Level Design

Maps

By

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What is a Level?

- A level is a container for gameplay
  - No requirements for objectives, beginnings, or ends
  - No expectation of size or interest
- Just a container

Goal of Level Design

- Memorable – Unique, Inspiring, Relatable
- Teaching – Training and Testing
- Transitioning – Spaces, Narrative, Gameplay

Begin With the Goal in Mind

- Wrong Assumptions - > Wrong Conclusions
  - "No one has ever made a level where you. . ."
    - Derivative is less likely to be memorable
- Wrong Intentions - > Wrong Results
  - "I am gonna make this the hardest puzzle ever."
    - Cool isn't necessarily fun & difficult isn't necessarily good
- Wrong Focus - > Wrong Context
  - "I'm going to end this level by swinging over a waterfall."
    - Levels for a game do not exist in isolation

Why make documentation at all?

- Can’t I just make it as I go?
  - How will you know when you are done?
- Isn’t the document out of date once its built?
  - Why aren’t you updating it as changes are made?
- Why write what I won’t read?
  - What makes you think it is for you?

Who is documentation for?

- A designer and a developer enter an empty room. . .

  . . .how many people are in the room?

- A producer, a designer and a developer enters an empty room. . .

  . . .how many people are in the room?

- A producer, a designer, and a developer enter an empty room. . .

  . . .how many people are in the room?

What is documentation for?

- Many authors lead to many voices
  - A validating process for consistency of expression
- Understanding the usage of a system can be difficult
  - A tangible way to make a gameplay experience readable
- Communication is asymmetric and hard to verify
  - A clear way to assess the accuracy of a designers understanding
- The whole is greater than the sum of the parts
  - A method for determining the contribution of a part

Maps

- Construction
  - Show the physical space in how it relates to building it
- Continuity
  - Express each area in a way that connects the experiences and intended movement through the space
- Context
  - Demonstrate the details that relate the space to play that have a spatial orientation

Organizing Potential Difficulty

- Challenges need a space to exist
  - Activities dictate challenge
- Define spaces in size and configuration
  - Wide/Narrow, short/tall, open/cluttered
  - Offset high walls, jump height box bridge, glide-able canyon
- Name those spaces
  - Alley, cliffside, cargo storage

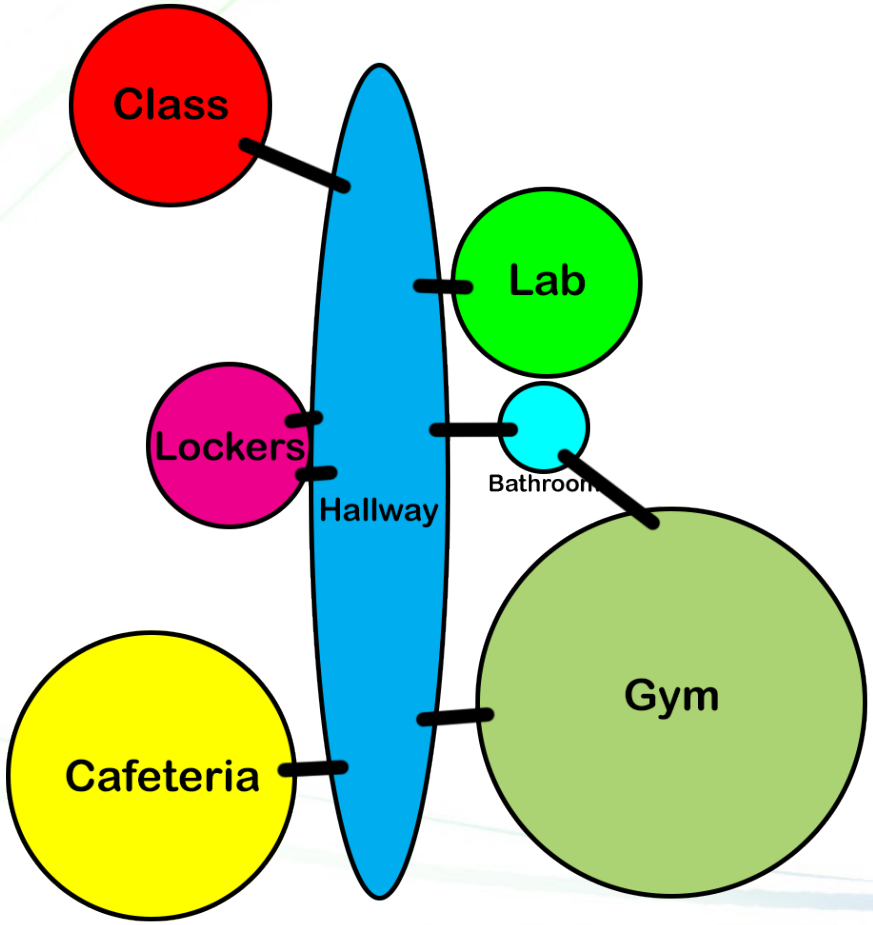
Bubble Diagrams

- They tell us what goes next to what
  - Proximal associations
  - Relative position

