design; many of the creatures were based on descriptions from Lovecraft stories, especially the iconic *Quake* monster, the "Shambler." Other monster designs were based on *The Texas Chainsaw Massacre*, deranged science fiction concepts like "customized serial killers," and European folklore. Trent Reznor of *Nine Inch Nails*, who had become a fan of the company, was brought in to do the game's soundtrack, which consisted of ambient distortion interspersed with wordless whispers.

Arguing that development time was limited and that what the public wanted was more *Doom*-style gameplay, John Carmack changed the direction of the development team. The weapons were all replaced with *Doom*-style modern weaponry (grenade launchers, shotguns, etc), and the gameplay was modified to be straight-on action, also like *Doom*. However, much of the artwork was still either Lovecraftian or medieval, and the team only had time to create a few levels to suit the new military/*Doom*-style gameplay. They were forced to create a vague backstory about human exploration of

another dimension resulting in the potential destruction of earth, and cast the player's character as a lone marine or "ranger" entering this dimension to destroy whatever is directing its aggression against humanity. The name "*Quake*," rather than reflecting the earthquakes caused by Thor's hammer Mjolnir, became the codename for the enemy "commander" behind the hordes of monsters in this other dimension – an enemy, quite arguably, that the player never meets in the game.

The result was that *Quake* saw the player travelling through haunting, strangely abstract medieval environments, fighting a mixture of corrupted earth-soldiers, fantasy enemies such as undead knights and beasts (dragons and magicians were cut from the final release, as they were too "fantasy" oriented), and Lovecraftian beings (the final boss monster is Shub-Niggurath, Lovecraft's malignant fertility deity, depicted as a swarming, tentacled, bloody, tree-like being). The player was required to explore and avoid traps, with little rhyme or reason to the journey, and less explanation. From the decaying castles, churches and crypts of a land of swamps, to the subterranean "dungeon world" of metal torture chambers, and empty halls haunted by menacing whispers, *Quake* presents a linear descent from present-day human civilization into ancient, cryptic, bizarre hells (or maybe just madness). While some of the levels seemed almost like recognizable buildings (especially churches), others became so abstract as to enter into the absurd and bizarre; metal pyramids decorated with hieroglyphics in low-gravity environments, sprawling medieval architecture stacked in shadows without apparent purpose; sunken, flooded torchlit mazes full of crucified bodies; crumbling shrines to forgotten gods surrounded by rotten wooden panels covered with torn human faces.

The cumulative effect of some of these levels resembles the images of colossal, complex, yet apparently purposeless architecture depicted by the Italian artist Piranesi (1720-1778), who created images of massive yet claustrophobic "prisons." This direction was very much picked up by subsequent artists, who built sideways, vertical, interlocking, inexplicable dungeons only occasionally sprinkled with references to known styles of architecture. I subtitled this talk "A Glimpse Into Thirteen Years of Darkness" because the environments in *Quake* are notoriously dark and murky. The original game used a 256-colour palette, which was heavily tinted towards greens and browns, giving

the game as a whole a very mouldy look. The oppressive sense of indoor-ness is also a function of the game's limited engine, which could only areas of a certain level of detail and size; this pushed level designers to build large areas which were constantly blocked off by pieces of architecture coming from various angles (especially large pillars and detailed, low-hanging ceilings). These aspects of the game resulted in a sense of lurking evil (the dark murkiness) and looming weight (the claustrophobia). The game's lighting lent itself to long shadows, which gave the levels a gothic touch.

The result of these various weaknesses –conflicts over art direction, clashes in art style, vague and nearly nonexistent storyline, engine limitations on architecture, lighting, and colour usage – is actually *Quake's* greatest strength: its unequalled atmosphere of brooding, inexplicable, haphazard mystery. These limitations – and the idea of the artistic style of a game being influenced by limitations – seem to have largely been abandoned these days as an element of game design, except among more experimental non-professional developers. The first person nature of the *Quake* is also very important; it contributes to a sense of immediate experience. This is very different from third-person games (in which you see your character from behind) or isometric ones (in which you see your character from above). First person perspective creates the sense of a real threat –the monsters are behind *you*, just out of *your* sight. One of the most articulate designers of custom content for *Quake*, Kell, commented on the similarity of the first person perspective in *Quake* and the first person storytelling perspective Lovecraft uses:

One thing, much subtler than the direct transmission of entities from page to monitor, is the fact that *Quake* is a first person experience. Almost all of Lovecraft's stories are written in the first person, as that is the way in which he strives to communicate his cosmic hallucinations - to us, directly ...as though we were actually there.

