



# Weaving 13 Prototypes into 1 Game: Lessons from 'Edith Finch'

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**Weaving 13 Prototypes into 1 Game:  
Lessons from 'Edith Finch'**



Our team

# About the game

- 13 short stories about a cursed family
- Each with unique, expressive gameplay
- Focused on evoking a feeling of the sublime



# What I'll be talking about

Part 1: Our approach to experience design

Part 2: Finding + communicating the feeling

Part 3: Building prototypes



**In other words: the unknown**



**And how to build something you yourself don't understand**



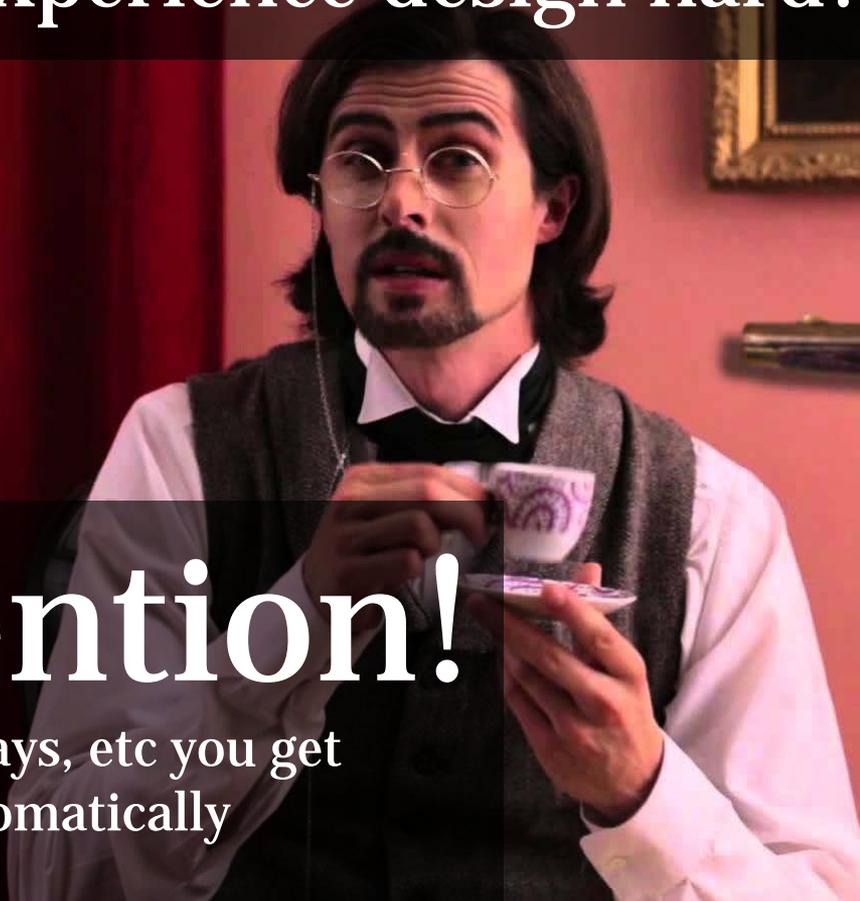
# Part 1: Our approach to experience design



Why is experience design hard?

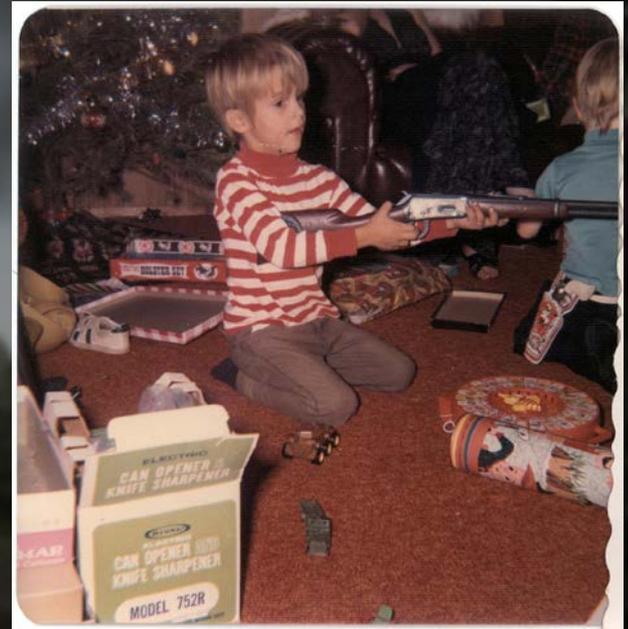
Attention!

In movies, plays, etc you get attention automatically



# Games are more like this:

- You've just given the player a gun
- ...and NOW you want to tell them a story?
- Good luck with that



# How do you fix that?

How do you create an emotional connection?

1. Don't give them a gun
2. Don't even try to tell them a story
3. Instead, create a world they want to explore, then give them tools to do that

That's what our prototypes are trying to do:  
Create an emotional experience through gameplay

