



# 3D LEVEL DESIGN PRINCIPLES

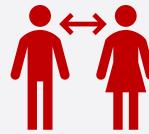
DX1217 3D Level Design

# RECALL

What did you learn about 2D Level Design previously?



# 2D Level Design Principles



Intimate  
Space



Chunking



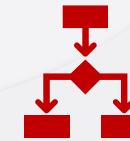
Teaching and  
Revision



Challenge



Progression  
and Pacing



Variety

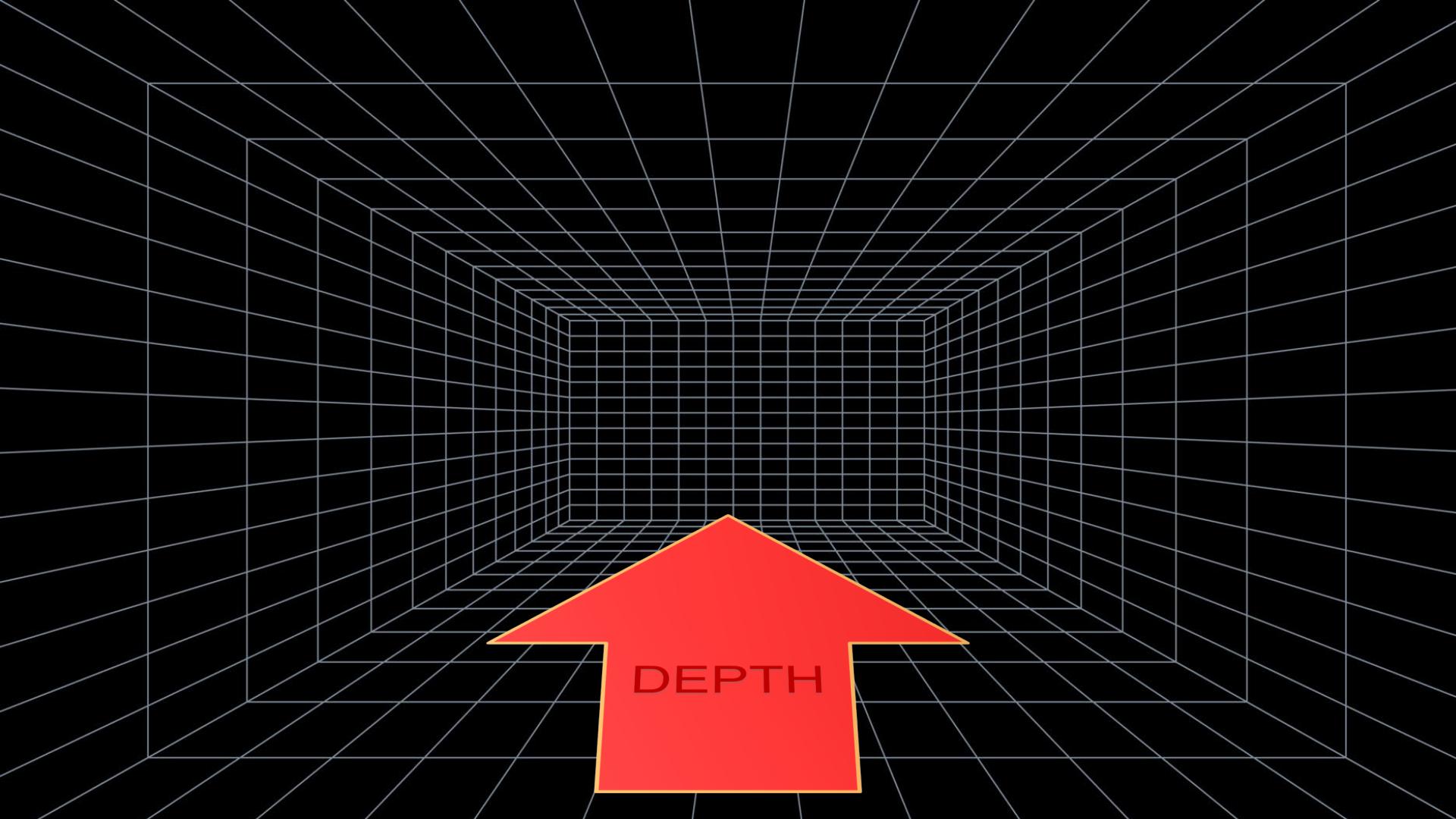
# 2D Level Design Principles

These principles are still relevant and applicable  
