

# Audio Design and Implementation – Two Sides of the Same Coin

**Martin Stig Andersen**

Composer and Sound Designer, Playdead

# About me

- Classically trained composer at conservatory
- Studying electroacoustic composition at City University, London
- Electroacoustic composer and sound artist
- Composer and sound designer at Playdead since 2009

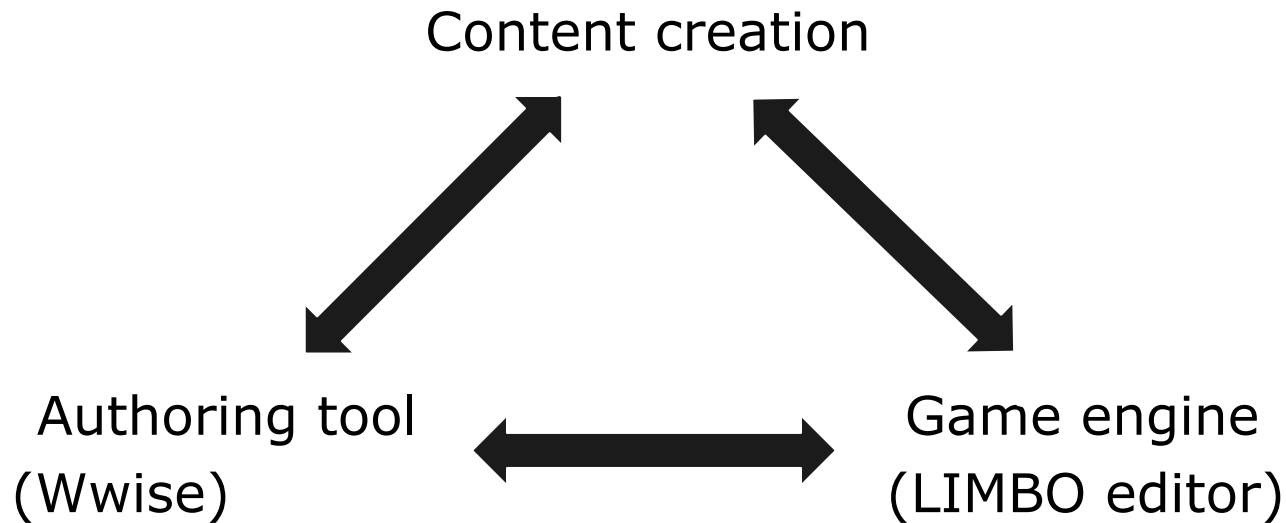
# Audio ideas

- Bleak sound
- Economizing on sources
- Music from the environment
- A “silent” game
- Anticipation and subjective mixing

# Audio production

- Content creation
- Implementation using authoring tool (Wwise designer)
- Implementation in the game engine (LIMBO editor)

# Audio production



# Bleak sound

- Ambiguity in sound
- Distinct sound gives a sense of “wholeness”
- Consistent processing is the glue that binds the sounds together

# Bleak sound

Original  
frog sound



Re-recorded  
frog sound

# Bleak sound

Original  
bird sound



Re-recorded  
bird sound



# Bleak sound



Wire-recorder idle = Spider idle

# Bleak sound



Tape wobbling sounds for  
spider breath and pulse

# Economizing on sources

- 50 MB (!?!)
- Avoid “asset thinking”
- Creative potentials of limitations

# A “silent” game

- Relative dynamics
- Using the boy as point of reference

# Boy-mix parameters



- Activity (RTPC\_BOY\_EXHAUST)
- Change ground material (RTPC\_MATERIAL\_ATTENUATE)
- Attenuation - distance to listener/"microphone"
- States (BOY\_AMB\_LEVEL)
- Blend boxes on playground (RTPC\_BOY\_LEVEL)

# Anticipation and subjective mixing

- Guide the attention of the player
- Support game objects and mechanisms only as long as they are important to the player
- Focusing on approaching objects

# Focusing on approaching objects

Aural field of attention



# Anticipation and subjective mixing

- Guide the attention of the player
- Support game objects and mechanisms - as long as they are important to the player
- Focusing on approaching objects
- Whose perspective?