- The content of a bubble diagram:
  - Traverseable connection
  - Relative scale
  - Labels of content

Pictures of bubble diagrams

- Cafeteria
- Classroom
- Lockers
- Bathrooms
- Gymnasium
- Lab



Maps

- Construction
  - Show the physical space in how it relates to building it
  - Architecture and physical objects
- Continuity
  - Express each area in a way that connects the experiences
  - Doors, elevation, dynamic aspects
- Context
  - Demonstrate the details that relate the space to play
  - Character paths, spawns, events, and annotations

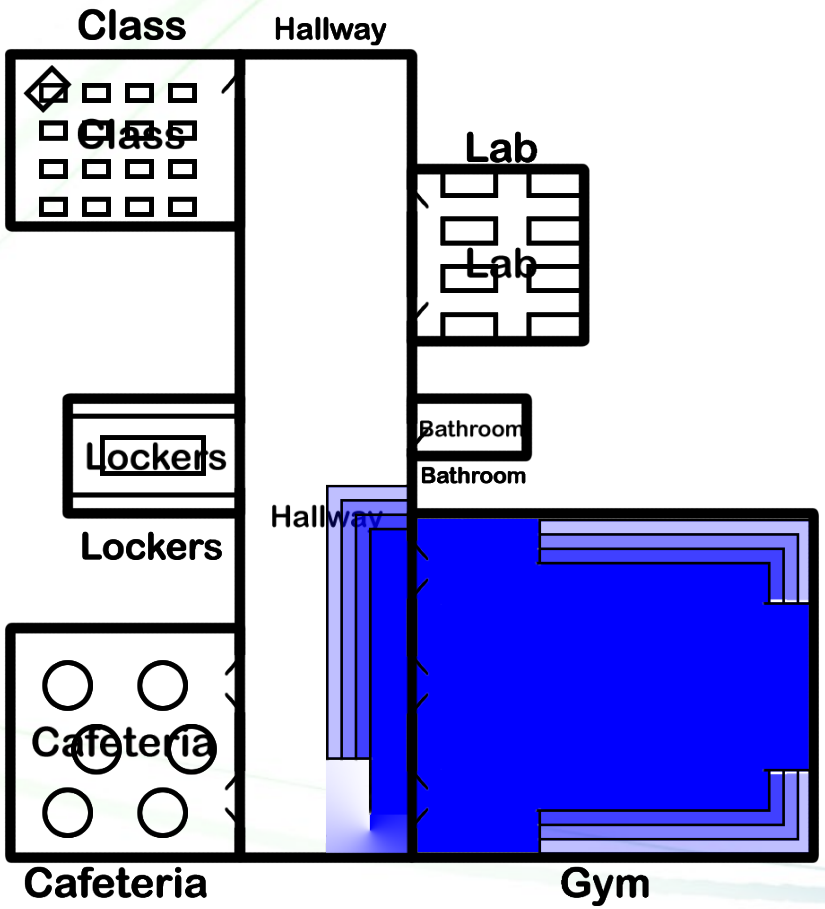
Map Construction

- Game worlds are built in positive and negative space

- Positive space establishes the world
  - Called barriers or obstacles
  - Focuses players by reducing distractions/options
- Negative space is the absence of content
  - Called. . .space
  - Pulls the players through the level

