GDC

Gorogoa:
The Design of a Cosmic Acrostic

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UBM

Who is Jason Roberts?

- Non-entertainment software engineer until 2012

- Spare-time artist

- A couple of unfinished text games in the 90s

- Released Gorogoa in December 2017

Why did it take so long?

- You can't skip the learning process

- Sound conventional wisdom: start simple

- Gorogoa is *not* a counterexample

- Inexperience added years to the project

- Threw out a lot of prematurely-polished work

- Some lessons only come from finished games

2012 demo

- I released a demo of the game pretty early on, back in 2012
- I made that demo partly by instinct
- Looked like more of a complete vision than it was
- I wound up with scenes / imagery that were not motivated narratively or thematically
- Took me years to figure how to build out the story

Theme!

- Adapting story and theme to mechanics and form
- Even if it should be the other way around

Hazy origins

- Tried to write a comic
- Stalled after about ten pages
- The story had problems, already baked into finished pages
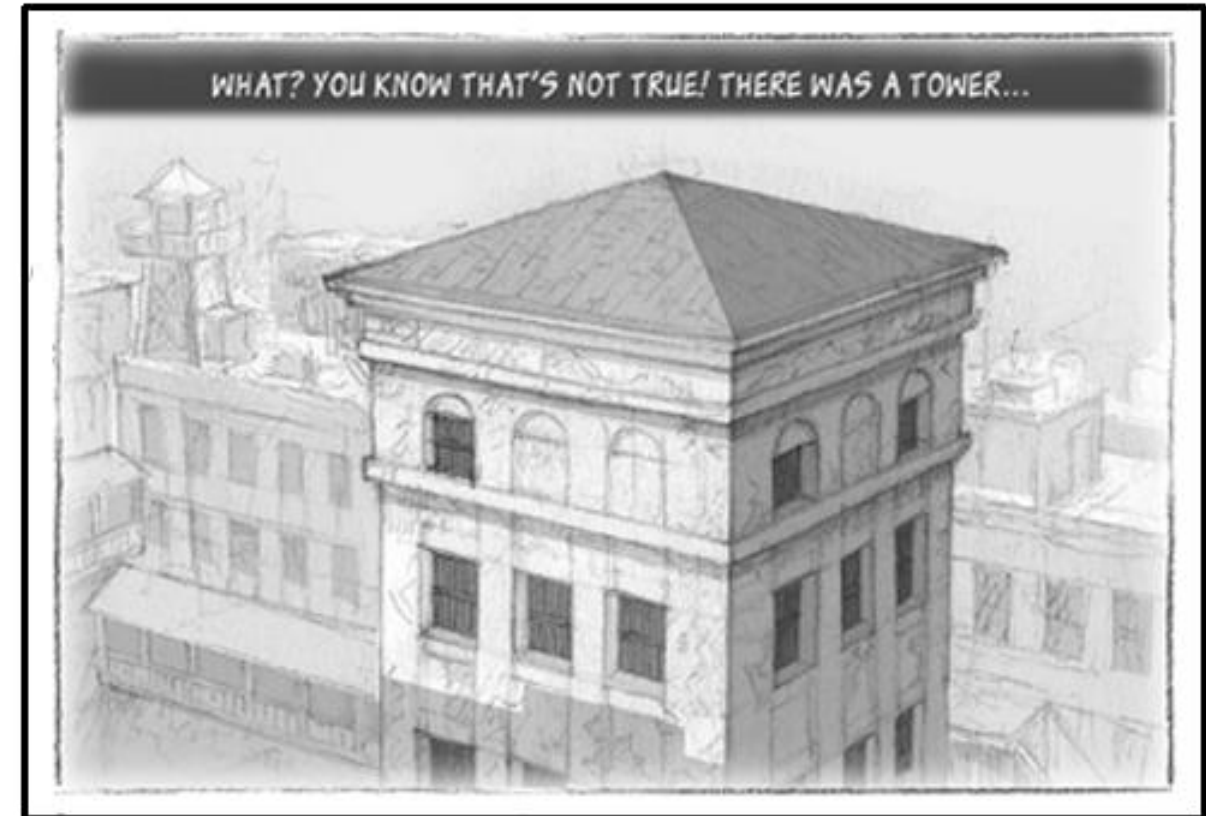- There was a lesson there…

A mosaic of frames

- Composing a page was more interesting than sequential storytelling
- The structure was fascinating…
- I had to do something with it, even if it wasn't a comic
- But why was it so compelling?

The framed image

- Fundamental building block of what Gorogoa would become

WHAT? YOU KNOW THAT'S NOT TRUE! THERE WAS A TOWER...

Forget the frame

- Much of what we consume is inside a frame
- Immersion = forgetting the frame
- Project your mind through the frame
- But there's all that space outside!

The visible frame

- Comics have multiple panels
- Your mind can't disappear inside one panel for long
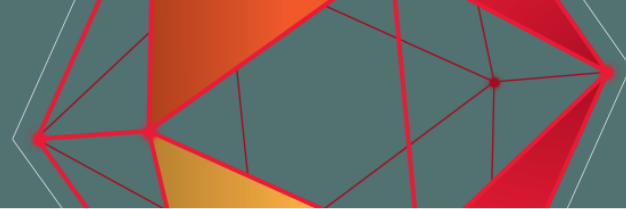- The frames become visible
- That's what got me started on this design path

A single frame

- Decision to leave empty space
- Someone made the frame visible for a reason
- The frame itself is part of the message
- What is that message?

A frame is…poignant

● Sitting in a room looking out the window

●Separated from what you see

●As we shrink the frame, that separation becomes more clear

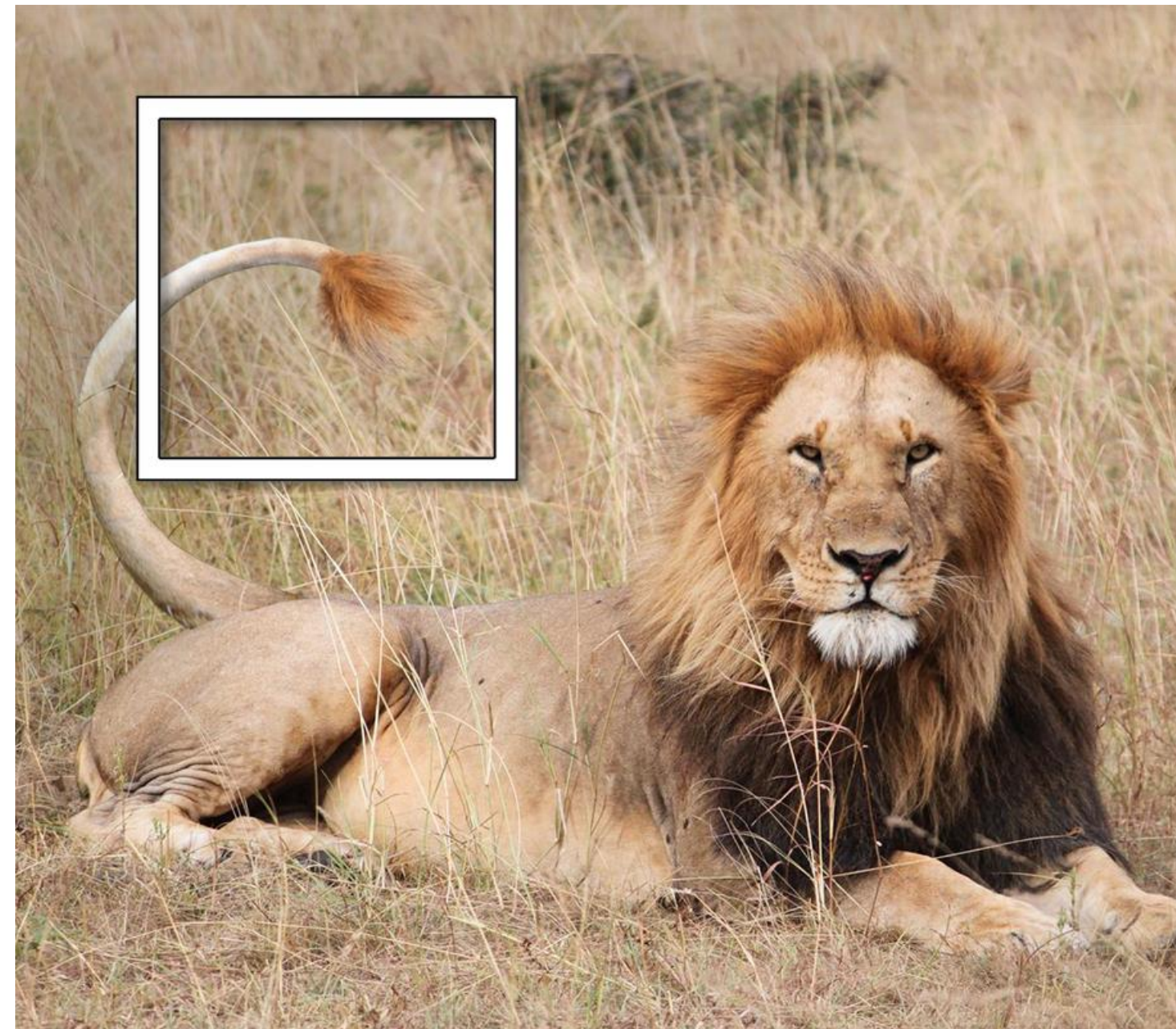●A more wistful, oblique relationship to the subject
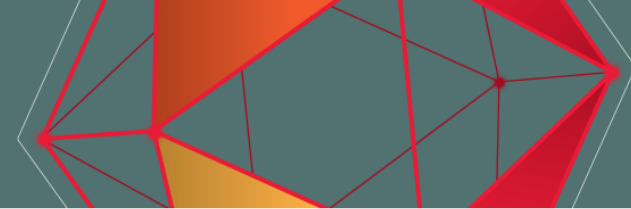
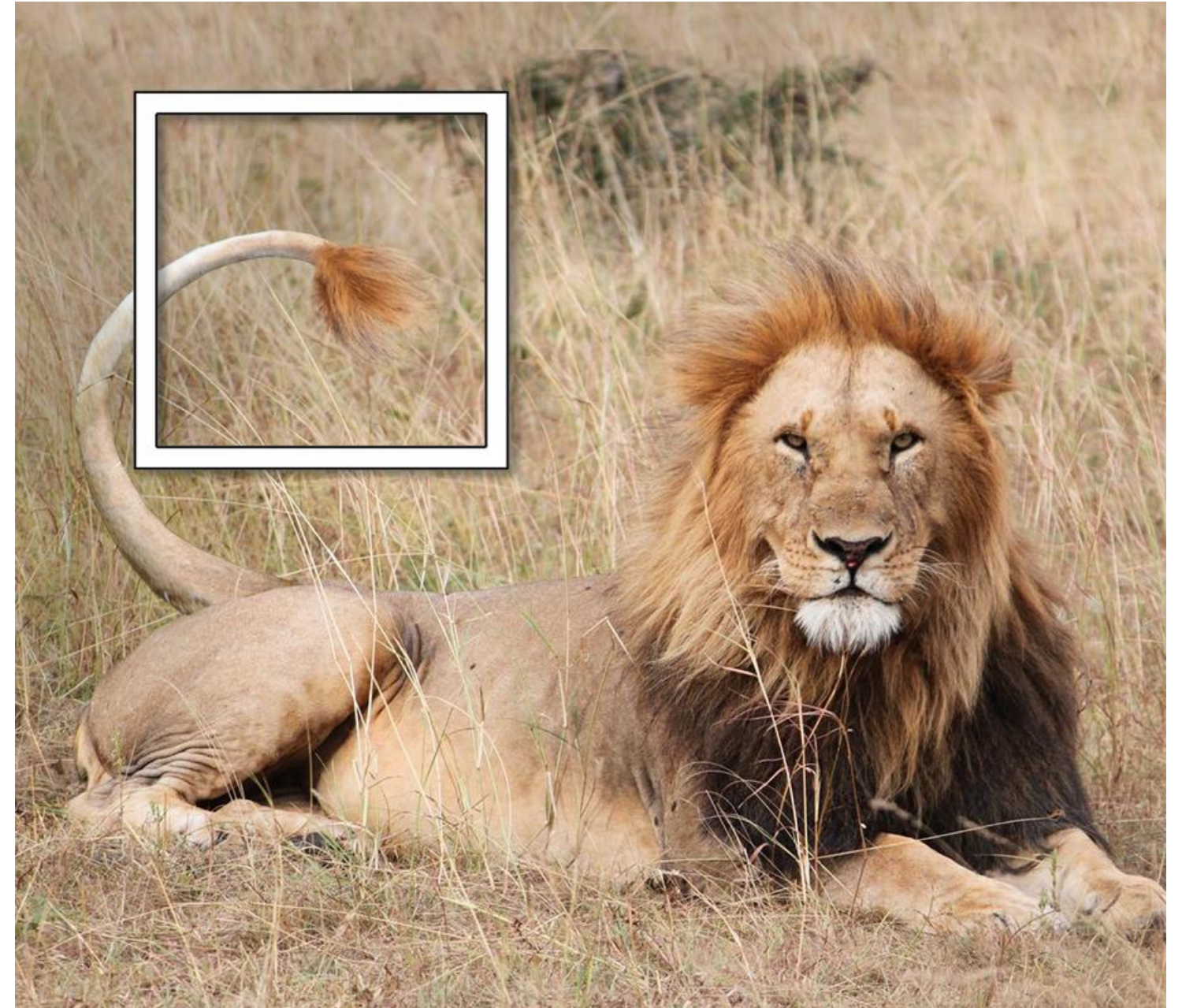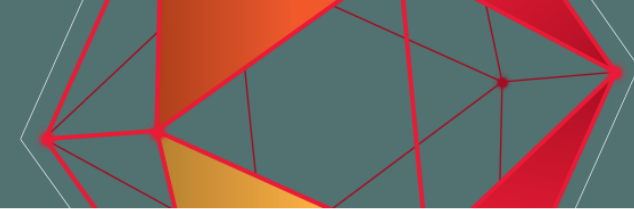# A frame is…a clue

- ???

A frame is…a clue

- Hmmm!

A frame is…a clue

- An intentional message, meant to lead our attention somewhere

- Someone is trying to tell us something important

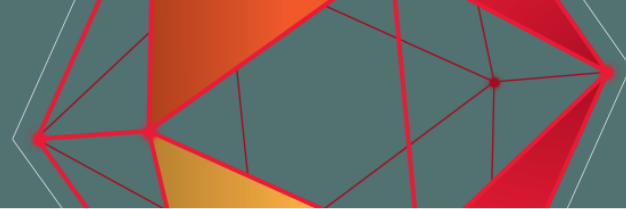- Shrinking the focus concentrates significance

A frame is…curation

- A frame isn't neutral
- It cares what it contains
- It represents a choice about what to include and what to exclude

A frame is…affectionate

- We often see things inside a frame because they are precious
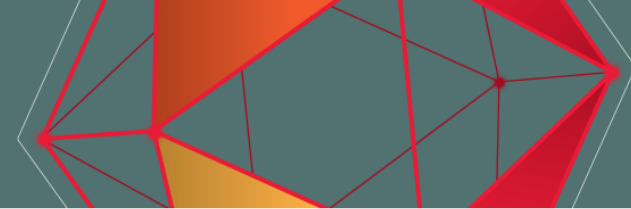- A special box for something treasured
- Like a halo

A frame is…a mystery

- What's beyond the boundaries of what we can see?

- The more visible space outside the frame the more we wonder

- Emphasis on what is hidden as well as what is shown

A frame is…a prison

- Whatever's inside is fenced in
- That creates tension
- If we see a prison, we want to see an escape
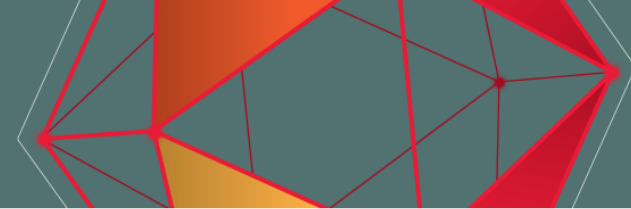- On some level, we want to see the frame broken, transcended

A frame is…

- Poignant
- A clue
- Curation
- Affectionate
- Mysterious
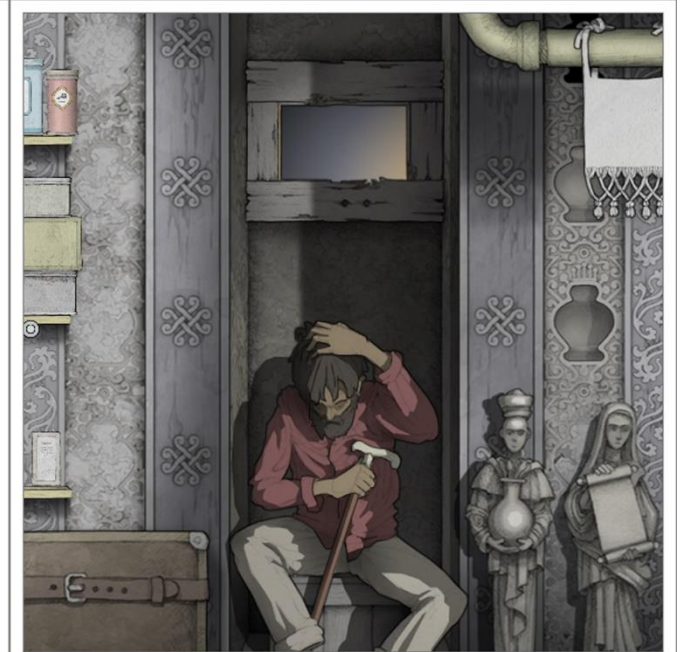- A prison

Now add interactivity!

