TOMB RAIDER

A SURVIVOR IS BORN

Creating an
Emotionally Engaging
Camera in
Tomb Raider

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CRYSTAL
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previous work:

- Prince of Persia: The Sands of Time (trilogy)
- Assassin's Creed
- Wet

- Photography
- Film production and studies

Tomb Raider :

SIGNS OF LIFE
TAKE SHELTER FROM THE STORM

presentation takeaways:

How the camera plays a prominent role in the reboot of Tomb Raider.

presentation takeaways:

How an engaging camera makes
the player more emotionally involved.

presentation takeaways:

What camera <u>systems</u> we used and how they could help you build a better game.

presentation takeaways:

What lessons we learned during production.

What is a camera designer?

What is the role of the camera in a video game?

Communicating the story

The camera is the narrator.

Developing a mood :

The camera acts as the soul.

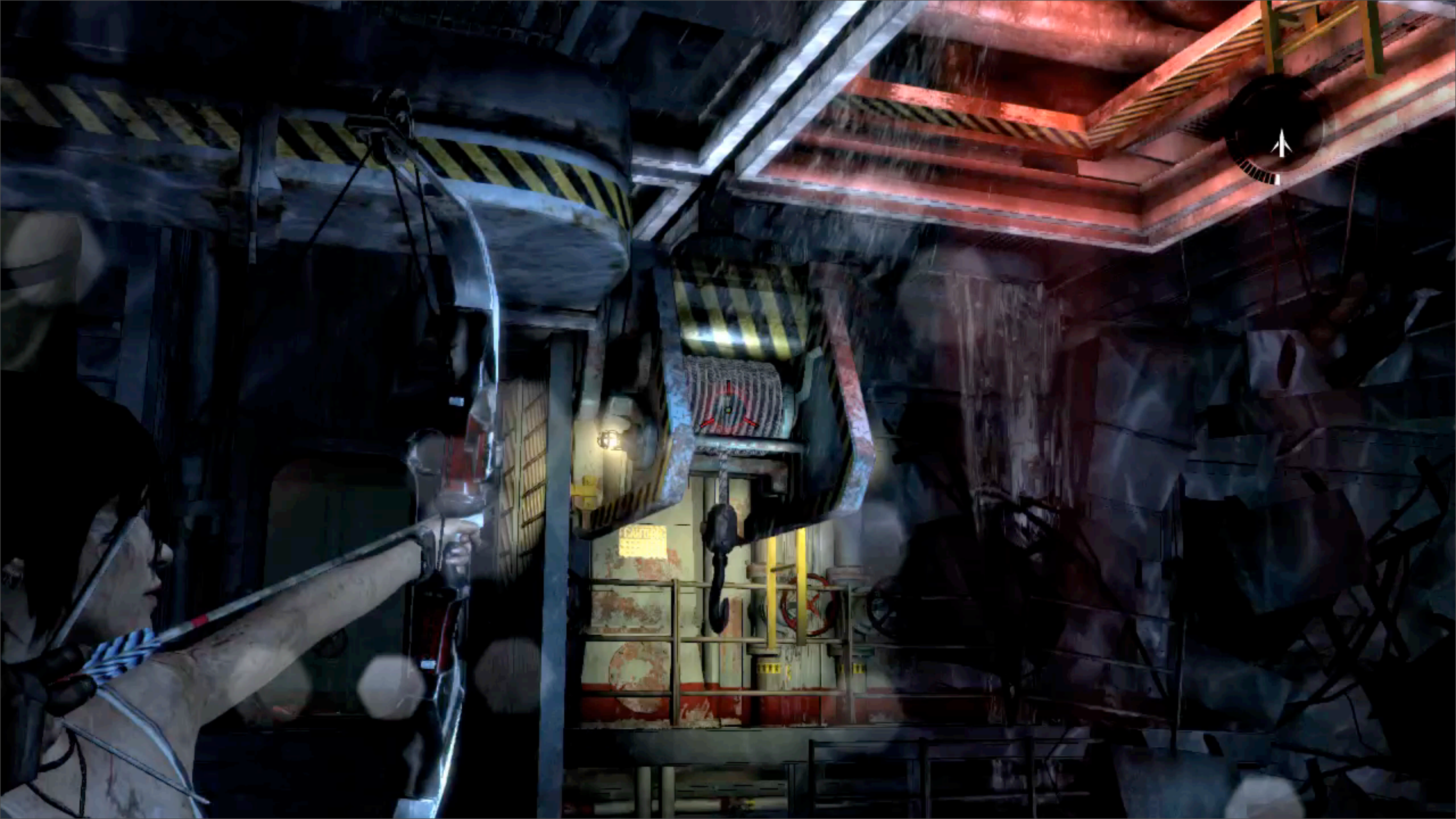# Evoking emotions:

Camera awakens powerful emotions.

WEAPON ZOOM
PRESS RS TO ZOOM

6

Facilitating interactions :

The camera helps problem solving.

Guiding the player:

The camera shows the way.

