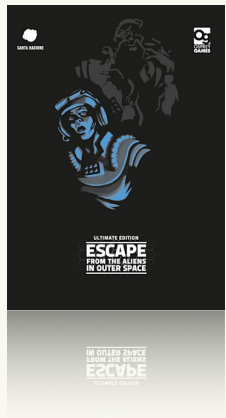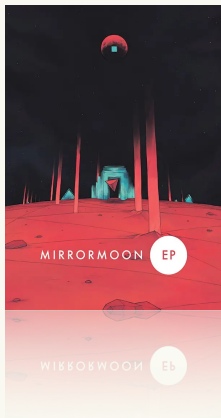# 'Saturnalia' Postmortem

Pietro Righi Riva

Studio Director at Santa Ragione

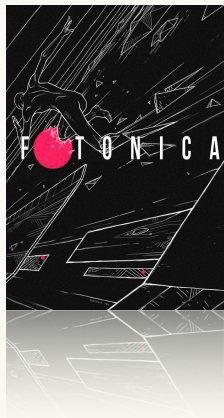# Wait a second, **who are you?**
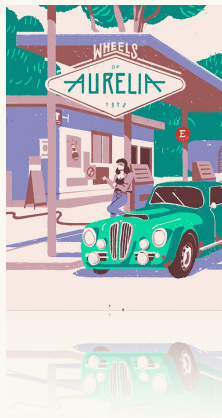
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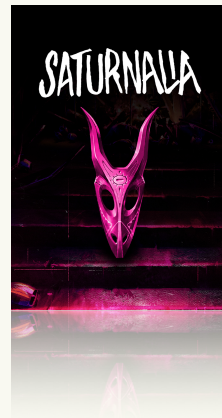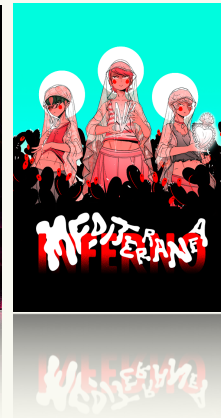
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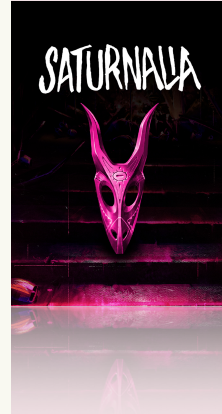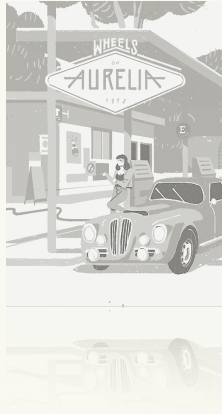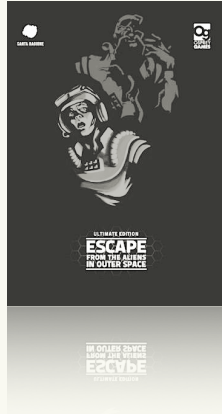
GDC

Prototype

Move to 3rd Person

Art Style Change

Completion Funding

Playtests Feedback

Console Launch

Content Updates

Takeaways

2017   2018   2019   2020   2021   2022   2023   2024

End of 2016: **Looking for a new project**

- How to **fund a prototype**?
- What should it be?
  - Safe
  - Interesting
  - Doable

Early 2017: **Creative Europe Programme**

- 50% EU advance on prototype costs (now 60%)
- **45% from a co-production partner**
- Detailed 50-page documentation
  - Design / Art Direction / Narrative Themes
  - Production Plan

Early 2017: **Submitting 'Matchbox'**

- Art directed by **Marta Gabas**
- Multi-character, **non-linear**
- Dark **procedural monster maze**
- Per-character **political horror**
- **Diegetic** puzzle progression

$130k Secured

for a PC + Mobile Demo to pitch at GDC 2018

Vertical Slice Challenges

Defining **approach and technology** for:

1. Procedural Environments

2. Giallo Visuals

3. Dynamic Narrative

GDC

Challenge 1: **Procedural Environments**

- Node-based pathfinding for touch controls
- **Corridors / rooms** take wrong for medieval town
- Octagonal tile-based solution by **Lorenzo Silva**

COMUNE DI
GRAVOI

Miniera · Municipio
Villa · Scuola
Chiesa · Diga Nuova
Farmacia · Castello
Ferramenta · Ristorante
VOI SIETE QUI