- Treat the frame like a game window

- Keep it simple: Zoom in on parts of the scene

- All the properties of the frame are transferred to the new focus
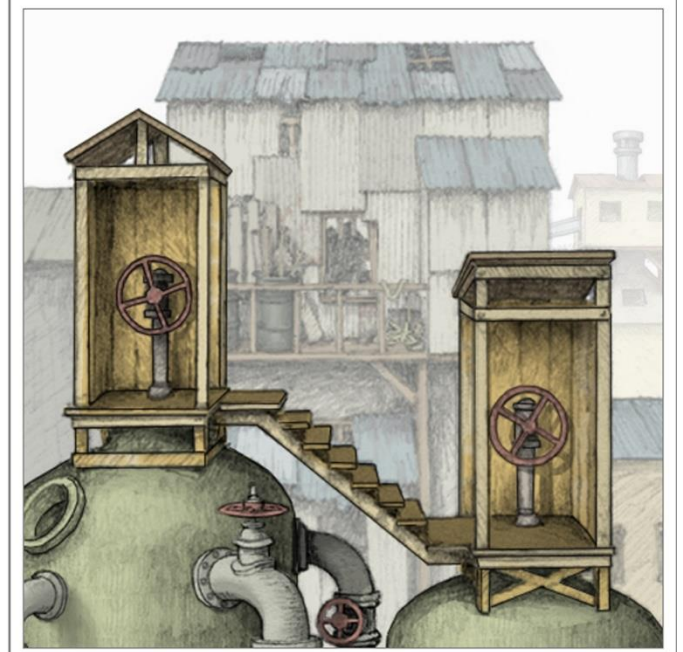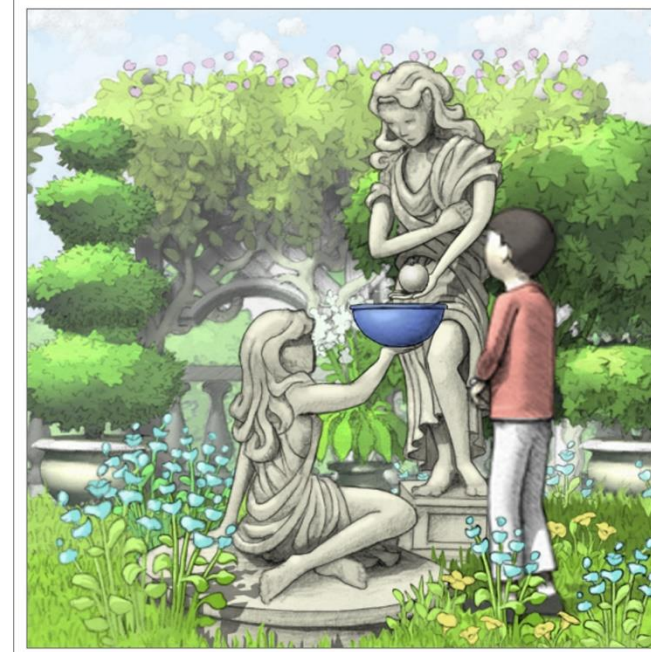
- Looking is a forceful act

Multiple frames

- A whole gallery exhibition.
- Your mind automatically looks for connections

Multiple frames

- A whole gallery exhibition.
- Your mind automatically looks for connections
- By interacting, you're re-curating
- Setting off a whole new mental cascade
- Away from sequential comics

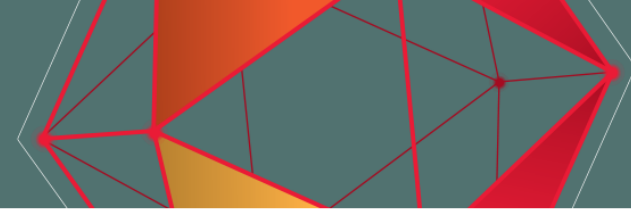# A narrative theme?

- Search for connections…

How do we make this into a game?

- I've got a set of panels, and I can interact with each panel
- Multiple panels make the promise of connections
- We obviously need them to interact with each other somehow

A card game?

- Panels are now decoupled from the comic page structure
- They remind me of cards…
- They can move around! Stack!
- We still want the panels to be interactive
- So how might this work?

Nope, not a card game

- I don't know about card games.
- I don't really know how to make the rules interesting, or fun.
- I don't know how to relate the game to theme or story
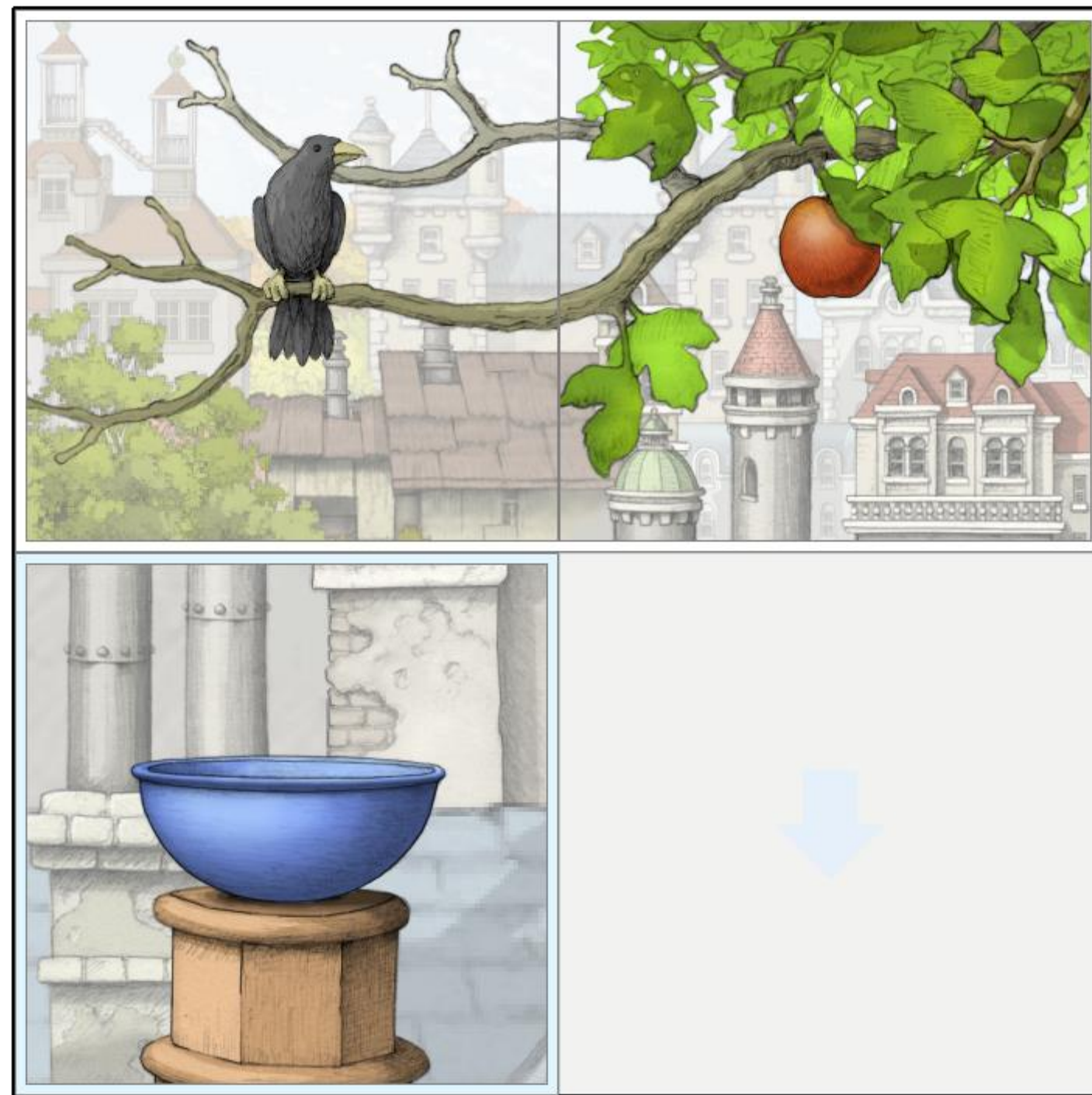- You're just cheating at the game anyway!

How about a card *trick*?

- Keep some of the physicality of cards

- Which makes the interactive scenes inside cards feel magical

- So interactions between tiles should also feel magical

- Dispense with complex game rules

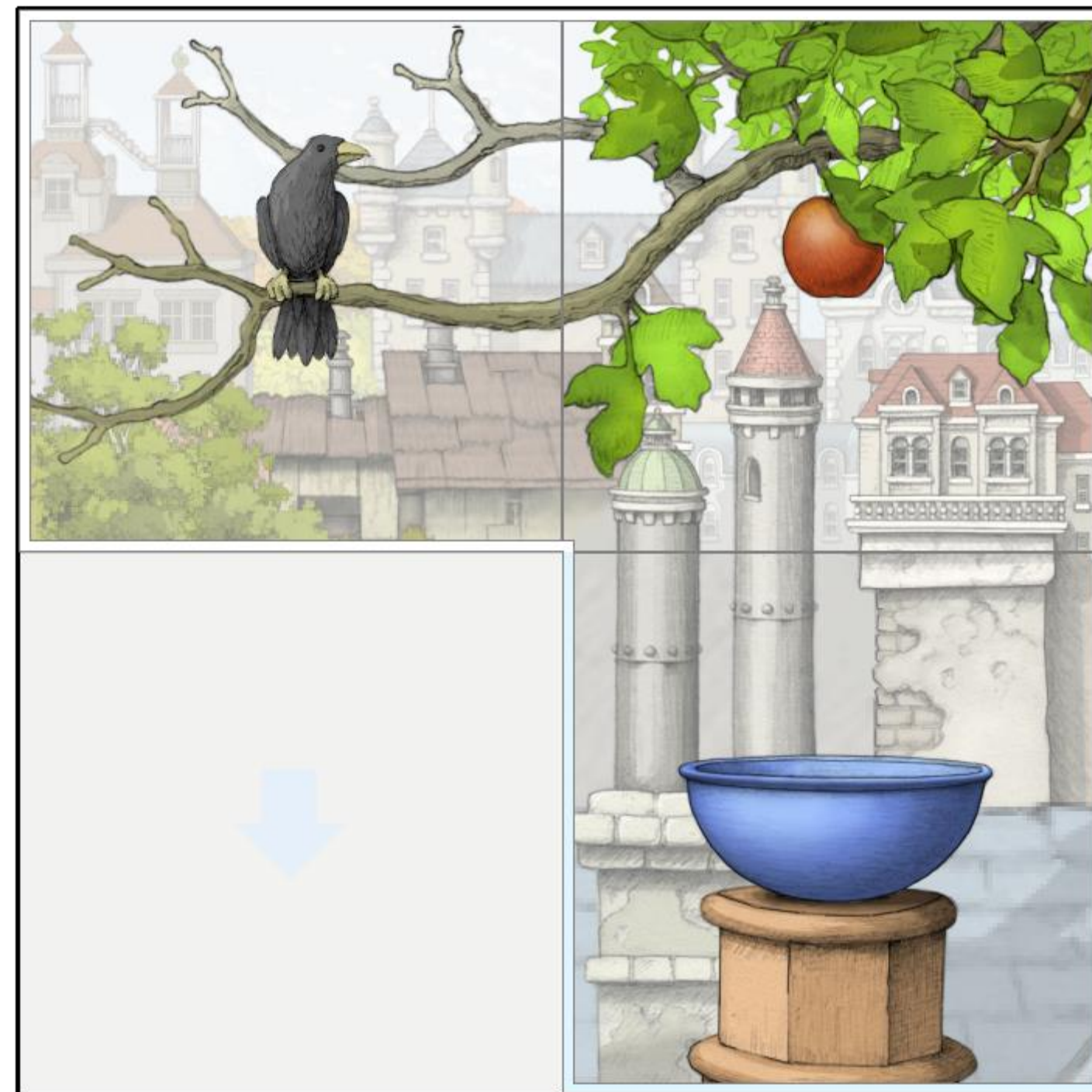- You don't need to know how to play cards to enjoy a trick.
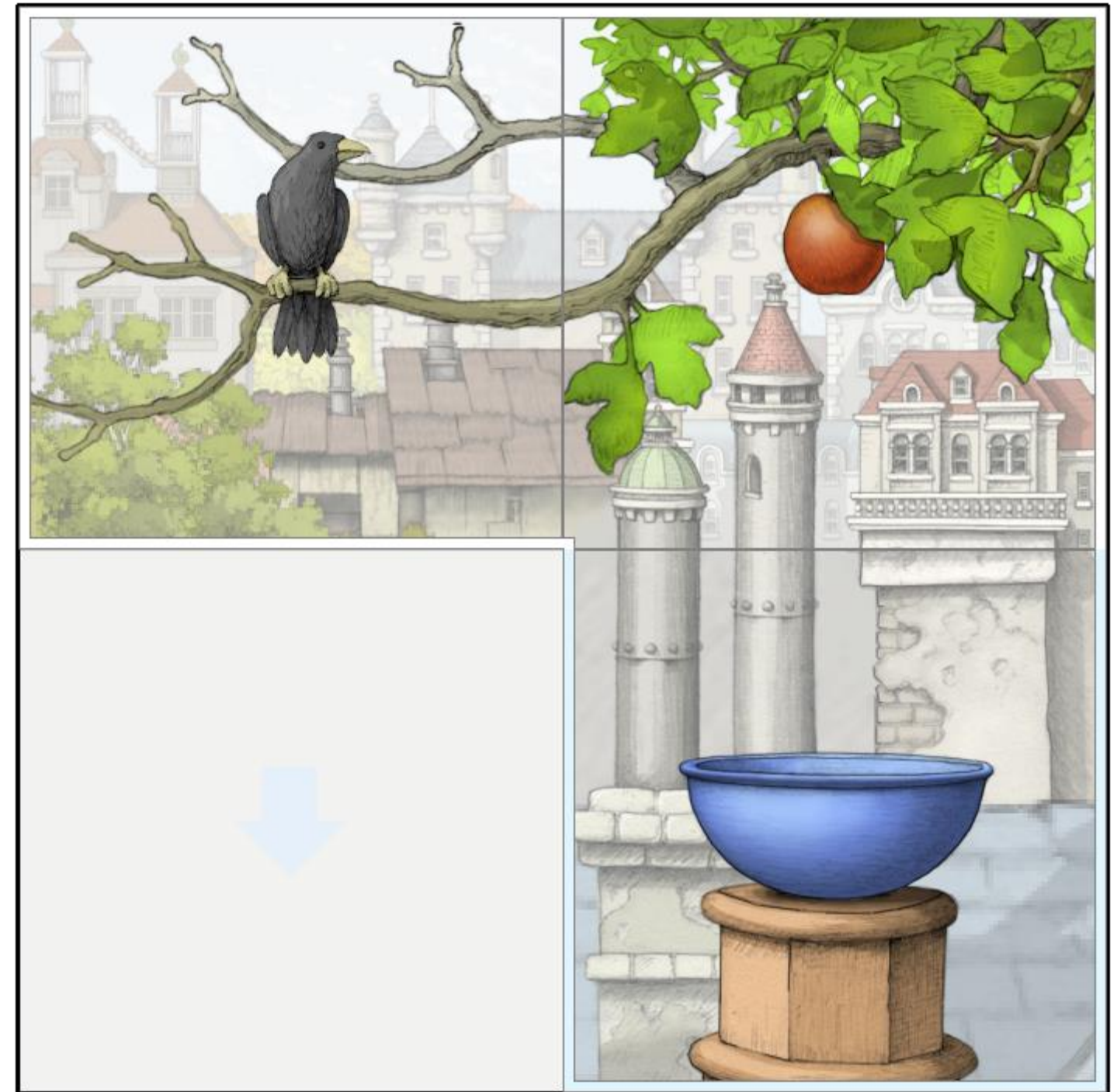
Card trick + jigsaw puzzle?

