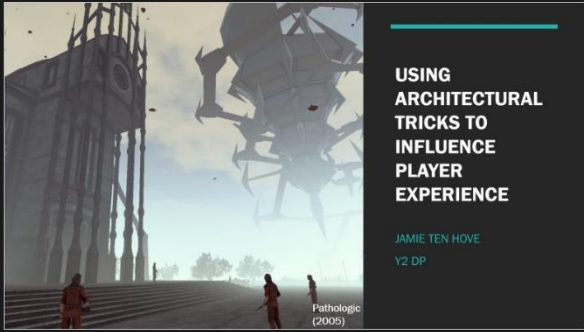


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Hi everyone, my name is Jamie ten Hove, in case you don't know me, and I'm a second year D&P student. Nick asked me to do a presentation about the Architecture course I did during the summer break to help me as a level designer, so here it is.

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### Why this presentation?

- At the end of the last school year, I wanted to learn more about level design, because that was what my role was in the block D project, and I wanted to make it the focus of my self-guided study that block
- I spoke to a student from a higher year that had done this course, and really recommended it to me.
- Over the course of the summer holiday I worked my way through the course and while not all of it was as practical as I would have liked, it ultimately made sense to include the really philosophical parts because it established a foundation for the rest of the theories that would be used later to analyze the architecture. No worries, I'm not going to be talking about theories.
- In this presentation, I would just like to tell you a little bit about the things that I found useful and how this course has opened my eyes to some things that now help me as a game designer.
- I can really recommend the course if you want to do something over the holidays. It's quite a heavy workload so I don't really recommend doing it during a block because it does have a time limit.
- It's free, but if you want a certificate you have to pay a fee. Your assignments will be graded and you can use the certificate on LinkedIn.

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## WHY ARCHITECTURE AND LEVEL DESIGN GO TOGETHER

- Use architecture, game environments
- Are constructed (in a virtual space)
- Have costs associated with them (politics)
- Have materials and textures assigned to them
- Are experienced by the visitor that goes through that environment (the player)

"The aim is to immerse the player as much as possible by simulating as many senses as possible and by doing so, reducing the gap between what someone may feel in real life, and how it feels in the virtual space."

Dima Steinhil



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## HOW ARCHITECTURAL IDEAS CAN HELP INFLUENCE PLAYER EXPERIENCE

- How can we trigger those emotions and sensations that make an experience feel real to us?
- 1. Environmental storytelling
- 2. Influencing player emotions with spatial contrast
- 3. Guiding the player through your level



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The main idea that I want to talk about today, is how using architectural ideas can help influence what types of emotions and sensations a player can feel while they move through the virtual space of a level.

I want to highlight a few things that I became more aware of by doing this course.

Some of the examples I'll talk about also have to do with narrative and art, but are closely related to level design as well.

- The first has to do with a bit of environmental storytelling in the design of levels
- The second example takes a look at how contrasting different kind of spaces can trigger a certain sensation in the player
- The third has to do with how architectural ideas can help a level designer guide the player through a space

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NOT RELYING ON WORDS TO TELL A STORY THROUGH LEVEL DESIGN

1. ENVIRONMENTAL STORYTELLING

•If we find a mound six feet long and three feet wide in the forests, formed into a pyramid, shaped by a shovel, we become serious and something says, 'someone lies buried here'. That is architecture." - Adolf Loos





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This is a quote that was talked about in the course that I really liked. The philosophy behind this is not something I want to cram in this presentation, but what it comes down to is the following:

- The player has an unprepared encounter with a mound that they find in the outdoors
- Immediately they can see that it was constructed by a human using a shovel. That involved craft and technique. It wasn't formed naturally.
- This creates a certain experience for the player. They connected the mound to the real object: a tomb, pyramid, grave.
- Then they become serious. We begin to theorize about what this mound indicated: someone lies buried there.
- That encounter has triggered emotions based on what the visitor associated with the clues that they have seen here, which can be said for so many examples of environmental storytelling.

I wanted to mention it, because it reminded me a lot about the environmental storytelling we see in games like Fallout or Bioshock.

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FALLOUT 4 (2015)





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The idea of constructing a set of clues inside of your level and letting the player find those puzzle pieces and draw a conclusion, is very satisfying for the player. It makes them an active participant. In fallout this is often done to show the various dumb ways in which people have died, but it can also be emotional. They can be stories of children who died alone when the bombs fell, or a couple of who watched the end of the world together. When you find those moments as a player, it's really impactful.