MARCH 18-22, 2024   #GDC2024

GDC
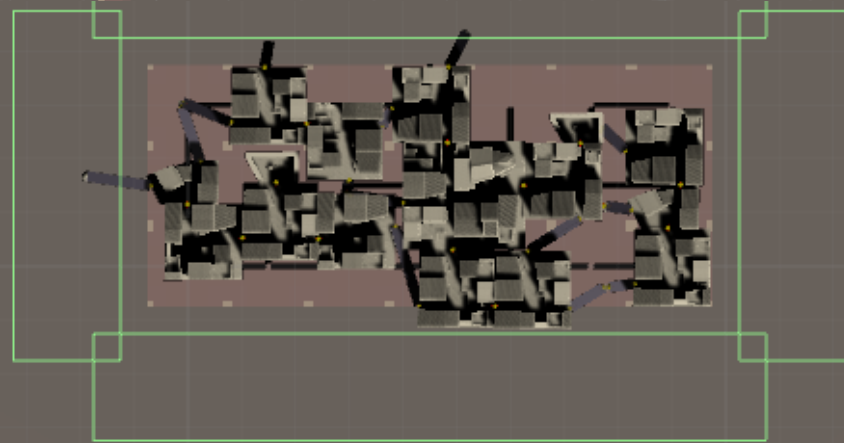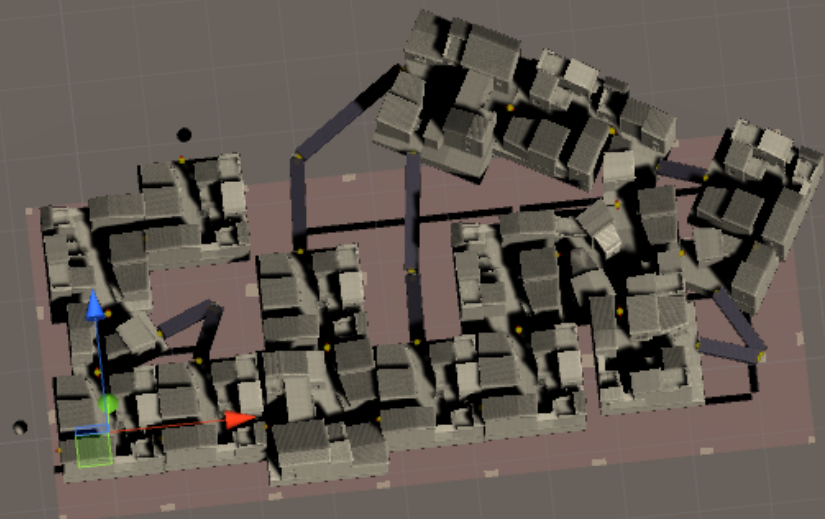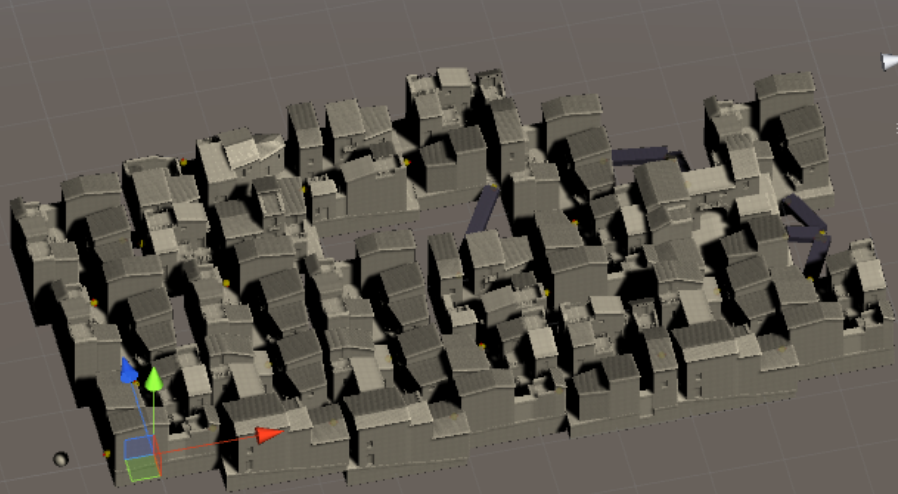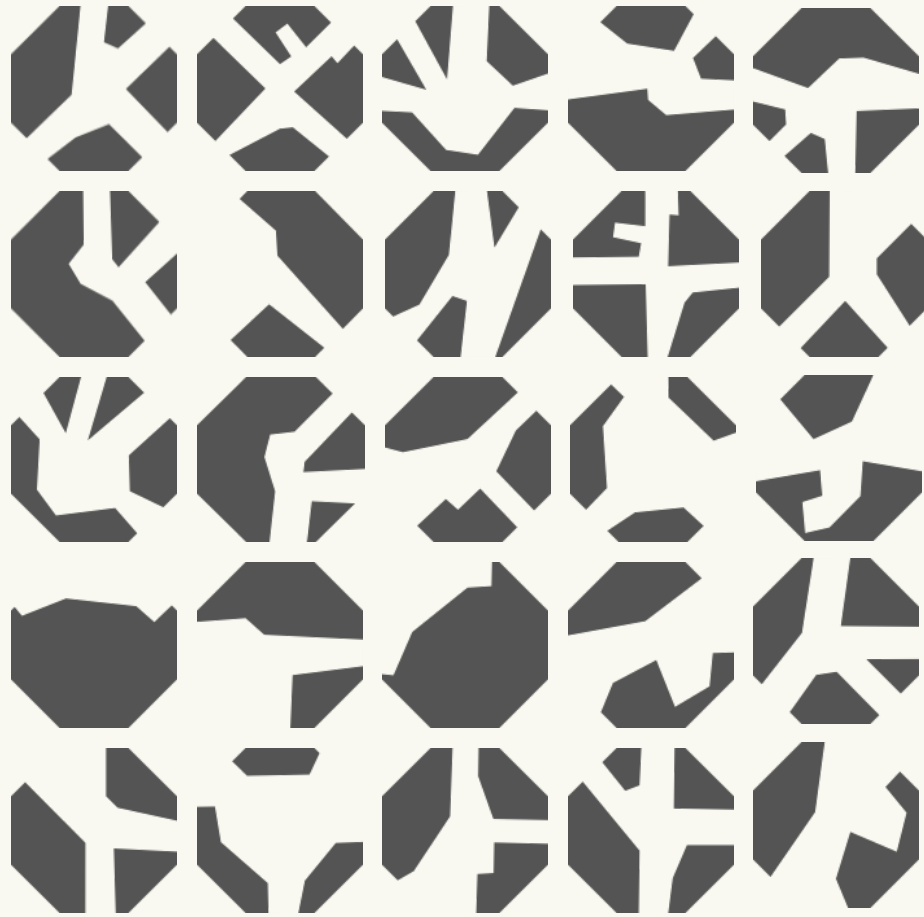