I've now explained what *Quake* was and where it came from; I'll now describe its cultural effects, and finish with an assessment of its legacy. When *Quake* was released in 1996, it started a revolution. The game's engine decided the behavior of monsters, weapons, players, and so forth by *QuakeC* files, written in a simplified form of the C

programming language. id Software released these files, thus allowing massive amounts of modification to the game at the whims of the creative following the game quickly amassed on the internet, which was just beginning to become a cultural force in its own right at the time. Modifications added tanks, planes, helicopters, new weapons and player classes, new styles of gameplay (including racing, sidescrolling action, and even a Chess simulator), and new abilities such as fighting alongside or even becoming monsters. Mods were created for both single player and multiplayer. New tools like grappling hooks and air-shields exploited the game's physics; new art introduced new themes. Multiple other games were remade within the *Quake* engine, including *Doom*. Two official addons were released, each including new monsters, weapons, and episodes, including new themes such as abandoned mines and ancient Egyptian temples. The game's technology was licensed to other developers to build their own games on. Amidst this unprecedented explosion of custom content, a creative scene centred around custom single player levels took off, which offered players new worlds to explore and conquer.

I'll now take you through a whirlwind tour of the three periods of this level design scene, as it is really my specialty (rather than the modification or "modding" side of things). In the beginning, most of the tools that people used to create content were written by third party programmers, and there were numerous competing programs for every function – most of them imperfect, unfinished, and experimental. One guy even created a map without using an editor at all – he actually wrote a map in notepad (map files are, just a list of coordinates, planes, textures, entities, and etc, that are fed into a compiler).

The early period of *Quake* level design (1996-2001) was initially marked by ambitious "Partial Conversions" such as *Zerstorer: Testament of the Destroyer*, a horror-themed episode that achieved an intense atmosphere by its use of tension and restraint, and others such as *Fantasy Quake: Rise of the Phoenix* and *The Demon King*, both fantasy/adventure episodes. These episodes all featured new content and gameplay. Other episodes such as *Beyond Belief* ambitiously focused on one-upping the level design style of the original game. There were also "serialized" episodes which were released one map at a time, such as the MEXX series and the IK series, which used entirely new artwork to depict beautiful blue temples inspired by Arabian palaces.

In 1997, professional artist Steve Rescoe released the level “The Shadow Over Innsmouth,” a masterpiece of outdoor setpiece-based level design inspired by the Lovecraft story of the same name. The map took place in a decaying historic harbor town bordering an underwater temple, just as in the Lovecraft story. This was the high-water mark of level design at the time, and it raised the bar for subsequent levels. As the early period passed by, an increasingly high technical standard arose. Map releases became stratified; the difference between “established” level designers and new or less technically apt designers became more pronounced. This was a noticeable change from the early days of wild ambition and scattershot quality; now less radical or unique things were tried, but the things that were tried were generally carried off with a great deal more confidence and finesse. Something was lost, but something was gained. This rising consensus was expressed by the 2000 release of what remains the most ambitious *Quake* episode ever: the *Nehahra Project*. *Nehahra* incorporated science fiction and medieval themes, and was accompanied by a four hour film, *The Seal of Nehahra*, created entirely in the engine of the game. This film tied together all of the vague background mythology of *Quake* into a coherent (and brilliant) Faustian narrative. This film was a major watershed in the early history of “machinima,” (the use of 3d graphics engines (usually from computer games)) to create storytelling films.

The end of the initial period came at the end of the year 2000, with the release of the limit-pushing episode *Insomnia*, a mixture of military bases set in black caverns and *Doom*-style flesh stone hell structures. The particular brand of gothic hell theme on display in the final map, “Push Underground,” proved influential. The tidiness of the *Insomnia* maps’ architecture, their massive scale and technology-defying curves, set the episode apart from previous releases – it was to “Shadow” what “Shadow” had been to *Quake*’s original maps. The early period was over, and a new standard had been set.

The transitional period from 2001-2005 saw the development of a hallmark of modern design: the incorporation of artwork from other, often newer games, into *Quake* levels. *Insomnia* had incorporated artwork originally created for *Quake*’s sequels, *Quake 2* and *Quake3*, and subsequently artwork from a whole variety of games (semi-legally) found its way into *Quake*. Ironically, when ex-id Software designer John Romero

released the game *Daikatana*, textures from that game too made it into custom *Quake* maps, most notably in the Norse-themed episode *Rapture*. “The Castle of Koofoo,” using textures from *Heretic II*, was released in 2001, and carried on *Quake*’s Lovecraftian theme by depicting huge, mysterious slimy ruins straight out of Lovecraft’s “The Call of Cthulhu.” Of equal quality was “Colony,” a science fiction map named after the Joy Division song of the same title, and similarly infused with futuristic functionality, impersonal coldness and corrosive darkness. The same designer later released “Day of the Lords,” a grimy gothic castle also named after a Joy Division song. In this period, the technical standard set by *Insomnia* became widespread, and *Quake* design “kept up” with newer games by cannibalizing their artwork.