Card trick + jigsaw puzzle?

Card trick + jigsaw puzzle?

- What if panels connect in the most literal sense possible?

- Add the DNA of a jigsaw puzzle?

- Satisfies the promise of scenes escaping their frames

- Involves illusions that play with subjectivity and perspective!

- Satisfies an age-old fantasy.

Stacking variant

- Same idea, different axis
- Like adding the last piece to the center of a jigsaw puzzle

Why an adventure game?

- Classic adventure game puzzles are often ridiculed
- Needless Rube Goldberg complexity
- Nouns and verbs unclear
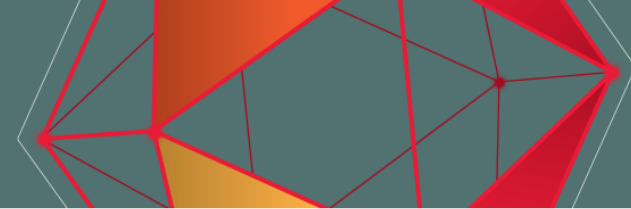- Fetishizing of counter-intuitive uses for objects…

Modern puzzle games

- Separate puzzles more cleanly from the world

- Unambiguous noun/verb set

- Clear and consistent visual language

A core fantasy lost

- Puzzle elements hidden in the world, because that's the point

- Not just about inhabiting a clever character

- It's about inhabiting a world full of **hidden** potential

- Exotic repurposing of ordinary objects elevates the ordinary

- Need to look carefully and closely at everyday things

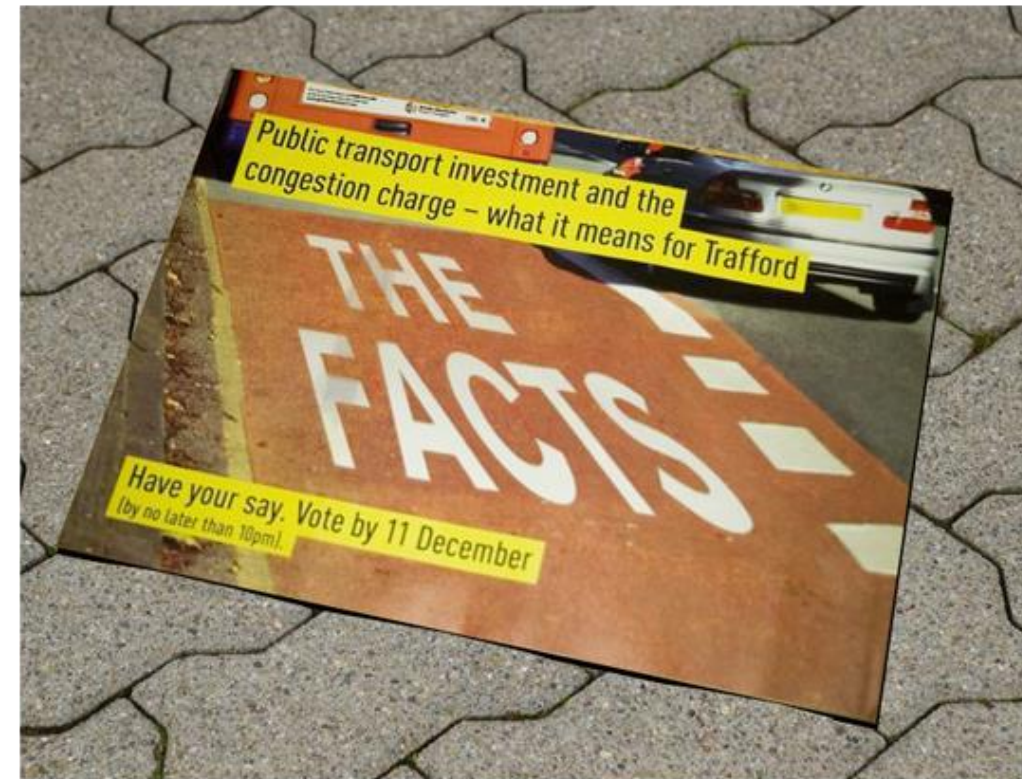- Lost when puzzles are too cleanly set apart from the world

A fantasy about the real world?

- It's something humans have always yearned to believe

- Secret compartments of meaning all around us

- Installed by someone or something invisible and otherworldly

Waking dream full of symbols

Search for hidden meaning

- We can all understand someone might *want* to believe this

- The world is frightening and chaotic

- Compelling notion: Something invisible is speaking to us

- A deep-seated human compulsion to go looking for the hidden language through which the cosmos is guiding us

- Connected to the core fantasy of adventure games?

- Definitely a core theme in Gorogoa

An acrostic

- Acrostic: e.g. a poem where the first letter of each line forms a vertical word
- Often lies hidden, lending mystery

Give me your patience, sister, while I frame
Exact in capitals your golden name;
Or sue the fair Apollo and he will
Rouse from his heavy slumber and instill
Great love in me for thee and Poesy.
Imagine not that greatest mastery
And kingdom over all the Realms of verse,
Nears more to heaven in aught, than when we nurse
And surety give to love and Brotherhood.

Anthropophagi in Othello's mood;
Ulysses storm'd and his enchanted belt
Glow with the Muse, but they are never felt
Unbosom'd so and so eternal made,
Such tender incense in their laurel shade
To all the regent sisters of the Nine
As this poor offering to you, sister mine.

Kind sister! aye, this third name says you are;
Enchanted has it been the Lord knows where;
And may it taste to you like good old wine,
Take you to real happiness and give
Sons, daughters and a home like honied hive.

- John Keats

Acrostic: spiritual metaphor

- Depiction of transcendent meaning
- See only the conventional form, and miss something essential
- Answer lies on an invisible axis
- Rotate your perspective out of the expected dimension
- See a transverse vein of meaning

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Unbosom'd so and so eternal made.

Acrostic: spiritual metaphor

● Humble objects can be intersection point between two dimensions of meaning

● Allows the sacred, if you will, to be accessible through the mundane

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A cosmic acrostic?
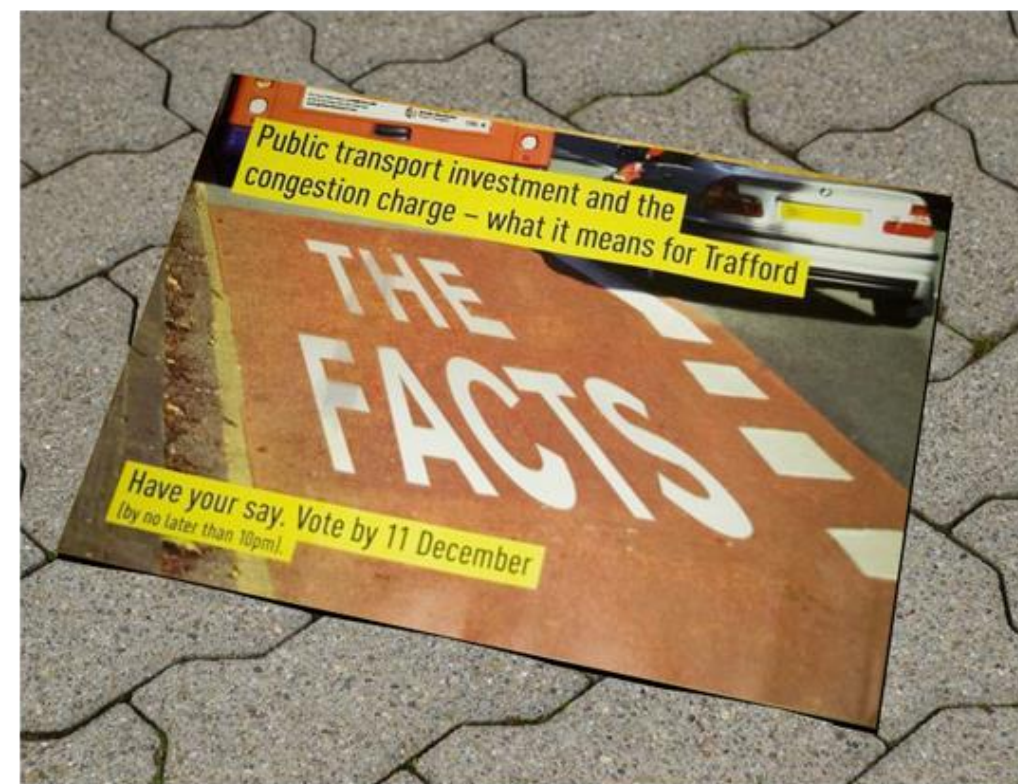
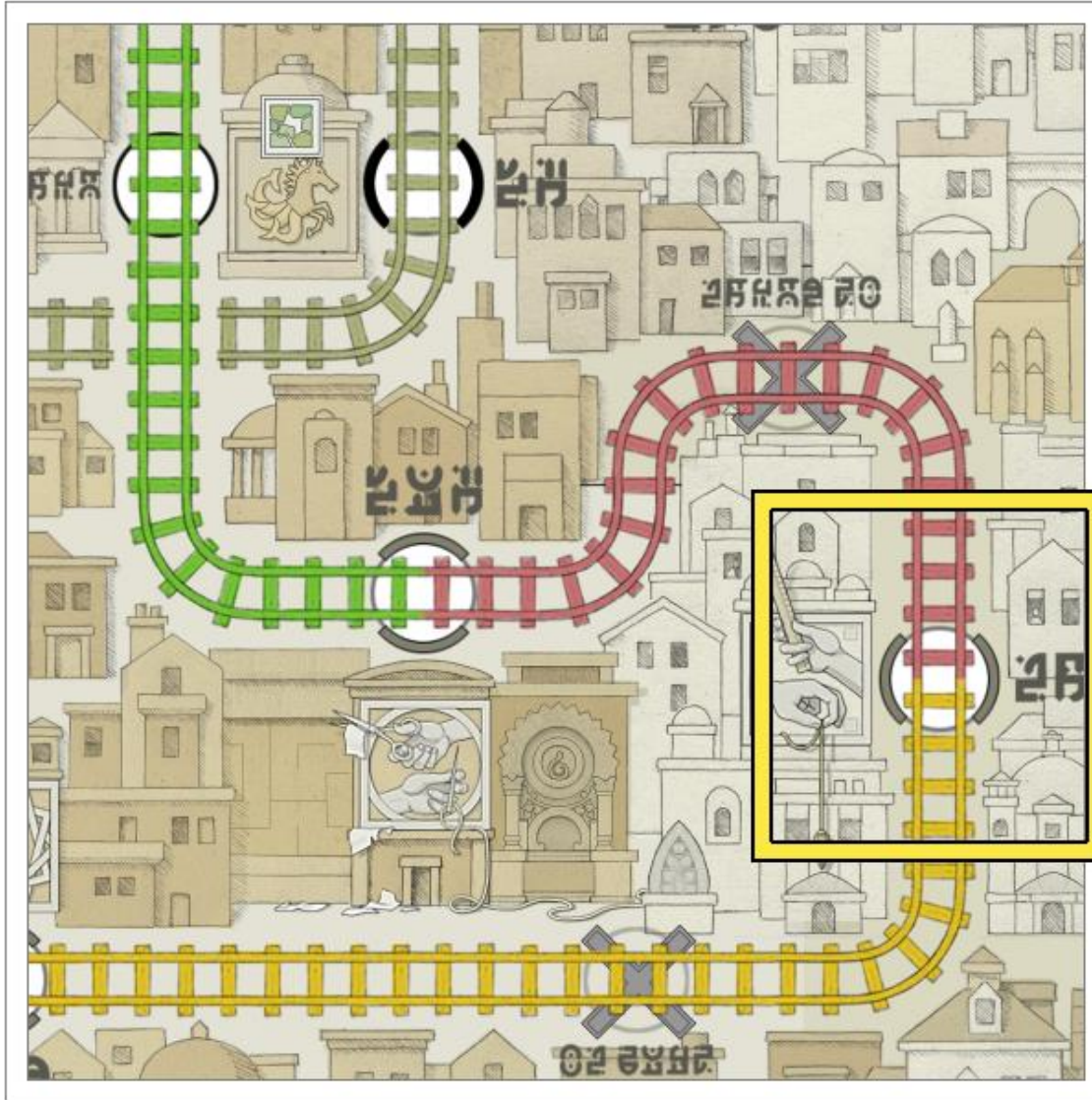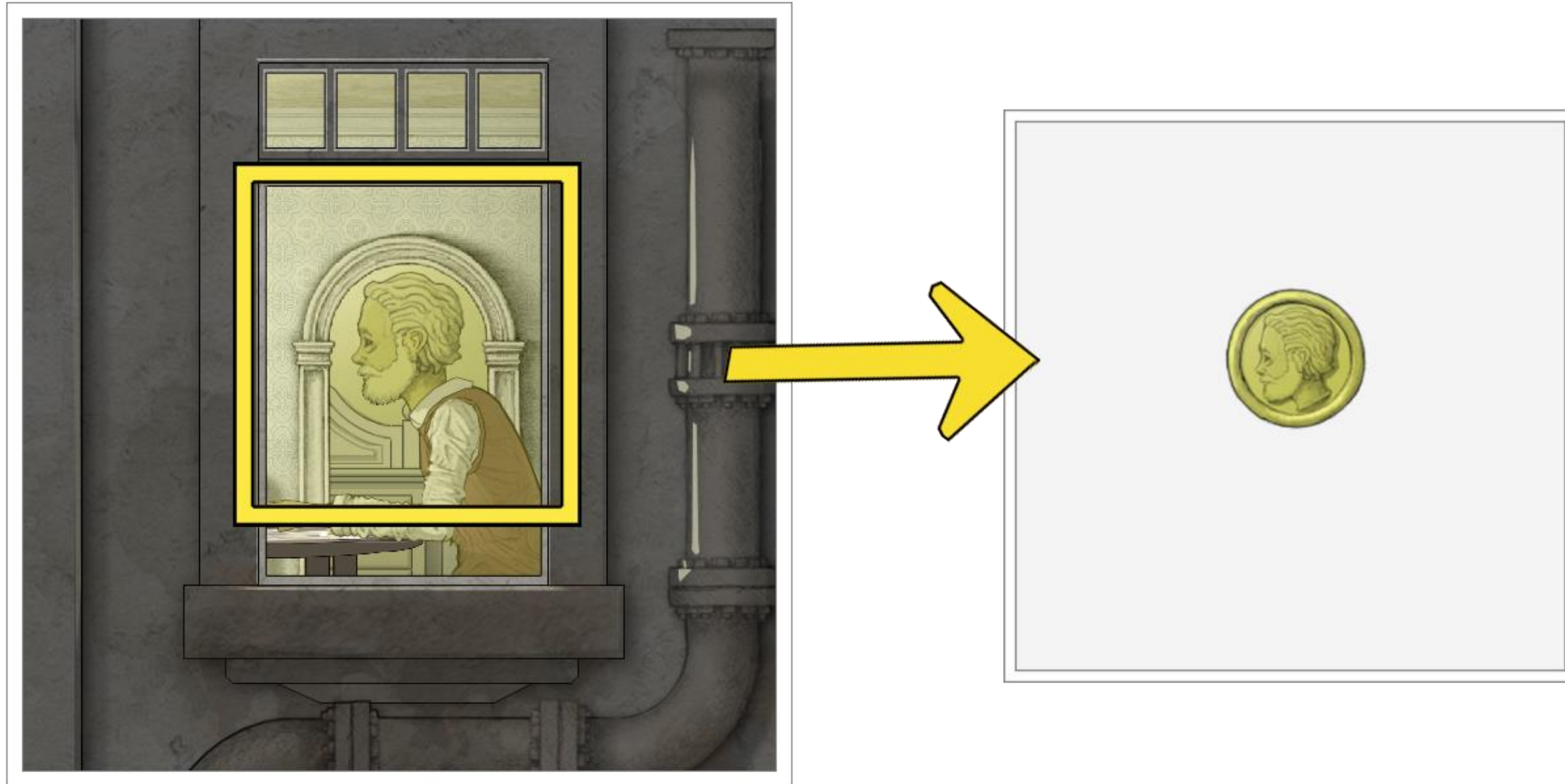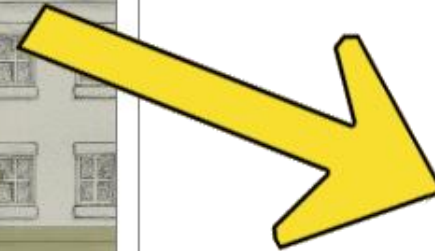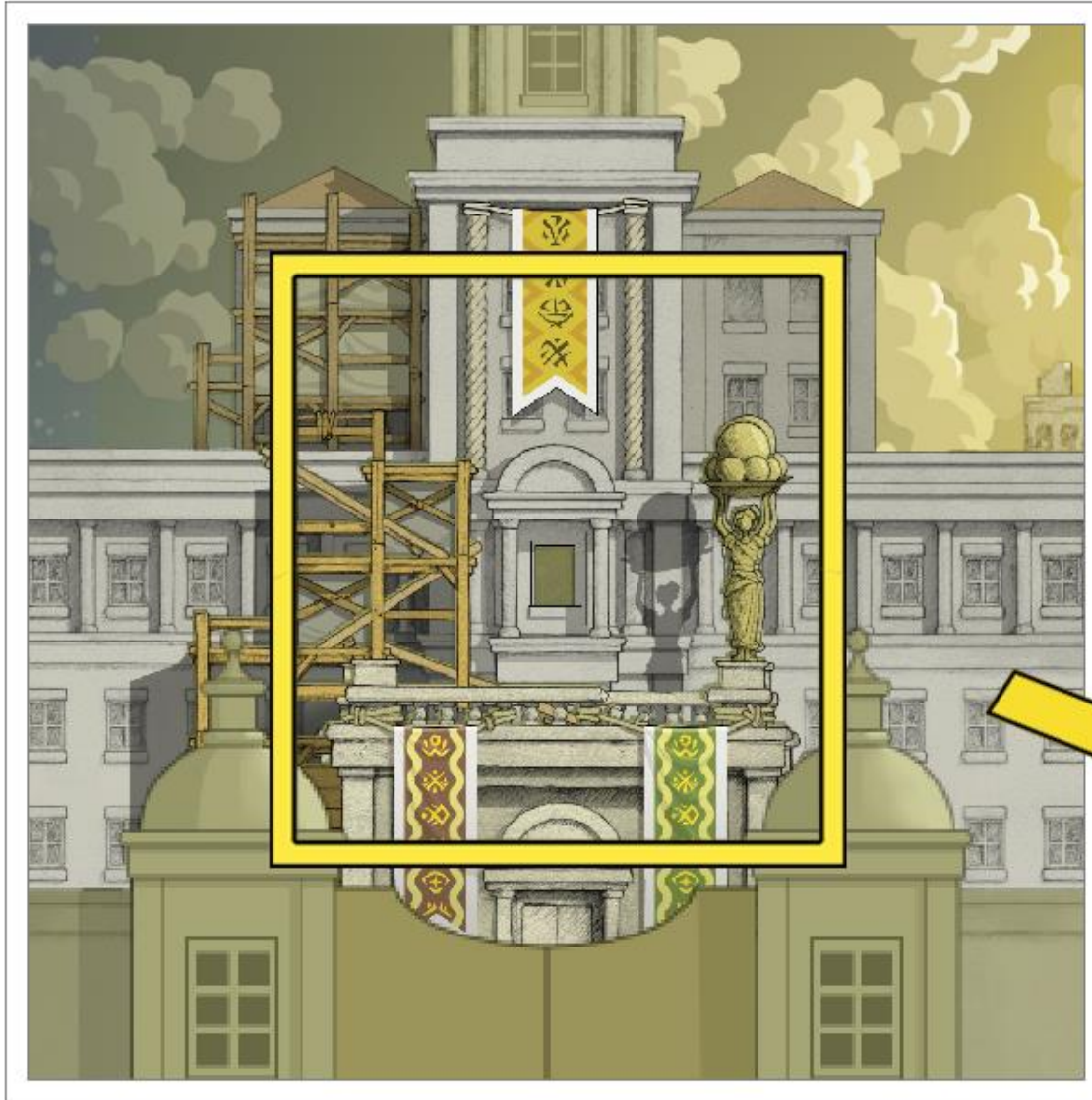# A visual acrostic:

- Visual elements in Gorogoa belong to two crossing axes of meaning.
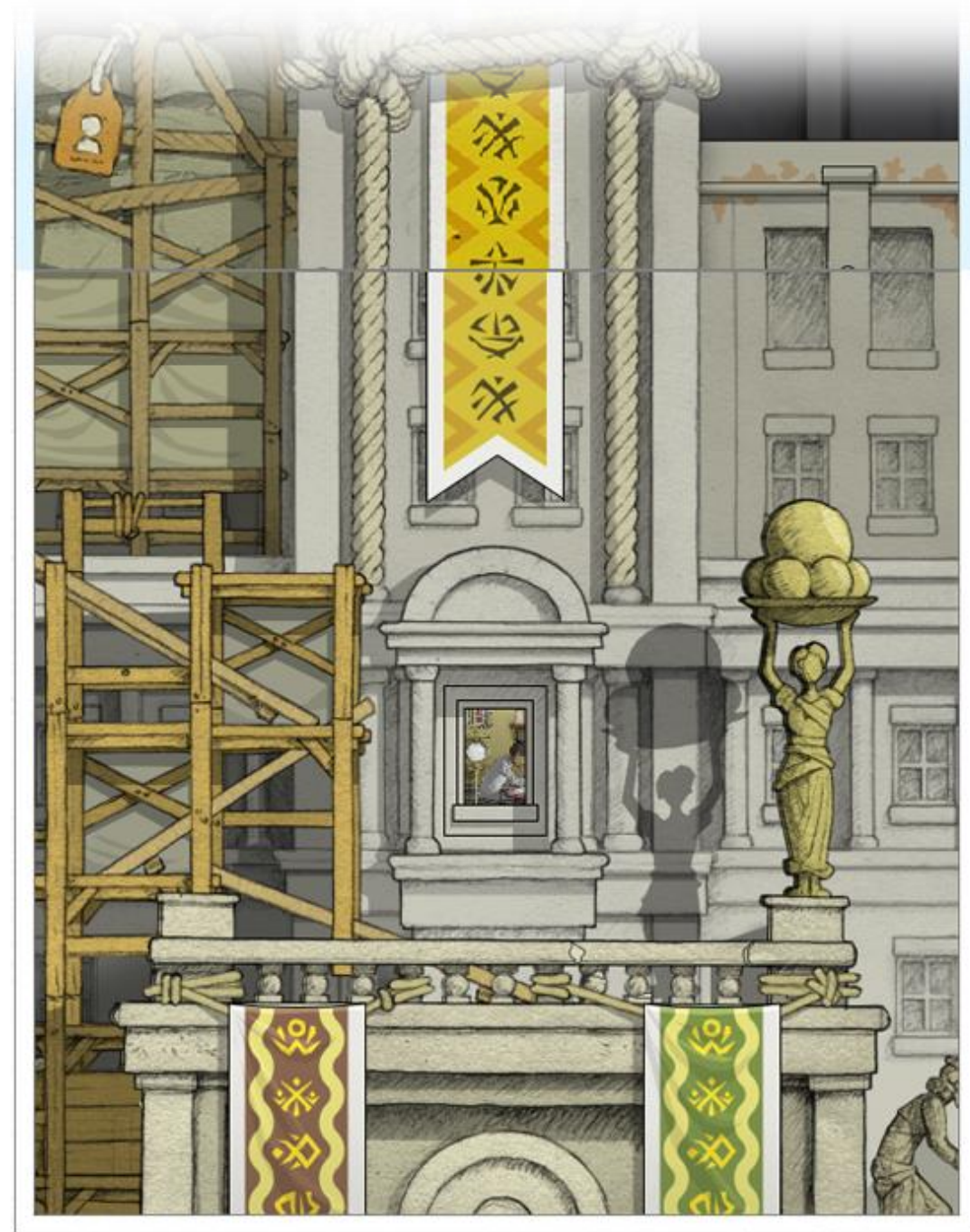
Everything has a dual nature

- Scaffolding exists to slow the descent of the rock

- But also to repair the war-damaged building

- Banners exist as visual clues to connect tiles

- Also to advertise re-opening museum

Everything has a dual nature

- Ribbon is wrapping a repository of sacred objects

- Other ribbons mean to suggest stoles worn by priests, other ritual adornments

Duality of meaning

- Nothing should look like it's just there to be part of a puzzle
- Effort to justify every puzzle element within the story and world
- Acrostic duality of meaning essential thematically

Controversial timing puzzle

- Only real timing puzzle that requires any degree of dexterity
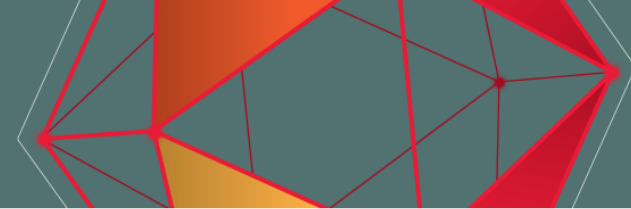- Added to address a specific issue with the design

Discovery vs. challenge

- A game about searching for the inscrutable, astonishing, otherworldly etc

- We want to escape from predictable mechanical patterns

- The fantasy is about exploring beyond the limits of what we understand, encountering something large and mysterious

- But how can you solve puzzles without understanding?

Remove puzzles entirely?

- Many people who love Gorogoa don't care about puzzles
- Allow players to just explore the world and stumble across surprising connections?
- Might be truer to the fantasy
- Some revelations *should* feel beyond comprehension
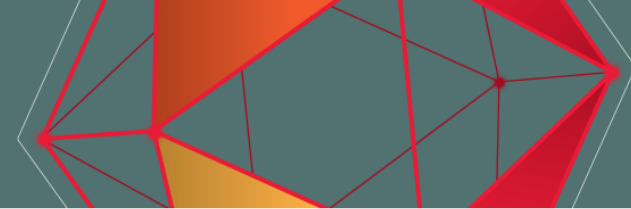- Feeling of a vast and strange universe

No. Keep the puzzles

- Some degree of challenge is appropriate to the theme
- If it were possible to just stumble across secret connections in the real world, it would've happened by now
- Revelations gain substance from the effort involved to uncover them
- We should be forced to look carefully or think differently.

No. Keep the puzzles

- Connection to something greater should require a test
- Puzzles impose pattern, and *some* pattern is essential
- A sense of mystery requires a half-glimpsed pattern
- Too little and we suspect there was no real meaning
- Too much and the wonder and mystery dissipate
- It's all about the right amount of disorientation

Balance is crucial

- Surprising and delightful discoveries on the one hand

- A challenge or test on the other

- The way the tiles initially fit together may be surprising and delightful. Early puzzles are like this.

- But later on, fitting tiles together doesn't solve the puzzle

- Some additional reasoning about a simple system is required

Balance is crucial
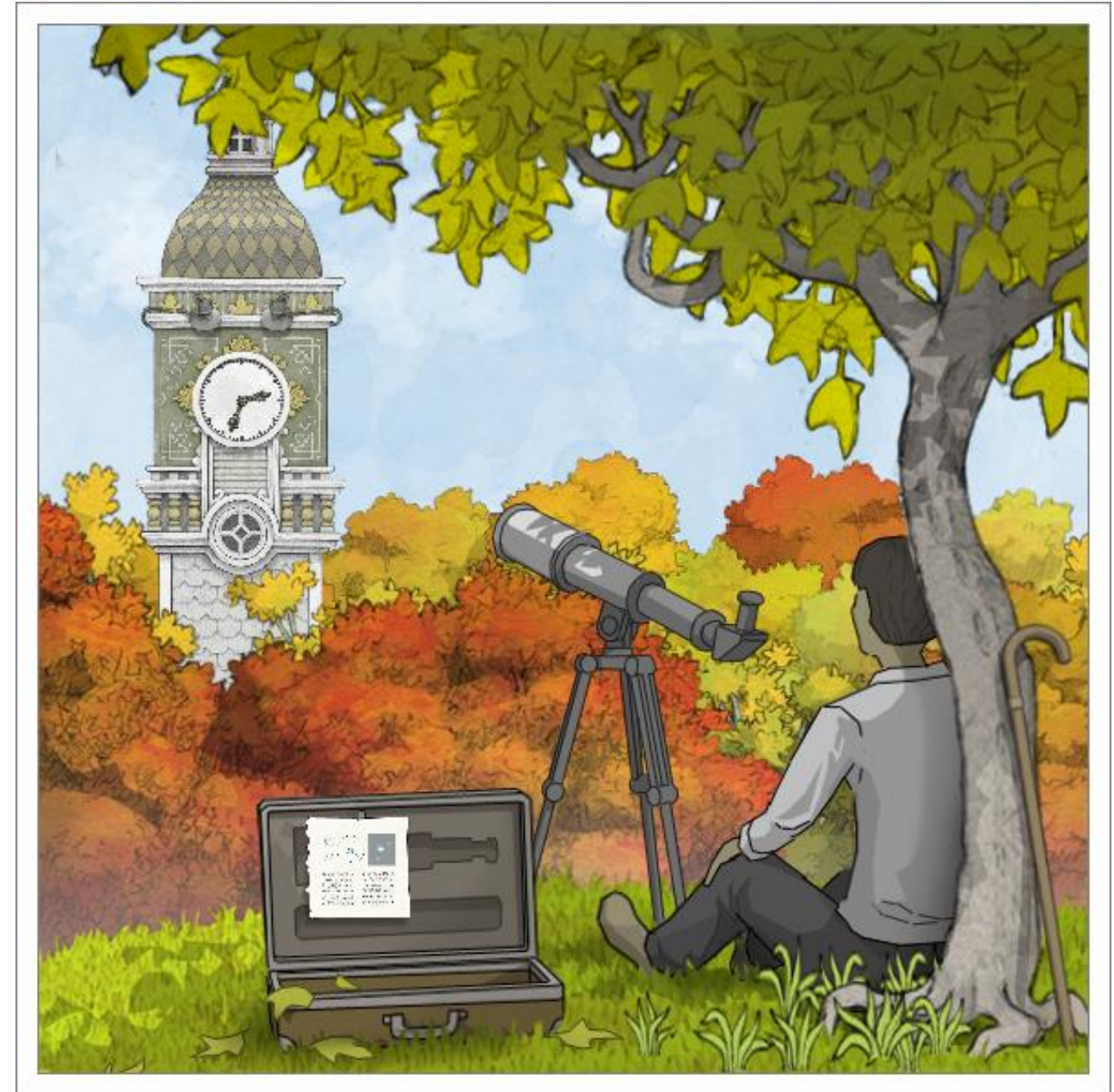
- Limit mechanical complexity
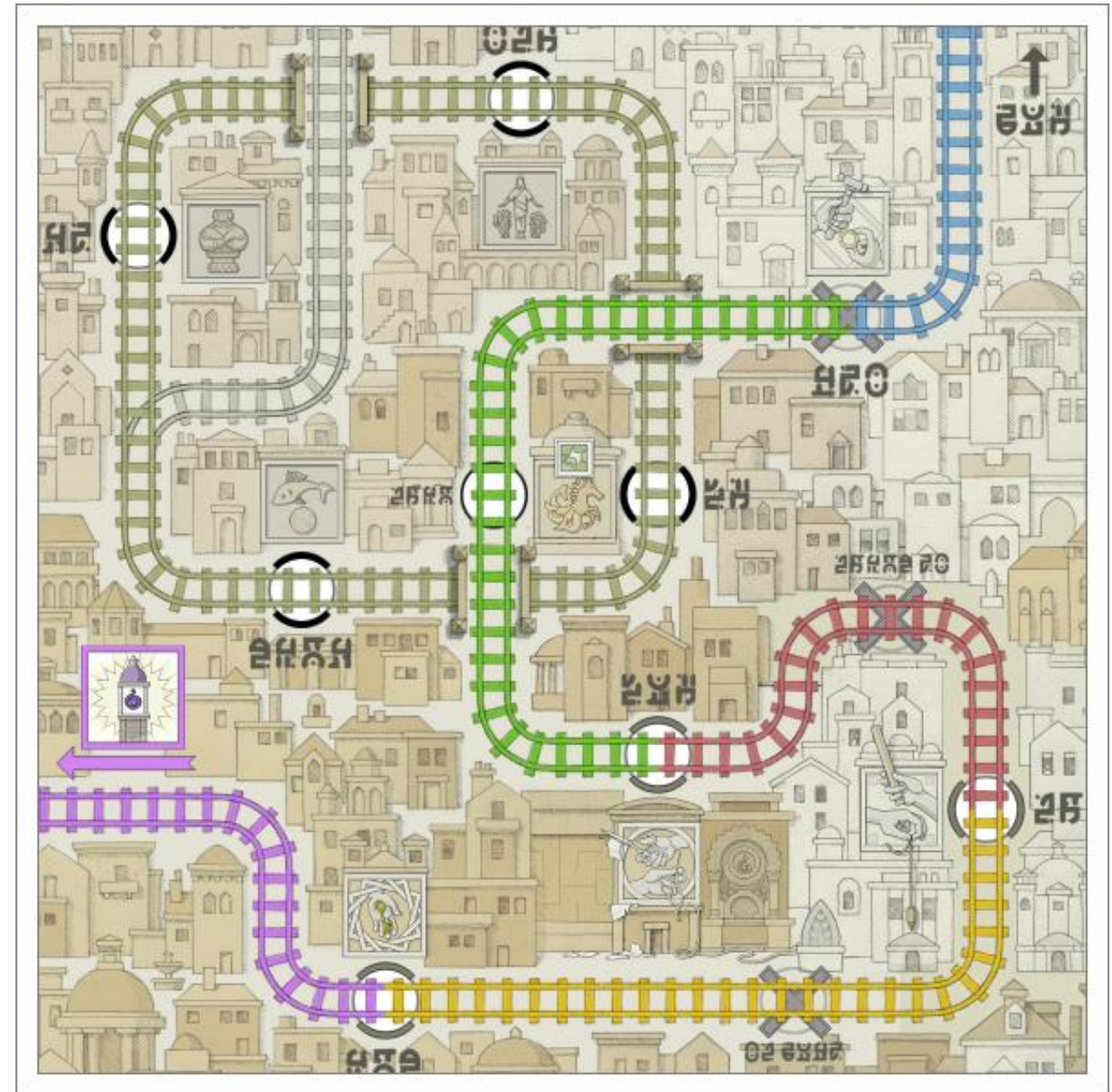
Falling rock puzzle

- Can't be solved accidently

- Comes at a point in the game where the player needs reassurance

- This puzzle has a discovery phase and an execution phase

Clock tower puzzle

- Also hard to solved accidently
- Too many states

Wheel puzzles

- Player may partly stumble on the means of turning the wheels

- But then must consider orientation

- The repeating pattern allows players to make simple deductions

One last thing

- Rocks fall out of the box on their own
- Because the box is shaken by bombs
- Why this elaborate contrivance?
- Why not let the player click/tap on the box to generate a rock?