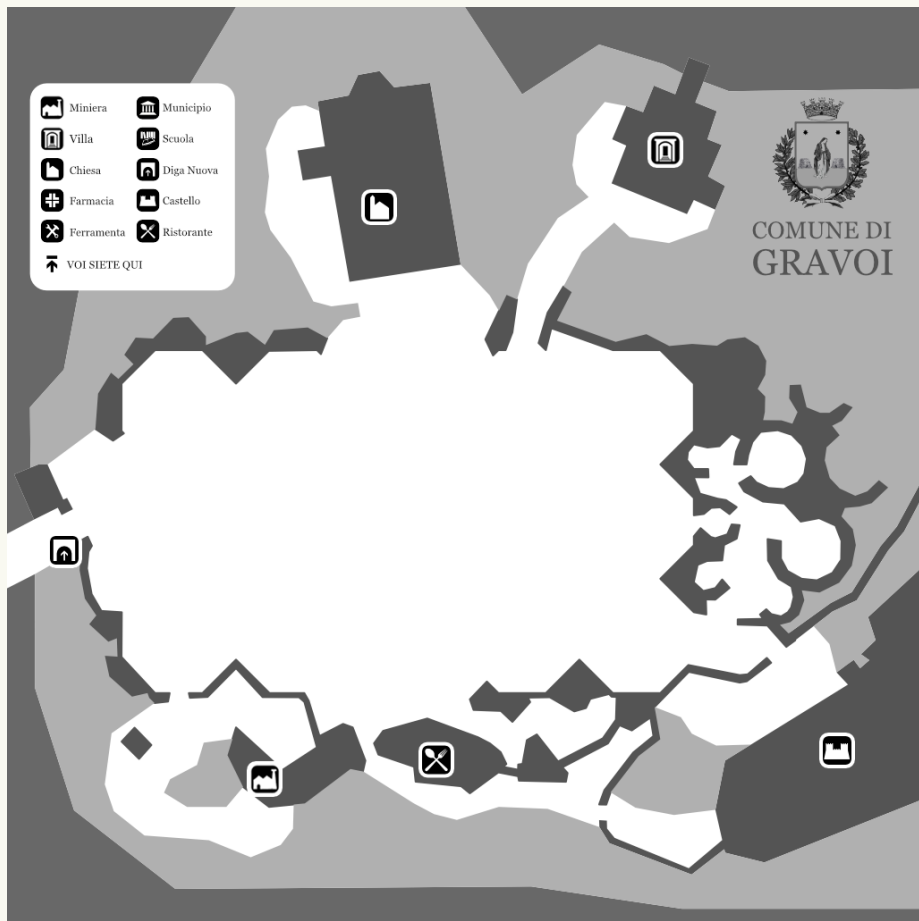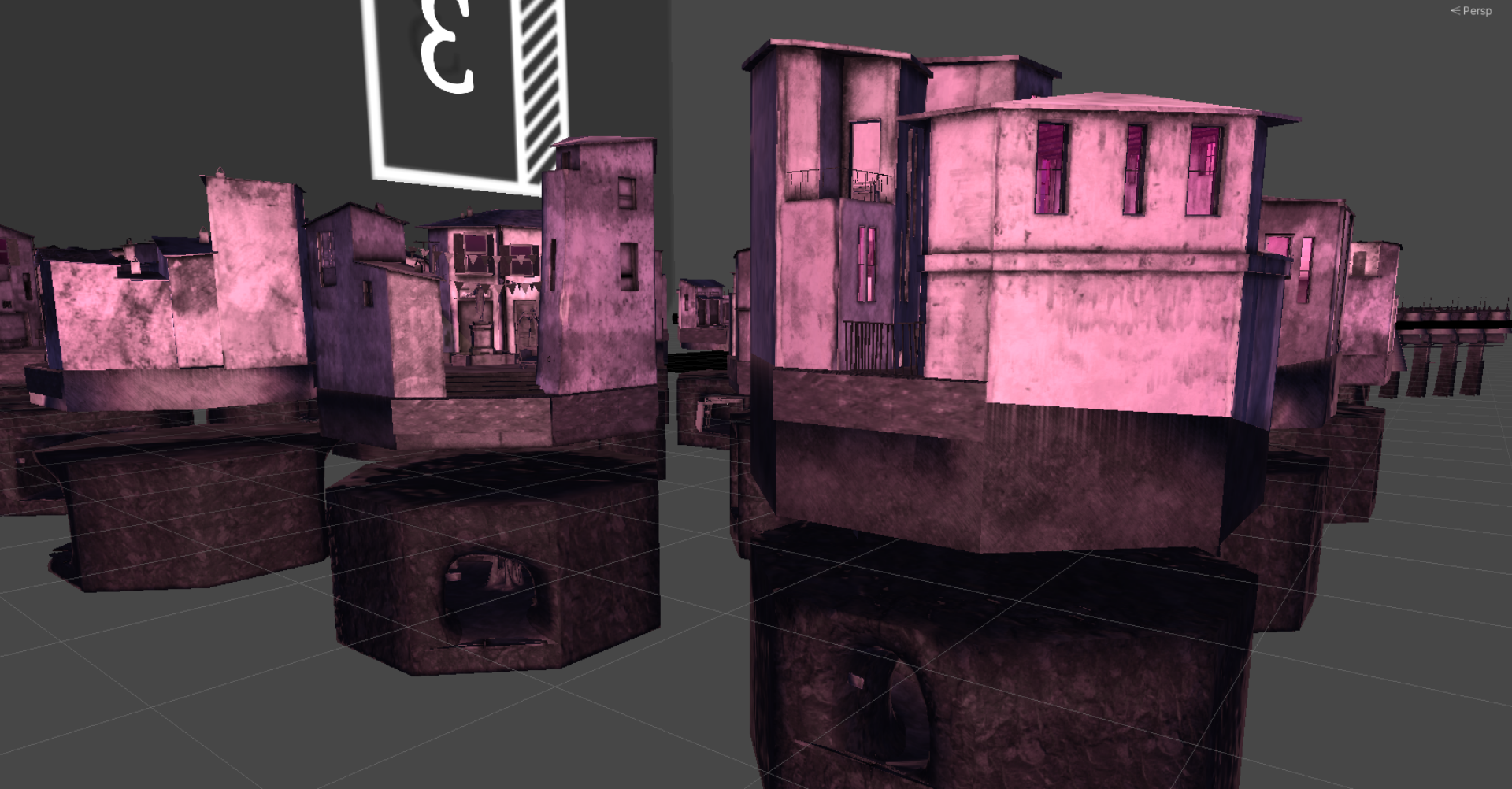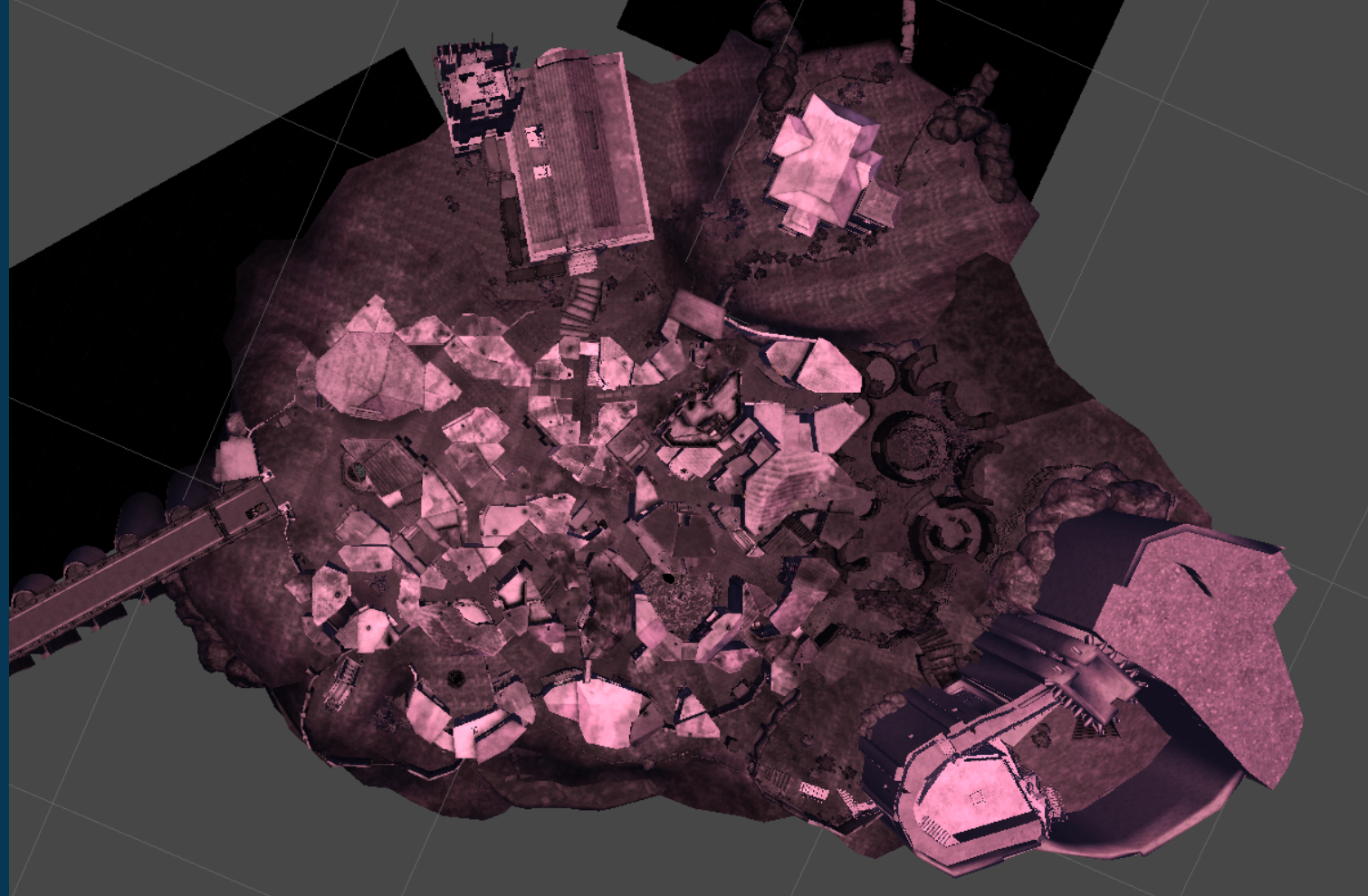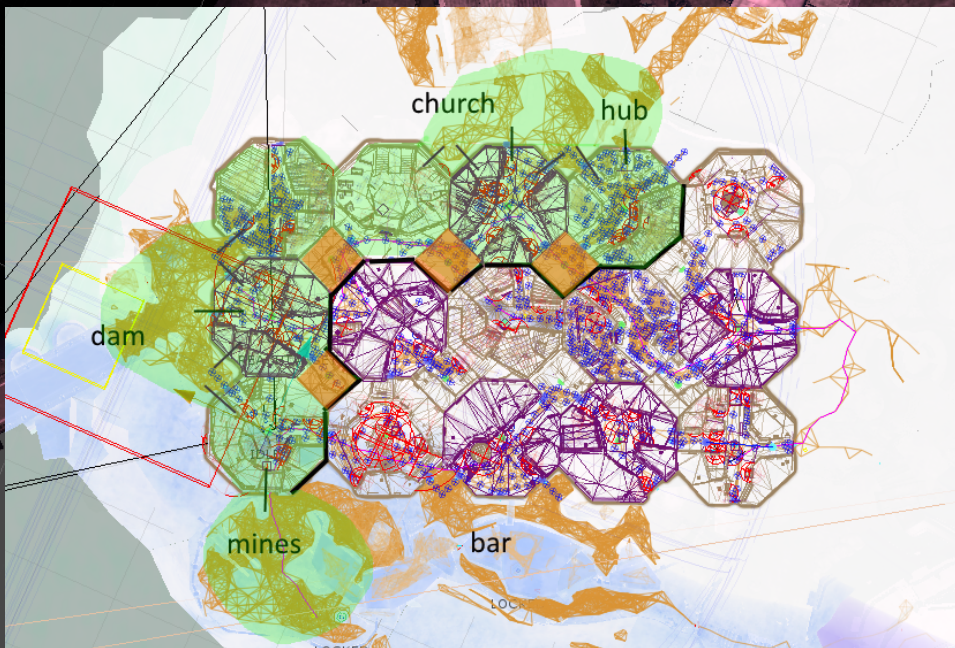
Challenge 2: **Giallo Visuals**