to 3D Level Design

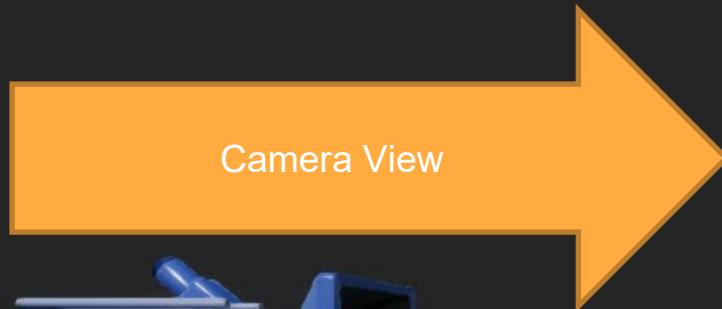


# What's the difference?

Between 2D Level Design and  
3D Level Design



**DEPTH**



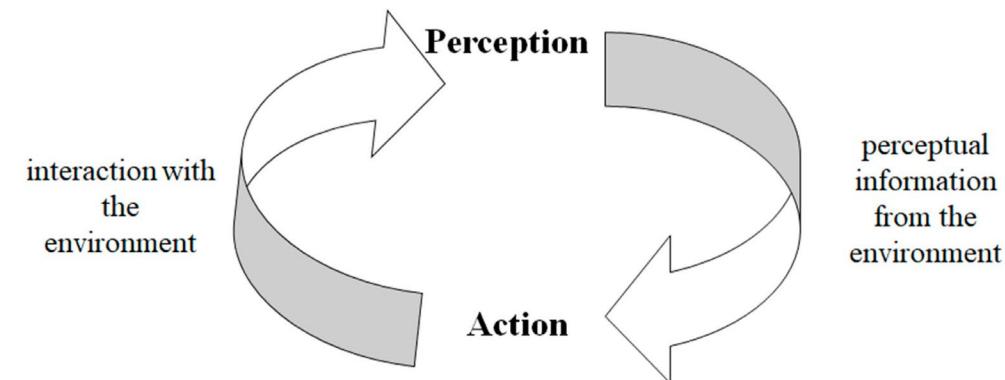
*Z*  
Y—*X*

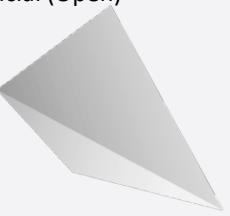
FIRST PERSON CAMERA

THIRD PERSON CAMERA

# IMPORTANCE OF 3D LEVEL DESIGN

Is to provide audiovisual cues to form player's **perception** of the 3D Level to lead them towards the intended **action** that we want the player to do.