A surprisingly uncharacteristic map from this period was KJSP1, a bright, sunny level inspired by the Taj Mahal. The brooding gothic/science fiction artistic consensus was not total, in other words. There were other “Eastern/temple” levels that carried on the Egyptian, Roman, and Arabian themes, such as the episode *The Night Journey*. In 2002 the mega-episode *Soul of Evil*, which had been in development (on and off) since 1997, was released. While the episode’s nearly 20 levels were mostly of technology-pushing size and medium-to-high quality, the more fantasy-oriented medieval theme and setpiece-based architecture was a throwback to early-period maps like “The Shadow Over Innsmouth” and *The Demon King*. While a strain of medieval design did continue in this period (with releases like *Otranto*), most of it was, like *Quake*’s original medieval environments, darker and drearier than the autumnal, Tolkienesque style of *Soul Of Evil*.

Whereas the initial period was an explosion of enthusiasm and didn’t have much history to reflect on, the transitional period saw the beginnings of reflection on the form. One influential style of design which began during this period was the “void map” – a style of design which involved architecture floating in a black void, for an even stranger and more abstract atmosphere. This style continues to the present day, and has included everything from semi-functional space stations to mysterious ruins floating in nothingness. *Quake*’s impressionistic nature allows for a creative “filling in the blanks” with one’s own imagination in an almost literary way, giving the player (in this analogy a reader; indeed map makers often refer to themselves as authors) the ability to interpret

what they are experiencing in terms of their own imagination. *Quake*'s lower detail level, impressionistic graphics, and vaguer themes (relative to modern games), provide a flexibility that allows for its basic elements to bend in all sorts of interesting directions and for the game to cloak itself in many different costumes effectively.

The transition period ended in 2005 with the release of two maps. "The Marcher Fortress," was the culmination and termination of *Insomnia*'s gothic hell theme, and it was as technically advanced in comparison to *Insomnia* as *Insomnia* had been relative to the earlier maps it displaced. In size relative to detail level, "Marcher" dwarfed any and all previous custom levels; its detail level was extremely high, and its use of curves was so extensive and technically accomplished as to include spiral staircases in which each stair was subtly tilted. Its penultimate scene takes place atop a massive fortress in a small courtyard, slightly reminiscent of Minas Tirath in the final *Lord of the Rings* film, complete with a withered tree and a bell tower - a comparison which suitably implies the map's epic scale. "The Marcher Fortress" was a tribute to the classic themes of *Doom* and *Quake* (which were by this time almost ten years old), at a time when the games industry had clearly begun to move past such "metal/industrial" themes and into broader commercial territory. The second map was "The Masque of the Red Death," a massive seven-story nightmare castle inspired by the Poe story of the same name. While not as technically accomplished as "Marcher" (and nothing has been since), "Masque" set a new standard for spacious outdoor scenes (in a way that explicitly flouted the claustrophobic construction of older maps), vertical designs, and most of all horde combat. While earlier maps only threw 5-10 monsters at a time at the player, "Masque" threw hundreds of foes at the player, who might find himself attacked by more than fifty monsters at once. These two maps exceeded the scale and execution of other maps of the transition period, and thus brought the transition period to an end.

The modern period has been dominated by *Quoth*, a third-party high quality package of custom content inspired by Lovecraft and Poe. Rather than building custom content around an episode, *Quoth* was conceived as a set of custom content which built on *Quake*'s original themes and which could complement any third party map release. *Quoth* is the culmination of years of development, and its high level of quality is matched

by its success. There are probably fifty levels designed specifically for *Quoth*. Some of these levels consist of bizarre library-dungeons, occasionally offset with stacked courtyards reminiscent of Lovecraft's alien civilizations. Perhaps the most enigmatic Quoth level is a complex series of bookshelves and hung/impaled bodies floating in space – as if Borges' Library of Babel had met some morbid nightmare of Poe or Dante. Kell, one of the artists behind Quoth (and the author of essays on *Quake*), claims that most of his designs are attempts to represent a place called “Fodrian,” a “library-planet” whose details remain, in time-honored *Quake* tradition, vague and spooky.