- Based on 70s Italian horror:
- Rendering techniques:
  - Black and white textures
  - Arbitrary palettes mapped on angle of reflection
  - More color via light, particles, and post-processing

GDC
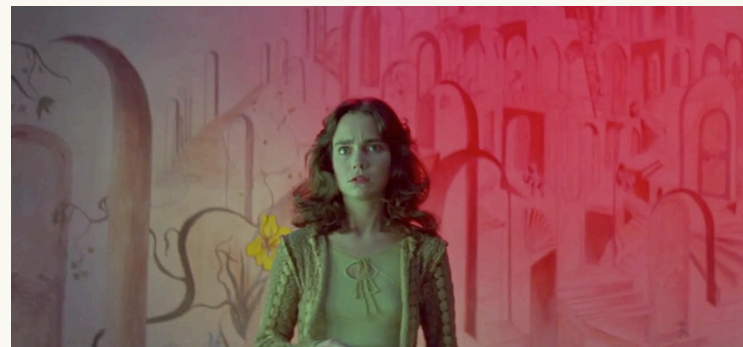
Small Digression: **What is "Giallo"?**
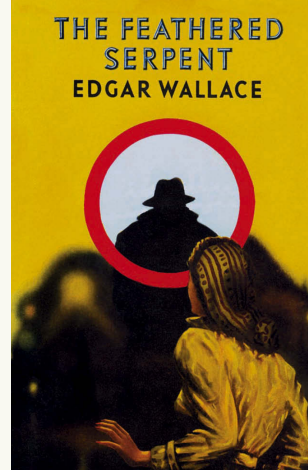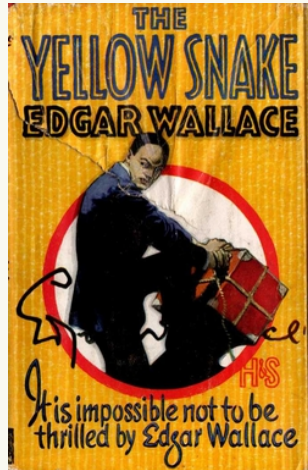
Challenge 3: **Dynamic Narrative**

- **Hannah Nicklin**'s structure for storylines
- **Federico Corbetta Caci**'s story treatments
- Non-linear narrative design technical implications:
    - Dialog alternates for characters / events order
    - Per-storyline clues collection UI

January 2018: **Location Scouting**

- With Fondazione Sardegna Film Commission
- **Seven days on the island** to collect:
  - Audio / Video / Photo / Motion / Interviews

Location CASA DERIU

Location ORANI CASA MANICHEDDA

In game screen

In game screen HUB, MARA'S HOUSE

March 2018: **GDC Pitches**

- Shown: 20-minute first-person mobile/PC demo
- Ask: **$1m** plus marketing, ports, localization
- Promised 8 hours of gameplay with:
  - **5 procedural locations**, 15 puzzles, 10 storylines
  - 4 playable characters with 100s of dynamic lines

GDC

[PROTOTYPE VIDEO 1]

Find matchboxes and use matches sparingly.

