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Some of those avenues are:  =============================================================================================  | application development | computer science | mathematics | physics | assets | graphics |  | content | design philosophy | gameplay mechanics | publication | marketing | distribution |  =============================================================================================  In this particular study, we will be focusing on a study sample called [Quake III Arena], which was developed by  [id Software] and released in [December 1999].  This game had [*(cutting/bleeding) edge*] graphics that pushed the limits of what computer games could do.   It required a special piece of PC hardware called a [graphics card], which in (1999), would utilize either  a (*PCI/peripheral component interconnect*) slot, or an (*AGP/accelerated graphics port*) slot.  We won't be covering the history of [id Software], nor the number of games it has made that led to the creation  of [Quake III Arena], however... as stated, the game pushed the limits of what computer games could do in many  various ways.  It is worth mentioning that the game retains quite a lot of charm and character that has prevailed over the  course of the last (24) years.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_/  \\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_/ **Introduction**  **Objective** /¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯\  /¯¯¯¯¯¯¯¯¯¯¯  The objective of this document, is to cover the many things that go into creating a level for [Quake III Arena],  as well as the necessary tools and skills to build a level with [replayability], and [competitiveness] to it.  First and foremost, I covered a lot of concepts related to [Quake III Arena] and [GtkRadiant], here.  [https://github.com/mcc85s/FightingEntropy/tree/main/Video/GtkRadiant]  [GtkRadiant] is the level editor for [Quake III Arena], though I will be covering additional level design  concepts with an alternative that is based on [GtkRadiant], called [NetRadiant].  As for the link above, what I did NOT cover, was [HOW] gameplay mechanics are the reason why the game has  retained its [charm] and [character] over the course of the last (24) years or so.  Unlike its predecessors [Doom I + II], and [Quake I + II], the game can be configured to utilize custom   resolutions and high graphics settings that allow it to run in (*HD/high definition*) without modifying the game,  or its content.  While there have been many games released by [id Software] since (1999) that have better:   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  | graphics | lighting | shading | animations | et cetera |  ¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯  ...every single one of them is based on a [very heavily modified version] of the [Q3A] engine, such as:    [+] [Return to Castle Wolfenstein, Enemy Territory, Wolfenstein, The New Order, The Old Blood, The New Colossus]  [+] [Doom III + Ressurection of Evil]  [+] [Rage I + II]  [+] [Doom 2016 + Eternal]  [+] [Quake IV + Champions]  Given its age, the game runs *relatively well* on *older hardware*, and still retains quite a lot of chess-like  characteristics. Its' many modes of play range from:   =========================================================================================  | Free-for-all/Deathmatch | Tournament/1v1 | Team Deathmatch/TDM | Capture the flag/CTF |  =========================================================================================  There is plenty of debate on which mode is the [most popular] or the “*best”*...  ...but make no mistake, its' [Tournament/1v1] mode cemented its position at a large number of yearly [QuakeCon]  events, and is synonymous with [Quake Live]... since it is the [same exact game].   It also resurfaced as a staple of [Quake Champions] with the advent of [Overwatch], [Fortnite], and   [Player Unknown Battlegrounds].  To narrow the objective even further, we'll be focusing on [Tournament/1v1] mode, as well as how to make a really  (*cool + fun*) level for it, that focuses on aspects of the [mode] and the [game], in order to produce something  that is *incredibly polished*.  In order to complete the [objective], we should first analyze a number of [tournament maps], and describe them  all in a way where their [strengths] and [weaknesses] can evoke a sense of “*common denominators”* that will be  key in [shaping], [designing], and [developing] the level, in the editor.  \_\_\_\_\_\_\_\_\_\_\_/  \\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_/ **Objective**  **Analysis** /¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯\  /¯¯¯¯¯¯¯¯¯¯  While the original [Quake III Arena] has a lot of tournament maps in it, [Quake III Team Arena] introduced a  handful of maps that I think *really* illustrates [what to do], and [what NOT to do], in [designing levels] for  the particular mode in question.  /¯¯¯¯¯¯¯¯¯¯¯¯¯|¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯|¯¯¯¯¯¯¯¯¯¯¯¯|¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯|¯¯¯¯¯¯¯¯|¯¯¯¯¯¯¯¯¯\  \ **Date** | **Title** | **Name** | **Link** | **Record** | **Rating** /  /-------------|-----------------|------------|--------------------------------|--------|---------\  \ **08/26/2023** | **House of Decay** | **mptourney1** | [https://youtu.be/y-SgDVzWdGw] | **1m 19s** | **10/10** /  / **08/26/2023** | **Death Factory** | **mptourney2** | [https://youtu.be/7\_Jh6HLvjBE] | **1m 45s** | **5/10** \  \ **08/26/2023** | **Temple of Pain** | **mptourney3** | [https://youtu.be/g6W5opegQ3Y] | **1m 47s** | **7/10** /  / **08/26/2023** | **Evil Playground** | **mptourney4** | [https://youtu.be/HBde-PjqTF4] | **1m 09s** | **10/10** \  \\_\_\_\_\_\_\_\_\_\_\_\_\_|\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_|\_\_\_\_\_\_\_\_\_\_\_\_|\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_|\_\_\_\_\_\_\_\_|\_\_\_\_\_\_\_\_\_/  So, allow me to explain each levels [strengths] and [weaknesses], and at some point, I will talk about each map  in further detail, by providing commentary in a video that focuses on the [layout] and [item placement].  =============================  | House of Decay/mptourney1 |  =============================  This map is without a doubt, [*extremely well made*]. It is *small* enough to have a *strong focus* on (3) different  weapons, and provides a really strong emphasis on [aesthetics] and [geometry] to allow the [gameplay] to swing  in either direction.  This map was remade for [Quake Live], and has other items added to it which take away from the charm of the  original. It probably goes without saying... but this is one of my *favorite maps*, above ALL of the original   [pro-q3dm/pro-q3tourney] maps. (*...and that's saying something*)  ============================  | Death Factory/mptourney2 |  ============================  Reminds me of (Base Siege/mpteam1), and feels like a recycled version of that map.  While that's not exactly a bad thing, as it is common for a [game developer] to recycle [assets] and attempt  to reuse those [assets] with a *slightly* different twist... in this instance, there are a lot of *shortcomings* to  this map that I don't particularly care for, given that it is a *tournament* map.  It is [too big] to be a *tournament* map. It has *too many spawn points*, and is better suited for [FFA/Deathmatch].  If it were an [FFA] map...? This map would get about a (7-8) out of (10).  