COMP09095 Level Design

Week 02 Lecture – Workflow and Planning Part01

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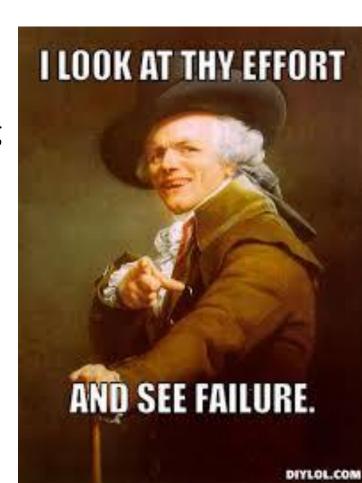
The Making of Grand Theft Auto

http://hml.helix.uws.ac.uk/player?autostart=n&fullscreen=y&width=640&height=480&videoId=2167&quality=hi&captions=n"

Approaches to Level Design

Two distinct approaches to level design:

The enthusiastic amateur –

1. Have a vague idea
2. Don't research or document anything
3. Hit the keyboard
4. Make it up as you go along
5. It'll be all right on the night

Approaches to Level Design

Two distinct approaches to level design:

The professional –

1. Thorough research of the concept
2. A detailed project plan with clear milestones
3. Comprehensive documentation
4. Extensive playtesting
5. Frequent monitoring of progress

Pre-Production Workflow 12 Steps

This week

1. Generate ideas
2. Setting, location, theme
3. Project goals
4. Level features
5. Photo/video reference and research
6. Project planning

Pre-Production Workflow 12 Steps

Next week

7. Story
8. Objectives, obstacles and set pieces
9. Focal point
10. Visual development
11. Top-down gameplay
12. Playtesting strategy

Generate ideas

- Every landscape, object, prop, building, city etc in every level in every game started out as an idea
- You are now a creator of worlds – you bring ideas to life
- **Ideas are everywhere**: you need to start observing and recording
- Ask yourself: *How can I turn this into a game environment?*
- Collect ideas – maintain a portfolio of some kind

Generate ideas

Practical exercise:

Before the end of today, brainstorm in your team to produce at least 10 ideas for game levels.

Briefly describe each idea in words.

It has been suggested that the first three ideas will be rubbish – just saying...

Setting, location, theme

In order to develop your ideas, you need to consider three main aspects:
1. Environment setting
2. Location
3. Theme

Setting, location, theme

Environment setting

Is the physical setting of your level, e.g.

- Arctic/Winter/Snow
- Caves/Dungeons/Underground
- City/Urban
- Desert/Sand
- Fantasy
- Foreign
- Forest/Woods
- Historic
- House/Structure
- Indoors/Interior
- Industrial/Commercial

- Tropical/Jungle/Swamp
- Lake/River
- Landmark
- Military/Government
- Mountain/Rockland
- Recreation
- Rural/Farm/Country
- Sea/Ocean/Islands
- Space/Planets/Astrology
- Towns/Village
- Psychological/Dreams

Setting, location, theme

Location

- Is more specific than the setting
- It's a specific place within the environment setting

Start with a general setting and narrow down to a specific location

- New York City is too broad - Which part of NYC?
- Manhattan - Still too broad. Where in Manhattan?
- Which place? Landmark? What is your focal point?
- NYC Grand Central Station

The more specific your location the better

Setting, location, theme

Theme

- Is the subject matter or the visual style of your location
- The unifying idea that brings your entire environment together
- A theme could be a time of day, time in history, weather, holiday or an event

Setting, location, theme

Environment Setting: Urban/Landmark (NYC)
Location: NYC Grand Central Station
Theme: Volcanic Ash (Disaster)

Environment Setting: Foreign/Landmark (Paris)
Location: Paris - Eiffel Tower
Theme: WW2 (Historic Event)

Environment Setting: Historic Event/Landmark
Location: Ancient Rome (Coliseum)
Theme: Gladiatorial Combat

Setting, location, theme

Begin to **stack** a theme:
Environment Setting: Urban/Landmark (NYC)
Location: NYC Grand Central Station
Theme: Overgrown (green plants), abandoned, post-apocalyptic, dawn.

Your mind already begins to create the environment. Even a possible story begins to reveal itself. That is the creative power of environment setting, location and theme.

Project goals

- Important to have clear goals for your concept
- Ask yourself:
  - *Why do I want to create this particular level?*
  - *What will make it unique/memorable?*
  - *What do I want the player to experience?*
- Write down your answers in a few short sentences
- These will be the core goals of your project

Level features

- Features are a simple list of defining elements in your map, usually 3-5 elements
- They help the player to know what to expect.
- What do you want the player or the viewer to experience?
- Features can include visuals, story, gameplay, technical or anything else you want to aim for and include in your map
- Features are the primary focus of your environment.