[PROTOTYPE VIDEO 2]

Once the monster sees you, the chase starts.

Rest of 2018: **First** **Course-correct**

After partners' feedback at GDC, we focused on:

1. **Reducing Scope** and Budget

2. Moving to PC / Consoles Target

3. Changing Perspective to **3rd Person**

4. Defining a **New Creature** Design

GDC

1. **Reducing Scope and Budget**

- **$500k total**, $370k ask + $130k we invested
- Defining the minimum viable product:
  - Only 1 creature and 1 procedural area
  - **3-hour playthrough**
  - No voice acting

2. **Moving to PC / Consoles Target**

- Increased asset density, enhanced effects
- More geometry detail for characters (**not props**)
- **Traditional controls** complexity for gamers
- Everything-is-interactive paradigm

3. **Changing Perspective to 3rd Person**

- Avoiding the **generic indie FPS horror** look
- Camera management in **tight environments**
- Animations and IK for playable characters
- Active NPC framework almost for free
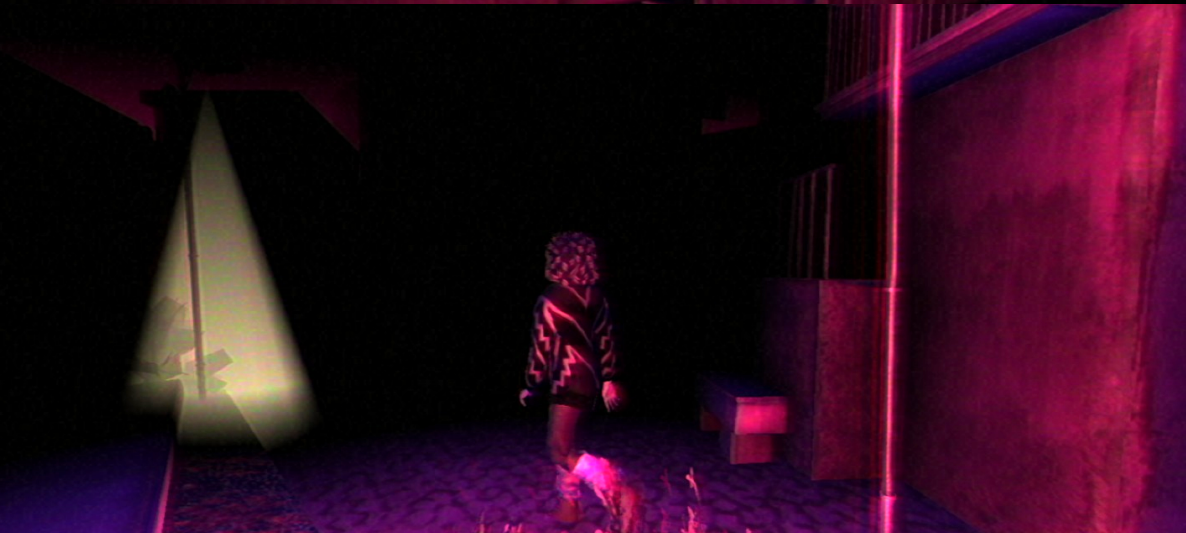
4. Defining a New Creature Design

- Avoid the goofiness of the original design
- Choose **humanoid design** for NPC compatibility
- Apply the uncanny valley twitchy animation trope
- Design **an original mask** as the game's icon

GDC

2019: **Additional Changes**

After feedback from over 50 publishers, we decided on:

1. Rewriting **Converging Storylines**

2. Applying a **New Rendering** Style

3. Designing a "**Recollection**" Map

4. Pacing **Creature Encounters** Dynamically

1. **Rewriting Converging Storylines**

- Characters merge, halving their number
- Places, events, items relevant to more characters
- Use of a **linear scenario play** of a non-linear game:
  - Simulating how characters and players learn info
  - Highlighting illogical progression steps

2. **Applying a New Rendering Style**

- Faux-rotoscope animation style
- Screen-space + mesh material **etching effect**
- Faking high resolution textures with noise
- Fake volumetric fog to read depth
- Asset additions based on **3 pillars: horror, Italy, 80s**

