

GAT 315

3D Game Design I

Instructor

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- TBD



Level Planning

- ☐ Level Planning Workflow



LEVEL PLANNING WORKFLOW

A Repeatable Process for Creating Awesome Levels

Level Planning Workflow



External Purpose

Identify the key external requirements of your episode:

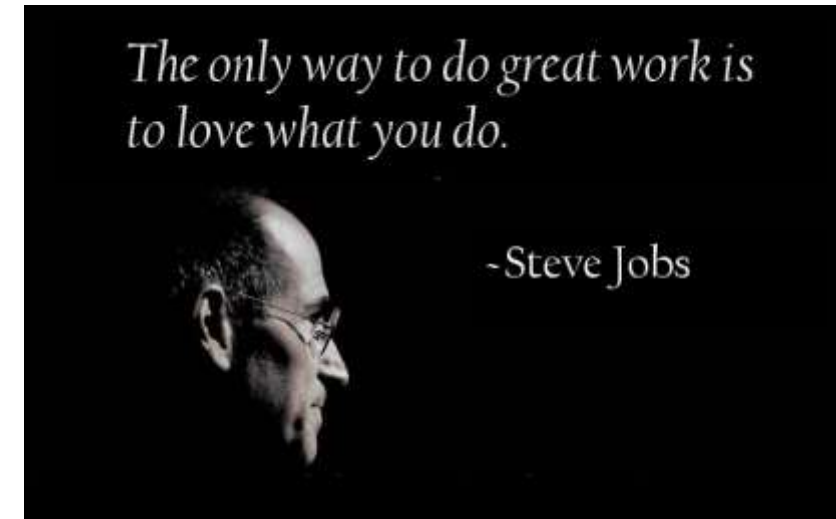
- What is the game type or genre?
- Are there any game or genre conventions that need to be delivered on within this experience?
- Is this experience single-player or multiplayer?
- Where does this episode fit in the overall arc of the experience?
- Are there any game mechanics that need to be taught or used within this episode?
- How much should each mechanic be used in this episode?



Internal Purpose

Identify YOUR goals for this episode:

- What do you want the players to feel or experience?
- What technical/design/art skill do you want to learn/practice while creating this episode?
- Why do you want to create this particular episode?
- How will you make this environment stand out (visual, technical, and/or design)?



The Idea: Episode Concepts

- Brainstorm ideas of what you could build that might fulfill one or more of the requirements you identified while building your purpose.
- Don't stop until you have at least 10 ideas.
- An idea should include:
 - Primary Goal
 - Environment Setting
 - One to three word description of mood.

Example: Find the missing mountain climbers in the snowy Swiss Alps. Mood should be one of eerie suspense.

The Idea: Concept Selection

For each concept, write down (don't just think about it):

1. What specifically excites you about this concept?
2. What worries you about this concept?
 - **Pro Tip:** If nothing worries you, then that means you aren't challenging yourself, which means your episode will be boring, and THAT should be your worry: it isn't very exciting.
3. Rate the concept on a scale of 1 to 10 on how well it delivers on purpose.

Nothing beats enthusiasm and inspiration for creating the creative drive necessary to do the work every day to bring the project all the way to conclusion.

If you don't finish it, you just wasted your time, so make sure you have an idea that is worth finishing.

Environment Setting

Now that you have selected your core concept, it is time to become very specific about the nature of your environment. The more specific, the easier to create and more believable your environment will be.

- Is this an interior or exterior space (or both)?
- Is this a natural or man-made environment?
- What is the climate and weather of this location right now?
- What is the time period of this setting (month and year)?
- What time of day is it right now (affects lighting/audio)?
- What are the characteristics of the terrain in this environment?

Focal Points

- What are the key visual landmarks for this level? These provide:
 - **Guidance**
 - Focal points help orient the player as to where they are in a level and guide them to the next point of interest.
 - **Identity**
 - Focal points help shape the visual character of your environment and make it feel unique.
- Focal points can be large spatial archetypes, or smaller structures that contrast with their immediate surroundings.
- Single player environments often have four to five focal points, whereas multiplayer environments often only have one or two.