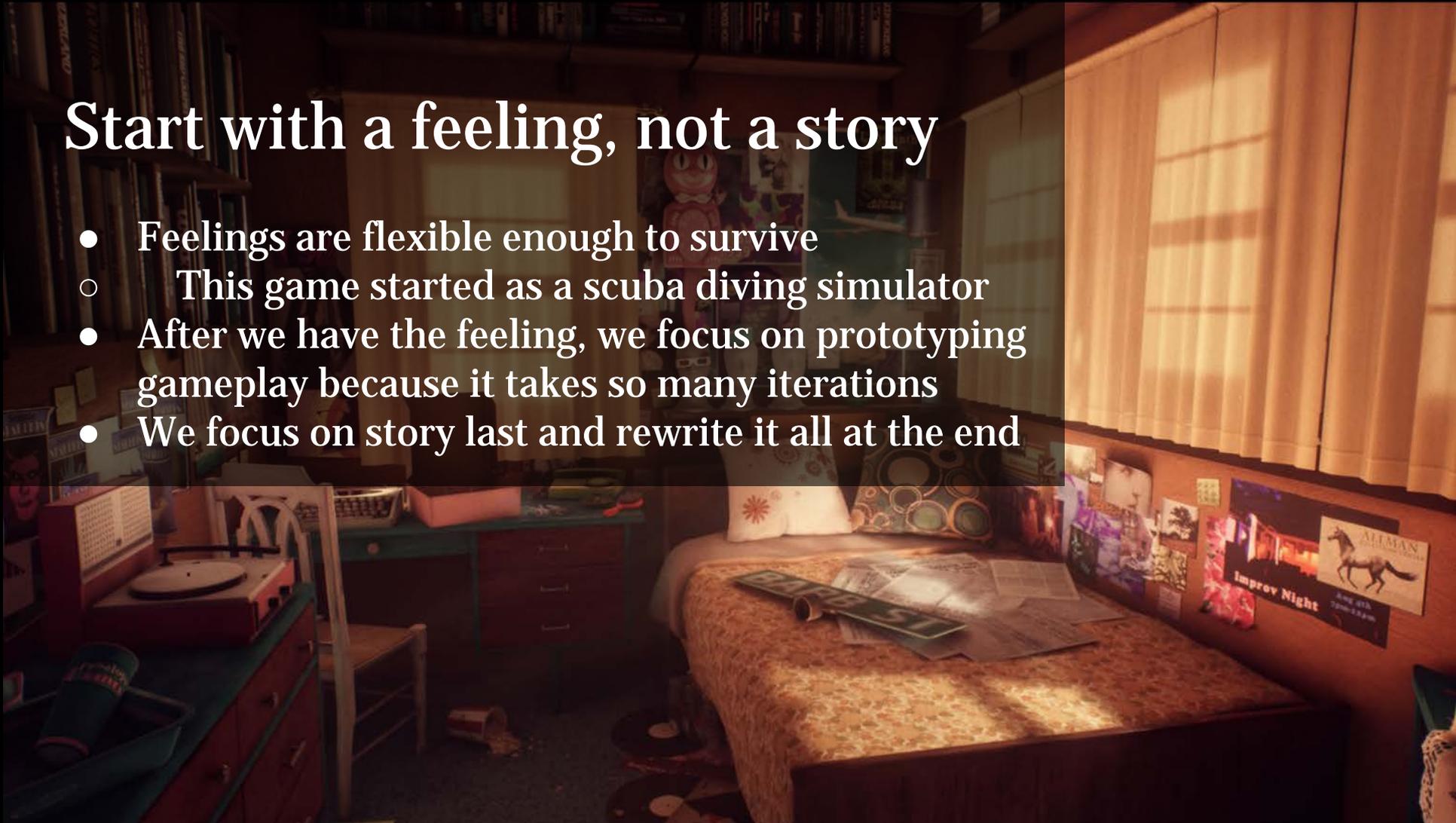


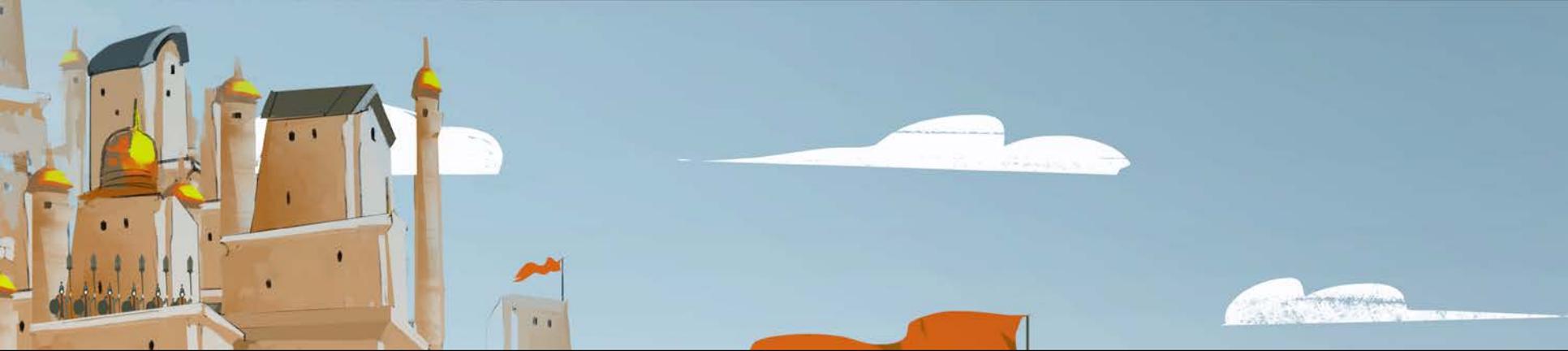
Use context instead of story



# Start with a feeling, not a story

- Feelings are flexible enough to survive
  - This game started as a scuba diving simulator
- After we have the feeling, we focus on prototyping gameplay because it takes so many iterations
- We focus on story last and rewrite it all at the end