As it stands, the [middle tier] is disconnected from the [top tier].  This forces the players to have to use [jump pads] to traverse from [tier] to [tier], which [exposes] a player  to be [quite vulnerable] when they use them... which can be seen in the video link above.  The [jump pads] are a *serious* sticking point, here... because this map would actually score a LOT higher as a  [tournament] map if there were stairs on *both sides* to connect the [middle tier] to the [top tier], because  at that point, the [multi-tiered combat] would be [far more cohesive] and a [lot less predictable].  This point alone, though incredibly small... can be the [difference] between whether it [makes] or [breaks]  a level. Simply put, [the map isn't badly made at all], but considering that it is named “*mptourney2*”...  ...it does not feel like a great [1v1] map.  I have to tank its score a lot, because it would've made [more sense] to add some stairs to connect the [middle]  and [top tier], or instead, *use another map in the rotation*.  =============================  | Temple of Pain/mptourney3 |  =============================  I have *mixed feelings* about this map, because it has areas that feel very *claustrophobic*, and it has a rather  simple [item placement] which does not promote a healthy [multi-tiered experience].  However, the map [looks really awesome]. Problem is, [looks arent everything], because there's just some things  about this map that don't make much *practical* sense in a [tournament map].  The [rocket launcher], [nailgun], and [shotgun] are all *very close* to each other, and the [railgun] is the *only*  *weapon* on that side of the map. This would've been a much better map if it made *better* use of the [courtyard  area], by adding some *stairs* and *ledges* and a [bridge] to where the [armor] is... in addition to providing other  ways to get to either side of the map from that [higher tier], as this would've given the map a lot more [depth].  Eliminating the hallway to the [nailgun] ammunition, OR, providing an alternate way to (*access/traverse from*)  the [railgun] tower (*from/to*) that hallway, would've made *perfect sense*.  ==============================  | Evil Playground/mptourney4 |  ==============================  This map is without a doubt, [*extremely well made*]. It isn't as *small* as [House of Decay], but it has a *really*  well thought out approach to [multi-tiered combat], which is a signature of *extremely well made maps*. The *only*  thing that I do *not* like about this map, is the fact that it has [death pits], and they're pretty *annoying*.  However, that's just a *pet peeve* at this point, because I'm not going to tank its score based on that...  The combat is [extremely fun], [challenging], and the [pendulum of fairness] can swing in either direction-  which is an indication of an [extremely well made tournament map].  \_\_\_\_\_\_\_\_\_\_/  \\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_/ **Analysis**  **Common Denominators** /¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯\  /¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯  So, what ARE the [common denominators] in the levels I discussed...?  [+] [multi-tiered combat]  [+] [effective use of geometry/texturing/space/lighting]  [+] [effective item placement]  What I will do, is talk about these concepts in great detail *BEFORE* coming up with a [design philosophy] to  create a map... and then to *texture*, *shape*, *sculpt*, *modify*, *populate*, *light*, and (*compile/render*) the map.  If any of these things aren't up to snuff or are out of place...?  [It will adversely impact its' performance].  The [mapping process] takes a while to complete, and typically speaking, without a lot of *experience*, you won't  be able to *create* a [really good map] in a single day. Even the map that I made in a single day in this particular   video...  /¯¯¯¯¯¯¯¯¯¯¯¯¯|¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯|¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯|¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯\  \ **Date** | **Title** | **Name** | **Link** /  / **07/17/2023** | **07/17/2023 - Test Map** | **2023\_0717-(testmap3)** | [https://youtu.be/cbdJ-rWJbVI] \  \\_\_\_\_\_\_\_\_\_\_\_\_\_|\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_|\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_|\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_/  ...*isn't finished*. Ever since I created that level, I've thought about changing things in it to make it more *fun*  to play. As it stands, it has *some issues* that stem from [being incomplete]. I wouldn't expect it to get a (10/10)  like [mptourney1] or [mptourney4].  However, there is an issue about that map which leads me to believe that no amount of changes will be able to make  it a [viable competitive level]. And, the issue that leads me to believe as such, stems from...  ...the [structure] of the map.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_/  \\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_/ **Common Denominators**  **The Edge of Forever** /¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯\  /¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯  A man by the name of [Carl Sagan], a famed [science communicator] that won a [Pulitzer prize] for his books  [The Dragons of Eden], and for [Cosmos: A Personal Voyage] once raised an analogy called...  [Flatland].  And in this [Flatland] analogy from his show [Cosmos: A Personal Voyage]...  /¯¯¯¯¯¯¯¯¯¯¯¯|¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯|¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯\  \ **Date** | **Title** | **Link** /  / 11/30/1980 | Cosmos - The Edge of Forever | [https://youtu.be/UnURElCzGc0] \  \\_\_\_\_\_\_\_\_\_\_\_\_|\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_|\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_/  ...the man talks about how inhabitants of [Flatland] are about as [flat] as can be.  They go about their [flat business].  They go in and out of their [flat houses].  Driving around in their [flat cars].  They take part in [flat parties] and [eat flat food], they [breathe flat air].  All of their friends are [flat], too.  [Everything they do, is about as flat, as flat could possibly even be]...  Sounds pretty [flat], doesn't it...?  Yeah, well, [John Carmack] and [John Romero] probably grew up playing [Atari] for years, watching [Carl Sagan]  in this show [Cosmos: A Personal Voyage], until they eventually said to each other...  =============  | (2) Johns |  =============  [Carmack] : Hey [John]...  [Romero] : What's up, [John]...?  [Carmack] : Ya know, I was thinking a lot about making a game.  [Romero] : Oh yeh...?  [Carmack] : Yeh.  [Romero] : Buddy, there's a LOT of games out there.  [Carmack] : Oh, I know, [John].  But- they all have (1) thing in common.  [Romero] : ...oh yeh...?  [Carmack] : Yeh.  [Romero] : Well, [John]...  Do tell.  What do they all have in common...?  [Carmack] : They're all pretty [flat].  [Romero] : ...I was thinking the same thing, dude...  [Carmack] : ...and I want to make a game that's NOT [flat].  [Romero] : ...really...?  [Carmack] : Yeh.  [Romero] : ...nobody has ever done that before.  [Carmack] : I know.  What if we made the [first game in existence], that wasn't [flat]...?  [Romero] : *\*long hard stare\**  ...dude...  [Carmack] : I could totally do it, bro.  [Romero] : Nobody's ever done it before, though.  [Carmack] : Oh, I know, [John].  