Level features

L.A. Noire: (Amazon.com Product Features)

- "Solve a variety of cases across the desks of Patrol, Traffic, Homicide and Arson.
- Search crime scenes for clues, question witnesses and interrogate suspects as you search for the truth in each case.
- Use your wits to analyze suspect's behavior and separate the truth from the lies.
- Experience a stunningly accurate block-by-block recreation of 8 sq. miles of 1947 L.A.
- Solve brutal crimes, plots and conspiracies inspired by real crimes from 1947 Los Angeles, one of the most corrupt and violent times in L.A. history. "

Level features

Skyrim: (Amazon.com Product Features)
- "Re-imagines the open-world fantasy epic, pushing the game play and technology of a virtual world to new heights
- Play any type of character you can imagine, and do whatever you want; the legendary freedom of choice,storytelling
- Skyrim's new game engine brings to life a complete virtual world with rolling clouds, rugged mountains and ancient dungeons
- Choose from hundreds of weapons, spells, and abilities; the new character system allows you to play any way you want"

Photo/video reference and research

Authentic and realistic interpretation of environments comes from intense research and observation from life and/or photo/video reference. Collecting and using reference for your level designs is the key to creating believable designs.

Three types:
- Photo reference
- Video reference
- On location reference

Photo/video reference and research

Photo reference

- Easy to access and collect
- Mostly done on the internet

http://images.google.com/
http://www.flickr.com/
http://commons.wikimedia.org/wiki/Main_Page

Photo/video reference and research

Video reference

- Helps give a sense of space relative to your location and environment setting.

- Distance between buildings, scale and proportion and possibly the layout of the environment.

- Video reference adds another dimension of research to your collection of resources.

Photo/video reference and research

On location reference

Most difficult, but best method:
- You control exactly what photos/videos you take
- Get the angle you need
- Lighting reference will be a lot more accurate if you shoot at the time your environment takes place
- You can take texture shots from the location
- You can always come back to the location and grab more reference images from different angles
- You get to experience and feel the location by being there. The feeling of the place will be a very important consideration when you want to communicate that same feeling into the game environment. This is often hard to do with photos from the web alone.

Photo/video reference and research

Reference categories

- Architecture
  - What do the buildings in the environment look like?
  - Damage? Weathering? Texture quality? Architectural Detail?
  - What is the architectural style of the environment?
  - What are interior and exterior architecture design choices?

Photo/video reference and research

Reference categories

- Environment
  - Think of environment reference as wide-angle shots of the entire environment
  - The location, feeling and grand vista of the place

Photo/video reference and research

Reference categories

- Light
  - Lighting is very powerful in setting the mood of your environment
  - Look and collect images that evoke specific feelings within your environment
  - Collecting lighting reference will also reveal to you the type of colour palette you may want to use

Photo/video reference and research

Reference categories

- Props
  - Props are individual elements within your scene
  - These include individual props, objects, and assets of the environment
  - What kind of objects will make up your scene?

Photo/video reference and research

Reference categories

- Inspiration & Style
  - Inspirational references are to inspire you, keep the vision, the idea you have for the environment
  - Style reference is your environment art direction, the colour palette, the visual style, and the defining visual quality of your environment
  - Focus on the visual and the emotional impact
  - If an image doesn't excite or interest you, find another one that does

Photo/video reference and research

Research

As you collect reference sources, questions should begin to occur:
- What is this architectural style?
- Why is this prop weathered/damaged and what caused it?
- What types of trees grow here?
- At what elevation do these type of trees stop growing?
- What is the wildlife here like?
- How many traffic lanes does this city area have? Etc.

Write the questions down and research the answers. The more you know about your environment the more believable you can make it.

Project Planning 101

Complex process that involves seemingly simple steps:

1. Task decomposition:
   - Identify all the tasks in the project
   - break big tasks down into small sub-tasks

2. Time estimation:
   - Estimate how long you think each sub-task should take

Project Planning 101

3. Identification of task dependencies:

  - Which tasks are dependent on other tasks being completed first?

  - Which tasks can be undertaken at the same time?

4. Task Allocation:

  - Who is going to carry out each sub-task?

  - Need to balance workloads

5. Monitoring and Adjustment of the Plan:

  - Essential!

Project Planning Software

- Microsoft Project – available on University computers and on Dreamspark. Very expensive!

- ProjectLibre – Free, open source equivalent.

- Other options are available. Make sure that the software you use can produce Gantt charts.

Collaboration In The Cloud

- Google Drive
- Dropbox
- Onedrive
- Others

Cloud Computing
everything and the kitchen sink