Introducing characters:
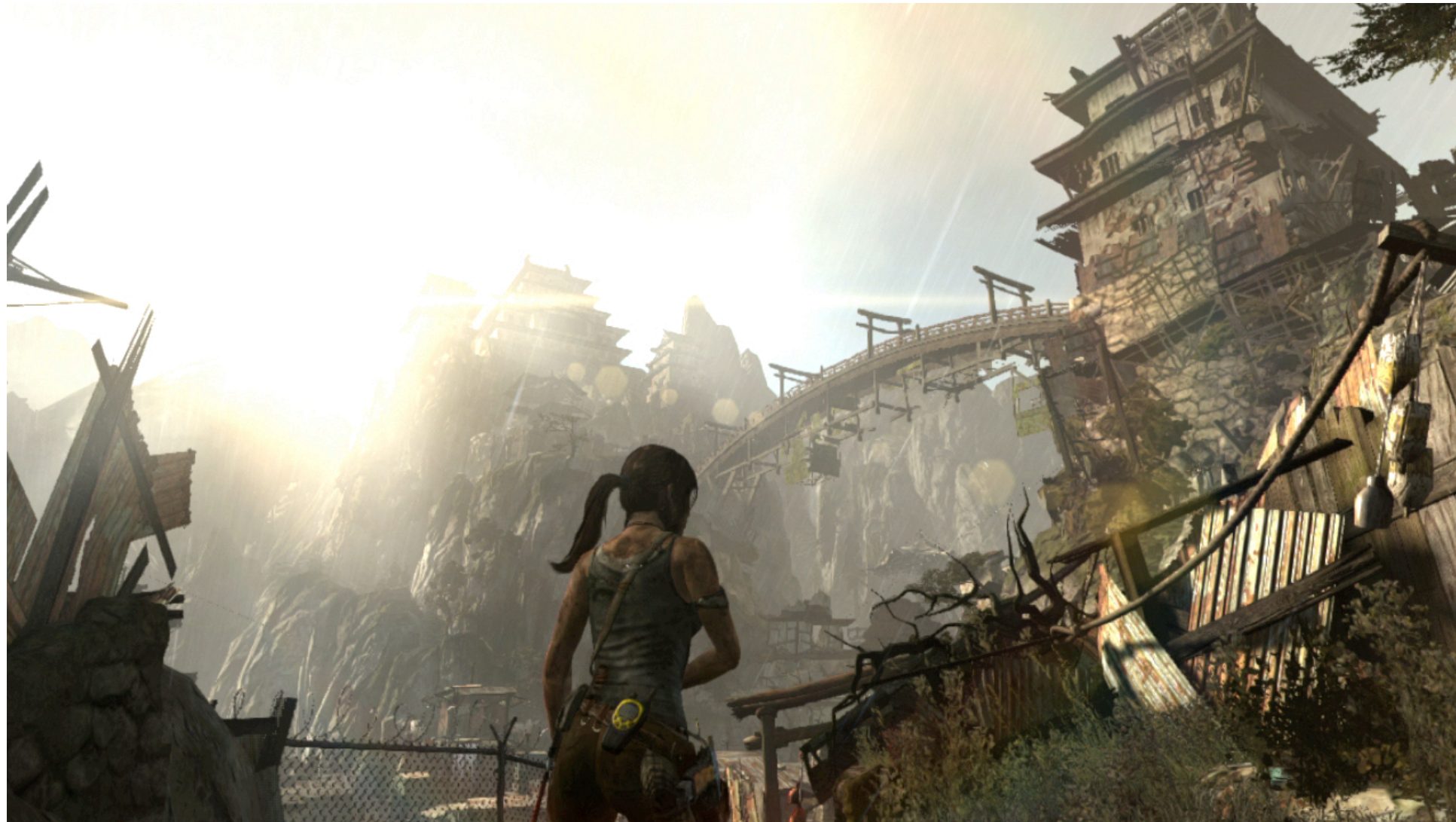

The camera creates a strong first impression.

+8

Introducing locations:

The camera reveals unfamiliar territories.

Supporting gameplay :

The camera is the backbone.

Tomb Raider: Lara Croft Reborn

The story:
- a terrified young woman becomes a hardened survivor.

TOMB RAIDER

Tomb Raider: Lara Croft Reborn

The character:
- she is not a super hero anymore
- she is grounded and more sensible.
- she gets hurt, suffers, cries: she is more human.