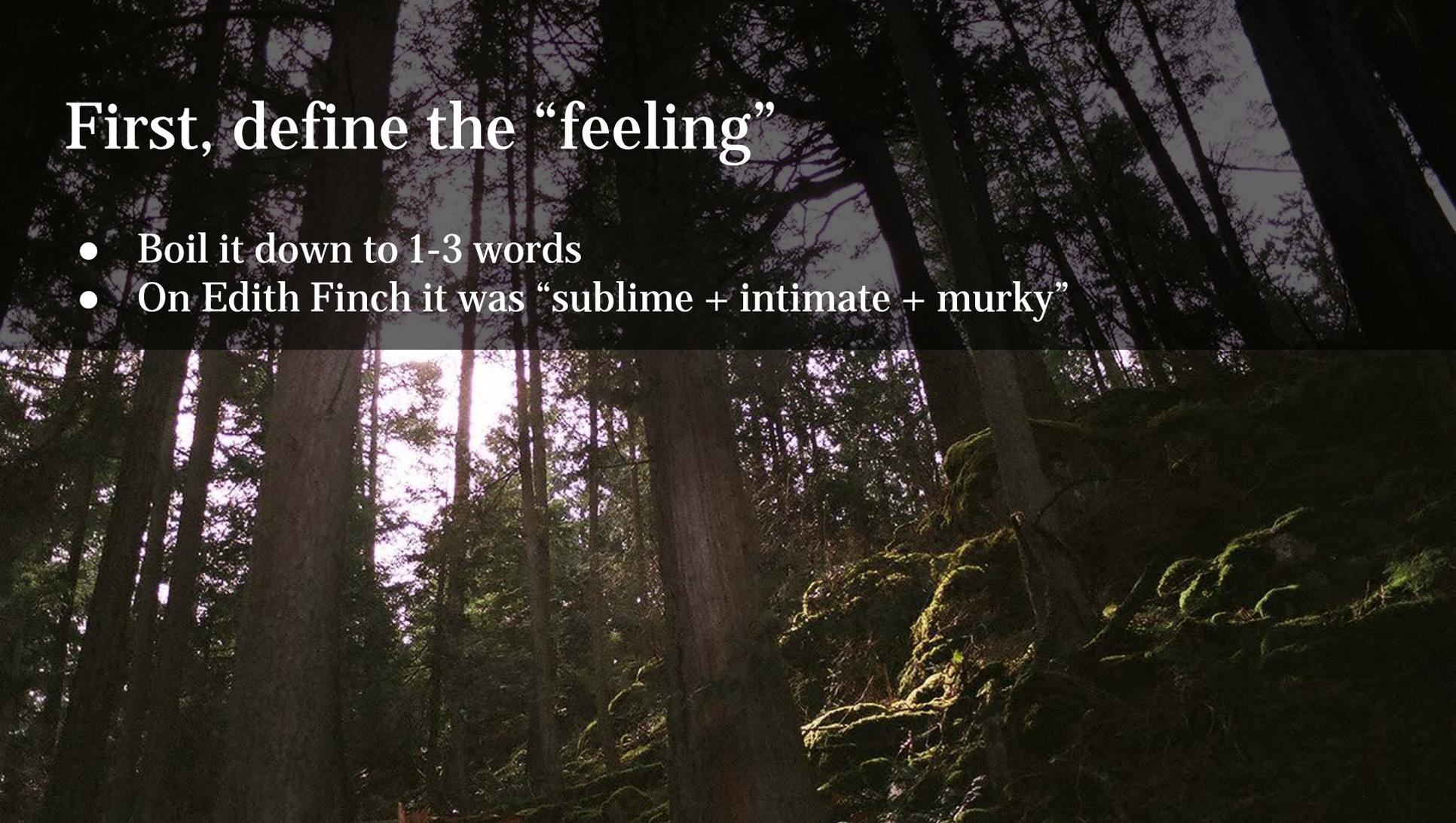


## Part 2: Finding + communicating the feeling



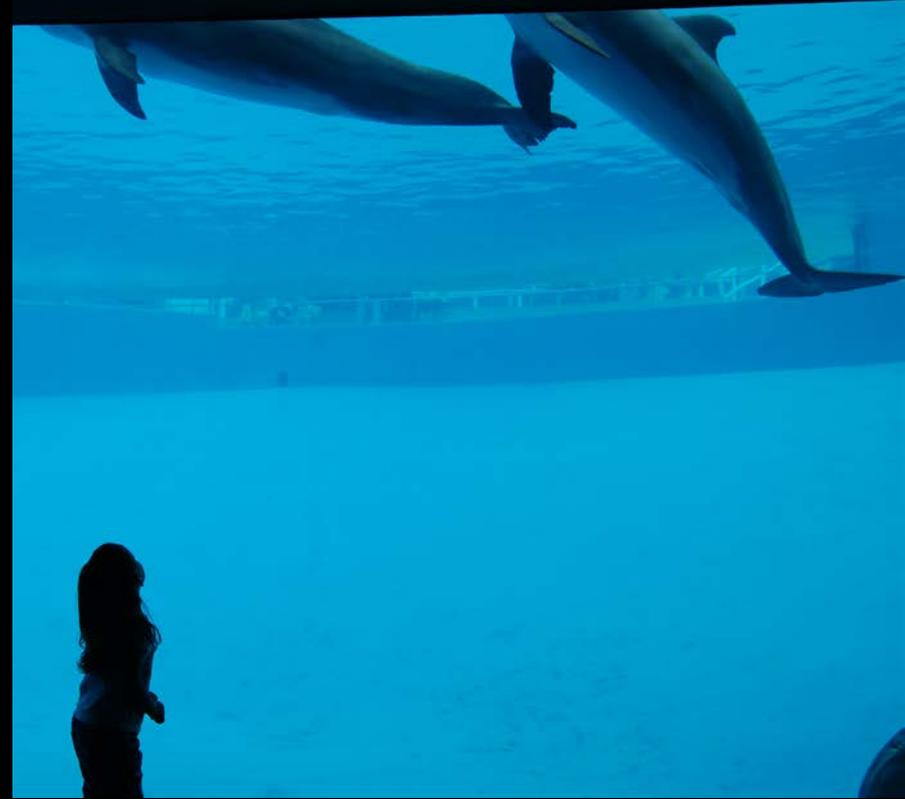
# First, define the “feeling”

- Boil it down to 1-3 words
- On Edith Finch it was “sublime + intimate + murky”

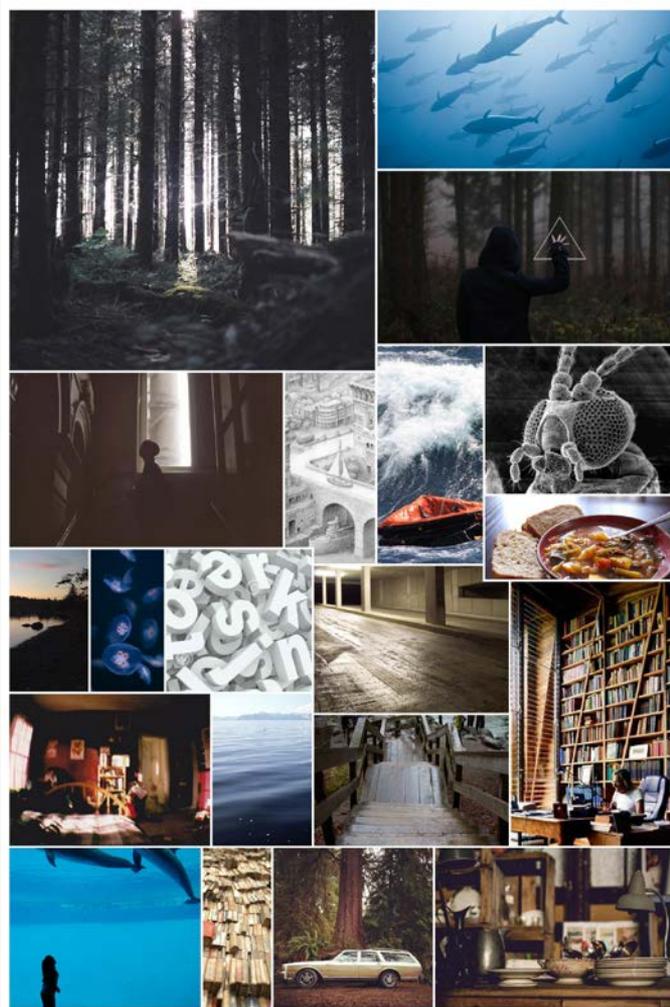


# Then, surround yourself with that feeling

- Read/watch/play references
- Listen to music + soundtracks
- Wallpaper your office
- Update your desktop background