Ripple-down vs. ripple up

- In theory a high-level vision or aesthetic should ripple downward

- In practice the opposite happens a lot

- A good idea to allow this kind of bottom-up disruption

- May nudge you toward the seed that crystallizes everything

Adventure game controls

- Early plan: a control scheme essentially like the original Myst
- Players could interact with objects in the scene
- Possible to implement puzzles within a single panel

Single-panel puzzles

- Maybe put a combination lock on a door?

- Puzzles that involve connecting multiple tiles are hard to design!

- A design safety net

No single-tile puzzles!

- Puzzles that don't involve the unique mechanic dilute the game
- That unique mechanic is about connecting tiles
- No single-tile puzzles
- Take away the safety net

No touching!

- Completely take away the player's ability to physically interact with the world inside a tile

- The player CAN NOT bring about any change in the game world except by combining two or more tiles

- This felt virtuous! Elegant! Disciplined!

Example:

- If the player could interact, they could turn this crank

- Bucket goes up
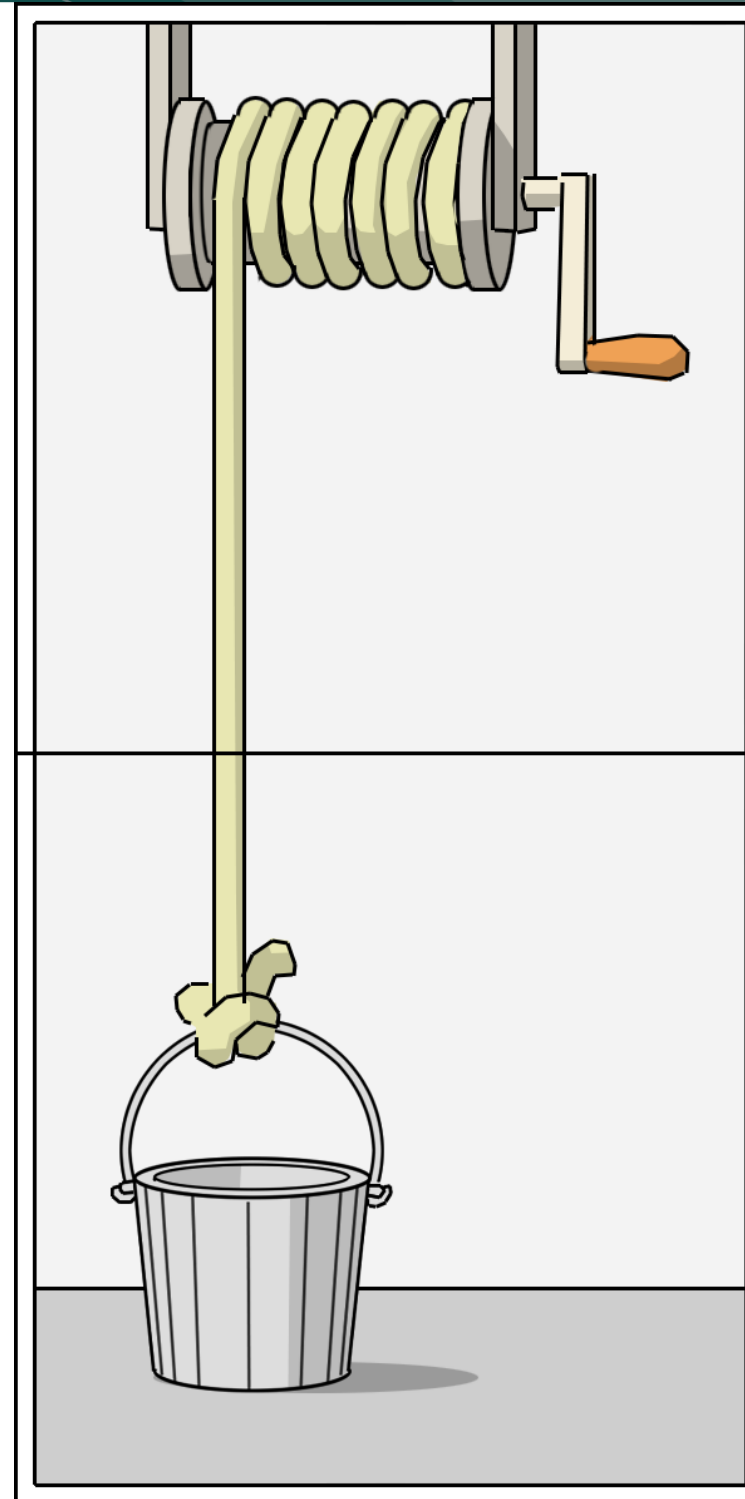
Example:

- Instead, need to add this counterweight
- Player can't input energy
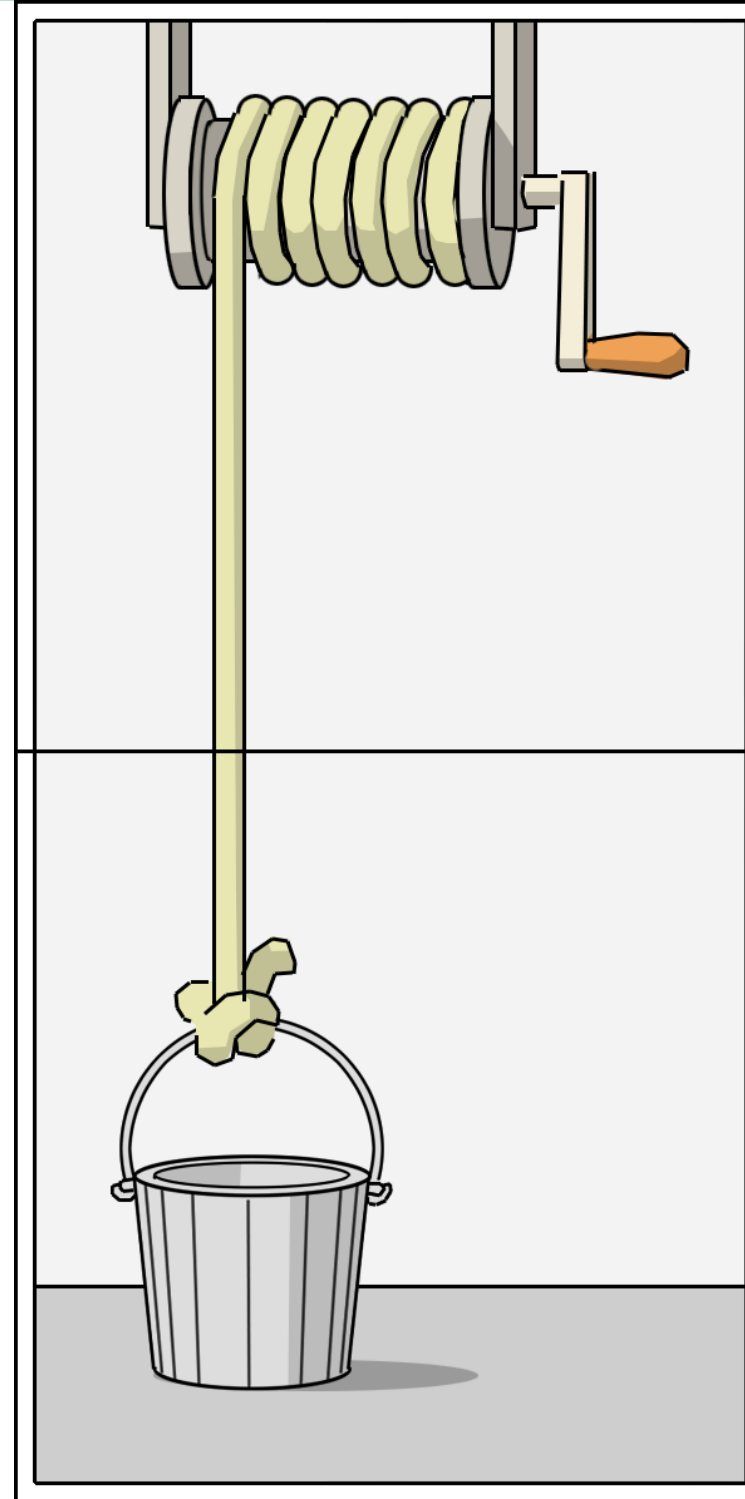- Must build potential energy into the world
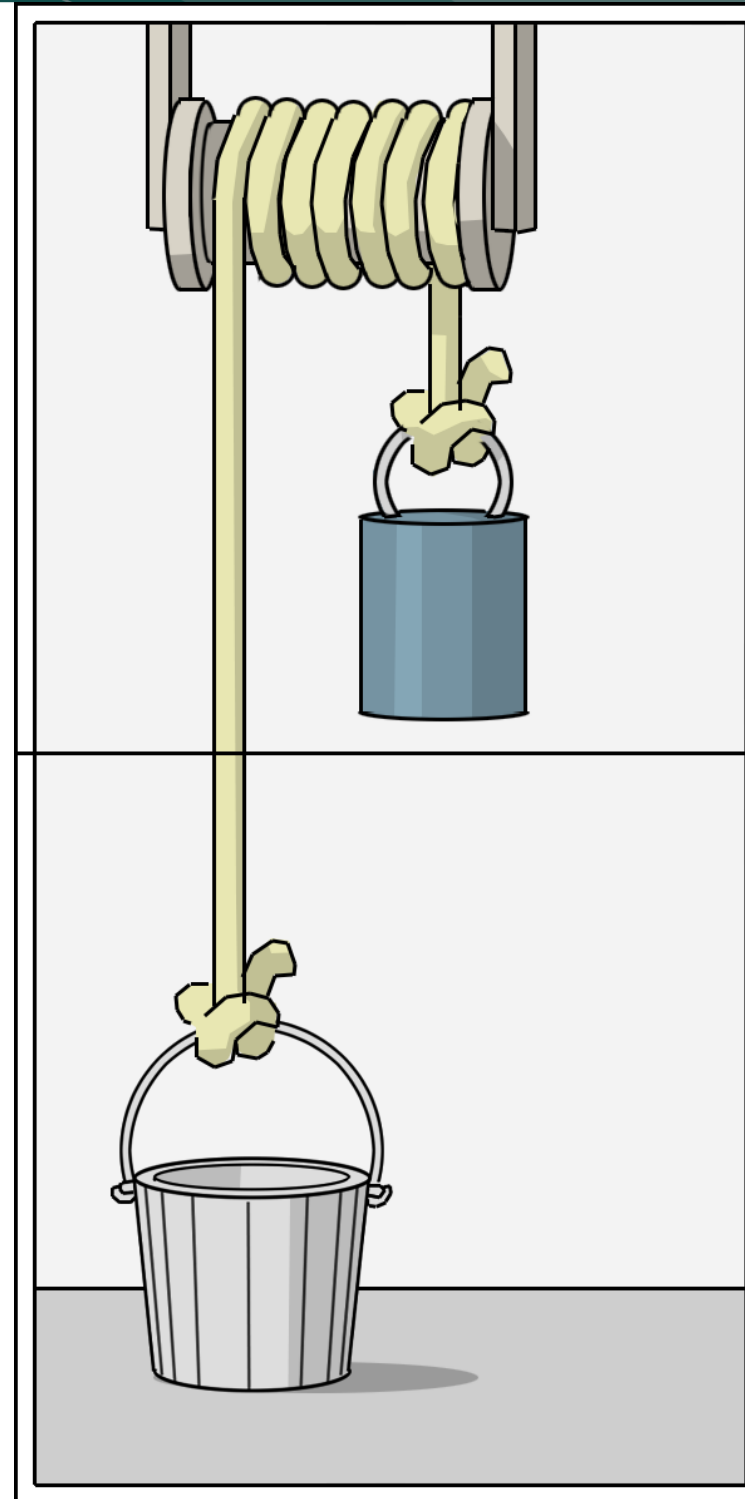
Example:

- System moves as soon as tiles are connected

- One time, one-way state transition
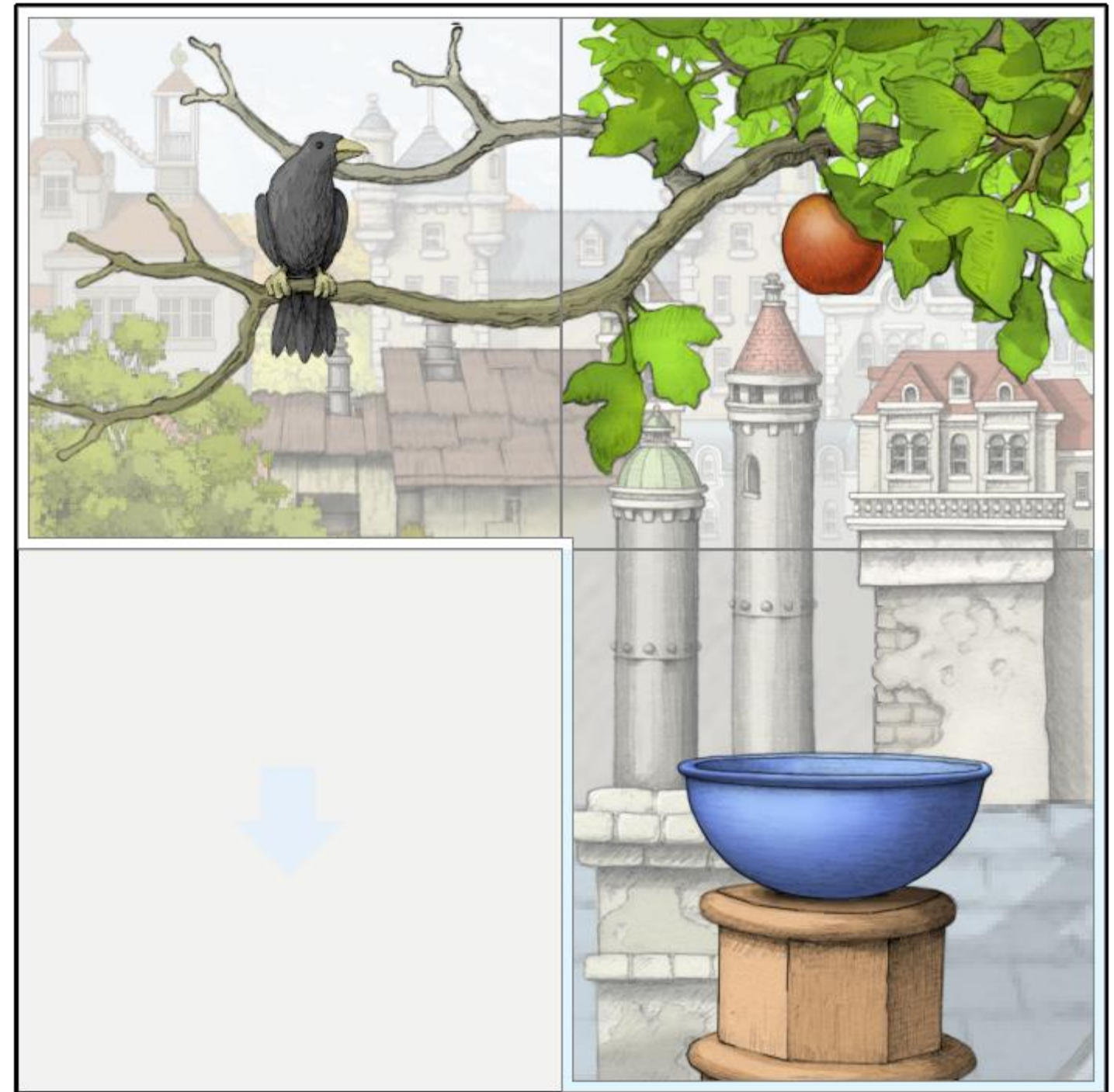
- Difficult to reset