Environment Story

- Your environment is never a pristine location that sprang into existence when the player arrived. To make your environment feel alive, think of your environment as a character:
 - **Past**
 - Identify the sequence of key events in your environment's backstory that shaped it into the environment it is today.
 - **Present**
 - What is the environment's present situation with which the player will be interacting. What brings the player here?
 - **Future**
 - How will this environment change as a result of the player's actions? How will the player leave? This can help you identify your finale and outro and help you foreshadow those during play.

Photo Reference Mood Board

- Now that you know the nature of your environment, time period, season, time of day, focal points, and the environment's story, it is time to hit the web for image searching.
- Pull reference images for:
 - Environment/Time Period Reference
 - Focal Point Reference
 - Set Dressing (Props) Reference
 - Lighting & Style Reference
 - Inspirational Reference
- Assemble a mood board (either physically or digitally so you can see all the pictures at once).

Objectives & Obstacles

- Identify what objectives and obstacles the player will encounter in this episode.
 - **Objectives**
 - What does the player need to do within the environment in order to progress?
 - **Obstacles**
 - What opposition does the player need to overcome? Enemies? Puzzles? Item Collection? Exploration?
 - What is the backstory of each obstacle – why is it there?
- Identify the sequence of objectives/obstacles if sequence matters. Will they encounter certain obstacles first?
- Consider implications of choice! What if the player does/does not do an action or follow the planned order?

Top-Down Layouts

- Create top-down layouts of your environment. You should plot:
 - Map Boundaries
 - Landscape Areas
 - Focal Points
 - Buildings
 - Player Paths/Side-Paths/Shortcuts/Secret Areas
 - Objective & Obstacle Sites
 - Story Points
- This will most likely take multiple iterations, and may need to be broken into layers (physical layout vs. gameplay layout).
- The goal of this exercise is to develop a visual sense of the nature of the environment, determine scale and spatial relationships, flow, and pacing of the episode.

Side Layout

- In a 3D environment, you may also need to create a side-layout to get a sense of the verticality of the level.
- If the side layout is mostly flat, perhaps you should consider what can/should go vertical to provide more interest?

Visual Development

- Now you need to determine the artistic style of the episode. You may be constrained by:
 - **Available Art Talent**
 - In a professional environment, you usually (but not always) have concept artists to help you create a visual look.
 - If the available artist is you, you might have to compromise based on what you can produce.
 - You can also use existing concept art, traditional movies, paintings, or other games to help establish the visual look of your game.
 - **Technology Limitations**
 - The engine itself can limit the choices available to you.

Audio Development

- Now you need to determine the aural style of the episode.
- It helps to create an audio “mood board” as well.
 - **Background Music**
 - What is the genre or mood of the background music you will use?
 - **Soundscape**
 - What are the key sound biomes in your level and what sounds characterize them.
 - Don’t forget to look at the visual components and ask yourself for each item, “What sound does this make?”
 - **Audio Guidance**
 - What sounds will guide the player through the level, if any?

Quantify & Enumerate

- By this point, you should have a pretty good idea how exactly you want your level to look, sound like, and play like. It is now time to start making lists of everything you need to do, model, collect, or create to make this level. It pays to be specific – list every asset by name (or at least type x Qty)!
 - Models
 - Textures
 - Animations
 - Sounds
- For each of these, ask:
 - What do you need to make?
 - What is provided by the engine?
 - What are you going to acquire from another source?

Production Plan

- Now that you have a list of everything you need to make, it is time to put together your production plan.
 - Estimate the size/effort of each item.
 - Plan your content in stages so you can cut scope if you need to.
 - Determine when you can work on your project.
 - Project how long it will take you to complete and how much work you will need to do each day to finish in time.

Execution

- If you are working in a team, pull all of the information discussed together into a preproduction design document/presentation to review with your team to get buy-off.
- Finally, begin working your way down your checklist as you make your way toward the finish line!

A background image of red theater curtains with a scalloped top edge. The curtains are closed and have a rich, deep red color with some vertical creases and folds.

See You Next Class