Small Digression: **Twitter Epiphany**

Mike Ferraro
@MFerrar0

Trying out some ideas for making realtime toon shading more convincing.
Variable framerate, noise, halftoning, flat lighting model...
High res 60fps on youtube: youtu.be/xmS5aQEA1Xw #madewithunity
#gamedev
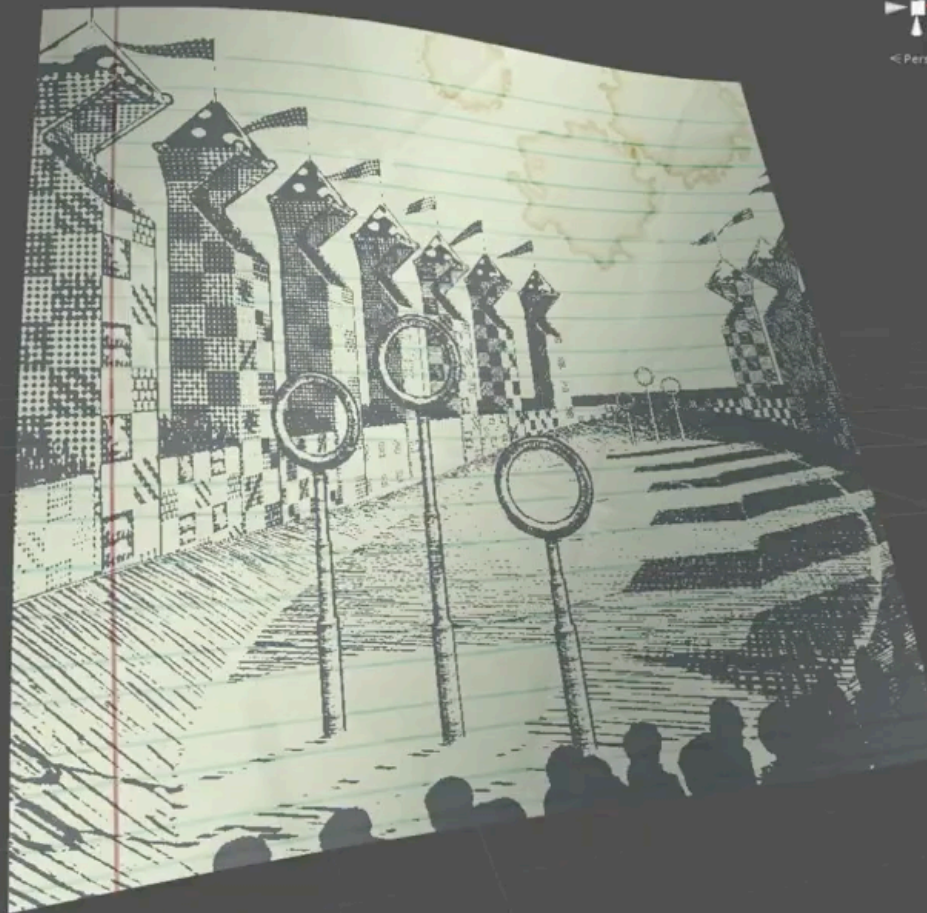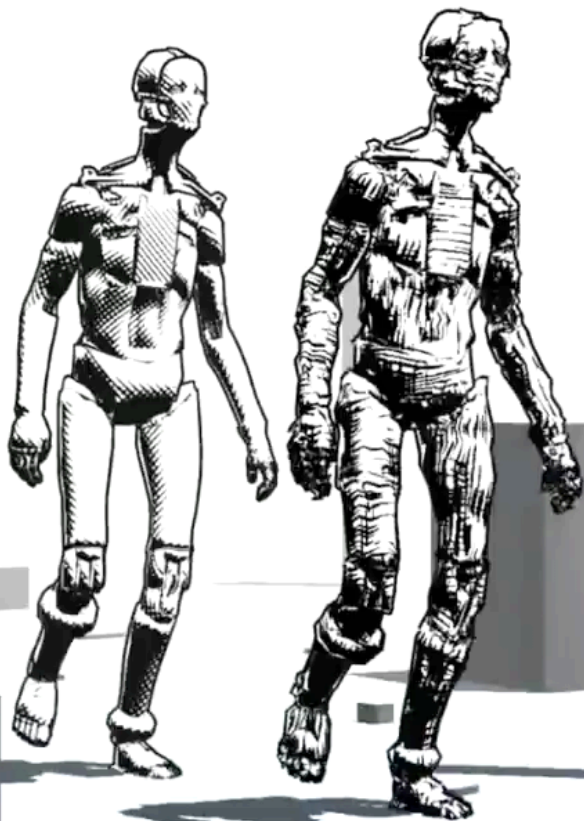
3. **Designing a "Recollection" Map**

- Interconnected nodes map, incorporating:
  - **Locations** (rooms, buildings, POIs)
  - **Inventory** (tools, key items, consumables)
  - **Clues** (documents, 3D props, photographables)
  - **Characters** (playable, NPCs, mentioned)

3. Designing a "Recollection" Map
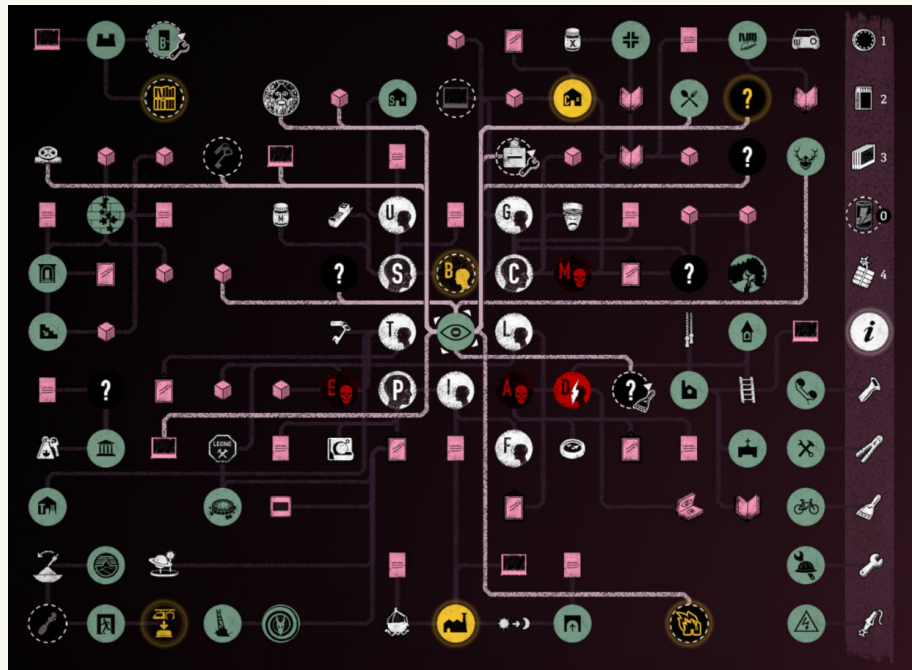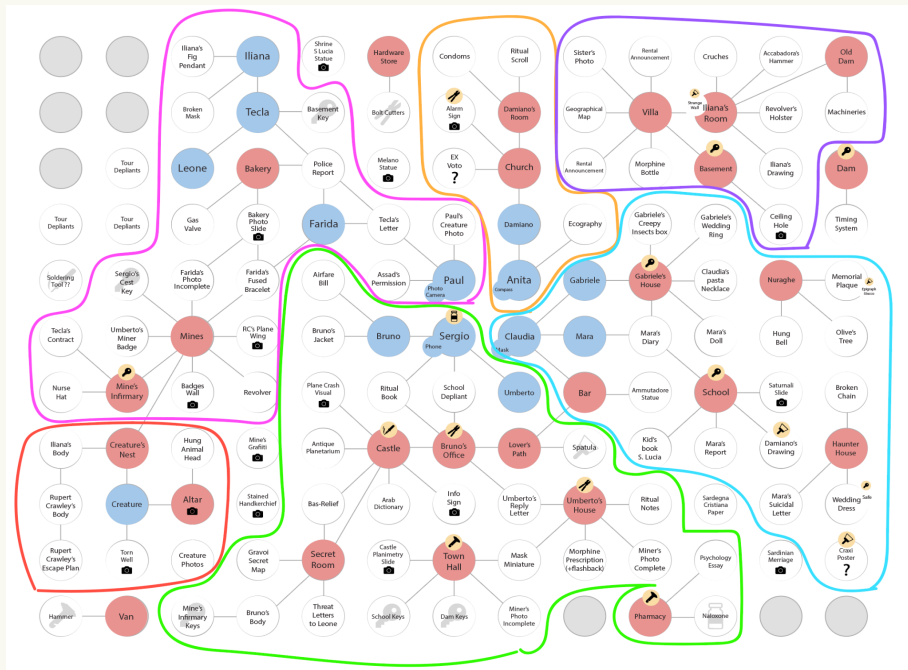
4. **Pacing Creature Encounters Dynamically**