- Prone to self-solving
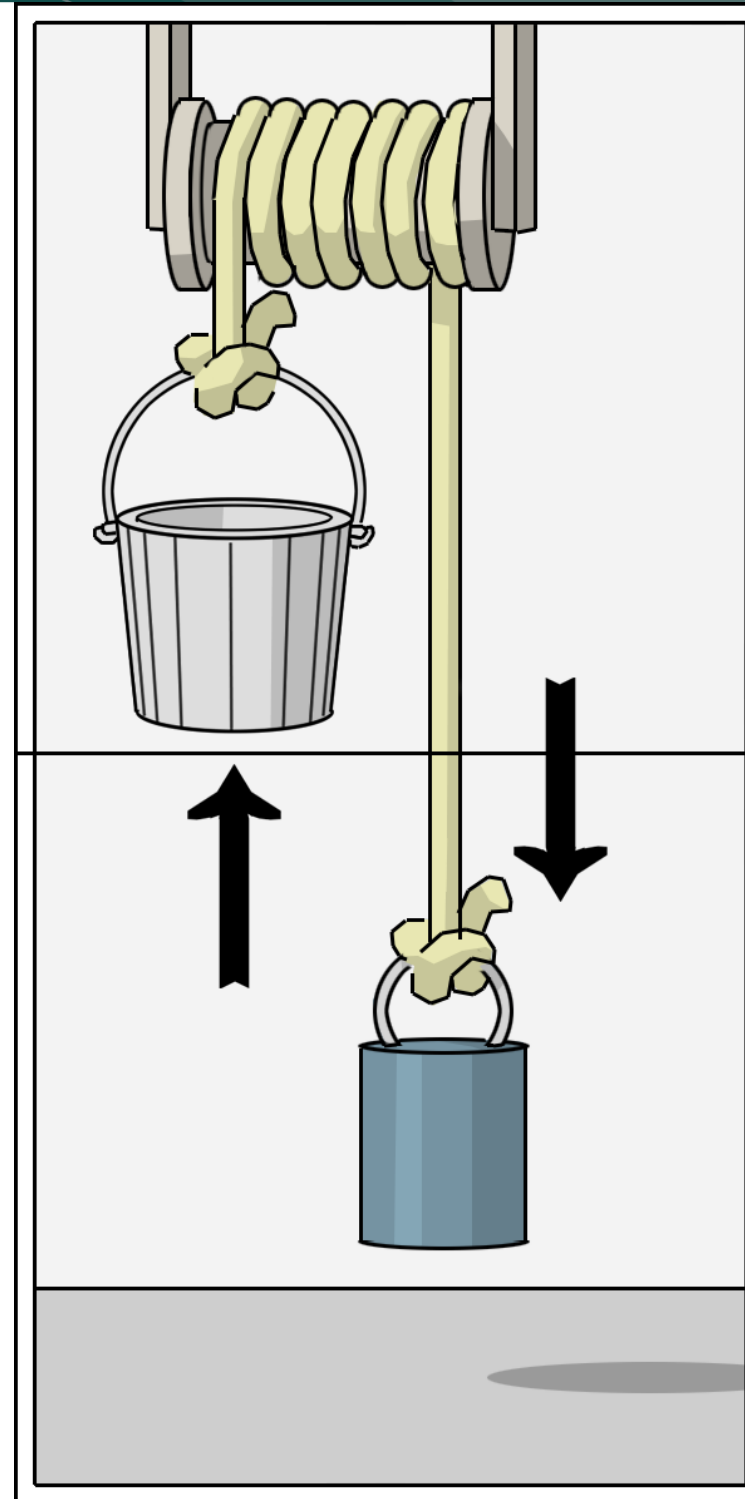
Example:

- With the crank, one extra interaction to solve "puzzle"

- Can crank up or down at will
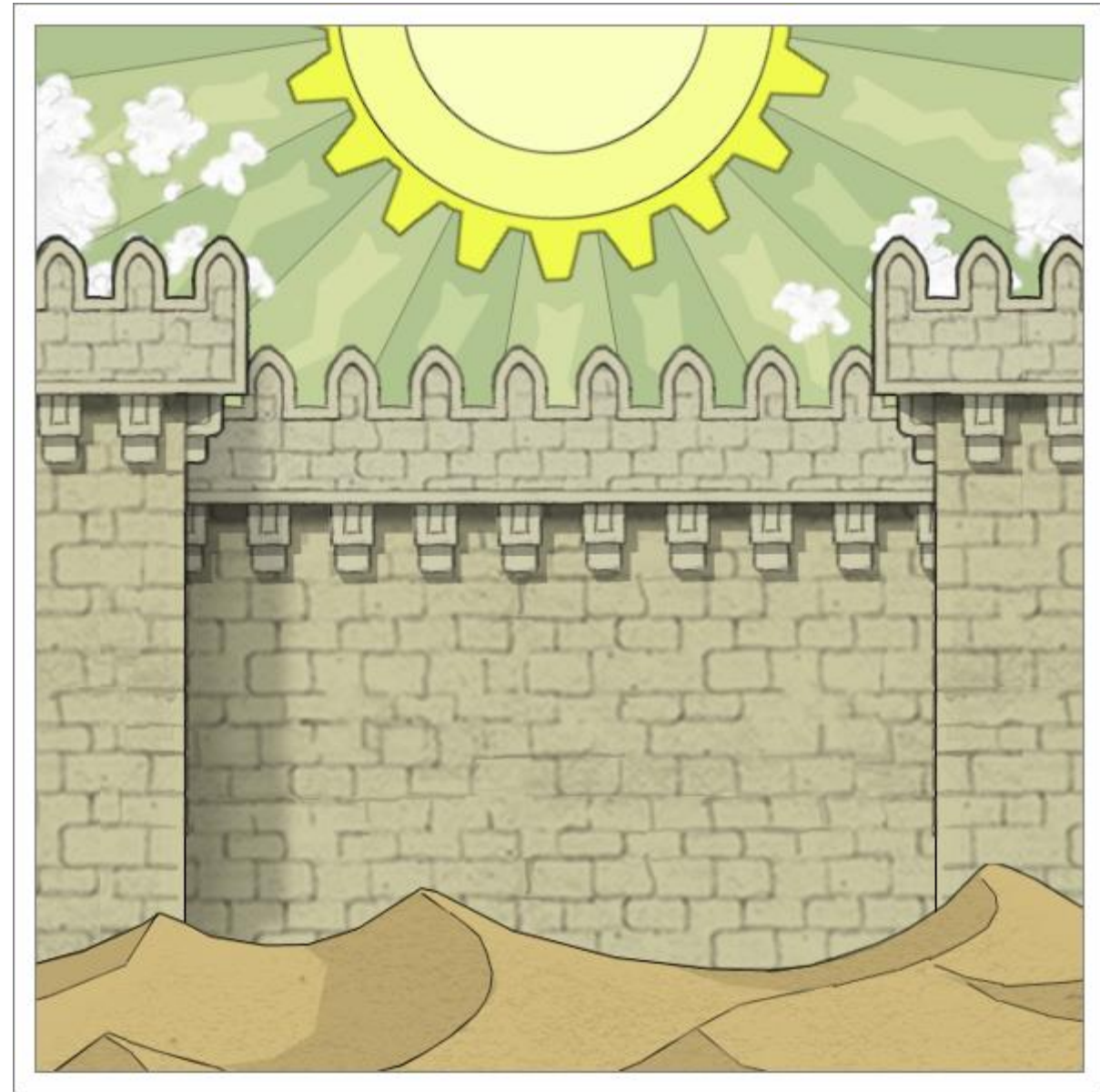
- Creates more robust state space

Crow puzzle

- Elaborate contrivance
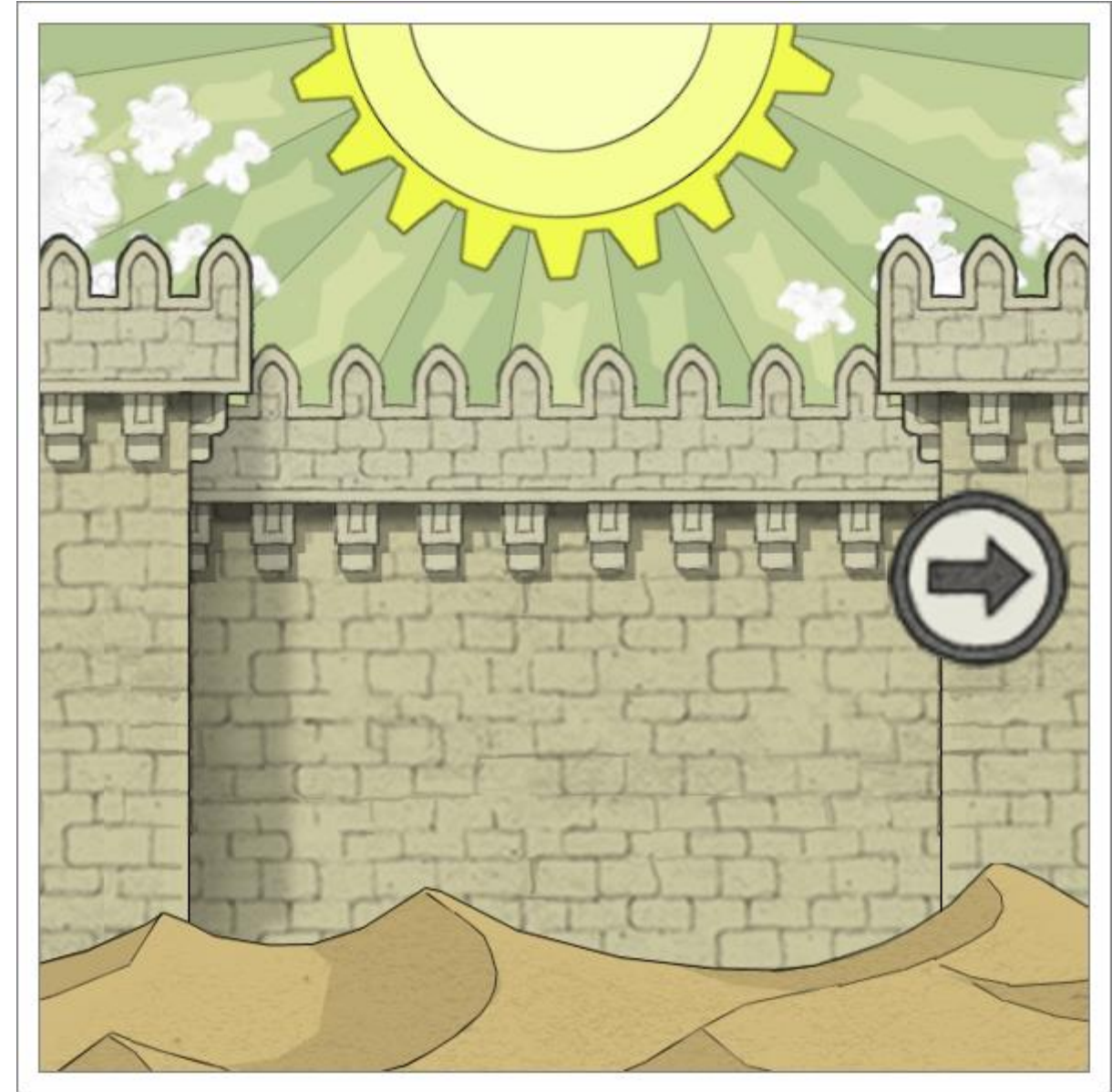- Requires more complex animation

Sun gear puzzle

- Sun looks like a gear
- Crenelated wall looks like linear gear
- Could form a rack and pinion
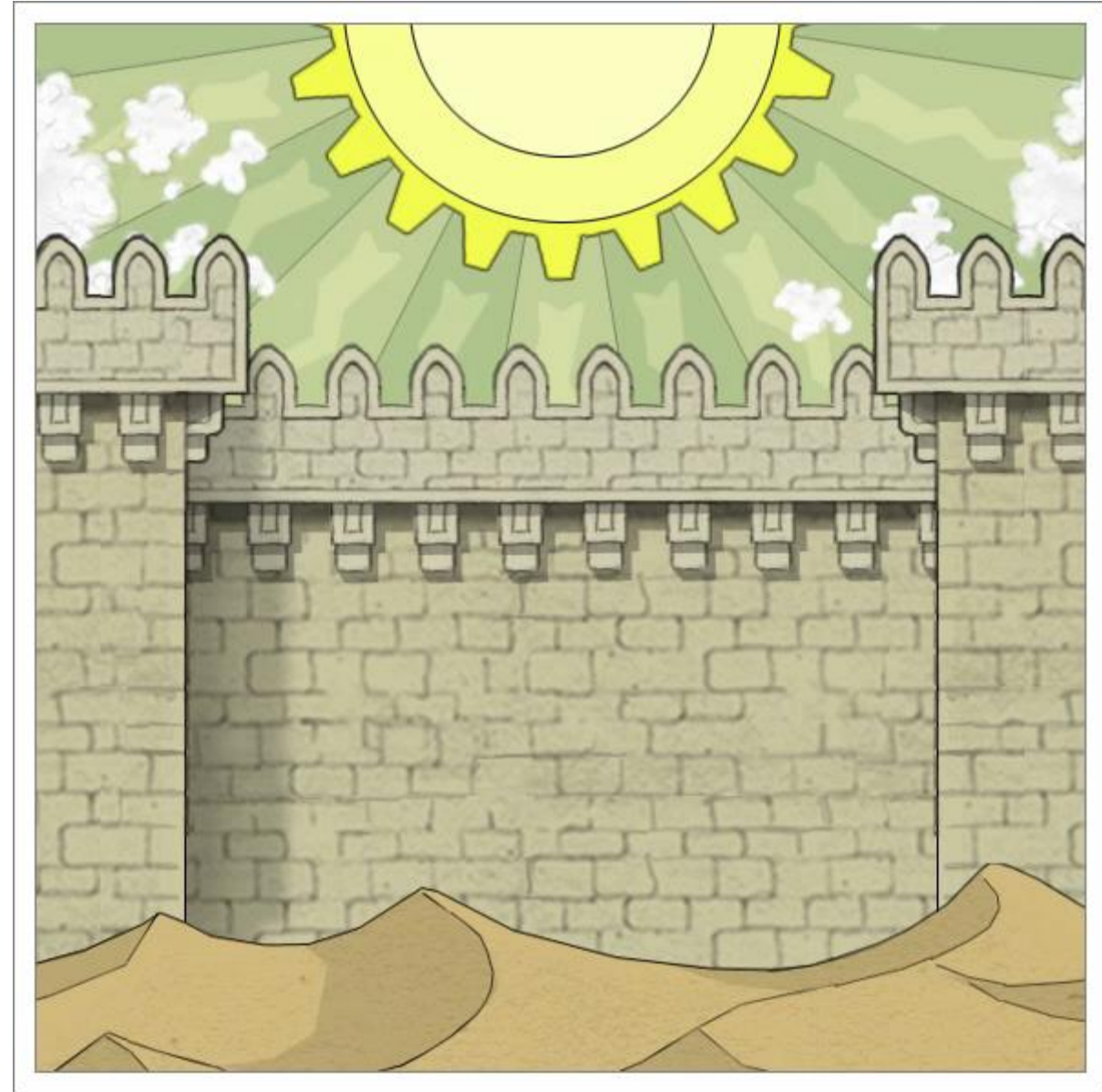- But how does the player make it move?