I know.  But- I believe in myself, [John].  [Romero] : Well, buddy, I believe in you too, but-  [Carmack] : *\*long hard stare\**  It'll change the entire way games are played, [John].  [Romero] : Yeh.  But, you would need to be a genius to pull that off...  [Carmack] : You sayin' I'm not a genius or somethin'...?  *\*adjusts glasses, long hard stare\**  [Romero] : Nah, never said that.  Just sayin', you'd have your work cut out for you, [John].  [Carmack] : I was thinkin', [Wolfenstein 3D].  [Romero] : ...that'd be pretty cool.  [Carmack] : Yeh, escaping from the clutches of the nazi's.  [B.J. Blazkowicz].  [Romero] : That sounds intense.  Count me in.  And from that day forward, [(2) Johns] took an oath to embark on a journey to make a game that had [depth], as  they went about changing the entire way that games were played by people all around the world.   (*It's worth noting that there were ALSO [(2) Carmacks]...*)  They actually did this with the games [Hovertank 3D] and [Catacombs 3D], but that wasn't enough...  They did this again with [Wolfenstein 3D], but that wasn't enough, either...  Then, they did it AGAIN, with [Doom].  [Doom] raised the bar to such an immensely high level, that the game actually had [horizontal + vertical depth].  But then, in (1996), with the release of a cool game called [Quake], they permanently impacted the world by  making the first FPS that was truly [3D], and wasn't [flat]... (though [Descent] from (1995) *officially* holds  that title, [Descent]'s gameplay was (*fun, but*) *quite* *disorienting*.)  Because in it, there were [rooms above and below other rooms], which [Doom] was unable to do.  In [Doom], and [Doom clones] like [Duke Nukem 3D], [Shadow Warrior], [Dark Forces], et cetera...  ...there had been a limitation to where the [Z-buffer] could not allow multiple rooms to be stacked *above* or *below*  one another without some sort of [hacky view portal magic].  With [Quake], [hacky view portal magic] became a thing of the past.  =========================  | Comparing to Flatland |  =========================  In reference to [Flatland], the same sort of thing happened.  One day, a 3-dimensional creature represented by a sphere, decided to pass through [Flatland]...  ...not unlike the idea that [John Carmack] had, to create the first 3-dimensional game...  ...and that's when the 2-dimensional flatlanders saw slices of the 3-dimensional sphere...  ...not unlike when [id Software] made multiple games that capitalized on more aspects of [depth]...  Now remember, [flatlanders] can't actually see the full, third dimension of [depth].  Not unless they remember each prior layer of the sphere.  Because, what [they] see, are *individual layers of that sphere*...  Not unlike when people saw each individual game that [id Software] made.  At first, the [circle] appeared as a little dot.  But after a while... the [circle] got *bigger* and *bigger*.  Not unlike how the games [id Software] kept making, got *bigger* and *bigger*...  A [sphere] appears out of thin [flat] air as a [circle], and grows to a *pretty large size*.  Not unlike how [id Software] grew into an *industry* *giant*...  At which point, the [flatlanders] who saw the [sphere] pass through their dimension, they began to question  their [flat] sanity, asking each other:  [Flatlanders] : Just what the [flat] is goin' on around here...?  The answer, is that nobody in [Flatland] really knew what the hell was going on...  Because, they didn't understand [depth].  But in [Quake III Arena]...?  [That's what the game was designed to take advantage of].  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_/  \\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_/ **The Edge of Forever**  **Mechanics** /¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯\  /¯¯¯¯¯¯¯¯¯¯¯  In order to understand how to make the best use of the [space] in a particular map...  ...well, a lot of [trial and error] is in order, before anyone has a great idea of how to do that, as well as  how to *arrange* the [items] in that map.  For instance, in [House of Decay/mptourney1], there's a lot of *areas* and *choke points* that allow each weapon  to be *better suited* for the situation.  You *wouldn't* want to use the [rocket launcher] if you're in the hallway...  ...*unless* you're [aiming the rockets a fair distance away].  You *wouldn't* want to use the [plasmagun] from a fair distance away...  ...*unless* you know the opponent is [running in a predictable manner].  You *wouldn't* want to use the [lightning gun] from a fair distance away...  ...*unless* you can [close in that particular distance].  There are [strengths] and [weaknesses] to each particular gun that aren't *readily apparent*.  So, let's talk about [weapon mechanics].   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  //¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯\\  \\ Weapon Mechanics : In [Quake III (Arena/Team Arena)], there are a number of weapons //  \\\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_//  /¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯\  \ gauntlet | machinegun | shotgun | grenade launcher | rocket launcher | lightning gun | plasmagun | BFG10K /  \ /  \ nailgun | proximity mine launcher | chaingun /  \\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_/  ================  | Gauntlet / ∞ |  ================  This is only useful if you're in [close proximity] to the [opponent], otherwise it isn't.  While you do not need any *ammunition* for this gun (*since it isn't a gun*)...  ...it does not do *ANY* damage at all, unless you're literally *touching an opponent* with it.  [+] [good for close up fights, does (50) damage]  [+] [unlimited uses (hence ∞)]  [-] [can only use in (close proximity)]  ========================  | Machinegun / Bullets |  ========================  This is [extremely useful], in basically any scenario, but it does not do a  lot of damage unless you are *accurate* and *consistently hitting the target*.  [+] [good for general purpose, does (7) damage]  [=] [spawn with (100) rounds each time]  [-] [not great against more powerful weapons]  ====================  | Shotgun / Shells |  ====================  This is moderately useful in scenarios from low to mid range.  It shoots (10) pellets per [shell], which each do (10) damage.  [+] [great for low range]  [=] [start with (10) rounds on pickup, (10) for shell pickup]  [=] [less great for mid range]  [-] [poor for long range]  ===============================  | Grenade Launcher / Grenades |  ===============================  This is *not very useful for most situations*, but is [extremely useful] in [close proximity].  The [grenades] *bounce* and *linger* until they explode, or they explode if they land on an enemy.  They do splash damage to enemies, OR they will do (100) damage upon impact.  [+] [pretty useful if you have nothing better]  [+] [can be used for a grenade jump (*not exactly easy*)]  [+] [great for close quarters, but...]  [-] [they do splash damage, which can hurt you]  [=] [start with (10) grenades, (5) per grenade pickup]  =============================  | Rocket Launcher / Rockets |  =============================  This is basically the main weapon in the game, and it is the staple of the [Quake] series.  This shoots a [rocket] which does either *splash damage*, or (100) *direct damage* if they hit an *enemy*.  This can be used *mid-long range*, but *short range* is *risky*.  [+] [mainstay of the game, staple of the series]  [+] [great for mid-long range]  [+] [can be used to rocket jump, but...]  [-] [does splash damage, which can hurt you]  [=] [start with (10) rockets, (5) per rocket pickup]  =============================  | Lightning Gun / Lightning |  =============================  This gun does a *lot* of damage in *short-mid range*, but is *completely useless* *long range*.  Does not do any *splash damage*, nor can it provide any *movement advantage*.  [+] [extremely useful in tight situations]  [+] [does a lot of damage fast]  [-] [uses a lot of ammo fast]  [=] [start with (100) lightning, (60) per lightning pickup]    ======================  | Plasmagun / Plasma |  ======================  This gun is *really useful for mid range*, though it can ALSO be used effectively in *short* or   *long range*, depending on whether the user can sufficiently track the movement of a target.  [+] [does a lot of damage pretty fast]  [+] [really useful in all scenarios, but requires practice]  [=] [start with (50) plasma, (30) per plasma pickup]  [-] [does splash damage, which can hurt you]  [=] [can be used to scale walls (*plasma climbing*)]  =====================  | BFG10K / BFG ammo |  =====================  This gun is basically a *rapid-fire* version of the [rocket launcher].   It carries many of the same characteristics, but its rounds move faster than [rockets].  Typically, this would NOT be a good choice to include in a tournament level, as it makes the game quite *unfair*.  [+] [does an *extreme* amount of damage]  [-] [does splash damage, which can hurt you]  [=] [can be used to do the same thing as rocket jumping]  [=] [start with (10) BFG ammo, (15) per BFG ammo pickup]  ===================  | Nailgun / Nails |  ===================  The [nailgun] is *only* available in [Quake III Team Arena], but it is *pretty useful*.  Its' *only* application in *any* tournament level that I am aware of, is [Temple of Pain].  [+] [does an extreme amount of damage if all nails hit the target]  [+] [best for close range, but...]  [-] [not so much for mid-long range]  [=] [start with (10) nails, (15) per nails pickup]  =============================================  | Proximity Mine Launcher / Proximity Mines |  =============================================  The proximity mine launcher is *only* available in [Quake III Team Arena], and not applicable  to a tournament level, so I won't talk about it in this document.  =====================  | Chaingun / Rounds |  =====================  The chaingun is *only* available in [Quake III Team Arena], and not exactly applicable to a  tournament level, however- with custom maps this COULD be pretty useful in tournament mode.  Still, since that would drastically change the dynamics of [1v1], I won't cover that in this document.   /¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯\  / End of [weapon mechanics], extended guide here: [https://strategywiki.org/wiki/Quake\_III\_Arena/Weapons] \  \\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_/  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  //¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯\\  \\ Item Mechanics : In [Quake III (Arena/Team Arena)], there are a number of items //  \\\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_//  /¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯\  \ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ /  \ Health | Armor | Usable | Powerups | Runes | Note: <= means less than or equal to | /  \ ¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯ /  ¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯  \_\_\_\_\_\_\_\_\_\_  | Health |  ¯¯¯¯¯¯¯¯¯¯  [+]     [small health] : adds   (5) <= (200)  [+]    [medium health] : adds  (25) <= (100)  [+]     [large health] : adds  (50) <= (100)  [+]       [megahealth] : adds (100) <= (200)  \_\_\_\_\_\_\_\_\_  | Armor |  ¯¯¯¯¯¯¯¯¯  [+]      [armor shard] : adds   (5) <= (200)  [+]     [yellow armor] : adds  (50) <= (200)  [+]        [red armor] : adds (100) <= (200)  \_\_\_\_\_\_\_\_\_\_  | Usable |  ¯¯¯¯¯¯¯¯¯¯  [+]       [teleporter] : activate to *transport* to a *random spawn point*  [+]           [medkit] : *raises health* to (125)  [+] [\*invulnerability] : activate to *freeze position* + *deflect all attacks* for (10s)  [+]        [\*kamikaze] : can be *detonated*, or *self detonates* if killed but not gibbed  \_\_\_\_\_\_\_\_\_\_\_\_  | Powerups |  ¯¯¯¯¯¯¯¯¯¯¯¯  [+]      [battle suit] : reduces *direct damage*, deflects *splash damage*  [+]           [flight] : *ignore gravity*  [+]           [haste] : *move* and *shoot* a lot *faster*  [+]     [invisibility] : become *harder to see*  [+]      [quad damage] : increases all *outgoing damage* by (3x) (*by default, not 4x*)  [+]     [regeneration] : *adds health* for every second (25) <= (100), (5) <= (200)  \_\_\_\_\_\_\_\_\_  | Runes |  ¯¯¯¯¯¯¯¯¯  [+]            [scout] : similar to *haste*, cannot pick up armor (*possessed armor is removed*)  [+]          [doubler] : increases all *outgoing damage* by (2x)  [+]            [guard] : sets (health + armor) to (200), *regenerates health* to (200) if damaged  [+]       [ammo-regen] : *regenerates ammunition* and increases fire rate  \_\_\_\_\_\_\_\_\_\_\_/  \\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_/ **Mechanics**  **Strategies** /¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯\  /¯¯¯¯¯¯¯¯¯¯¯¯  There are a number of *strategies* that can be used in [Quake III (Arena/Team Arena)] that aren't *readily apparent*,  and I will not go into *great depth* about them, because the *geometry* of any given map actually changes the  *strategies* that can be used, in a variety of ways.  [Choke points] are *pretty good to use*, [bunny hopping + strafe jumping] are also good to use.  [Rocket jumps] can be useful.  [Plasma wall boosting] can also be useful... but there are a lot of other strategies which just won't be  *visually apparent*, unless the [shape] of the map provides a *distinct scenario*.  Now, I'm going to cover *some of the strategies* that I used, in the videos I already listed.  /¯¯¯¯¯¯¯¯¯¯¯¯|¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯|¯¯¯¯¯¯¯¯¯¯¯¯|¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯\  \ **Date** | **Title** | **Name** | **Link** /  / **08/26/2023** | E**vil Playground** | **mptourney4** | [https://youtu.be/HBde-PjqTF4] \  \\_\_\_\_\_\_\_\_\_\_\_\_|\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_|\_\_\_\_\_\_\_\_\_\_\_\_|\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_/  ...one of the strategies that I used is [mimicing the enemy's movements] to pelt [James] with  a *barrage of machinegun bullets* in the beginning of the match. [This is a general strategy].  Another *strategy* that I used was [switching weapons to get combination hits], another [general strategy].  Another *strategy* that I used was [positioning myself in certain locations of the map], so that I could  hear where [James] was spawning, another [general strategy].  Another *strategy* that I used was using the [railgun] and then [shooting predictive rockets] at an [item]  I knew [James] was running to, another [general strategy].  These *strategies* wouldn't necessarily work against a [human opponent], but they'll work for a [bot]  because *they typically run the same patterns*.  /¯¯¯¯¯¯¯¯¯¯¯¯|¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯|¯¯¯¯¯¯¯¯¯¯¯¯|¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯\  \ **Date** | **Title** | **Name** | **Link** /  / **08/26/2023** | **House of Decay** | **mptourney1** | [https://youtu.be/y-SgDVzWdGw] \  \\_\_\_\_\_\_\_\_\_\_\_\_|\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_|\_\_\_\_\_\_\_\_\_\_\_\_|\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_/  Using the [combination weapon strategy] is *harder* to pull off because the [rocket launcher] is sorta slow,  and the [lightning] and [plasmagun] do a somewhat equivalent rate of damage.  Using the [spawn location positioning strategy] is *harder* to pull off, because in certain positions, it is  *impossible* to *hear* where [Fritzkrieg] is *spawning*.   Generally speaking, there is a *formula* to it, but it is STILL rather *random*, and depends on *where the player is  on the map when they kill the bot*, as well as *where the bot is when they die*... and I think it *randomly* selects  that location, depending on *where the player is at the time of respawn*.  However, using [choking strategies] is *far more effective* in this map, because of the *tight hallways*.  This is able to be seen quite a lot in that video.  /¯¯¯¯¯¯¯¯¯¯¯¯|¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯|¯¯¯¯¯¯¯¯¯¯¯¯|¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯\  \ **Date** | **Title** | **Name** | **Link** /  / **08/26/2023** | **Death Factory** | **mptourney2** | [https://youtu.be/7\_Jh6HLvjBE] \  \\_\_\_\_\_\_\_\_\_\_\_\_|\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_|\_\_\_\_\_\_\_\_\_\_\_\_|\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_/  [Pi]'s movement is *incredibly predictable*, but her [spawning location] is completely *random*, and there  are a LOT more [spawn points] in these (2) maps, than the (2) I just covered.  First off, if it is true that [Death Factory] has a lot of [spawn points], the best thing to do...  ...is to *guard items*.  In all (4) of these levels, there is a *consistent amount of effort* going into [picking up health and armor].  That is a [general strategy], and it is a *core central focus to this game*, just like collecting [minerals]  and [vespene gas] is, in [Starcraft]. [Health] and [armor] are basically [resources] in this game.  What is not *readily apparent*, is that [time] is ALSO a [resource] in this game.  With that said, having a [collection route] is *pretty important*.  You want to be able to [guarantee] that *you control the items*, and that *the enemy does not*.  *If you are able to do this*, then you will *always* have an [advantage] over the [opponent], because they will  have to *struggle* to keep up... but- if they are just *a lot more accurate* and *deadly* than you, then even  [item control] may not necessarily guarantee a win.  In [Death Factory], [Pi] is constantly going up the *jump pads*, and sort of *lingers around the same areas*.  Using that as a known [fact], that allows me to *collect the necessary weapons*, and then guard certain areas...  ...particularly the [rocket launcher] area.  Going for the [railgun] in this level is a bit of a *chore*.  So is going for the [shotgun], and even the [grenade launcher] if I'll be perfectly honest.  However, all it takes, is to collect the (2) [yellow armors] and the [rocket launcher], in order to be at a  *serious advantage*. Then, depending on the approach, collect the [railgun], [shotgun] and [grenade launcher]  in a *syncopated rhythm*, that way [Pi] will constantly be on the [backfoot].  The [backfoot], or [backpedaling] is a term for having to *run away from a confrontation*, rather than to *engage*  *in one*. This can actually be a [very effective strategy] for [psychological manipulation] of an opponent that  has [item control], though... a bot will NOT know how to do this to *attain an advantage*. Only a *human* will.  Despite all of this, even though [Death Factory] is NOT a favorite level of mine, I still know how to navigate  the map in order to have some knowledge of where [Pi] will go, or won't go. Or, what situations I'll be at a  *disadvantage* to put myself in.   One such *disadvantage*, is allowing [Pi] to collect the [railgun], because ALL bots on [nightmare] have an  *incredibly deadly level of accuracy* with the [railgun].  Short of that, *collecting items* and then *posting up in certain locations* is an [incredibly useful strategy].  /¯¯¯¯¯¯¯¯¯¯¯¯|¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯|¯¯¯¯¯¯¯¯¯¯¯¯|¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯\  \ **Date** | **Title** | **Name** | **Link**  /  / **08/26/2023** | **Temple of Pain** | **mptourney3** | [https://youtu.be/g6W5opegQ3Y] \  \\_\_\_\_\_\_\_\_\_\_\_\_|\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_|\_\_\_\_\_\_\_\_\_\_\_\_|\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_/  So, in [Temple of Pain], [Janet] is pretty *predictable*.  However, the [item placement] is *really crowded* on (1) side of the map, and *pretty sparse* on the *other*.  With [Death Factory], a couple of [stairwells] from the [middle tier] to the [top tier] would make *all the*  *difference in the world*, to make it a *far more competitive* [tournament] level.  In [Temple of Pain], a lot more *geometry* should've been used, to make the level feel more [vertical].  [Multi-tiered] levels are *a lot more enjoyable*, because it gives the players *more real estate to cover*,  in order to retain [item control].  In this particular map, [item control] is pretty easy to do...  ...what is NOT so easy, is avoiding [railgun] shots from [Janet]...  ...because she will *occasionally* spawn next to the [railgun], and there's only a [yellow armor] and some  [armor shards] in the level, that give any player a way to protect themselves from up to (2) shots.  In this level, it is [EXTREMELY DIFFICULT] to avoid being *railed* twice in a row by a bot on [nightmare],  if they happen to have the [railgun].  So, what that means, is that the *entire focus* of the level, is to prevent [Janet] from getting it.  Or, if she does get it... then, use the [geometry] of the level that is essentially only (1.5) tiers tall.  I would NOT call this a [multi-tiered] level at all, even though there clearly are (2) tiers.  The reason I would prefer not to call it a (2) tier level, is because the [first tier] is *really short*.  Whereas, in [House of Decay], there are definitely (3) tiers… though, the [bottom tier] is limited to a  pool of water, that's where the *armor* is.  Nobody will WANT to go there, if it is not there, because of how [VULNERABLE] they will be, in that position.  However, in [Temple of Pain], the only real *vertical gameplay* you get, is if you use the *jump pads*...  And on one side of the map, the *vertical gameplay* is limited to the room with the [nailgun].  \_\_\_\_\_\_\_\_\_\_\_\_/  \\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_/ **Strategies**  **Vertical Gameplay** /¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯\  /¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯  I may have mentioned numerous times that [multi-tiered] levels are pretty clutch, and essential to a map  having a [replayability] factor to it. When taking a closer look at the tournament levels from [Quake III Arena]...  /¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯|¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯|¯¯¯¯¯¯¯¯¯\  \ **Title** | **Name** | **Rating** /  /--------------------------|---------------------------|---------\  | **Powerstation 0218** | **q3tourney1** | **5/10** |  | **The Proving Grounds** | **q3tourney2** | **9/10** |  | **The Camping Grounds** | **q3dm6/pro-q3dm6** | **9/10** |  | **Hell's Gate** | **q3tourney3** | **6/10** |  | **Vertical Vengeance** | **q3tourney4/pro-q3tourney4** | **10/10** |  | **Lost World** | **q3dm13/pro-q3dm13** | **9/10** |  | **Fatal Instinct** | **q3tourney5** | **6/10** |  / **The Very End Of You**  | **q3tourney6** | **4/10** \  \\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_|\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_|\_\_\_\_\_\_\_\_\_/  ================================  | Powerstation 0218/q3tourney1 |  ================================  This map has NO *vertical gameplay*, and it would *really benefit from having some*.  Might even be pretty easy to implement a way for that to be a thing.  Otherwise, the level [LOOKS really nice], which goes a long way in receiving a mediocre score, but the general  flow of the map feels very, very [flat]. That's because [the gameplay certainly is].  [Sarge] is not a tough opponent, even on [Sarge] difficulty.  ==================================  | The Proving Grounds/q3tourney2 |  ==================================  This map HAS *vertical gameplay*, especially in the [rocket launcher] area, but also the *stairwells*.  This map was part of [Q3Test], and left a *pretty deep impression on me* long before the full game was released.  This map [looks great], [plays great], and is *pretty tough* against [Hunter].  There's really not a whole lot more to ask for, from a [competitive level].  =========================================  | The Camping Grounds/(q3dm6/pro-q3dm6) |  =========================================  The default [q3dm6] isn't even a tournament level, but it *definitely plays like one*.  The [item placement] is different in [pro-q3dm6], which IS a tournament map.  It has a lot of *vertical gameplay*, and... *I would encourage people to take inspiration from this map*,  how it's [made], how it [flows], and how it [plays]... if you want to build a *really great level*.  ==========================  | Hell's Gate/q3tourney3 |  ==========================  While [q3tourney3] DOES have a couple of tiers, it feels a lot like [Temple of Pain].  It has [death pits] which I don't particularly care for, and *isn't a very competitive tournament level*.  With some changes, it probably could be made to be more enjoyable, but I doubt anyone's going to give it  a touch up after (24) years.  ==================================================  | Vertical Vengeance/(q3tourney4/pro-q3tourney4) |  ==================================================  This map, has vertical in the name of the map.  *Both versions are geared for tournament play*, and they differ to a *great degree* with the addition of the  [teleporter] in the pro version, as well as [items] being placed in different locations.  This is, by far, [one of my favorite tournament levels]...  But- the *texturing* in this level hasn't aged well.  ==================================  | Lost World/(q3dm13/pro-q3dm13) |  ==================================  *This map is really, really good*.  It has a lot of *vertical gameplay* to it, it also boasts a slew of *alcoves*, *hallways*, and ways to navigate  from one end to the other, without feeling like you HAVE to go a specific route to get from point A to B.  This was played a lot in [Quake Live], and it's a staple to the game.  =============================  | Fatal Instinct/q3tourney5 |  =============================  This level does have *multiple tiers*, but it feels a lot like [Dead Simple] from [Doom].  This [level design philosophy] with the *fog* preventing someone from being able to *see an opponent* that's too  far away DOES give the map some *charming dynamics* that are rather unique. However, it's a bit of a *gimmick*,  and it takes away from the enjoyment of the map as far as [professional tournament play] is concerned.  Also, [quad damage] should not be used in tournament levels.  ==================================  | The Very End Of You/q3tourney6 |  ==================================  This level is also rather *gimmicky*, has a [BFG] in it, and it's *pretty easy to fall off* into the *void*.  I would never think to play this on a *server*, against a *human player* in [tournament mode]... but it does look  pretty cool, and it is pretty cool as a final boss level.  While it does have some *vertical gameplay*, it doesn't have the type of *vertical gameplay* that the other  (4) space maps have...  /¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯|¯¯¯¯¯¯¯¯|¯¯¯¯¯¯¯¯¯\  \ **Title** | **Name** | **Rating** /  /-------------------|--------|---------\  | **Bouncy Map** | **q3dm16** | **8/10** |  | **The Longest Yard** | **q3dm17** | **10/10** |  | **Space Chamber** | **q3dm18** | **8/10** |  / **Apocalypse Void** | **q3dm19** | **7/10** \  \\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_|\_\_\_\_\_\_\_\_|\_\_\_\_\_\_\_\_\_/  I'm not going to discuss these levels at great length, but they all have *plenty of vertical gameplay*.  [Multi-tiered combat] isn't everything, however.  [Item placement] is pretty important, but also...  So is the [bot behavior], or just *general all-around mechanics* going on in the map.  [Bouncy Map] is fun, but the *lighting* is pretty [flat].  [The Longest Yard] is fun, but the bots are *pretty tough* when they have the [railgun].  [Space Chamber] is fun, but it is *wicked annoying* because of how many ways you can *fall into the void*.  [Apocalypse Void] feels *really gimmicky*, and the platforms aren't much different than [jump pads].  While I really like [The Longest Yard] it is *not a very competitive tournament level* at all.  None of them really are.  However, [Space Station 1138] is a *pretty competitive space based tournament level* with *vertical gameplay*...  I don't think it ever received a *title* or *designation* to where people would play it.  Typically speaking, most community maps that are made for the game don't get a lot of credit or acclaim,  and that's just how it's always been in the [Quake community]. Even really well made levels that got high  ratings on [..::LvL] don't have a place where people flock to it, and play it in a *standard rotation*.  That's mainly because, in order to play custom levels, you have to fulfill a lot of *instructions*.  All things considered, I made [Space Station 1138] when I was (15) years old for a mapping competition,  and the limitations were like (100) brushes I think.  Whereas the tournament levels in [Quake III Arena] and [Quake III Team Arena], those were part of an  official game released by [id Software], so they're not going to pull any punches in publishing them.  Now, in order to build any level that will be a total success...?  It relies on the [initial shape of the map]...  ...which requires some [graph paper], and *drawing it out*.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_/  \\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_/ **Vertical Gameplay**  **Shape** /¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯\  /¯¯¯¯¯¯¯  The [shaping] process can actually take (*days*/*weeks*), but the end result will be something *highly polished*, and  this can be seen in a number of levels that were made for [Quake Live], like... [Furious Heights/Heavy Rain].  [Furious Heights/Heavy Rain] is one of the *coolest maps I've ever played*, it has a [general shape].  There's also [Aerowalk], though I believe that is a take on a [Quakeworld] level... that has a [shape] too.  