# 3D Level Design Principles I

01

Positive /  
Negative Space

02

Sight Angles

03

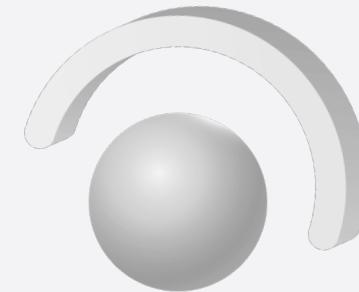
Position and  
Direction

04

Use of Hero  
Props

05

Size of Game  
Spaces

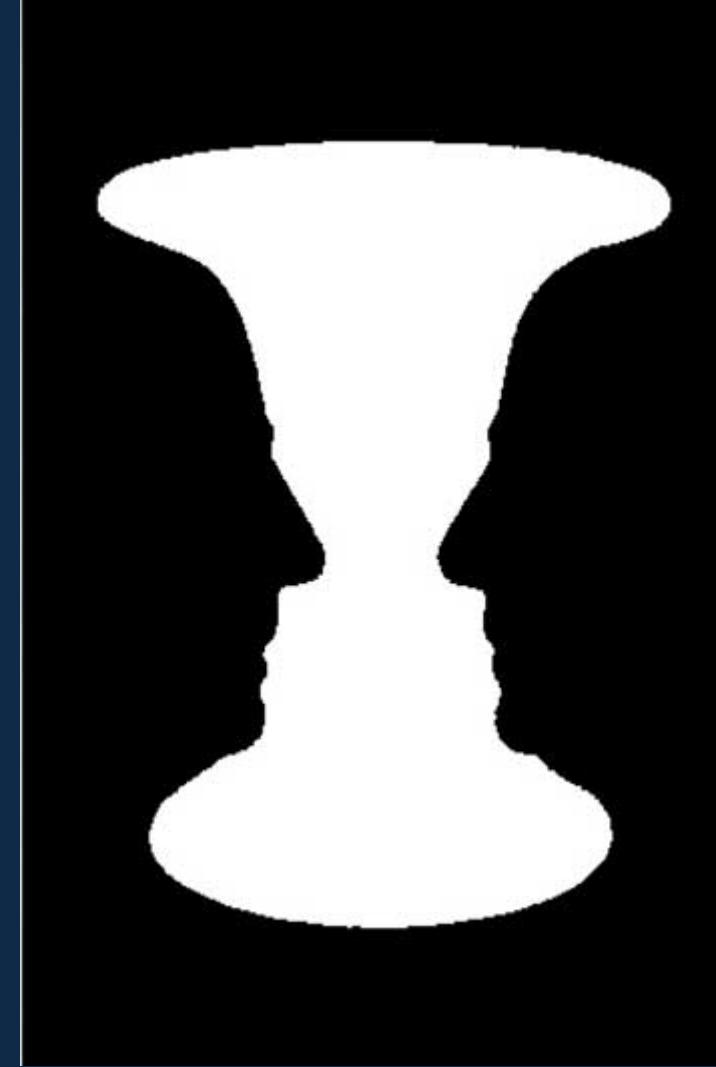




01

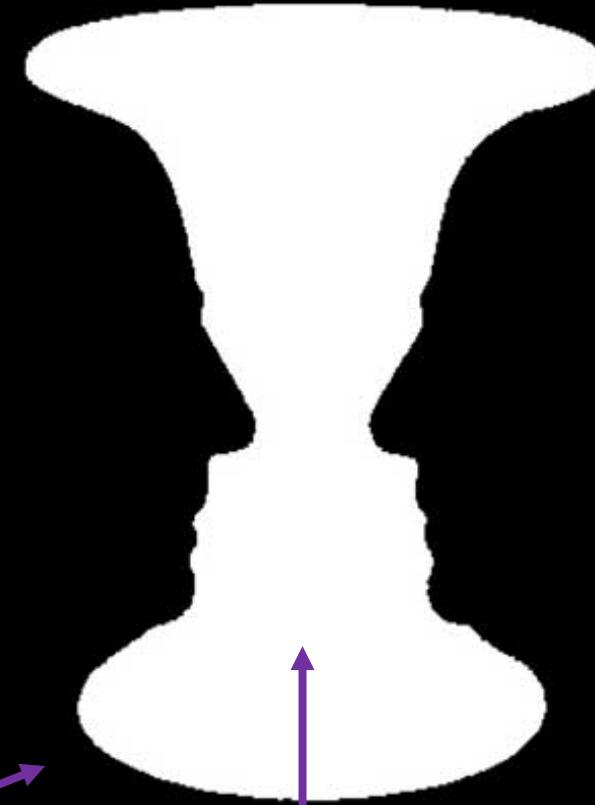
# POSITIVE / NEGATIVE SPACES

Making your subject standout

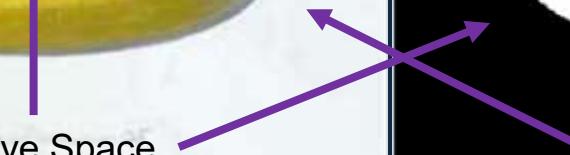




Positive Space



Negative Space



# Relative Space

**Positive space** is best described as the areas in a work of art that are the **subjects**, or **areas of interest**.

**Negative space** is **area around** the subjects, or areas of interest.





WHERE IS THE POSITIVE AND  
NEGATIVE SPACE IN THIS LEVEL?

02

## SIGHT ANGLES

What can your player see



# Planning your sight angles

While you are planning your overall level design, consider how your players will be viewing the level at which sight angle:

- Depressed sight angle
- Flat sight angle
- Elevated sight angle

This will affect how the player will perceive what they are supposed to do in the map.