Tomb Raider: Lara Croft Reborn

The camera:
- documentary-style = feels unrehearsed and live.
- organic = handheld, always in movement.
- personal = shows things from Lara POV.
- physical = camera has a weight and reacts to explosions.
- simulates our reality: rain drops, blood, lens flare
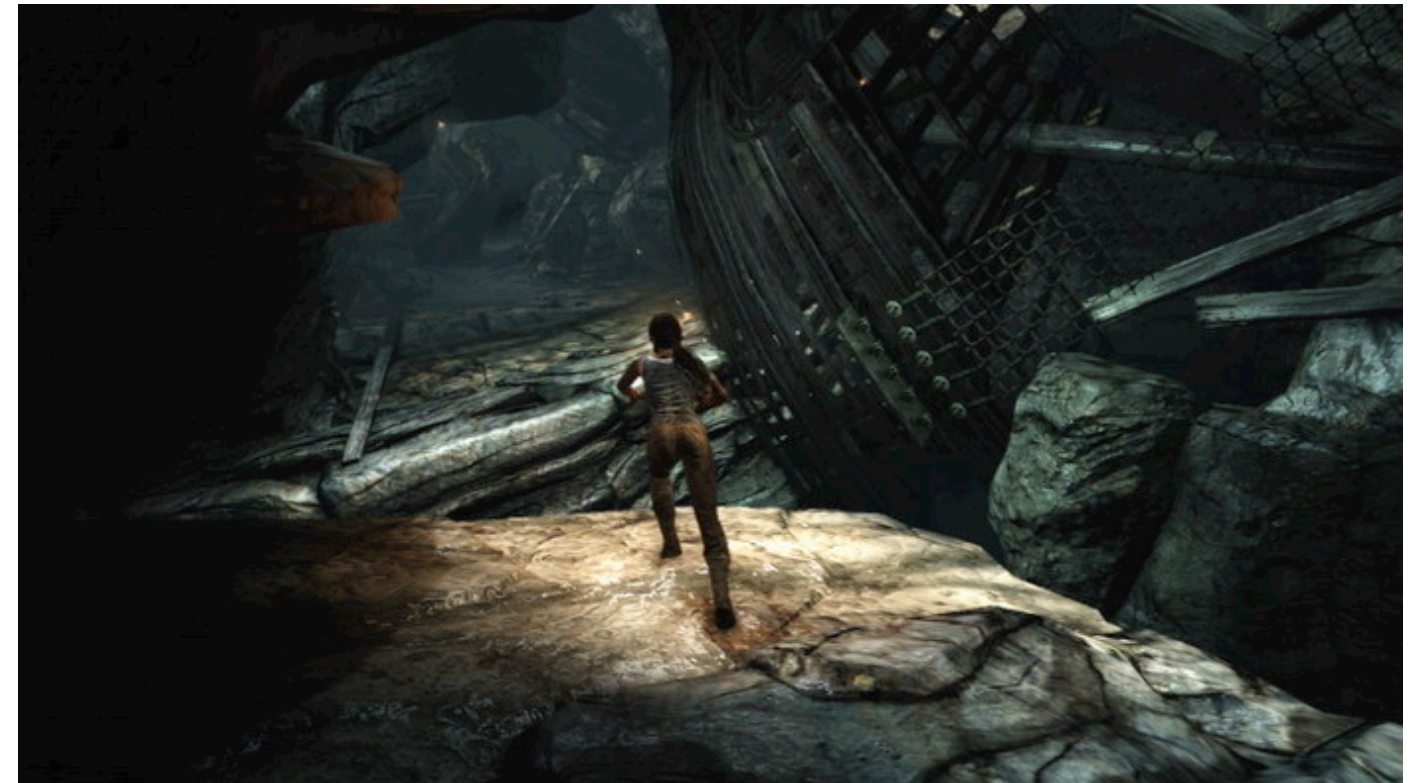
What "emotionally engaging" means?

TOMB RAIDER

- ENGAGING is gripping, attractive or mesmerizing.

- INVOLVED is connected and participating.

Why is it important to be engaging?

A player that is emotionally involved is more likely to experience tension and suspense.

Therefore, a player who is emotionally involved is an <u>active</u> player.

The camera becomes more engaging when:

Active:

A camera that participates in the action
by reacting with the protagonist.

Closer:

A closer camera allows to feel more empathy
and facilitates the identification with the protagonist.

Crafted:

Camera that have been created with a customization approach to make each moment feel unique.

Dynamic:

Characterized by continuous changes in distance and angle.

Fluid:

Transitions between cameras need to be smooth and seamless.

Handheld:

The handheld movement
establishes the character in a more physical world.
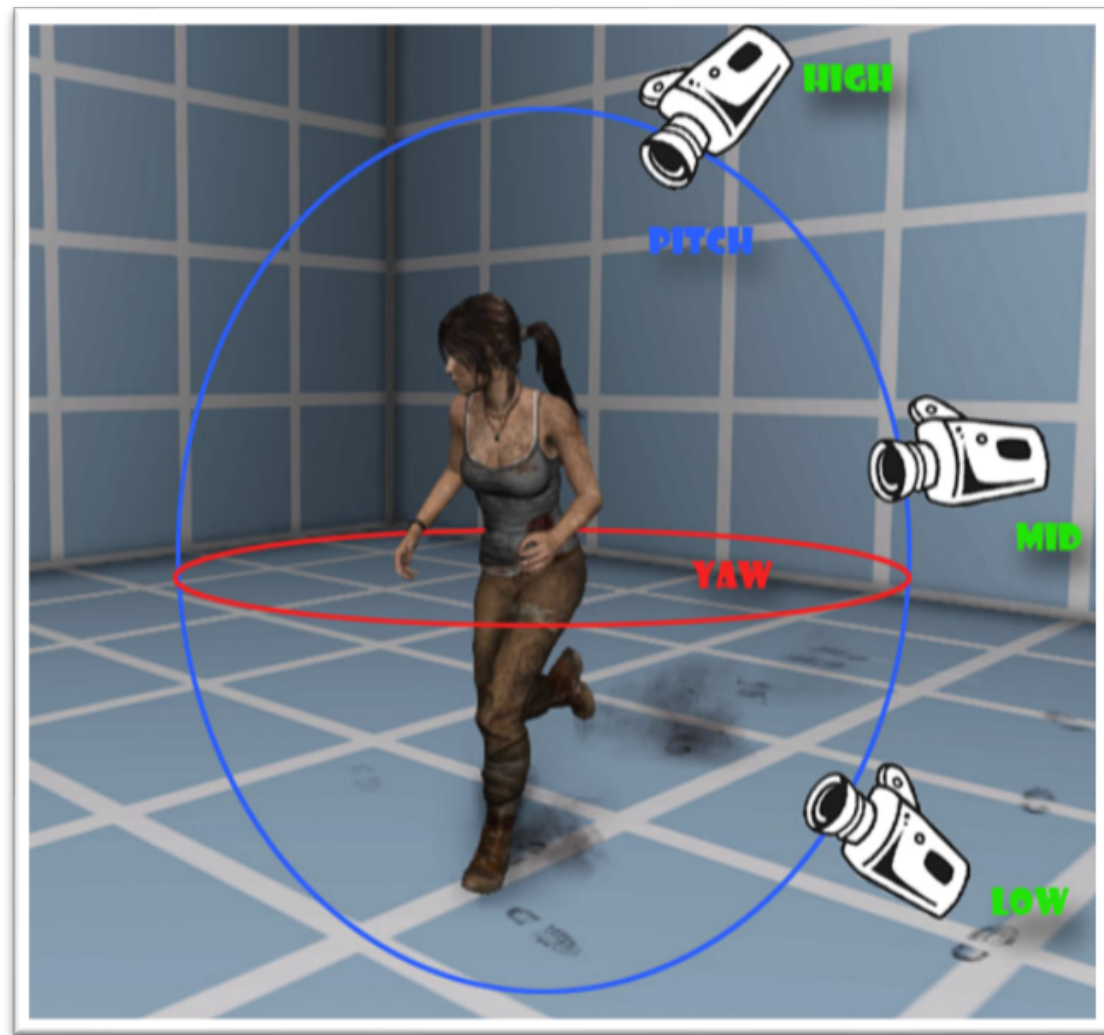
Camera Systems

camera types:

- exploration / traversal
- aim / combat
- anchored
- spline
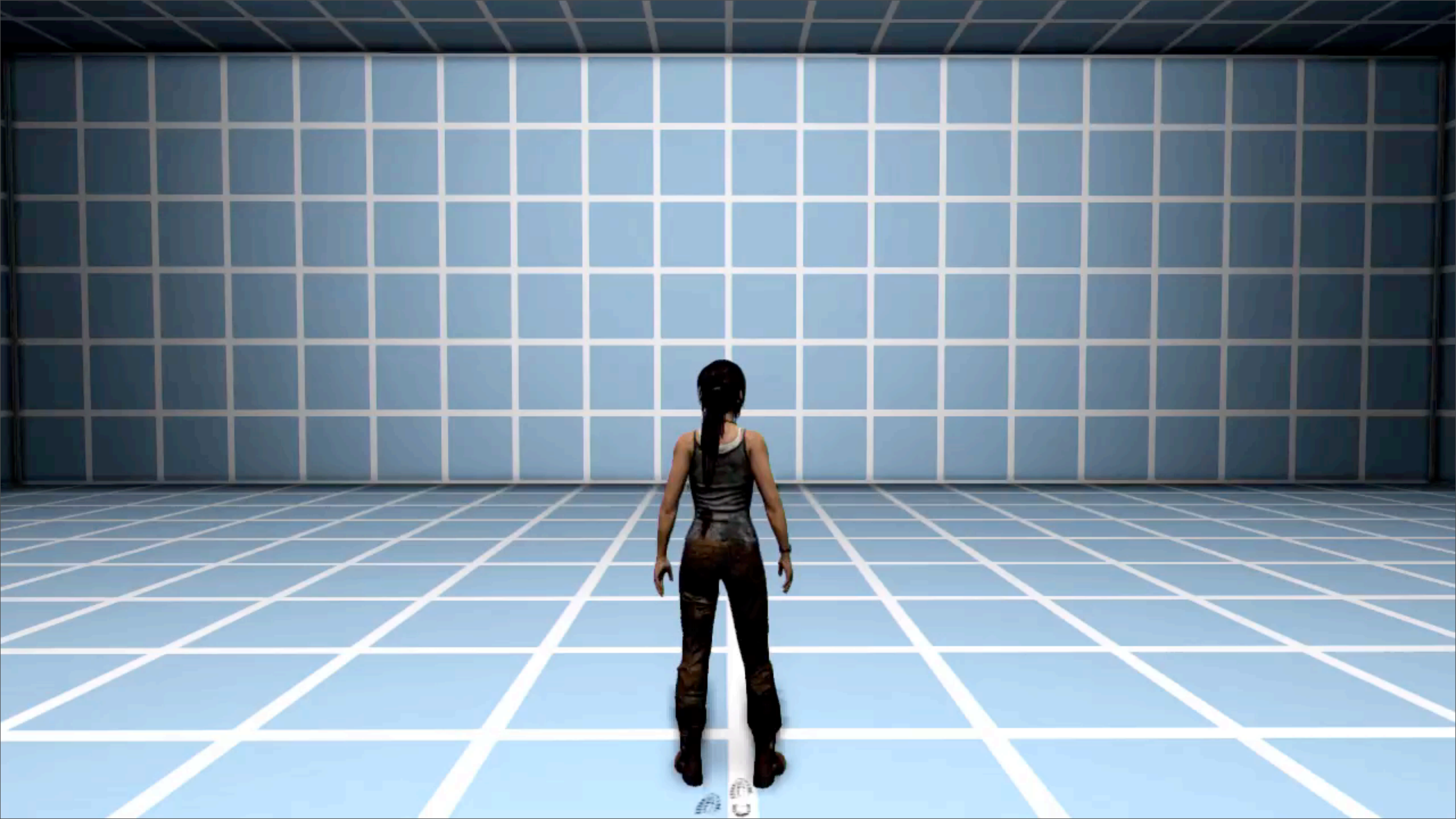- animated

trigger types:

- states
- interacts
- level based
- exotic gameplays
- animations

the three point exploration camera

This type of camera became a standard in the industry for third person games.

The way the camera can freely orbit around the character and look around by using the right thumbstick makes it an easy choice for exploration and traversal.

The Follow Camera :

The *follow* behavior repositions the camera
to the default position
as you move through the environment.

The Follow Camera advantages:

- Elusive

- Graceful

- Helpful

The Follow Climb :

the 3pt. aim camera :

Keep the same proportions of the character on screen when switching weapons and zooming.
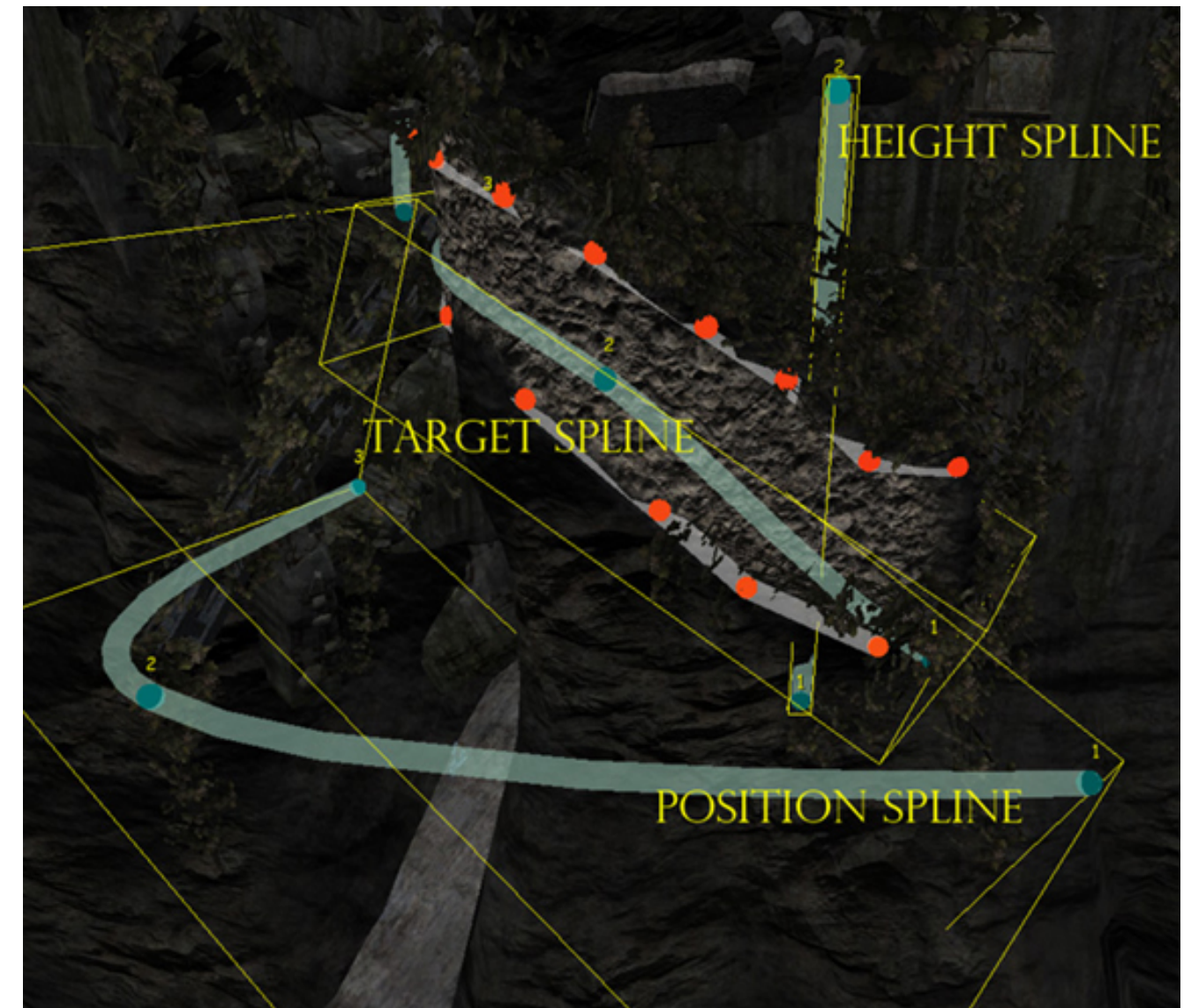
the spline camera :

- uses animated values.
- allow more creative framings.
- create a more cinematic feel.