# Our first mood board



The Nightmares of Edith Finch

# The feeling is the direction you want to sail

But don't bother making a map!  
It's too hard, too brittle, too boring

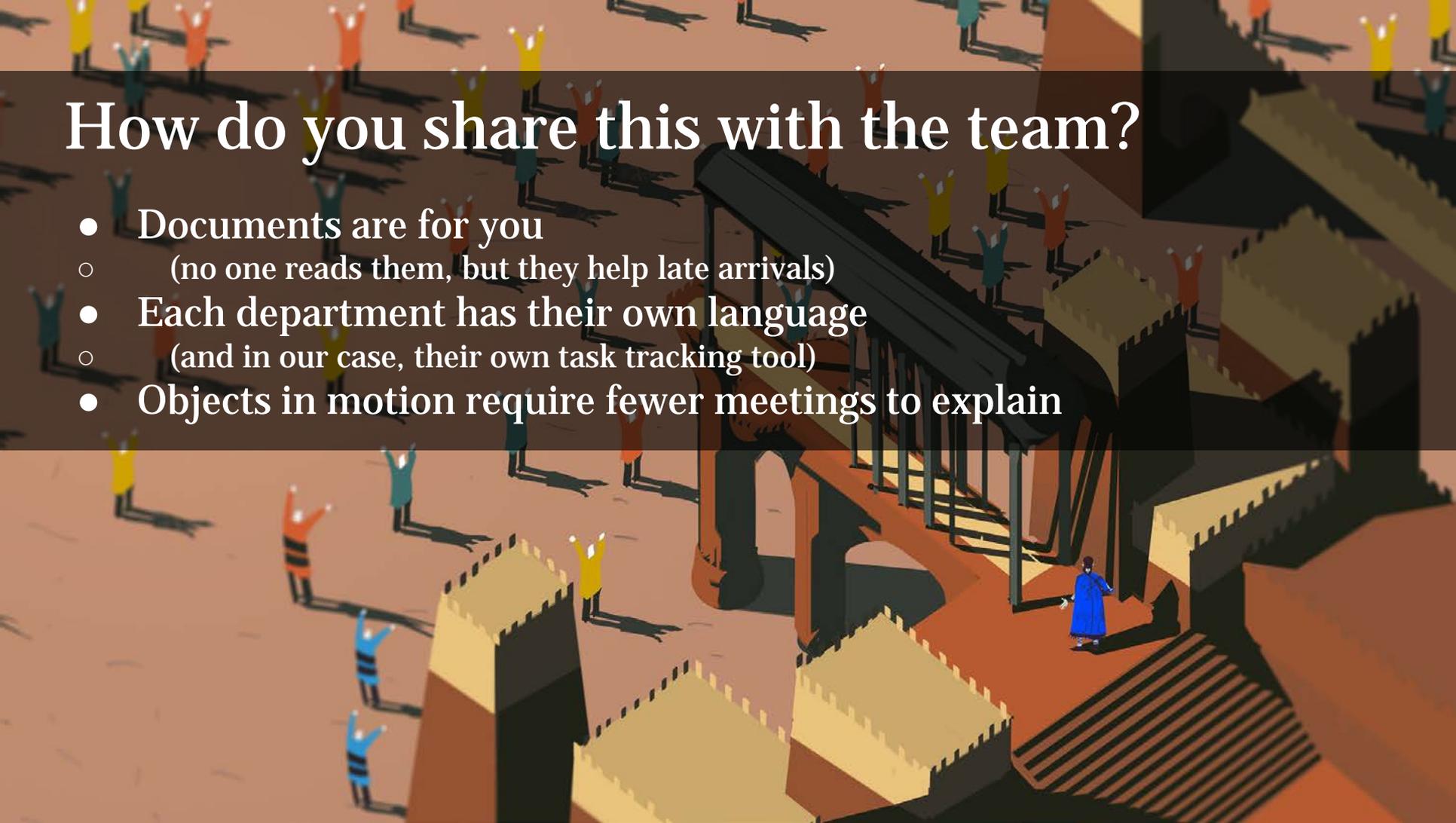


# Your direction helps you identify practical goals

For us, that became guidelines like:

- Scenes in nature
- Nested stories and unreliable narrators
- “sublime” turned into “overwhelmed”





# How do you share this with the team?

- Documents are for you
  - (no one reads them, but they help late arrivals)
- Each department has their own language
  - (and in our case, their own task tracking tool)
- Objects in motion require fewer meetings to explain

# What about sharing constant changes?

Designers see people playing often, for other departments try:

- Show + Tell every Friday
- Dogfooding (playing as a team)
- Watching playtests (as a team)
- Showing at conventions



E3 Hitlist

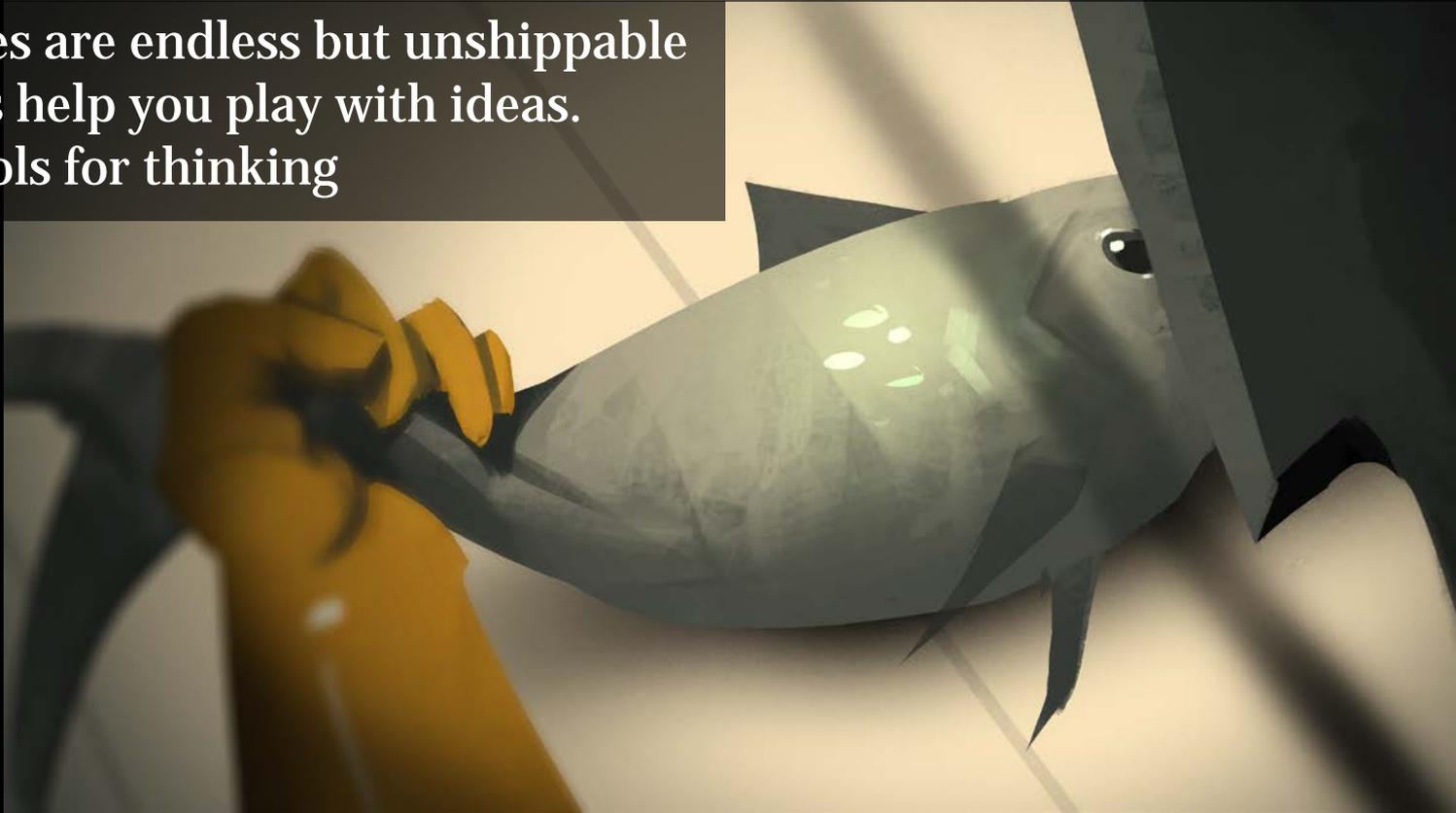
SHARE [Avatar]