# Depressed Sight Angle

- Able to view more and allow player to regain bearing
- Plan on the next route of advance
- Slows down pacing

*Third person*



# Flat Sight Angle

- Neutral angle
- Used to focus player on course of action
- Pacing can be controlled

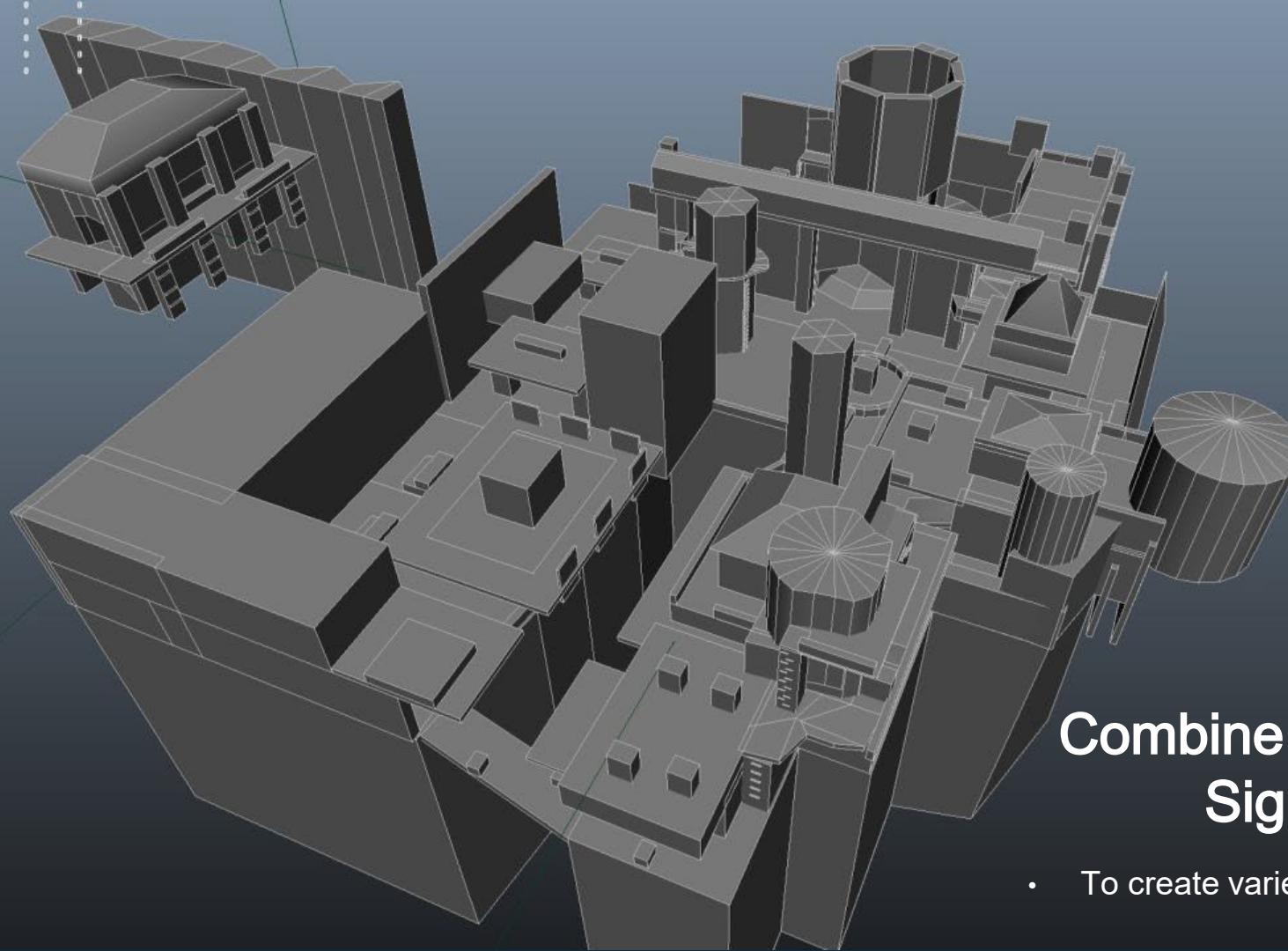


# Elevated Sight Angle

- Used for guiding players to location