Camera Shakes:

Why physic based?

• Instead of using an animated layer playing on top of our cameras, we used a physics based camera shake system allowing us to embrace a more custom approach.

• We were able to create shakes that were unique and suitable for different situations.

Camera Shakes:

How does spring mass work?

• Imagine that the camera is attached to a spring and oscillates between two points.

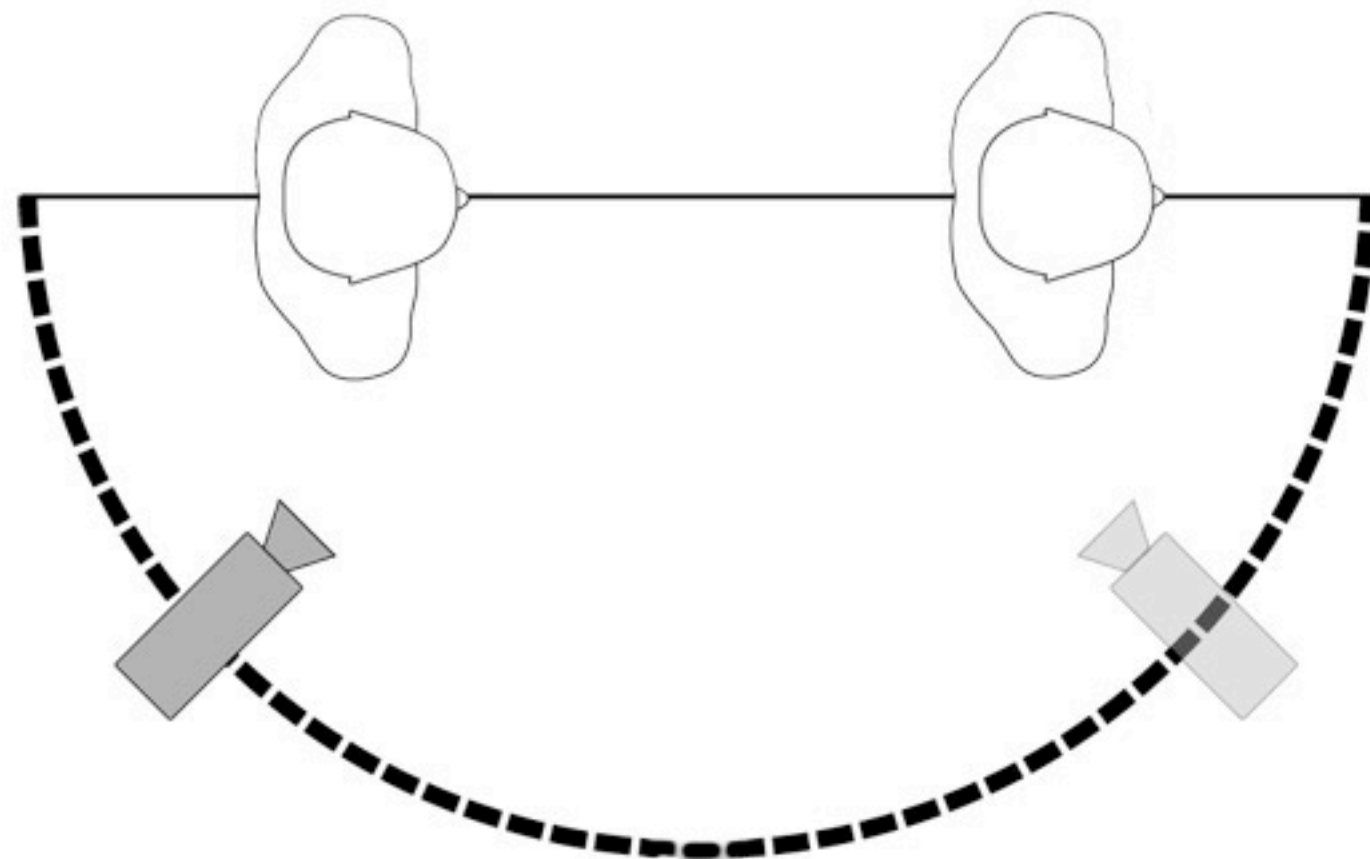• You choose an amount of positional, rotational or zoom offset for the movement of the camera.
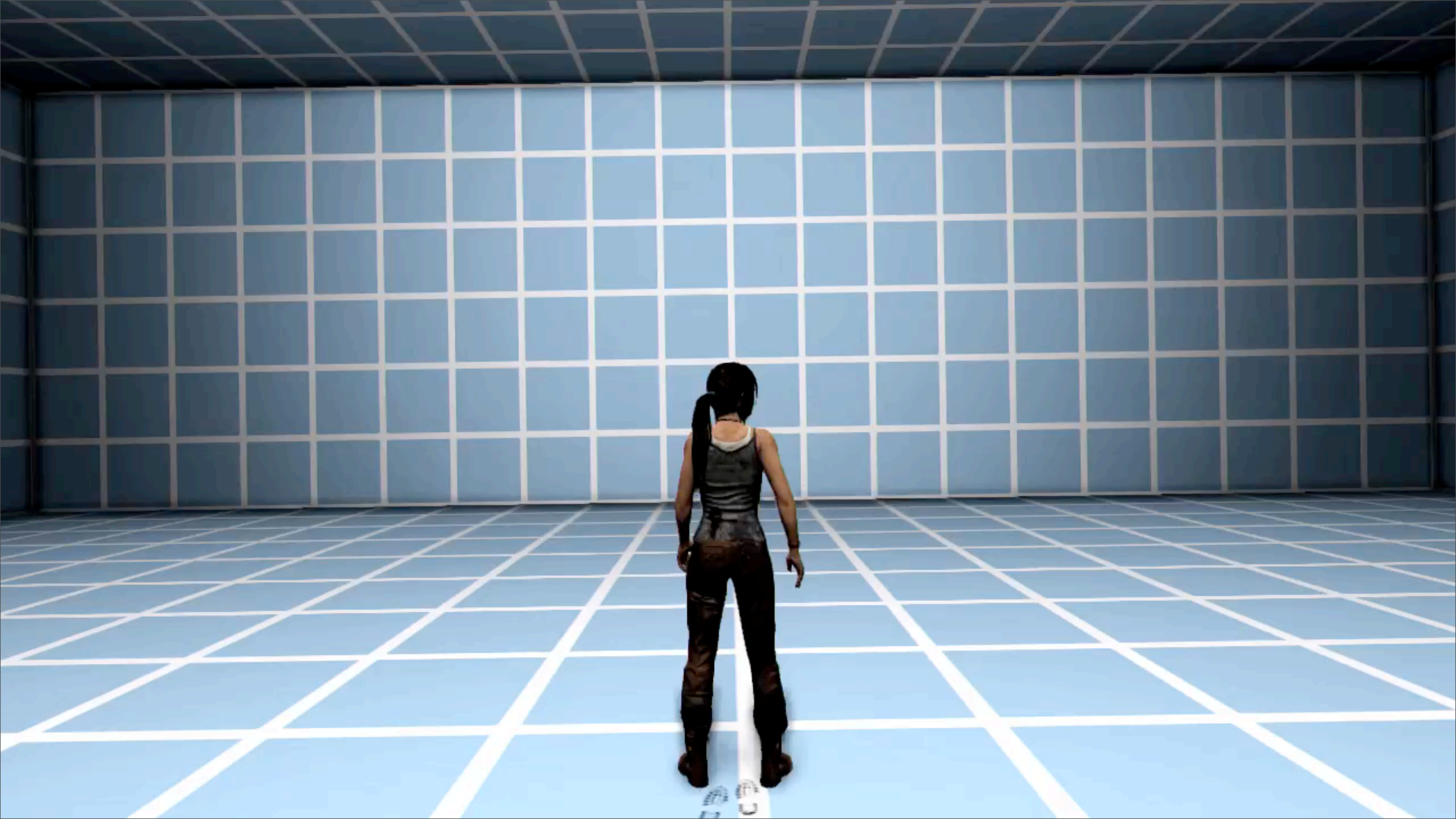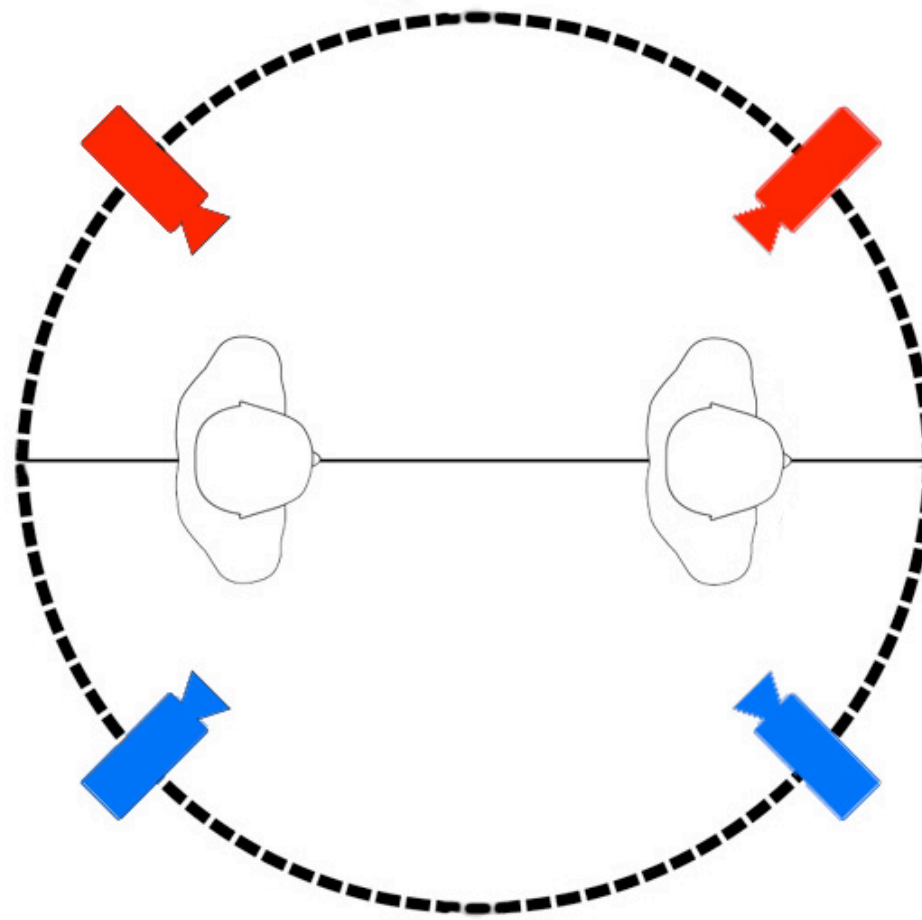
Lessons learned

Camera switching :

when switching between cameras,
to avoid confusion and disorientation,
the camera should not cross the line of action.
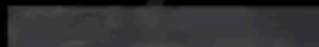
180 degrees rule

• Two cameras have been created for each side of the line of action.