Then there's also [Blood Run], which is the *most official tournament level I can think of* that was never a part  of the game itself (...*though it IS part of [Quake Live]*). That too, has a [shape].  But- even if we take a look at [Quake II], and even [Quake I],  there are plenty of examples of great maps there, too.  /¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯|¯¯¯¯¯¯¯|¯¯¯¯¯¯¯¯¯\  \ **Title** | **Name** | **Rating** /  /----------------|-------|---------\  | **The Edge** | **q2dm1** | **10/10** |  | **Tokays Towers** | **q2dm2** | **8/10** |  | **The Frag Pipe** | **q2dm4** | **8/10** |  | **The Sewers** | **q2dm7** | **7/10** |  / **The Warehouse** | **q2dm8** | **10/10** \  \\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_|\_\_\_\_\_\_\_|\_\_\_\_\_\_\_\_\_/  There are even more from [Quake I] that I cannot remember for the life of me...  ...but [Tim Willits] really knew what the hell he was doin', because I think he was responsible for  many of these maps, especially [q2dm1].  People still play [q2dm1] competitively, it's a great example of a map that works for tournament and  free-for-all, but every adaptation to [Quake III Arena] has been less than exhilirating than the original.    It has *a lot of vertical gameplay to it*, [multiple tiers], a *pretty balanced layout*, and it has a really unique  shape to it that I've never seen be reproduced in a manner to where I was as *impressed*, or *blown away*.  [q2dm1] is *by far*, [one of the best maps I’ve ever seen].  And, even the rest of the maps I just listed, they're *really good*.  Even [The Pits/q2dm5] is good... it's just that some of these maps really delve into being a bit of a breathing  entity *itself*, with an *environment*.  But NOW, the question is, how does one go about [creating the shape] for these maps...?  Well, imagine if you would, that you could have a conversation with [Carl Sagan] himself, and ask him how to  build a 4-dimensional tesseract, and then *build a level off of that*.  That's sort of the process involved in making a really good level like the ones I just described.  There are a lot of others that I haven't mentioned, but I can't remember all of the really *well-made*  levels I've played.  The bottom line, is that a good map has to have a [general flow] to it, where players can *traverse the map* in  *multiple ways*. Further to that point, it has to be *really polished*, have a [good AMOUNT of flow to it], have  the [items] placed in ways where it *makes perfect sense*, and is *advantageous* to the players... and then you have  to top it all off with well executed *aesthetics*, *geometry*, and *lighting*.  All of these things are reasons why I really like [House of Decay], and [Evil Playground].  Cause *they tick every single box, repeatedly*.  Fact of the matter is, this process is *different* in its’ [chronological execution], as the map is being built.  There's really no *one-size-fits-all* approach, as *every approach* is rather *unique* and changes from one idea  to the next.  [Graph paper] is a pretty great way to start out, because then you can layer the [graph paper] with *additional*  *shapes* and such, and *overlay them* in order to get a “*feel*” for how the map is going to flow.  [Tokays Towers] is a *great example* of a level that has *vertical gameplay down pat*, and... to this day,  I sometimes think about how I would go from one end of the map to the other, top to bottom, et cetera.   The only thing I never liked about it is [swimming through the water].  [Swimming through water] is NOT a good design philosophy in ANY tournament level…  Using [jump pads] is NOT a *good design philosophy* all the time, but it DOES allow the level creator to make  *better use of space*.  Using *little alcoves* from one end of a map to another, to tuck away ammo boxes doesn't make a lot of sense  in many cases... UNLESS those boxes of ammo just so happen to be conveniently placed along a path between  [armor], [health], and [specific weapons].  Lastly, before I talk about *applying all of these things in conjunction*, I can't stress this enough...  ...but, even if a map is *shaped perfectly*, and it is *textured great*, the *aesthetics are awesome*, the  *lighting is superb*, and the [item placement] seems to be *well-executed*...  ...a map can still suffer from [not being all that fun to play].  If people feel like the map is a *chore* to play...?  Then, [all of that hard work will have been for nothing].  As a *general rule of thumb for shaping the level*, think of *really basic shapes* like [squares], [rectangles],  [beveled surfaces] and [curves], and incorporate them into the [bottom line structure of the map] BEFORE  adding things like [trim], [edges], [light fixtures], [models], and things of that nature.  Because, a rough draft of a level doesn't even need to be textured or lit all that well, for a map to  have some REALLY promising [gameplay] to it. The point being, creating the [structure] of the map AROUND the  [item placement], and [item control]... is a *really good idea*.  \_\_\_\_\_\_\_/  \\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_/ **Shape**  **Expert Level** /¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯\ /¯¯¯¯¯¯¯¯¯¯¯¯¯¯  /¯¯¯¯¯¯¯¯¯¯¯¯¯|¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯|¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯|¯¯¯¯¯¯¯¯¯¯¯\  \ **Date** | **Name** | **Link** | **Duration** /  / **08/06/2016** | **QuakeCon 2016 - Rapha vs Evil** | [https://youtu.be/tU6v8C1pw8Y] | **01:11:04** \  \\_\_\_\_\_\_\_\_\_\_\_\_\_|\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_|\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_|\_\_\_\_\_\_\_\_\_\_\_/    This is, perhaps, one of the *best matches I've ever seen* from the [Q3A/Quake Live] community,  and I'll explain in *further detail* how *intense* the [gameplay] between these (2) players truly is,  as well as the [meticulous level of detail] in the maps that they play...    /¯¯¯¯¯¯¯¯|¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯|¯¯¯¯¯¯¯¯¯\  \ **Round** | **Name** | **Rating** /  /--------|------------------------------|---------\  | **(1)** | **Sinister** | **10/10** |  | **(2)** | **Elder** | **10/10** |  | **(3)** | **Blood Run (Intel)** | **10/10** |  / **(4)** | **Furious Heights “Heavy Rain”** | **10/10** \  \\_\_\_\_\_\_\_\_|\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_|\_\_\_\_\_\_\_\_\_/    ...as they *very clearly illustrate*, [expert-level game design]. But- this video throws it into  overdrive, by showing the [expert-level game-playing capabilities] of the players.    /¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯\  [ [Players + Commentators] ]  \\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_/  /¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯|¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯|¯¯¯¯¯¯¯¯|¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯\  [ **Name** | **Role** | **Nick** | **Country** ]  \\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_|\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_|\_\_\_\_\_\_\_\_|\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_/  /¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯|¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯|¯¯¯¯¯¯¯¯|¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯\  \ **Shane Hendrixson** | **Player[1]** | **rapha** | **United** **States** /  / **Sergey Orekhov** | **Player[2]** | **evil** | **Russia** \  \ **Daniel Kapadia** | **Commentator[1]** | **DDK** | **England** /  / **Xavier Dhorne** | **Commentator[2]** | **Zoot** | **England** \  \\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_|\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_|\_\_\_\_\_\_\_\_|\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_/    So, while this is somewhat of a segue into showing how to use (*GtkRadiant*/*NetRadiant*),  I believe that this video (*illustrates*/*demonstrates*) what makes the game [well made].    