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BIOSHOCK (2007)





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It requires a bit more attention and care to find those clues and connect them.  
This is an example from the first Bioshock game. It's the conclusion to a series of audio diaries by a family that lost their daughter to experiments that went on in Rapture.  
The audio logs are spread through multiple levels and the player needs to actually listen to them and connect the dots later to fully understand what happened to this family once they find this scene.

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NOT RELYING ON WORDS TO TELL A STORY THROUGH LEVEL DESIGN

1. ENVIRONMENTAL STORYTELLING

“If we find a mound six feet long and three feet wide in the forests, formed into a pyramid, shaped by a shovel, we become serious and something says, ‘someone lies buried here’. That is architecture.” - Adolf Loos





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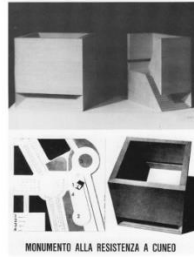
While not quite architectural every context, this quote just really reinforced my understanding of how players interpret visual clues  
And use them to draw conclusions that cause emotions and sensations to surface, so I wanted to share it here as well.

I think it really shows what can be accomplished on a storytelling level when level designers and environment artists work closely together.

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## 2. INFLUENCING PLAYER EMOTIONS WITH SPATIAL CONTRAST



MONUMENTO ALLA RESISTENZA A CUNEO



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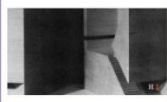
My second example is about influencing player emotions with spatial contrasts

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## THE CUNEO MONUMENT BY ALDO ROSSI



- Concept for a monument to the Italian partisans
- 12x12m cube, no roof
- Very steep steps, relatively small room
- Oppressive weight, high concrete walls
- A very narrow strip of a window with a view on the mountains the partisans were fighting for
- Like the mound from the example, this experience brings associations with it:
  - Intense experience of walking those very steep steps, ascending to the room at the top
  - Then you reach the room and you feel a sense of enclosure, entrapment
  - Then you have the view, through the window but also through the open ceiling



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This is a concept for a monument to the Italian partisans: the fighters who were against the fascist government in Germany and Italy  
12x12m cube, no roof

Very steep steps, relatively small room

Oppressive weight when you step into the room because of those high concrete walls

A very narrow strip of a window, through which you can see the mountains the partisans were fighting for

Like the mound from the example, this experience brings associations with it

Intense experience of walking those very steep steps, ascending to the room at the top

Then you reach the room and you feel a sense of enclosure, entrapment

Then you have the view, through the window but also through the open ceiling

It's a contrast of ascension, entrapment and then the vista that brings about a certain emotion in the visitor.

I found a video game example that parallels this exact trick.

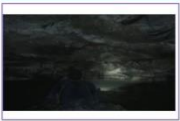
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UNCHARTED 4

- The player starts out in a very cramped cave
- Low ceiling, sense of entrapment again, claustrophobic
- Then the player climbs and ascends
- Until they reach the opening of the cave
- Contrast of vista and the space they previously were in





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Progressing through this level in Uncharted 4 is reminiscent of the Cuneo project

The player starts out in a very cramped cave

Low ceiling, sense of entrapment again, claustrophobic

Then the player climbs and ascends until they reach the opening of the cave

There they get a vista that contrasts so much with the cramped environment that they started out in

It feels like a relief to have escaped that enclosure

Becoming more aware of how a piece of architecture can bring about a certain experience or sensation in the visitor, can help you, as a designer, become more aware of the tricks you can play on your players as well

The next example is a bit more indirect.

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UPPER PLATES  
SHINRA HQ  
SECTOR 8

LOWER PLATES  
SECTOR 7 UNDERCITY  
THE SLUMS





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It operates at a larger scale:

What we see here are a few different sections that the player goes through when playing through Final Fantasy VII Remake.

This example also makes use of contrasting spaces to bring the player a message about the state of the world through the architecture that is present in each sector.

Sector 8 is technologically advanced and is located on the upper plate

Sector 7 is living in poverty literally UNDER the rest of the city in the slums. It's highlighted in green in the 3D map.

To start out with, the materials are different. In Shinra HQ, shiny metal and chrome and glass are used. In sector 8, the roads are broad and straight and made with nice cobblestones.