# Everyone likes a (new) task list

	A	B	C	D	E	F	G	H	I	
1	Done	Pri	Name	Notes	Epic	Location	Department	Assignee	Jira	Time
2	done	4	swap out ferry trucks with greg's truck	new taillights needed		tentacle		b		
3	done	4	pencil update	texture pass		beach		b		
4	done	4	Fix attic door mesh issue (seems to be using temp + movable mesh near top of stair)	Modularise walls/stairs for that area		2F		b		
5	done	4	fix floating triangle on kelp fronds	weird tri in corner of kelp? What is this?		shark swimming		e		
6	done	4	Shark Rolling Terrain update	Chris will update the terrain with hi rez landscape, we will re-paint foliage.		shark rolling		e		
7	done	4	Add bookshelves throughout the first and second floor so we have fewer loose stacks. Want the house to feel stuffed with books but a little less disorganized. Like an old library / bookstore.	A mix of built-in and constructed bookshelves				e		
8	done	4	Move door handles inwards			Foyer		g		
9	done	4	Add barricade to library door	Just so people don't try to go in it...		Foyer		g		
10	done	4	Add Hookman created gash along the side of the foyer stairs	Use the decal on waiters floor?		Foyer		g		
11	done	4	Screw holes in Walter's door + damage to the frame, where the barricade used to be, and some debris around the barricade on the floor as if someone has pried it off with a crowbar.			WalterBedroom		g		
12	Done	4	Text on first page of Edith's journal should be closer together	Not sure why we have one line at the top of the page and then the other line at the very bottom. Feels like an unnatural use of space, especially for the first page.		Frontend		Theo		
13	Done	4	Peephole texture for library door barricade	We'll put Aalok's name on it, implying that he died in here. Picture can be any old library piled high with books.		Foyer		Theo		
14	Done	4	Vista islands should look less like cards (intersection with the water should not be a hard line)			HouseBootstrap		Theo		
15	done	4	add props to front porch (pots, boots, welcome mat, etc.)			House Walk-up				
16	done	4	darken grass value			House Walk-up				

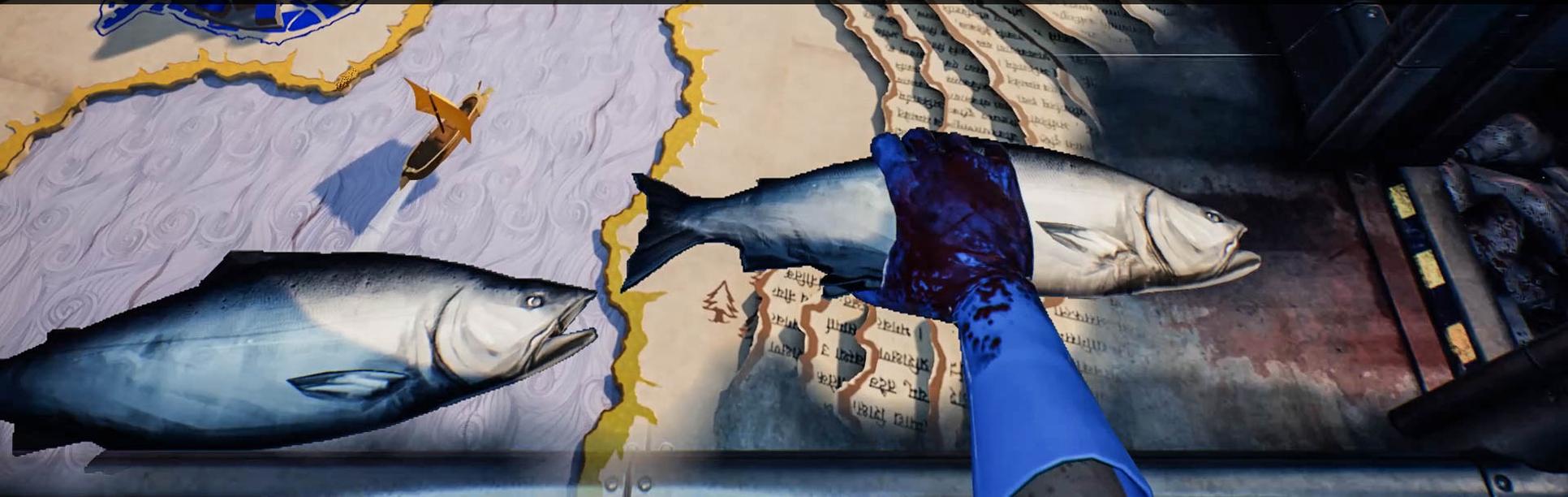
# Next step: Use prototypes to explore the feeling

- Possibilities are endless but unshippable
- Prototypes help you play with ideas.  
They're tools for thinking



# What you're looking for in prototypes

- When you're making something new, you don't have any good reference for what's going to work
- The goal is to find what the game itself wants to be



# What did our game want to be?

- Our stories became about people getting lost in their imagination because that's what happened to players
- Death felt like a failure until we embraced it, then “marching happily to your doom” became our game’s signature moment