- States with unique abilities and sets of parameters
  - Passive, **non-aggressive encounters**
  - Running, screaming, crawling variants
  - More audio-visual feedback to strategize
- Changes **based on player status** and story progress

[ANNOUNCEMENT TRAILER VIDEO]

SATURNALIA

First half of 2020: **A lot Happening All at Once**

- **Epic Games Store** exclusive deal
- Receiving **four publisher offers**
- Pandemic starts!
- Team's **burnout sets in...**

Second Half of 2020: **Extended Playtests**

- Alpha game playable start to finish
- **Firsts tests** outside of team and friends
- Feedback:
    - Orienteering is too **difficult**
    - Objectives are too **unclear**

First Half of 2021: **The Final Overhaul**

Based on playtesters' feedback, we:

1. Reworked **Navigation Aids**

2. Added **Mission Threads**

3. Wrote Characters' **Flashbacks**

GDC

1. **Reworked Navigation Aids**

- Interactive maps:
  - Route memorization and pointing feature
  - Companion NPCs **walking to destination**
- New character ability:
  - Remembering POI's and how to reach them
  - Realtime map of the mines

~ Select destination ~

You
Church
Villa
Mines Entrance

Miniera Municipio
Villa Scuola
Chiesa Diga Nuova
Farmacia Castello
Ferramenta Ristorante

VOI SIETE QUI

COMUNE DI
GRAVOI

9+

2. **Mission Threads**

- Long term objectives, e.g. "In search of Paul's family"
  - Separating missions into narrative tracks
  - Reviewing mission sequences
- Additional **mission details** to guide players
  - E.g. "Searching the villa would be a good start."

The Flowchart

- All missions
- All interactions
- All events
- All combinations

LEGEND

An Example Mission Forty Characters Long

FLASHBACK MISSION

OTHER MISSION

Action / Event

Mission that is not unlocked by next action

Chases Mission

Missions in color indicate which character's position it swings to

Actions / Events in color indicate which character can perform it

Release Change based on character main objective

MAJOR EVENT

GDC Game Begins

Meet Damiano at mass

Try to open church door — Enter Villa

Go to the villa and start painting

Interact with suitcase

Find the compass in Paul's room

Pick up Paul's note

NE: Night Exploration Starts

Find Paul near the mines

Pick up Anita's compass

Search the church for Damiano

Try the flower door

Creature Starts

RR: Festival Banners Removed

Re-enter church

Find another access to the restrooms

Interact with scaffolding chain

Own bolt cutter?

Own Electrically channel to the mines?

Enter from Restrooms Window

Reunite Anita with Damiano

Meet Damiano with Anita

Escape with Damiano

Survive Creature Attack

Not Captured by creature

Get revenge on Damiano

Tell bells to attract creature

GO: Damiano Dead

Go to Mines Electrical Room — Pick Up Soldering Iron — FIN: Find a Soldering Iron

Go to Mine Workshop — Pick Small Wrench — FNN: Find a Small Wrench

Go to Hardware Store — Pick Up Bolt Cutter — FNC: Find a Bolt Cutter

Go to Lover's Lane — Pick Up Spatula — FNN: Find a Drywall Spatula

Go to Street Corner — Pick Up Hammer — FNN: Find an Emergency Hammer

---

Get Captured by Creature — Find out what happened to Paul — See Paul on Altar — Free Paul from the Altar — Interact with Altar's chains — Own bolt cutter? — FNC

Get Captured by Creature — Find out what happened to Sergio — See Sergio on Altar — Free Sergio from the Altar — Interact with Altar's chains — Own bolt cutter? — FNC

Get Captured by Creature — Find out what happened to Claudia — See Claudia on Altar — Free Claudia from the Altar — Interact with Altar's chains — Own bolt cutter? — FNC

Get any 3 characters captured

Additional Creature

Creature Starts Swarming

Creature Starts Hunting

Pick up Tool Rental Flyer

Can Call Tools

Creature Starts Screaming

Play for two hours without game over

Villagers Start Calling Creature

Pick up Firecrackers

Use Firecrackers on Bonfire while followed by creature

Creature Starts Growling

Meet Tecla

Answer phone in Villa

Call Tecla

Close Eyes Unlocked

Survive creature attack

Meet Paul at the mines

SIGNS Meet Paul at the villa

Speak to Paul

Find out what happened to Anita

Find Anita on Altar

Free Anita from the Altar

Interact with Altar's chains

Own bolt cutter? — FNC

UF: Unlocked Paul

Panic in the mines darkness

Turn on the lights in the Mines

[SIGNS] Turn on the lights in the Mines

Look at Sergio sleeping in the villa

Already encountered creature?

Reveal Sleeping Under Sergio

Own Naloxone?

Give naloxone to Sergio

Get Sergio Naloxone from a Pharmacy

Wake up Sergio with Naloxone

Clean out Sergio's old stuff

Find where to chill in the basement

Find out what happened to Bruno

Find Satellite Phone to call Bruno

Own Sergio satellite phone?

Find a place with good reception

Call Bruno from the balcony

Give morphine to Sergio's father

Give morphine to Umberto

Go to the Villa to chill...

Interact with Sergio home door

GO: Unlocked Sergio

Find the Ritual Book in the Castle

Interact with pharmacy door

Own emergency Interact? — FNN

Pick up naloxone from pharmacy

Found ritual book in the castle library

Discover the Creature's origins

Find information on Paul's parents

Collect Residency Permit

Search Mines for Old User's Traces

Try to leave town hall

Check out what's happening outside

Take a photo of the parade

Find Geertha's resignation letter in the mines

Speak to Umberto, Sergio's father

Talk to Umberto

Bruno note found?

Find Umberto's mine locker

Interact with Bruno office door

Own email wrench? — FDN

Found Umberto letter in Bruno's office

Bruno note found?

NOTHING HAPPENS

Ask Umberto about the Package

Open Umberto's Locker

Find Bruno note

Find Miniature Mask

Find the Castle's Secret Chamber

Searches all the dry interaction places

Find the Castle's Planimetry

Search Slate locker

Looking for castle planimetry?

Pick Up castle planimetry slide

Find Slides Projector

Look at Projected castle planimetry

Try Town Hall Boundary Door

Own Emergency Hammer?