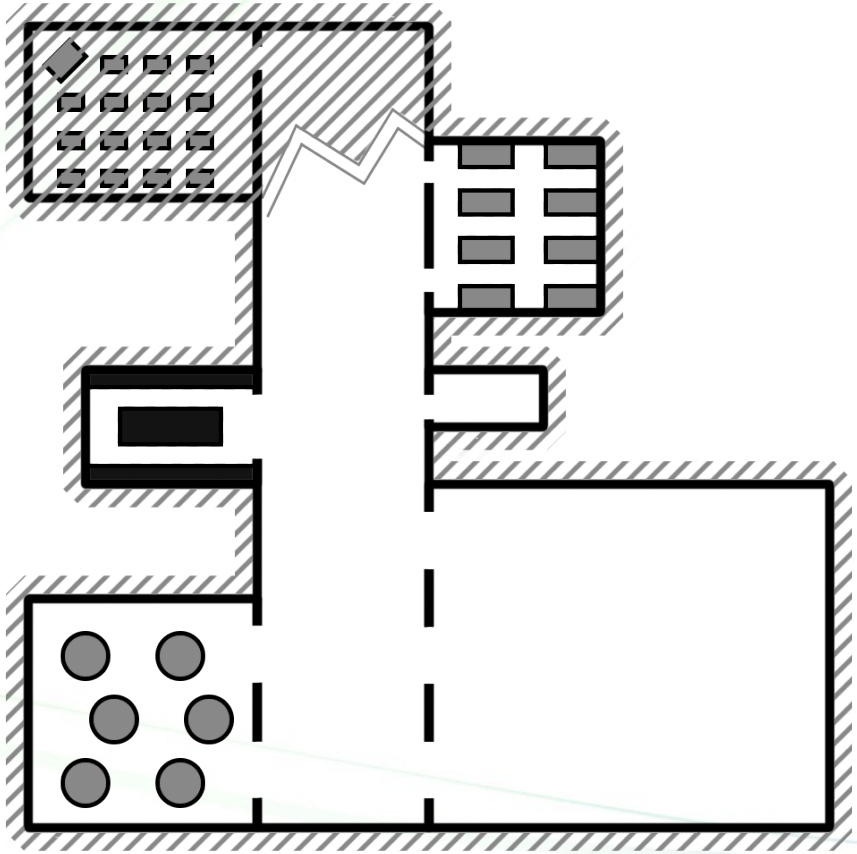
Map Construction - Barriers

- Boundaries
- Static
- Dynamic
- Elevation



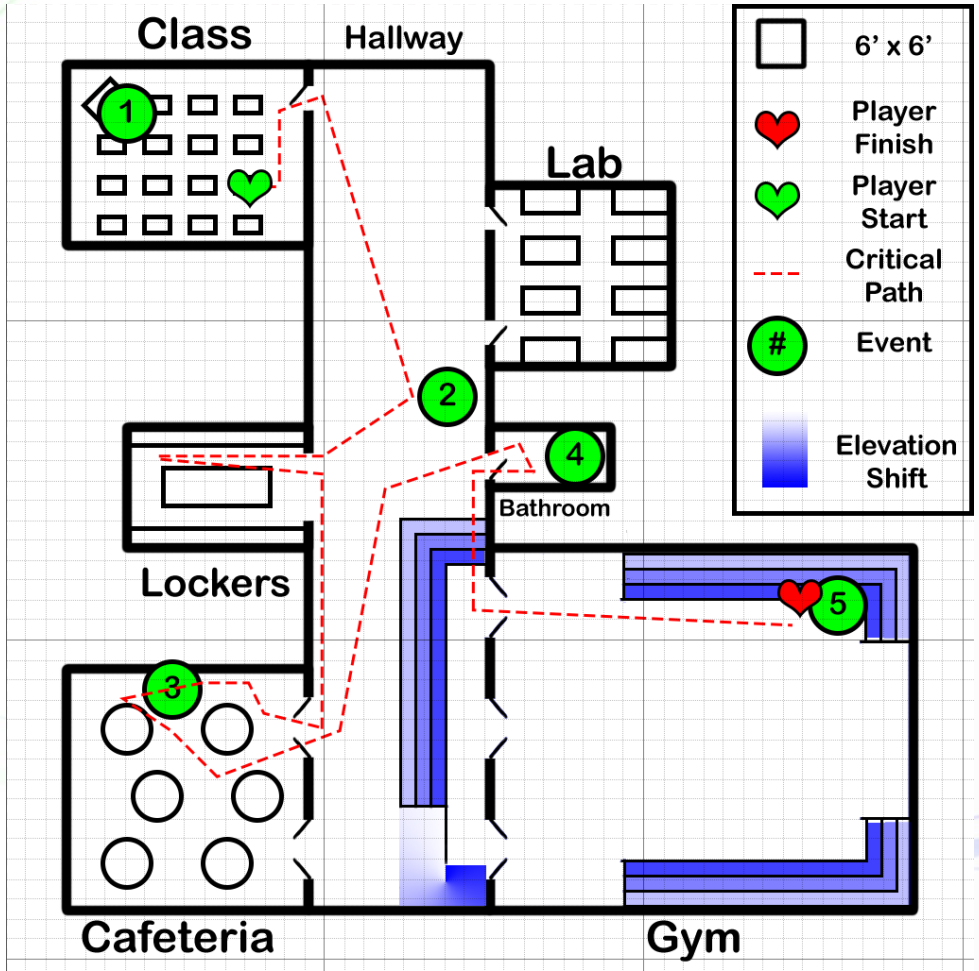
Map Construction - Space

- Navigable
- Obstructed
- Viewable
- Explorable



Map Continuity

- Maps are for developers
  - Make them helpful
- Maps should indicate
  - Labels
  - Accessibility
  - Transfer points
  - Scale
  - Temporal factors



Map Context

- All maps should have a key/legend
  - All icons should be unique and readable at a glance
  - Semiotics suggest less detail is preferred
- All Maps should have a grid
  - All grids should have units associated with them
  - All units should be depicted on the legend
  - Real world units are sufficient
  - Developer units are ideal

Map Requirements

- A name for the space – for context and readability
- A grid – to establish scale and to aid in the work of construction
- A legend – indicating at least scale, relative to the grid
- The visible boundary between playable space and the outside world

Map Expectations

- Iconography for all relevant gameplay content
- Annotations
- Distinction for elevation and visibility
- A critical path

Cautions of Map Design

- Color Coding – Readability should succeed in grayscale, and only be enhanced by color coding
  - Strive for no more than two or three colors of any one symbol
- Elevation – Depicting elevation should be relegated only to gameplay relevant distinctions
  - Consider if the player will care about one height versus another
- Density of Content – While a map is used to build a level, it shouldn’t micro-manage the expertise of the builder
  - Include critical elements, and leave non-gameplay elements to discretion

CQC

- Comments?
- Questions?
- Concerns?