Several boundary-pushing episodes have been released since 2005, including the massive *Travail* which opened with a three-level unit following a dammed river system, again pushing the bar for outdoor and setpiece-based design. The episode *Warp Spasm* contained several gargantuan levels which topped “Masque” in monster counts, and explored monolithic architecture like few units before or since. The sequel to 2002's *Soul of Evil*, called *Indian Summer*, was released in 2008 and pushed the boundaries of technically defiant outdoor level design even further, with massive, nonlinear medieval landscapes populated by hundreds of enemies. *Indian Summer* also marked the modern return of *Drake*, a mod with a history stretching back to the early period of *Quake*, which aimed to return the cut Dragons monster to *Quake*. *Drake* was used to add new features, weapons, and monsters to *Indian Summer* and is slowly shaping itself into a credible *Quoth*-rival. Recently, I released the The Doors-inspired episode *A Roman Wilderness of Pain*, using *Drake* modifications. It takes place in a mix of Roman architecture, organic flesh, bone and blood, and metal structures. The creator of 1997's *Beyond Belief* episode is also back after 12 years, and is working on new material.

Modern *Quake* level designers share an artistic concept described by invented adjectives such a Quakish, which centres around atmospheres of hostility, inexplicability, decay, malevolence, and mystery. Occasionally other designs aim at nostalgia, sadness, brooding, wonder, or stillness. There is, after thirteen years, our own little sense of “the weight of history,” in that so much has been tried and done perhaps unsurpassably well. Recently, perhaps due to widespread awareness of this, there has been a return to earlier themes; the “for its own sake” element of design has overwhelmed the technically

competitive angle. In the last few years, many *Quake* level designers from the initial period who used their work at that time to get jobs in the games industry have returned in order to create *Quake* levels again as a hobby. Meanwhile, innovative experiments such as levels without monsters but only traps, levels without weapons where the player must use traps to kill monsters, and levels constrained to a small horizontal space (but an unlimited vertical one), continue to be tried.

Music has been a strong influence on *Quake* level design from the very start. Like music, or at least the type of music most level designers cite (Joy Division, The Doors, Nine Inch Nails, Fields of the Nephilim, Tool; John Romero cited Black Sabbath and Alice in Chains), *Quake* level design aims at creating a sense of atmosphere. This atmosphere can serve, as in music, as a remarkably immersive and emotional form of artistic communication. In my work I've been inspired by all of the aforementioned bands, and as one of several token Canadians, by the early work of the ambitious "Moroccan roll" band "The Tea Party." As a literature student, I've designed environments inspired by Robert Browning, Edgar Allan Poe, H P Lovecraft, J R R Tolkien, and Wilfred Campbell. Many of these writers aimed at achieving a certain type of atmosphere, and indeed in some cases plot only served to showcase the immersive literary world on display. The idea of a form of art in which exploring an area meant to achieve a certain atmosphere could, in the future, become a new branch of this of art.

I'd like to finish with some analysis on exactly what this form of culture means. In 2006, 10 years after the release of the original game, lead developer John Romero was interviewed, and had this to say about the game's legacy: "I'm still surprised that *Quake* as a platform has proven to be such a powerhouse and imagination spawning ground. It feels great to know that we enabled so many people to be creative." While *Quake* was temporarily vilified in the wake of the Columbine shooting (in 1999 computer games were still counterculture, and many social conservatives chose to blame id Software's games for the shooters' behavior), it has generally proven a remarkable creative outlet for thousands of people, and a source of interactive entertainment for tens, perhaps even hundreds of thousands more. In "A *Quake* Bestiary," one longtime reviewer commented:

Quake... springs from the same sources as all the classic myths, legends, fantastical worlds and even religions of all human civilizations, albeit on a smaller scale and scope... It has long been recognized that these myths and legends are externalizations of fears, emotions and understandings that would otherwise lie buried within our sub-consciousness... *Quake* provides an interactive playground to face these mythical enemies and to psychologically triumph over them.

I credit *Quake* with kickstarting what one might term the “creative customization movement” in electronic games, which has always been centred around computer games (consoles are notoriously idiot-proof, while computers are multifunctional and allow for a lot of tinkering). The modern games industry, in which development budgets for games can run up to \$50 million, generally produces graphics-driven remakes of the same few genres dressed in the style of the latest Hollywood blockbuster, and has little room for such creativity. This medium began underground (when computers were not user friendly and the internet was inconvenient), exploded into mainstream culture for a few years, and was slowly driven back underground because its own success illustrated that there was a great deal of money to be made in this industry, causing corporations to jump in like a fat guy cannon-balling into the pool. In many ways the history of the last decade in music, games, and film has been the history of corporations tightening their grip. It was only a few years ago that the gaming industry began to exceed Hollywood’s annual profits. Perhaps one day the games industry will grow so large that there will be sufficient room within it for the equivalent of “art house” rather than studio production. In the last few years, several independent games have been developed – some finding publishers, others self-publishing online for free. *Quake* has illustrated over the course of more than a decade the creative potential of closely communicating and collaborating hobbyists in new electronic mediums, and much remains to be tried in this type of electronic medium more generally. The years since 1996 have produced an overwhelmingly creative and utterly non-commercial advancement of a unique artistic medium; it has been thirteen years of remarkably sophisticated darkness.