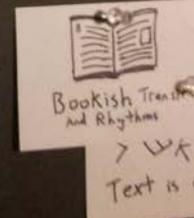
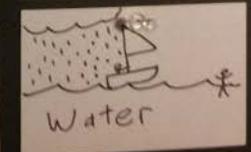
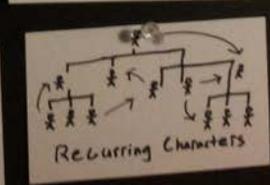
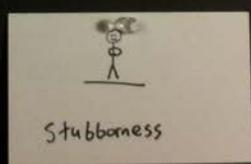
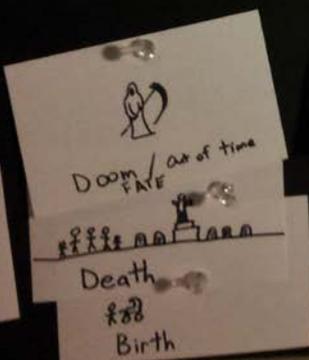
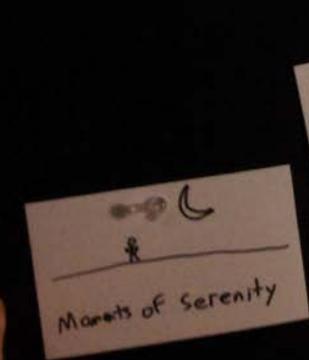
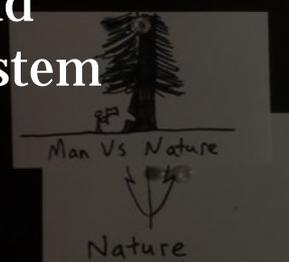
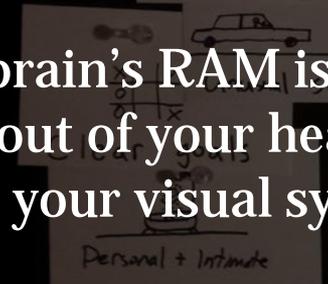
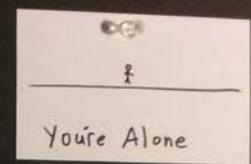
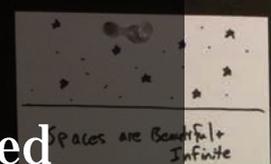
# Part 3: Building prototypes



# Tip #1/8: Notecards

- Problem: Your brain's RAM is limited
- Solution: Get it out of your head
- Bonus: Engages your visual system

Motifs



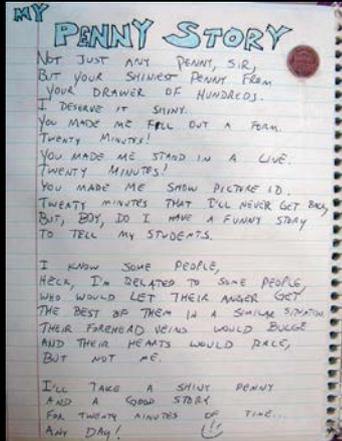
# Exhibit B: Our list of stories

SHARE

Needs to be in the basement, so he's a good bridge between generations.

	A	B	C	D	E
1		Name	Type	Gender	Notes
2		Hunger	Long	Woman	
3		2nd floor			
4		View-Master	Memento	???	
5		Swingset	Short	Man	
6		Surprise	Short	Woman	
7		Basement			
8		Train	Short	Man	Needs to be in the basement, so he's a good bridge between generations.
9		3rd floor			
10		Self-portrait	Short	Man	
11		Bathtub	Short	Man	Don't want to have this too close to Hunger story,
12		Kite	Short	Man	
13		4th floor			
14		Flipbook (The King's story)	Memento	Man	
15		Coronation	Long	Man	
16		Finale			
17		Finale	Long	Woman	
18					
19					
20		Wishlist			

# Tip #2/8: Write down all your ideas



“The mind is dyed in the color of the thoughts”  
*Marcus Aurelius*

# Tip #3/8: Do it yourself



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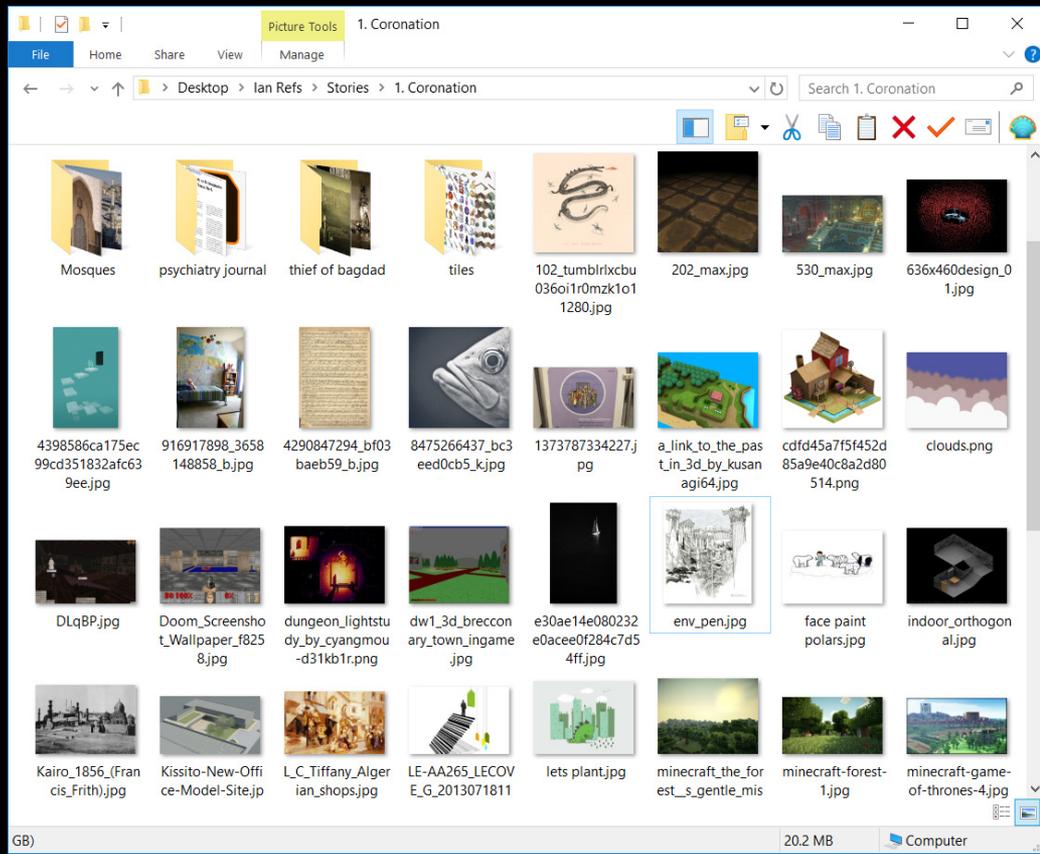


# Tip #3/8: Do it yourself



# Tip #4/8: Start with the simplest tool

- Reference hunting
  - Flickr, YouTube, etc
- Mood boards
- Previz animations
- Unity sketches
  - Bonus: no temptation to preserve prototype code
- In-engine prototypes