What I will do, is *play the video in its entirety*, and provide SOME commentary as the match plays out...  ...as I will *unpack* and *examine* the [details] in [each map], as well as the [strategies] that these (2)  players use in this matchup.    But first- as stated in [Game Design (Part I)], there are a LOT of games with better [graphics], [geometry],  [textures], [animations], [lighting], and et cetera, than [Quake 3 Arena].    However, one thing that I have noticed with [many newer games], is that they are either:  [overproduced] or [overengineered], which effectively resolves to being [overproduced].    [Overproduction] is a term for something that has [too many details] that can serve to be  a [distraction], and it takes away from the [raw elements] of what makes a game [simple].    As one relatively powerful statement comes into mind...  [Simplicity is the ultimate form of sophistication].    Let the games begin.   /¯¯¯¯¯¯¯¯¯¯¯¯¯|¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯|¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯|¯¯¯¯¯¯¯¯¯¯¯\  \ **Date** | **Name** | **Link** | **Duration** /  / **09/04/2023** | **2023\_0904-(Rapha vs Evil)** | [https://youtu.be/HiNhrH-eD4g] | **02:09:37** \  \\_\_\_\_\_\_\_\_\_\_\_\_\_|\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_|\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_|\_\_\_\_\_\_\_\_\_\_\_/  \_\_\_\_\_\_\_\_\_\_\_\_\_\_/ \\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_/ **Expert Level**  **Rough Sketches /¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯\ /¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯**  So, between (08/31/2023) and (09/08/2023), I came up with these [rough sketches] for a level I intend to *design*  and *build*, with [GtkRadiant]. The theme in my head, is a mixture of SOME *outside terrain*, with some *gothic-styled  battlements* that are reminiscent of a [castle].    However, I haven’t touched [GtkRadiant] quite yet to figure out anything beyond that.   |  |  |  | | --- | --- | --- | | [First sketch] | [Second sketch] | [Third sketch] |   Now, one thing to keep in mind, is that *the sketches aren’t finished. A*nd that is because... if I were to put a whole lot more thought to what’s happening in the [sketch] without at least *testing it out in the editor*, I would draw stuff that may get *scrapped* outright, and that is a *waste of time and effort*.  It’s important to [draw things out], at least *partially*, before *committing* to a *full-blown overview diagram of doom*.  ============== | About Doom | ==============  You see, [John Carmack] had a great idea, he wanted to be the lead programmer of [Doom]. So then he could look at himself in the mirror, and brag about it…  [Carmack] : \*looking into the mirror\*  Heh.  I’m the lead programmer of [Doom]…  ...and [Quake]...  ...and [Wolfenstein]...  ...and [Rage]...  I might *play games*, and I might *build games*…  But when it comes to building games…?  ...I don’t play games.  Nobody was in earshot when [John Carmack] probably said all of these things… but, those things are all true.  I like to add the phrase “*of doom*” at the end of stuff, to capitalize its significance. But sometimes I will do that to something that is *incredibly mundane*, *normal*, *boring*, or otherwise *ordinary*… to spice things up, and make it sound *far more dramatic* than it really is, by adding those (2) little words.  The graph paper… *of doom*. The full-blown overview diagram… *of doom*.  The paper plate… *of doom*.  The hallway… *of doom*. Lead programmer… *of doom*.  If you use it too often, it may start to lose its’ appeal, but… Sometimes people will catch on, and start adding the phrase in the middle of a conversation…  [Me] : Hey. [Somebody] : OoooOoooHhh, let me guess.  You’re writing a lesson plan... of doom? [Me] : \*long pause, hard stare\*  ...yeh.  Way to rip the wind out of my sails, dude...  ============ | Analysis |  ============  The [first sketch] shows a really rough drawing that has some general shapes, and I like using (hexagons/octagons),  though there aren’t any hexagons there quite yet.  The [second sketch] is *expanded* with *a bit more detail*, and that’s when I came up with the idea for the *terrain*,  since *terrain* is typically reserved for *outside areas* AFTER a map is built… I figured, why not incorporate it into the design…?  The [third sketch] is basically a *more spaced-out*, *larger* version of the [second sketch], albeit *rotated* so that I could focus on *adding details* when I go to *build it in the editor*, and I like what I’m building.  It’s important to be *pretty flexible* when converting a [sketch] into a [map], because *many aspects* of what has been  *drawn* may need to be (lengthened/shortened), or (expanded/reduced).  Besides all of that, the [squiggly lines] are meant to represent the [terrain].  The diagonal lines are meant to represent [bridges/catwalks] for the players to navigate the upper areas.  The (W) represents a weapon, (A) represents armor, and (T) represents a teleporter, though it may be difficult to see those details from the reduced size of the images (...*I will eventually upload the originals*).  I tried to *incorporate numbers* in the [first sketch] to represent the [height factor] for each tier, though it’s *too early* to try and *do* that yet. It’s ALSO *too early* to figure out what weapons go where, as I may adjust those  details when I go to *develop the map*.  This is a far cry from the process that I used in this particular video…  /¯¯¯¯¯¯¯¯¯¯¯¯¯|¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯|¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯|¯¯¯¯¯¯¯¯¯¯¯\  \  **Date** | **Name** | **Link** | **Duration**  /  /  **07/17/2023** | **2023\_0717-(GtkRadiant)** | [https://youtu.be/-tGdz6oxXZI] | **06:05:05**  \  \\_\_\_\_\_\_\_\_\_\_\_\_\_|\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_|\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_|\_\_\_\_\_\_\_\_\_\_\_/  ...because in that video (*...that has no sound or commentary…*), I was just getting reacquainted with the editor,  and surprisingly, I remembered how to use [GtkRadiant] pretty well over the duration of that video.  Now, it’s time to *start messing with the editor again*, for real.  **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_/**  **\\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_/ Rough Sketches**  **Conclusion** /¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯\  /¯¯¯¯¯¯¯¯¯¯¯¯  [To be continued...]  \_\_\_\_\_\_\_\_\_\_\_\_/  \\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_/ **Conclusion**   |  |  | | --- | --- | | \_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  //¯¯\\\_\_//¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯\\\_\_\_  \\\_\_//¯¯¯ **Michael C. Cook Sr.** ¯¯¯\\  //¯¯¯ **Security Engineer** \_\_\_//  \\\_\_\_ **Secure Digits Plus LLC** \_\_\_//¯¯\\  ¯¯¯\\\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_//¯¯\\\_\_//  ¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯¯ ¯¯¯¯ |  | |