Verts: 4370  
Edges: 7978  
Faces: 3592  
Tris: 6956  
UVs: 10391



## Combine Different Sight Angles

- To create variety and pacing



03

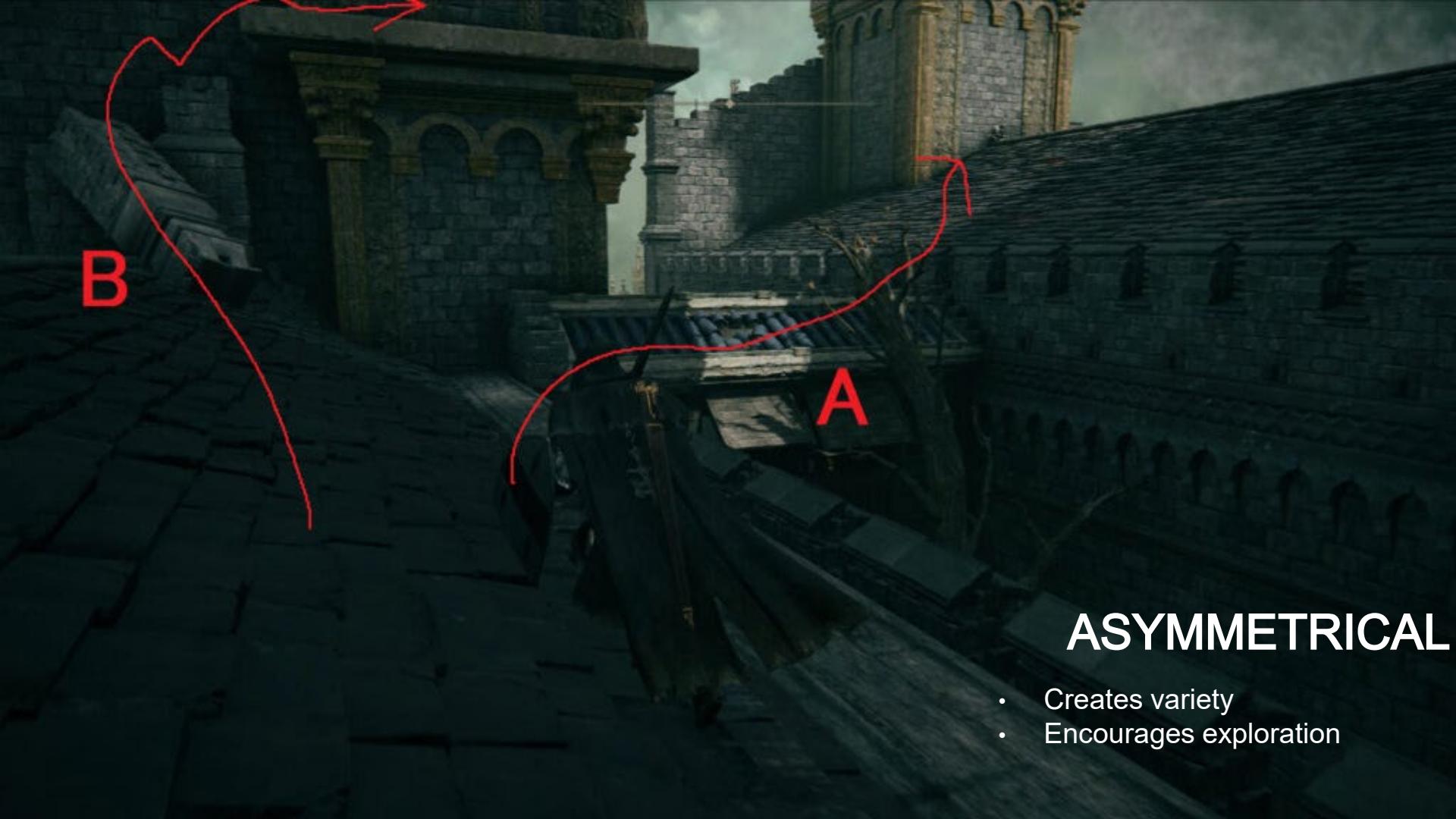
# POSITION AND DIRECTION

Directing where your player go



## SYMMETRICAL

- Guide the player towards a specific direction
- Can get too boring if it is always symmetrical