The buildings are also very nicely made. They look sturdy, ad luxurious. It looks like what a street in a major city could look like.

While in contrast, sector 7 is full of brittle looking wood. The buildings are arranged very messily, they look salvaged together like they might collapse at any moment. There are also no real roads, just dirt.

As a player playing through levels in all of these environments, it's very easy to feel that difference and feel that injustice. The actual plate is also visible above your head at all times when you move through the slums, it's blocking out the sun, which the characters also commentate on.

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### 3. GUIDING THE PLAYER THROUGH YOUR LEVEL

**Rotation and 'stasis'**

- The path that a visitor/player takes through a certain space is guided by the designer of that space.
- Corbusier's Villa La Roche: a villa in which rotation and moments of rest are very important to the visitor's experience



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The course spent a lot of time discussing an architect called Corbusier and how he uses his designs to make visitors naturally face important parts of the buildings as they were making their way through the house, and how he planned moments of pause for them as well.

He planned this rotation by using staircases and curved walls. In this gif you can see that a visitor first enters the main hall and then they go up the stairs. Because of the curved stair case, they end up with a view of the space they were previously in, which gives them the opportunity to establish themselves in the space before they continue their journey.

The moments of pause, or stasis, are created by adding in details like little windows or openings in the walls, balconies and handrails, where the visitor can stand still for a moment, take in their surroundings and establish where they are. The moment of status establishes a perception of frontality, context.

All of these motions are choreographed by the designer.

In some of his other villa's he also used pillars to frame the scene of the entrance hall as well.

Techniques like this can also be found in games, and I chose an iconic example from one of my favourites, The Last of Us.

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### THE LAST OF US (2013)

**Rotation & Pause**

- Doorframe literally frames the scene
- Balcony and a wall that acts as a handrail
- Both areas overlook the next area
- A moment for the player to observe their surroundings



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In this scene in the last of us, you've already made your way through a portion of the level and there's a moment of rest where the player can enjoy a cutscene and look out over the part of the level that they still need to traverse.

The doorframe already makes sure the player is sure to notice the giraffes, which creates an initial sensation of awe. It's exciting to walk towards the animal because it's so out of place.

This is also a very famous moment of stasis in a video game. The player has spent all these hours in a destroyed world with zombie-like creatures, and they're now faced with something really wholesome.

It's a really large contrast with what Joel and Ellie, and the player, are used to by now which makes it quite emotional.

The other two gifs come from a moment that happens almost immediately after the first. Both areas are positioned in such a way that they overlook the next area that you'll be visiting.

It's a moment of pause for the player to observe their surroundings, decide where they are and where they need to go next.

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CONCLUSIONS FROM DOING THE COURSE

- More sensitive to details
- Improved analytical skills (I hope)
- Why was a level built this way?
- What type of player experience did the level designers intend to create?





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There were a lot of small things that the course brought to my attention and I feel like I've become a bit more sensitive to noticing and understanding details that I previously would've missed.

There's something very satisfying about seeing a theoretical example like the Cuneo monument, and then seeing it being used in a game like Uncharted and experiencing a similar sensation when immersed in that virtual world. It makes it easier to understand why a level was constructed a certain way and what type of experience the level designers meant to bring to the player.

I also feel it has improved my analytical skills a bit. I now have more tools to deconstruct a building or scene, and say something about how it might affect a visitor walking through it.

Again, I can really recommend the course or just looking into architecture by reading books and articles about it. It's really nice to discover all of those parallels.

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LINKS TO (ADDITIONAL) SOURCES

- The Architectural Imagination course  
<https://www.edx.org/course/the-architectural-imagination>
- Gamasutra - The Architecture of Level Design  
[https://www.gamasutra.com/view/feature/131460/gdc\\_2001\\_the\\_architecture\\_of.php](https://www.gamasutra.com/view/feature/131460/gdc_2001_the_architecture_of.php)
- The Significance of Architecture in Video Game Design  
<https://www.archdaily.com/2638307/from-backdrops-to-spotlight-the-significance-of-architecture-in-video-game-design>
- GDC - LD Workshop: Architectural in Level Design  
<https://www.youtube.com/watch?v=XW7f6yppTsg>
- The impossible architecture of video games  
<https://www.eurogamer.net/articles/2019-02-12-the-impossible-architecture-of-video-games>



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End of slide show



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