Idea:

- Add a navigation button
- Move camera to the right
- Wall subjectively moves left
- Sun in sky remains stationary
- Apparent relative movement of layers turns gear

Idea:

- Add a navigation button
- Move camera to the right
- Wall subjectively moves left
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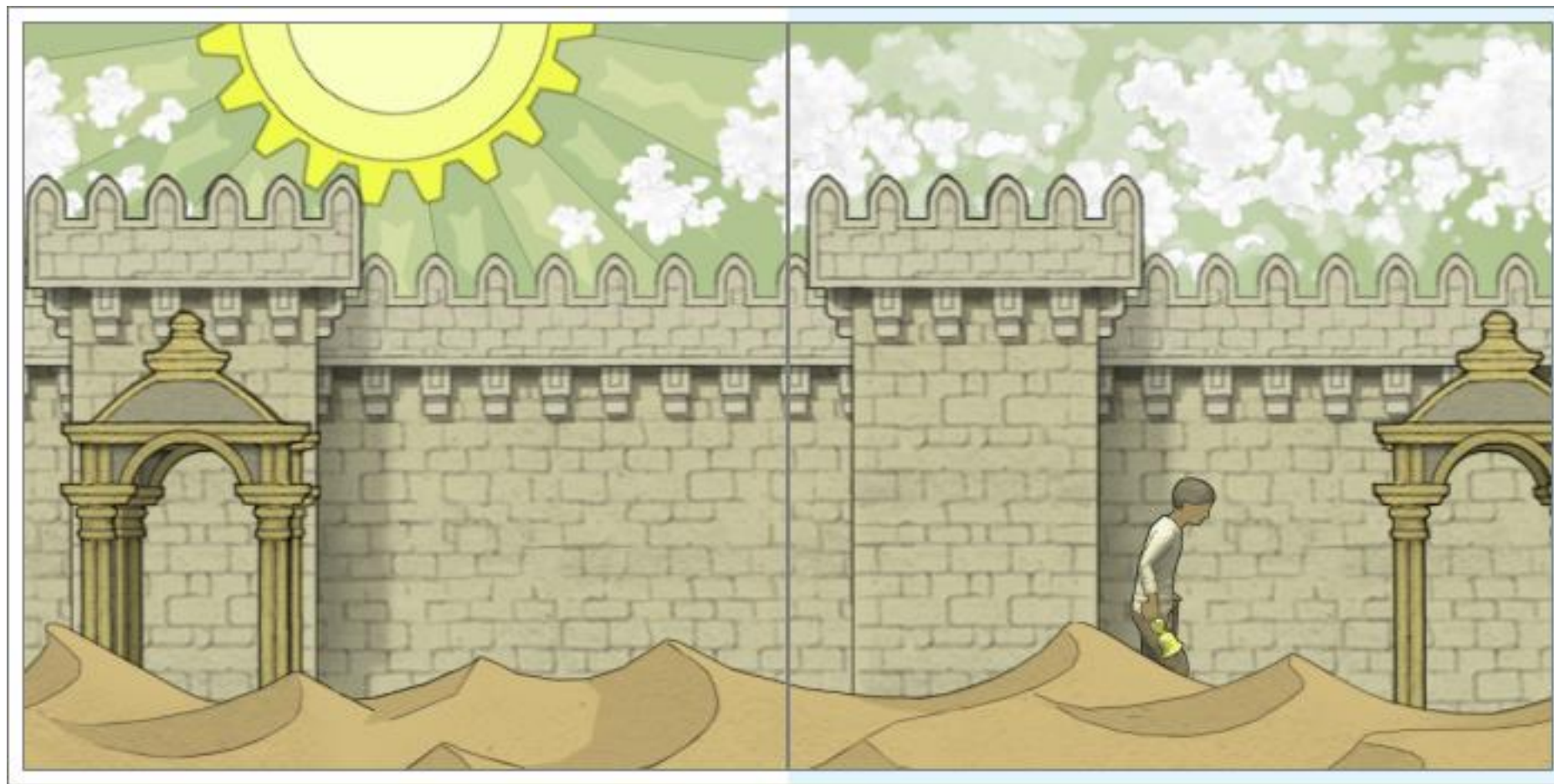- Apparent relative movement of layers turns gear

Cheating?

- Player is changing the state of the world using just one tile

- Navigation button becomes a button that operates a machine

- Is this really using the core mechanic?
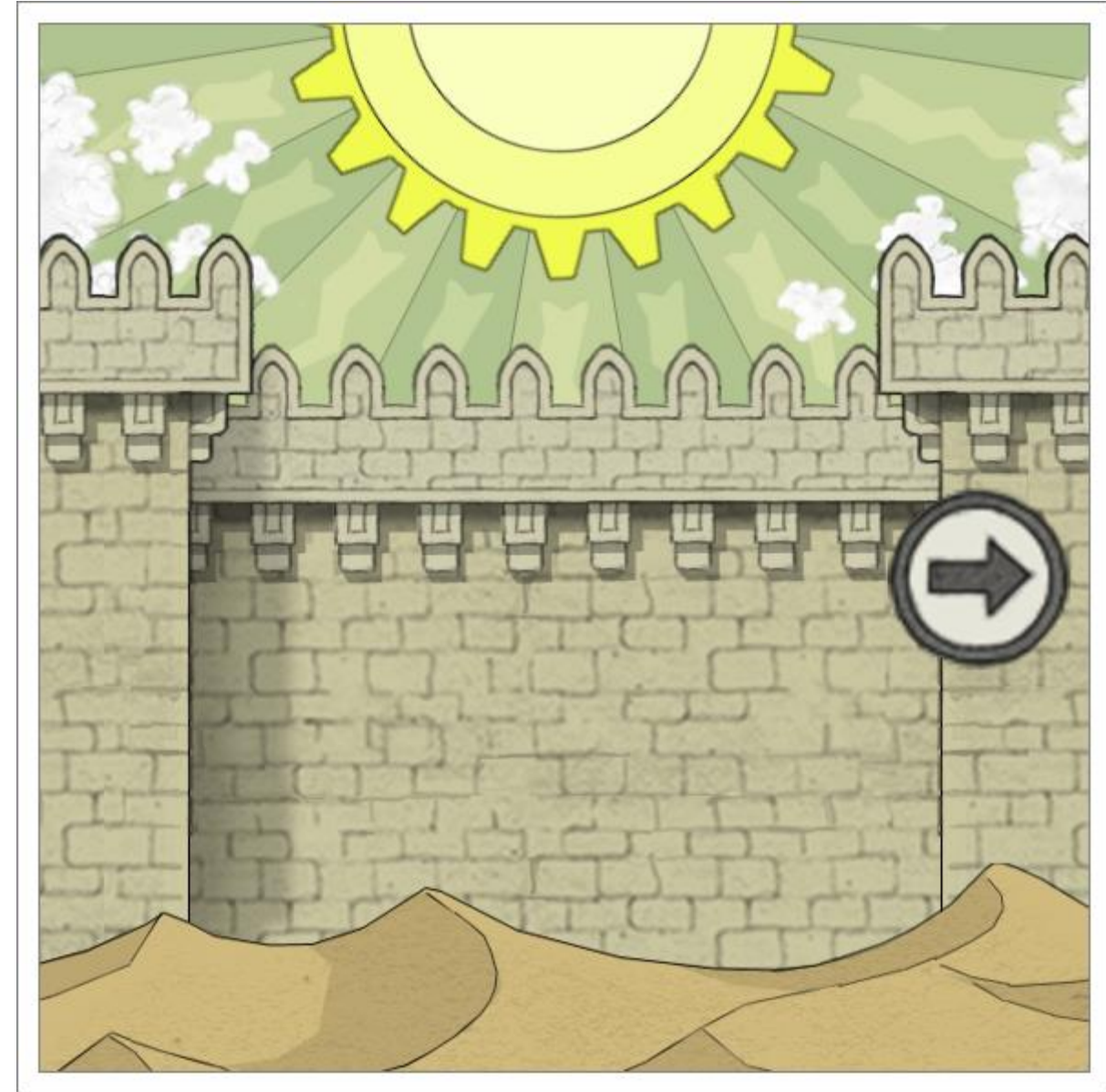
Character movement drives system?

Character-driven

- More thematically compelling

- Character is literally driving the action

- Works well with themes of the chapter

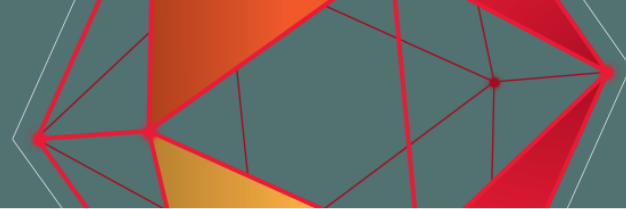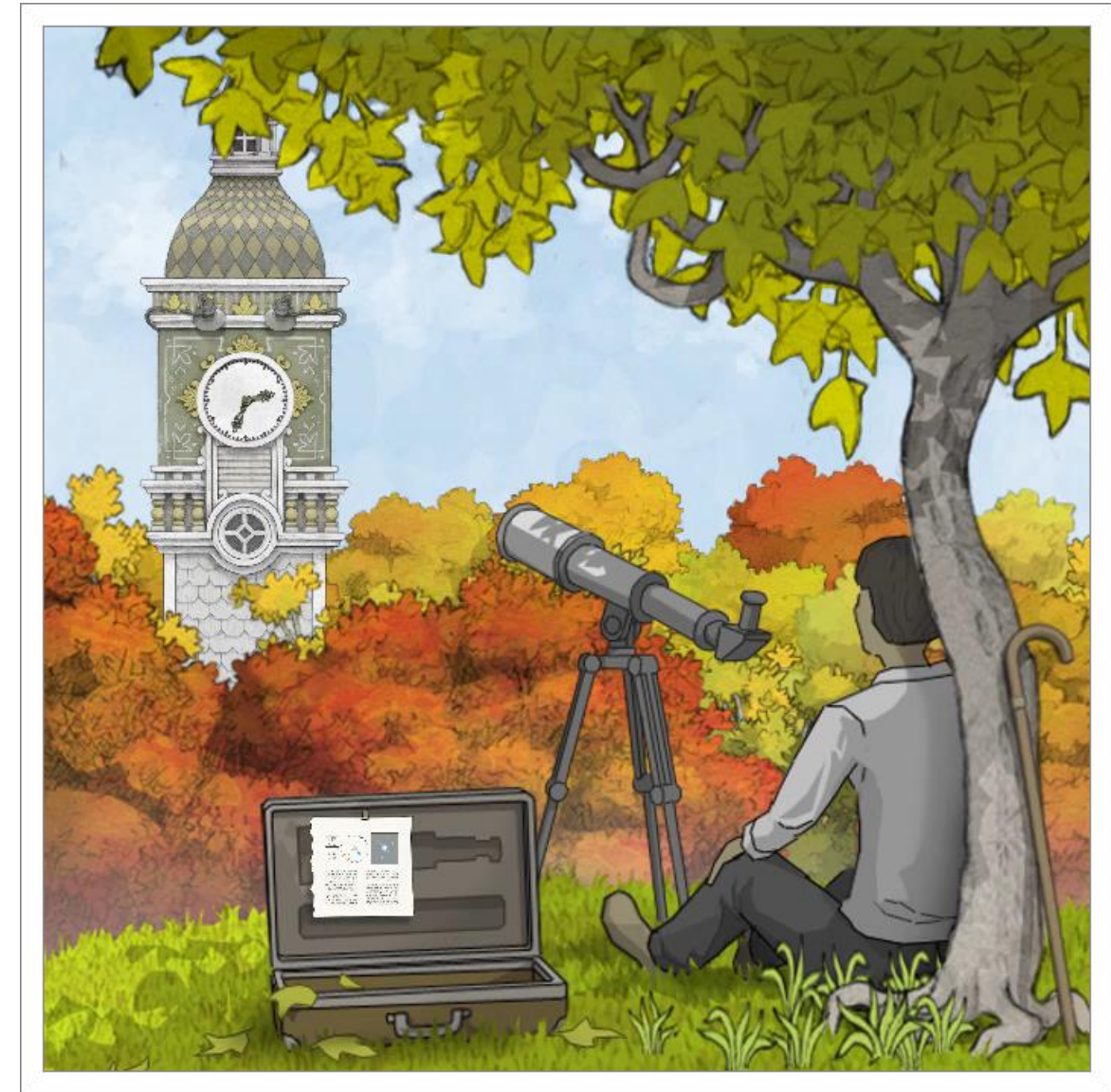- Maybe the no touching rule isn't such a liability

Player as disembodied POV

- Liberated my thinking about the whole game

A disembodied player…

can cross any distance.

A disembodied player…

can enter thoughts
or memories.

A disembodied POV…

can cross into the world inside a china pattern

At an even higher level…

- Limiting the player's interaction makes the relationship between player and story oblique and mysterious

- Leaves room for a wider range of interpretations

- Allows the entire game to feel like a mental process

Fragments of memory?

- Sifting through fragments of experience, looking for connections
- Dream-like

Looking through a window

- Melancholy distance

Windows in the mind

- Scenes we can never re-enter

Ripple-down vs. ripple up

- Secondary design decision has created ripples that cause re-interpretation of narrative and themes
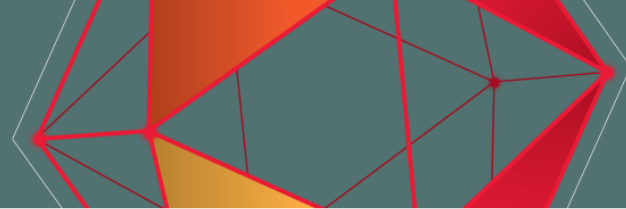
Narrative

- What kind of story does it make sense to tell with these mechanics?

Puzzle and Narrative

- There's a tried and true approach
- Puzzles as obstacles to the protagonist
- A story needs obstacles!
- A protagonist needs to demonstrate cunning, perseverance, etc.
- Classic for a reason!

Gorogoa doesn't work that way

- Turns this proven model inside out
- Story suspended inside a puzzle, instead of the reverse
- The protagonist isn't solving puzzles at all
- The player solves puzzles, moves independently
- Puzzles are as much about discovering the story as advancing the story

Is this a good idea?

- I could rip all the pages out of a novel and hide them around the city
- Might be a delightful novel
- Might be a delightful scavenger hunt
- But are those two unrelated delights stuck together?
- The story might well suffer