## ASYMMETRICAL

- Creates variety
- Encourages exploration



## PRACTICAL LINES

- Direct visual cues to guide players

UID: 8128



## VIRTUAL LINES

- Visual cues are setup to create virtual pathways for player to discover

# COLORS

- By using contrasting colors, you can easily grab the attention of your players
- Use consistently



04

# USE OF HERO PROPS

Creating Landmarks





Serves as a  
Landmark



Breaks Repetition



05

# SIZE OF GAME SPACES

Creating Emotional Spaces



NARROW SPACE

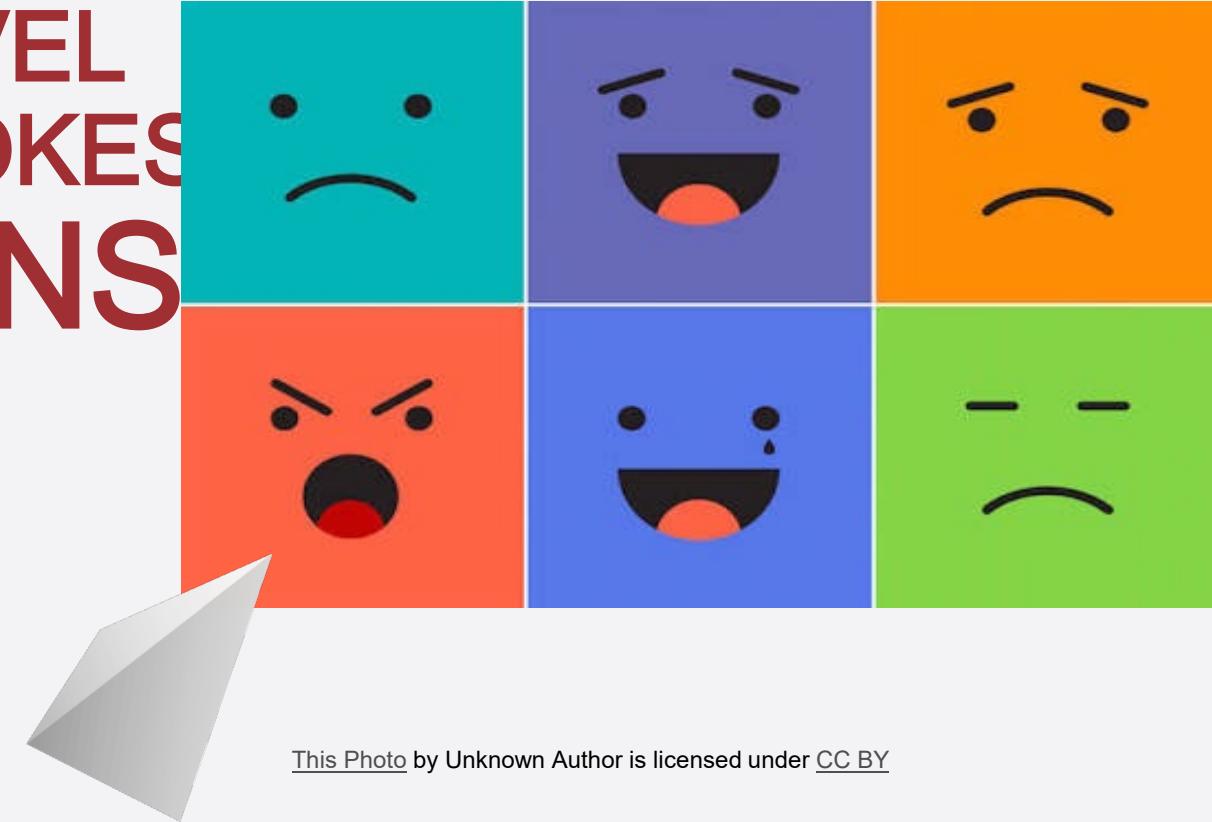


WIDE OPEN SPACE

# A GOOD LEVEL DESIGN EVOKESES EMOTIONS

Use these five 3D Level Design Principles together to create a level that evokes emotions

Think about what is your intended outcome of your level, is it to create adrenaline rush, fear or sense of sadness



This Photo by Unknown Author is licensed under [CC BY](#)