Search Lost and Found — NOTHING HAPPENS

Read Dam Note? — NOTHING HAPPENS

Read the note on dam shed door

Pick Up Dam Keys

Search Town Hall for the Dam's Key

Open the Dam's electricity

Interact with dam shed, system inside

Look at hole in ceiling in Villa basement

Investigate the Villa's Secret Room

Interact Anita Room fake wall

Own spatula? — FDN

Enter Villa Secret room

GO: Access to the Old Dam

Find the Ritual Book inside the Villa

Find Leone's badge on the tent wall

Found the meaning of barn on the Garter Dictionary?

Found Farida's Phone in Leone's Locker?

Open Lover's Locker

Find Farida Photo

Search Leone's Mixed Locker

NOTHING HAPPENS

Found Projected Paul's Family Slide?

Found Leone mines badge?

Found Tweet Intruder AND Projected Paul's Family Slide?

Interact with control panel outside in ruin

Dam Electricity diverted to the mines?

Enter bar's back

Light a match in the bar's back

Access Lover's Lane

Interact with Tourist Door

Find a Token Coin

Find a coin

Own Coin?

Interact with castle secondary door

Try to open castle main gate

Own bolt cutter? — FNC

Find a different way to the Castle

Open secondary castle door

GO: Enter Castle

Interact with nuraghe well mechanism

Own small wrench? — FNN

Drain water from Nuraghe Well

Clear water in Nuraghe Well

Walk all the way down the nuraghe well

Light a match at the bottom of the well

Interact with object below water

Water is down?

Pick up marker

Own revolver holster and Tecla nurse document?

Recognized Bruno's Body?

NOTHING HAPPENS

Find Rupert Revolver holster

Find the Revolver's owner

Find to Due that killed Bruno

Pick up mine infirmary keys

Inspect the Mine's Infirmary

Find Tecla nurse document

Own revolver holster and marker?

Ask Tecla about Bruno's death

Talk to Tecla about Bruno death

Seek proof of Tecla's involvement

Find Claudia inside the Bar

Find Paul near the mines

Pick up Anita's compass

Search the church for Damiano

Try the tower door

Own bolt cutter?

Own bolt cutter?

Own bolt cutter?

FBC

FBC

FBC

Pick up Tecla Rental Flyer

Villagers Start Calling Creature

Pick up Morphine

Pick up Sergio's phone

Find out what happened to Bruno

Own Sergio satellite phone?

no

Find Satellite Phone to call Bruno

UC

UP

Creature Starts Hunting

Can Call Tecla

Find a place with good reception

Call Bruno from the balcony

Give morphine to Sergio's father

GS

Pick up Firecrackers

Use firecrackers on Bonfire while followed by creature

Creature Starts Growing

TH

Meet Tecla

Answer phone in Villa

Call Tecla

Close Eyes Unlocked

Creature Starts

ISR: Festival Barriers Removed

Re-enter church

Find another access to the instruments

Survive creature attack

Meet Paul in the mines
[DEMO] Meet Paul at the villa

Give morphine to Umberto

Go to the Villa to chill...

Interact with Sergio house door

UB: Unlocked Sergio

Find the Ritual Book in the Castle

Found ritual book in the castle library

Discover the Creature's origins

EC

Get Captured by Creature

Speak to Paul

FR

Interact with scaffolding chain

Own bolt cutter?

no

FBC

Own Electricity diverted to the mines?

no

Scaffolding Alarm Goes Off

yes

Enter from Metroneum Window

Survive creature attack

Reunite Anita with Damiano

Meet Damiano with Anita

Escape with Damiano

Get Captured by creature

Get revenge on Damiano

Toll bells to attract creature

DD: Damiano Dead

Find out what happened to Anita

Find Anita on Altar

Free Anita from the Altar

Interact with Altar's chains

Own bolt cutter?

FBC

Find information on Paula's parents

Collect Residency Permit

Search Mines for Mr Dorn's mines

Try to leave town hall

Check out what's happening outside

Take a photo of the parade

Find town/Manual resignation letter in the mines

Speak to Umberto, Sergio's father

Turn on the lights in the Mines
[DEMO] Turn on the lights in the Mines

UP: Unlocked Paul

Panic in the mines darkness

Interact with Bruno office door

Own small wrench?

FSW

Found Umberto letter in Bruno's office

Bruno note found?

NOTHING HAPPENS

no

Ask Umberto about the Package

Talk to Umberto

Bruno note found?

yes

NOTHING HAPPENS

Find Umberto's mine locker

AA

Find Leone's Badge on the town wall

Found the meaning of item on the Gerber Dictionary?

yes

no

Found Paula's Photo in Leone's Locker?

yes

UP

Open Leone's Locker

ISR

Try Town Hall Secondary Door

FDH

Own Emergency Hammer?

yes

Search Lost and Found

UP

Open Umberto's Locker

Find Bruno note

Find Miniature Mask

Find the Castle's Secret Chamber

Searches all library interaction places.

Find the Castle's Planimetry

Search Slide holder

Looking for castle

NOTHING HAPPENS

Collect Residency Permit

Search Mines for Idir Izem's traces

Try to leave town hall

Check out what's happening outside

Take a photo of the parade

Find Izem/Assad resignation letter in the mines

Speak to Umberto, Sergio's father

Own small wrench?

no → FSW

yes

Found Umberto letter in Bruno's office

Bruno note found?

yes → NOTHING HAPPENS

no

Ask Umberto about the Package

Talk to Umberto

3. **Character's Flashbacks**

- Showing normalcy to highlight horror
- Giving players:
  - Context to **characters' motivations**
  - Tutorials to characters' abilities
  - A break!

Second Half of 2021: **Self Publishing**

- Buying back publishing rights

- Getting platform support

- Finding a new porting studio

- Hiring translators and a PR agency

GDC

Halloween 2022: **First Launch**

- 9-hour game, 5 Platforms, 5 Languages, 35k words
- 7m downloads / 7k players on EGS
- 2k copies in the first month on console
- Wonderful reviews
- Tepid reactions from content creators

2023: **Steam Launch**

- New features: first person mode and photo mode
- Multiple Steam festivals participation
- 13k wishlists at launch
- Less than 1k copies in the first month

GDC

Today: **Takeaways**

1. Innovate in one field at a time

2. Budget for experimentation

3. Use friends' money at your own risk

1: **Innovate in one field at a time**

- Limit novelty to graphics, setting, OR gameplay.
- Worry about missing clear communicable hooks
- Retain genre-specific traits for recognizability

2: **Budget for experimentation**

- Subversive design cost grows exponentially
- Fallback solutions should not compromise concept
- Extending development time risks irrelevance

3: **Use friends' money at your own risk**

- Evaluate the impact of your sense of guilt
- Preserve the ability to make painful decisions
- Calculate the cost of design direction compromises

TODO: Closing Remarks, end on a positive note!

GDC

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Threads   @santaragionegames

Thank you!