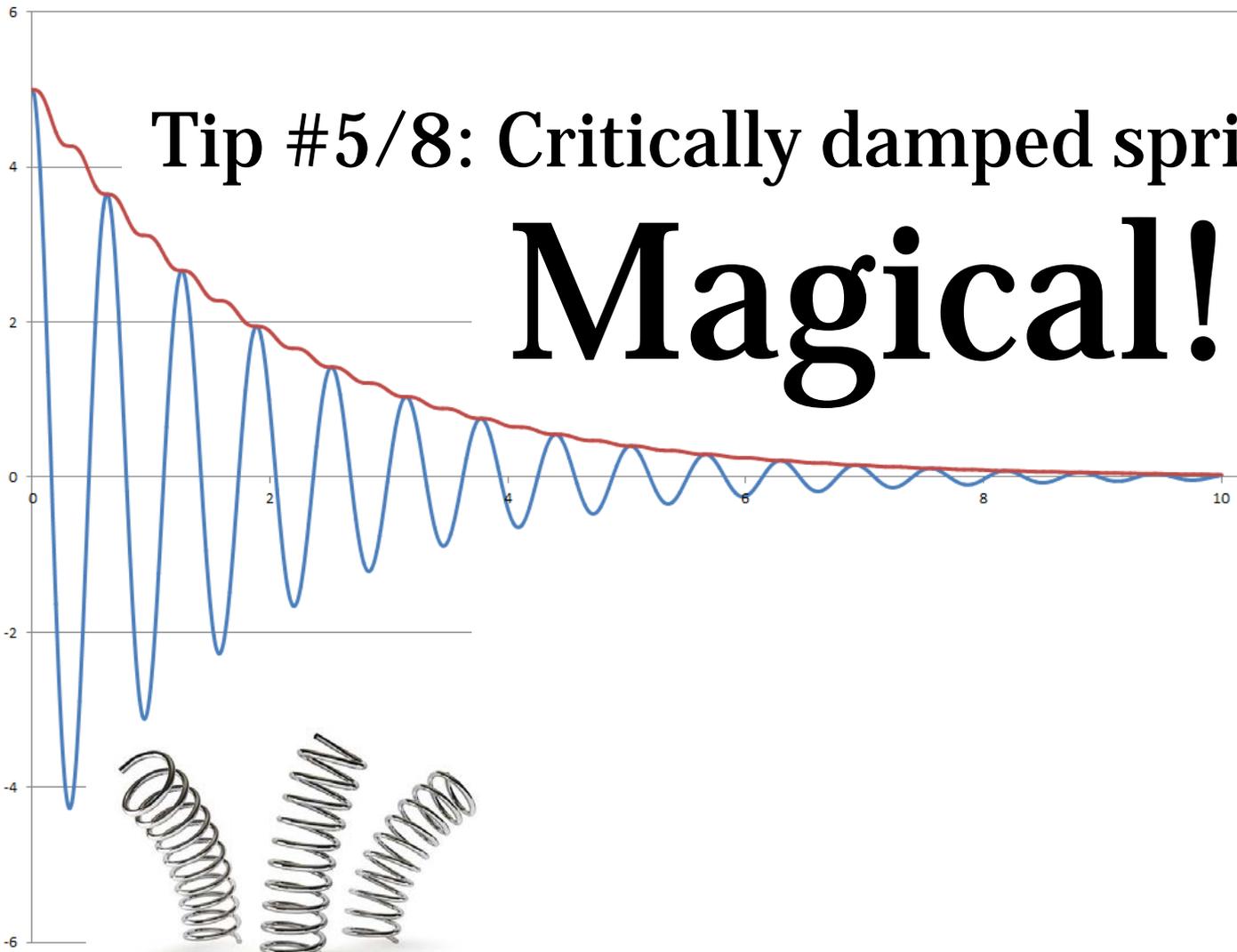
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- Reference hunting
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  - Bonus: no temptation to preserve prototype code
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Tip #5/8: Critically damped springs are...

**Magical!**



# We used them everywhere

- Edith's player camera
- Text animations
- Camera fades
- Owl camera
- Etc...



# Springs make changes feel smooth

- They're very simple, which makes them:
- Easy to add, even in prototypes
  - `Box.X = Box.Spring.Tick(currentTime); // simple input + output`

**Linear**



**Spring**



More math (and source code) at:

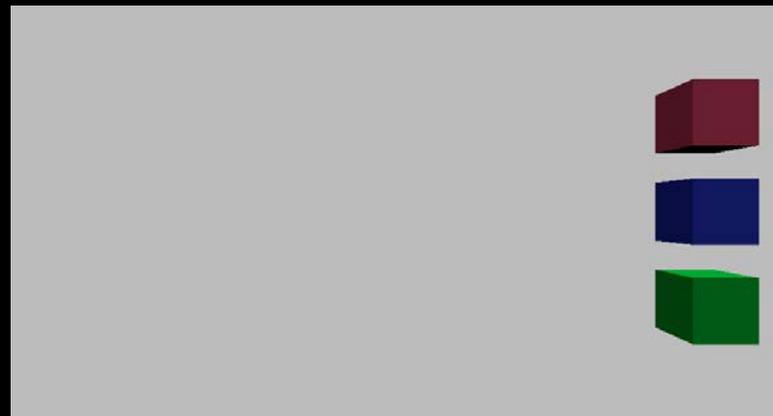
<http://www.ryanjuckett.com/programming/damped-springs>

# Springs are also easy to tune

- There's only two values: stiffness and damping
- Stiffness = how strongly it snaps back
- Damping = how strongly it oscillates / overshoot