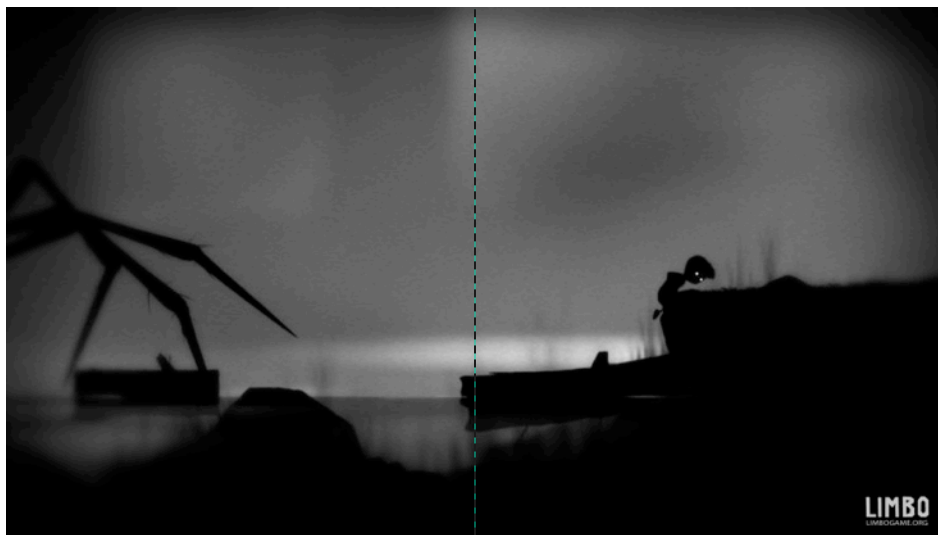


# Whose perspective?

Left

Center

Right



# Whose perspective?

Left

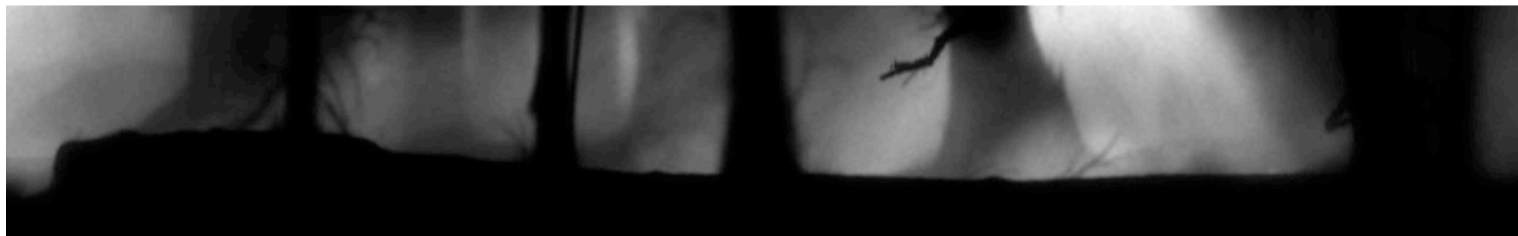
Center

Right



# Ambience design for the spider encounter

(Spider hide)