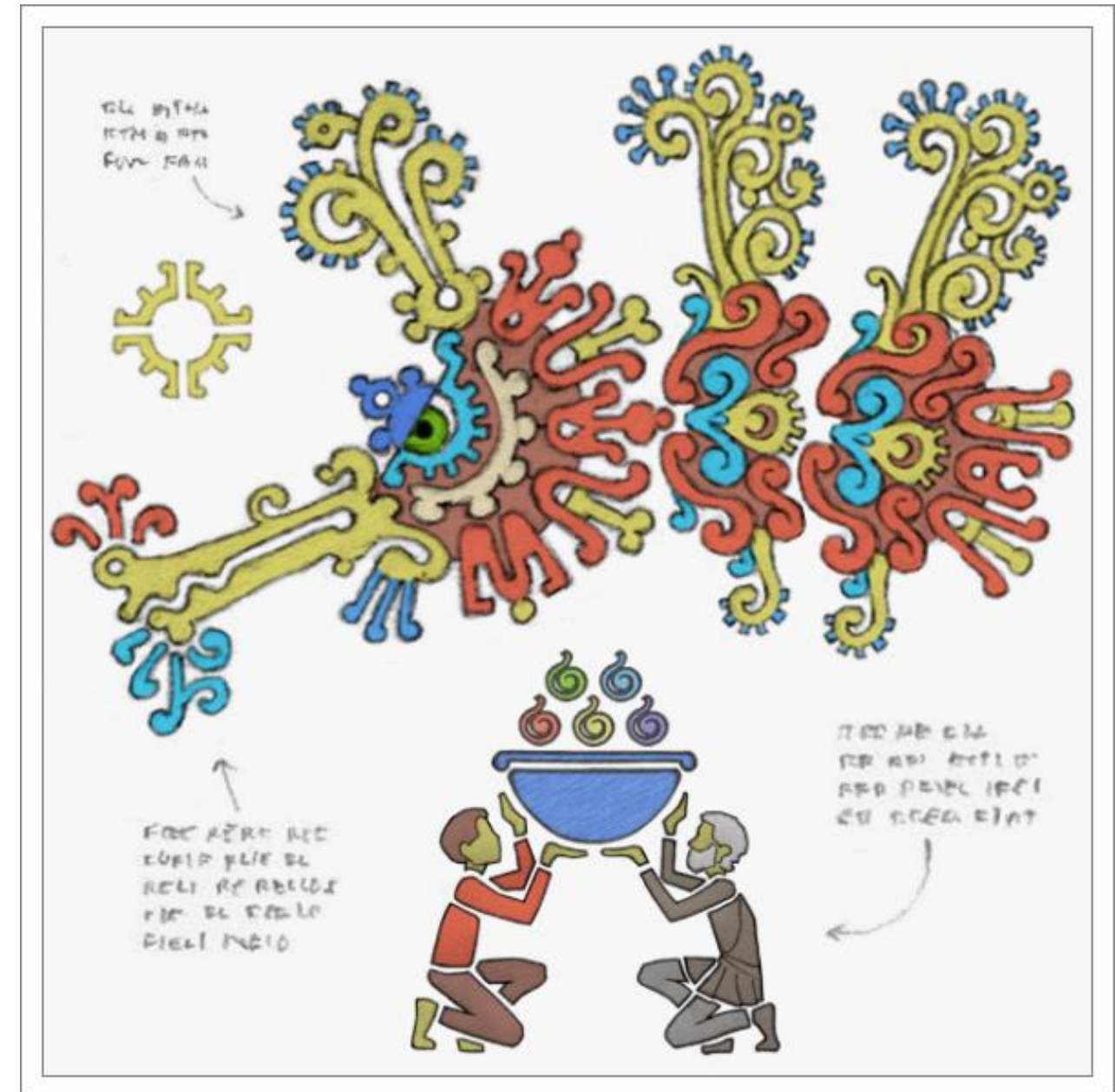# No traditional dramatic narrative

- Emotional arc and act structure are too disrupted
- Chronology all chopped, scattered, folded back on itself
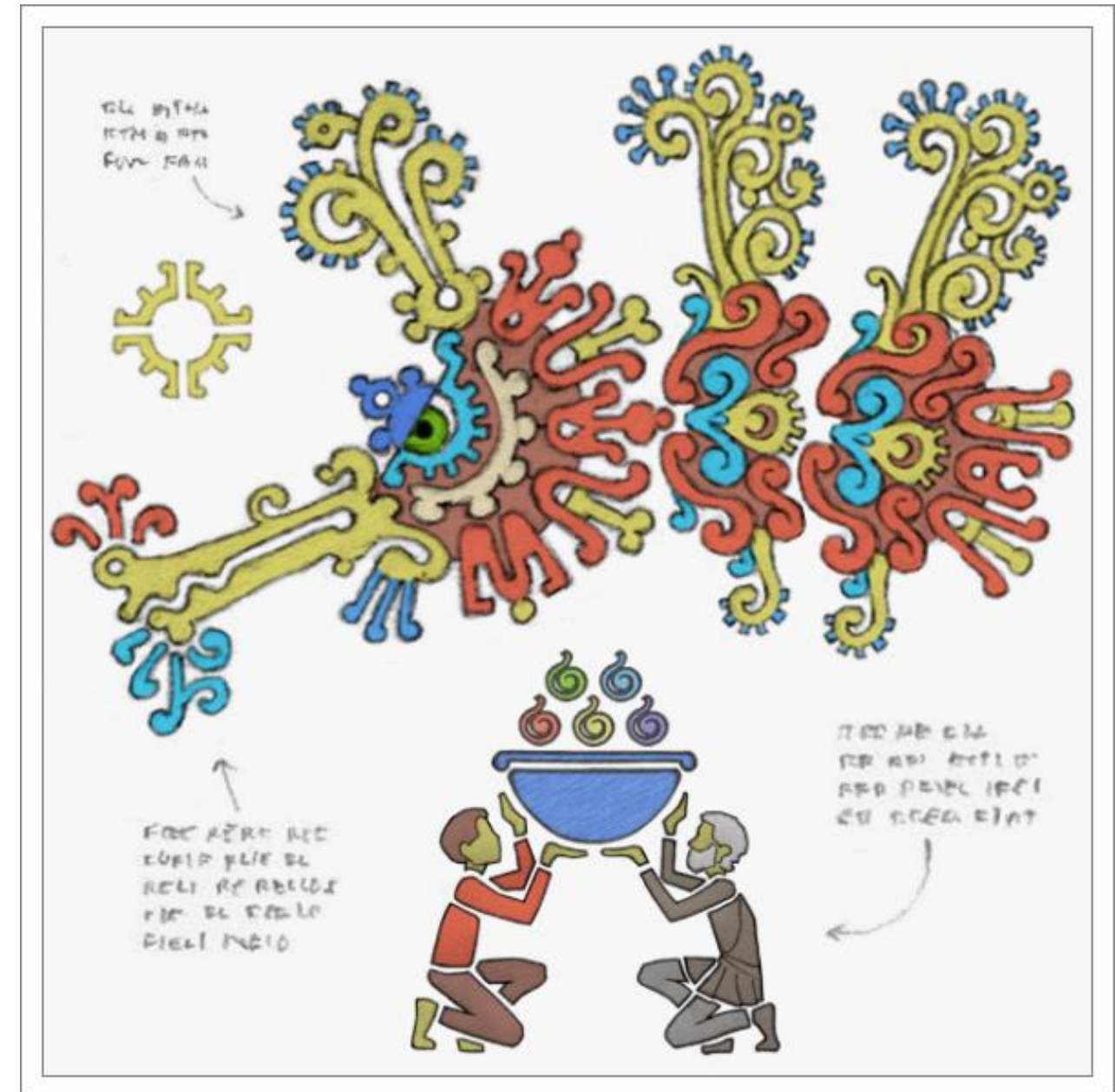
A parable?

- Suits spiritual themes, and what I'm trying to say with the game
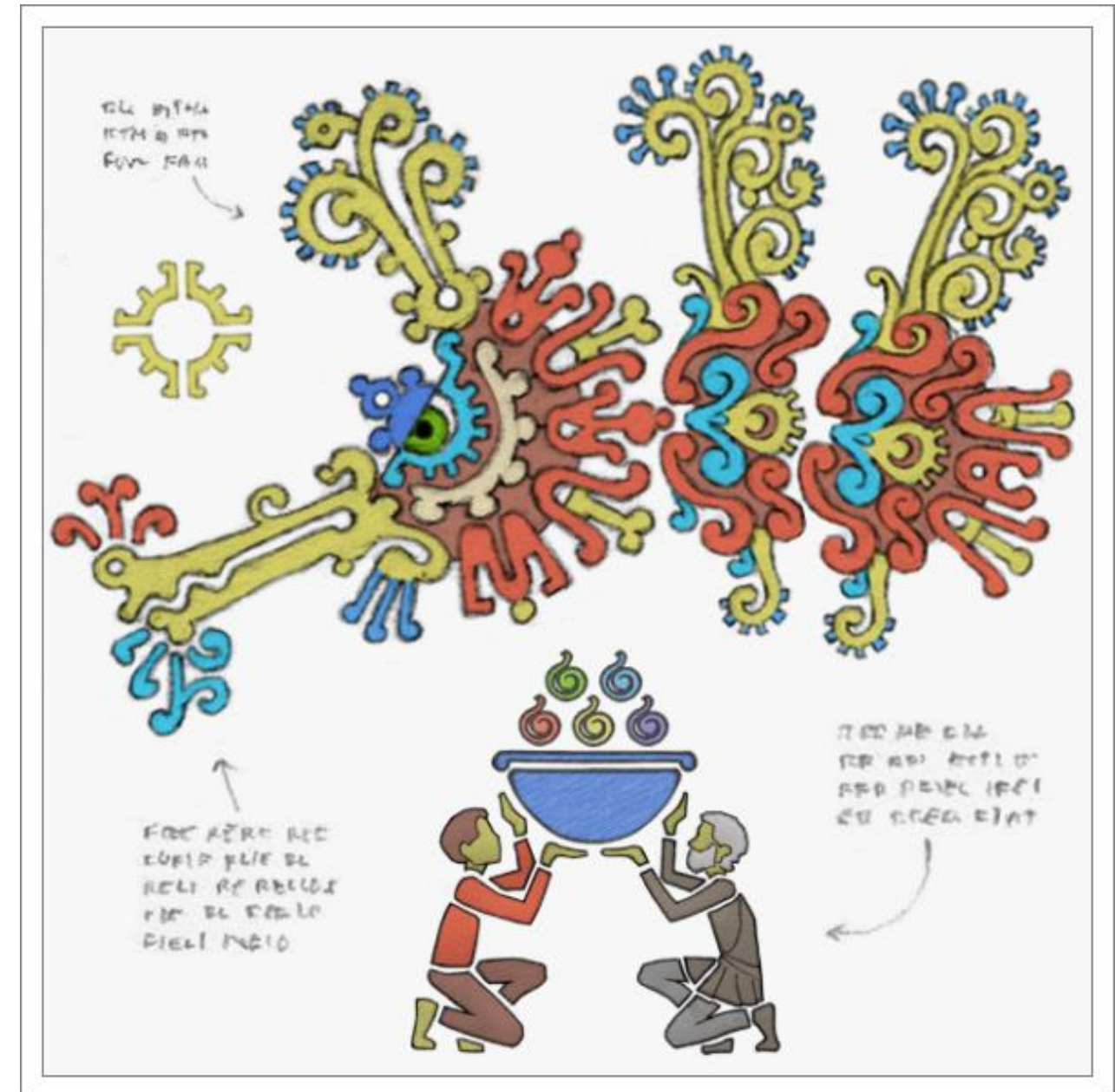
A parable is instructive

- An act of communication

- Doesn't just exist to provide dramatic satisfaction

- You're not supposed to entirely lose yourself or forget it's a story
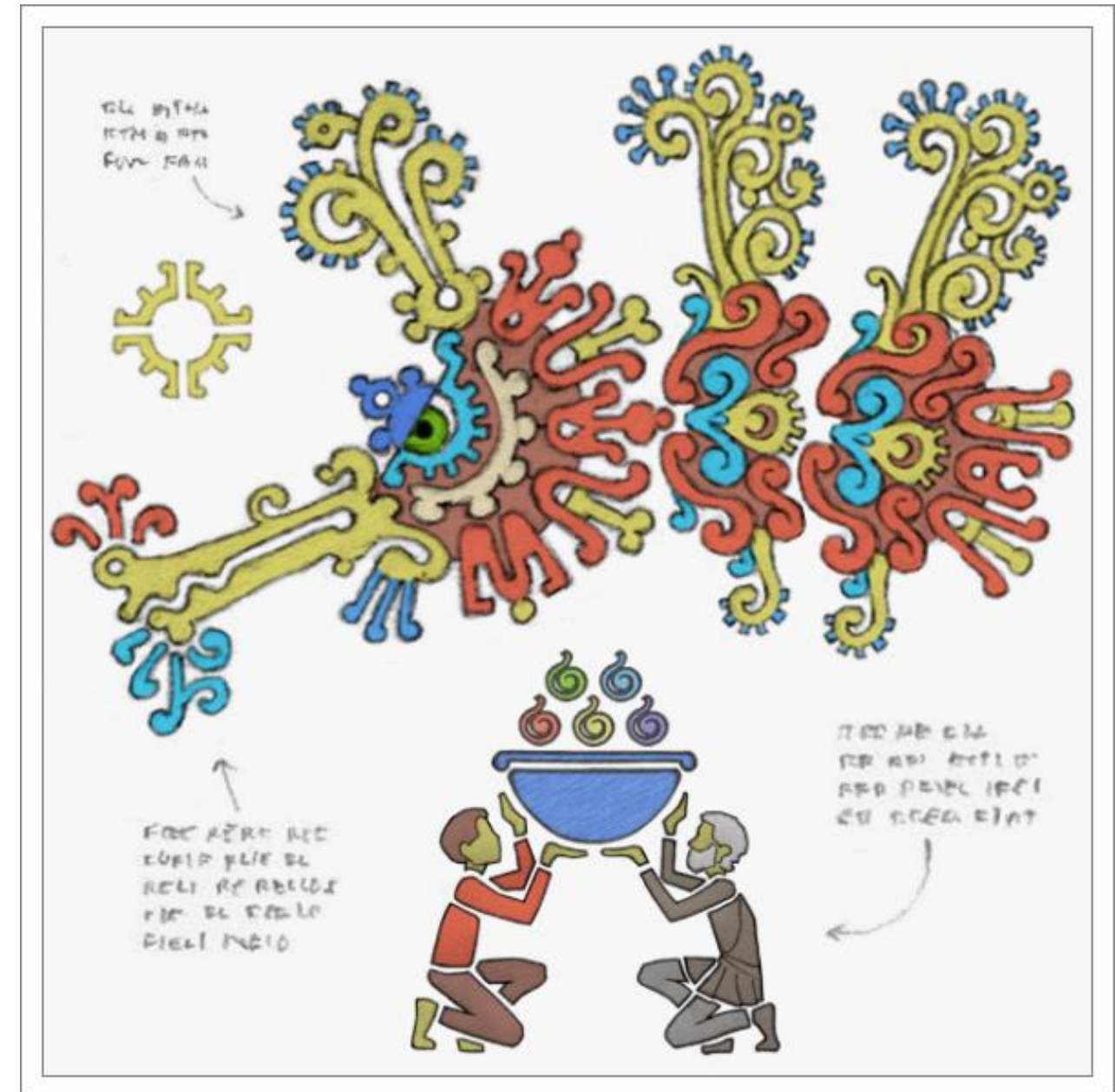
A parable is a puzzle

- A riddle that has to be unlocked to discover its message

- In this case that's a virtue

- Every parable has a second more general lesson

- Look for a second layer of meaning

A parable is acrostic

- Made up of allegorical elements with dual meaning

A parable about what?

- About the lifelong quest for hidden transcendent meaning

- What devotion to that quest means

- How are relationship to that quest changes as we grow older

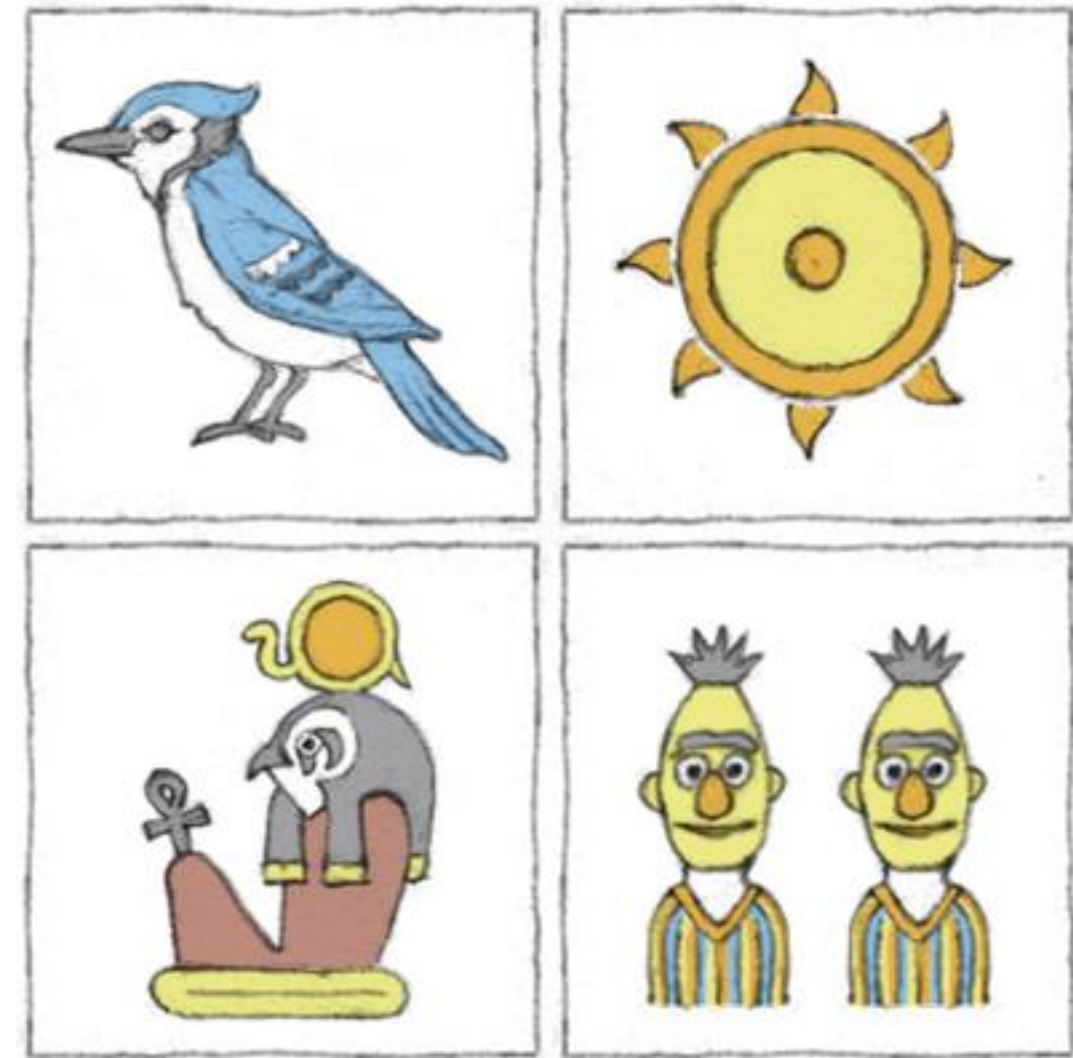- The rest I leave up to your interpretation

Theme!

- Adapting story and theme to mechanics and form
- Even if it should be the other way around

Thanks for listening!

- Follow me on Twitter if you want

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