• A special script determines which camera to choose based on the camera position at the moment of the triggering.
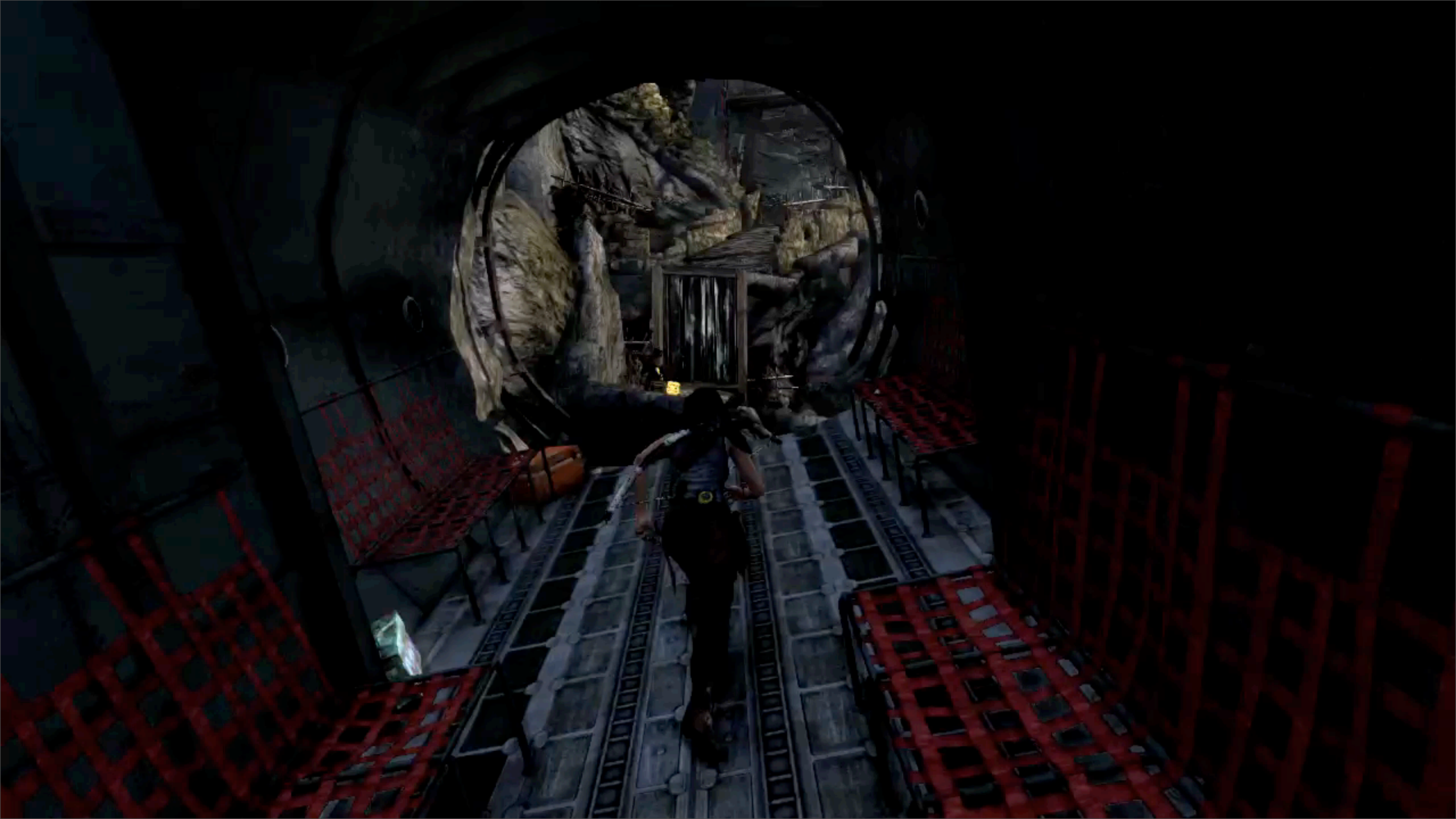
Ledge "down from above":

Dropping down a ledge wasn't used for navigation purposes but rather because the players missed their jump.

Camera orbit:

- Controlling Lara is camera relative.

- Orbiting the camera when the player is in movement affects the steering and its trajectory.

Points of interest :

- Avoid taking total control away during player "look at".

Occlusion (blocking of the sight) :

we allowed certain objects to block the sight of the camera momentarily.

Collision :

•Camera can't penetrate inside an object or character

• Fading out a character takes the player out of its immersion.

Experience Ways :

the interactive cinematic experience

Thank you for your time !

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Questions?