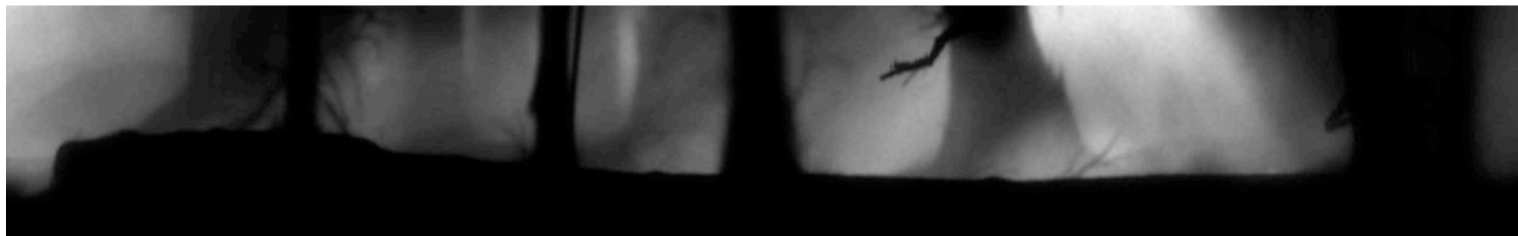


# Ambience design for the spider encounter

Sound scheme 1: Approaching the spider

Woods

Frozen wind



# Ambience design for the spider encounter

## Sound scheme 1: Approaching the spider

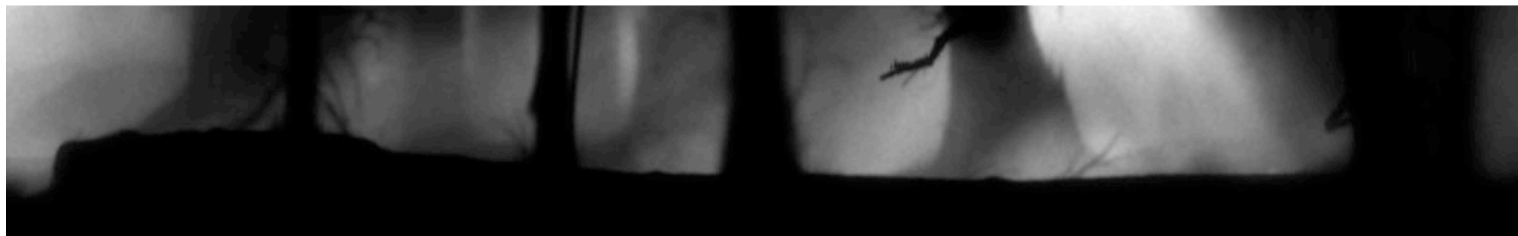
Woods

Frozen wind

## Sound scheme 2: Fighting the spider

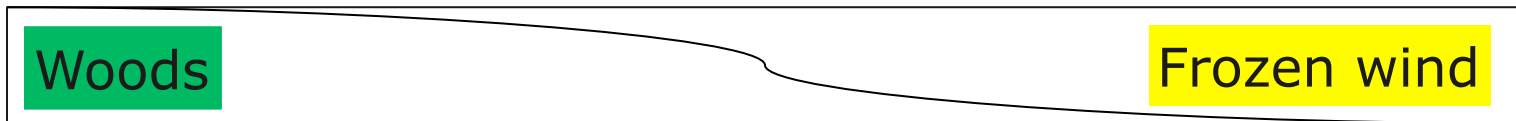
Woods

Spider buzzing

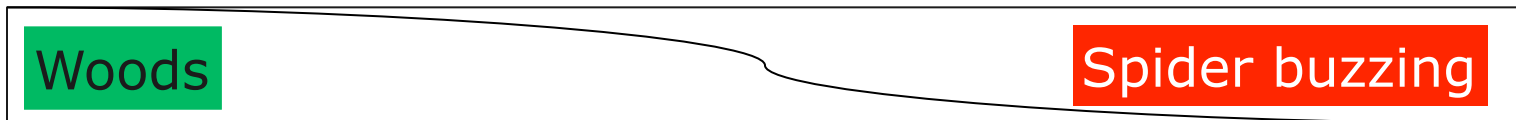


# Ambience design for the spider encounter

## Sound scheme 1: Approaching the spider



## Sound scheme 2: Fighting the spider



## Sound scheme 3: Defeating the spider



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