Stiffness = 20, 10, 5



Damping = 0.1, 0.4, 1

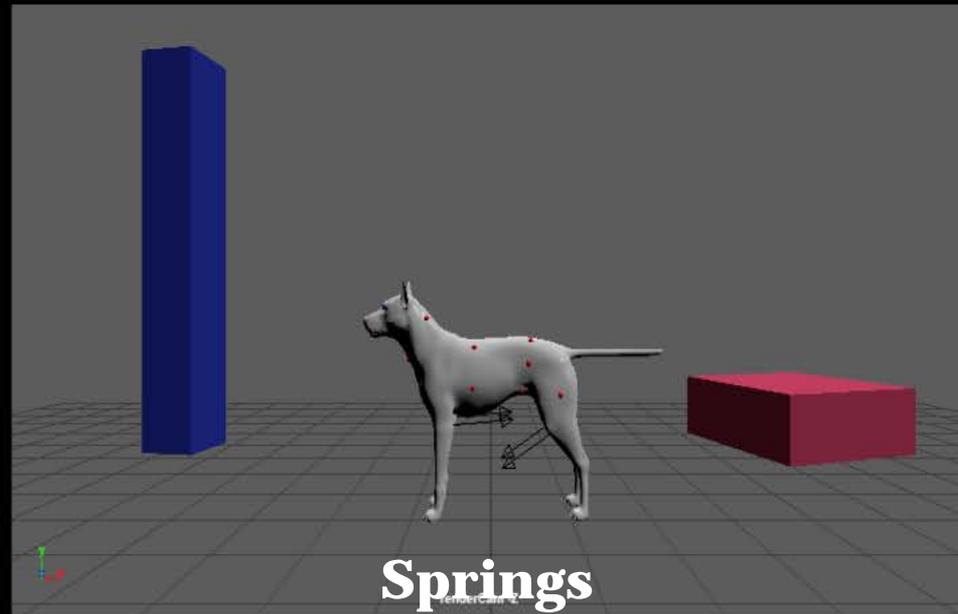
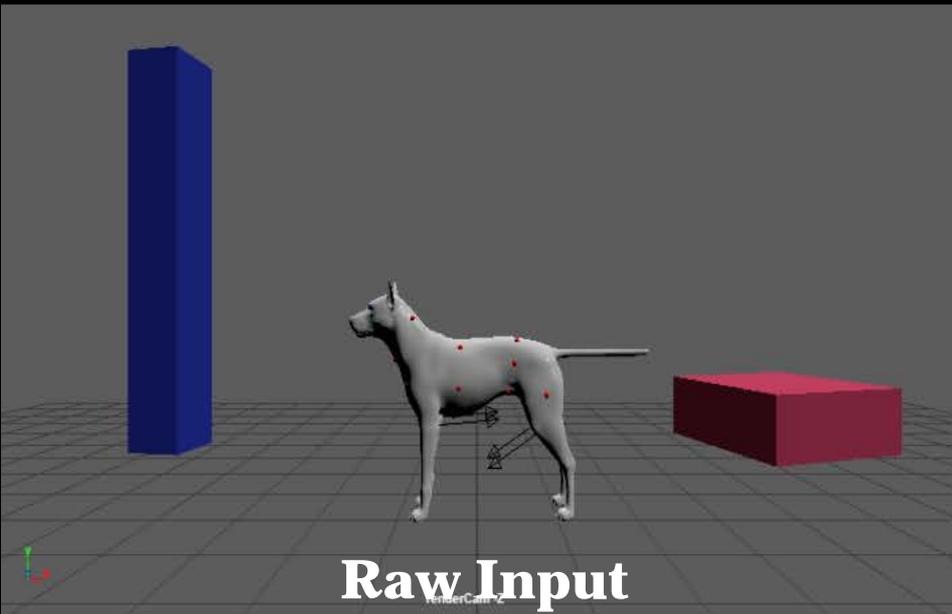
Great for smoothing input



**Springs**

**Raw Input**

# Like camera controls



# Tip #6/8: Music is magical too

- Easier to fine tune a feeling with music than gameplay
- Players often aren't aware of it
  - They just think: "I really like this now"
- You can change it very late in development



# Tip #6/8: Music is magical too

- Especially true for Gregory's story



# Tip #6/8: Music is magical too

- Especially true for Gregory's story



# Tip #7/8: Use playtests to remove obstacles

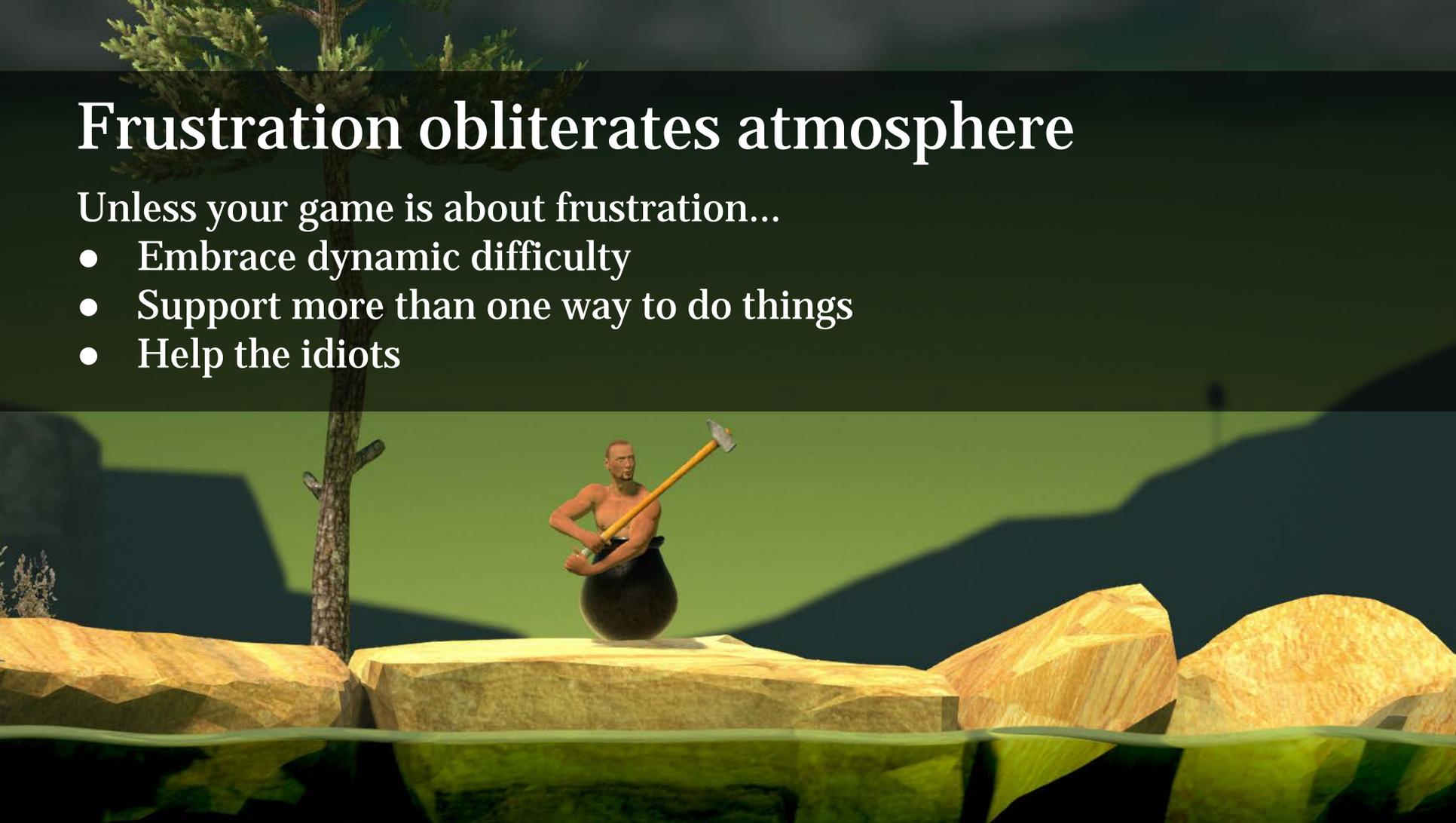
Many design issues can be fixed by brute force playtesting!

- Ignore suggestions
- Look at where they're looking
- If they repeat anything, that's bad. They're stuck
- Some people are idiots, don't worry
- Larger tests help get a collective read; 3-5 players works well
- Playtest at conferences, eg GDC

# Frustration obliterates atmosphere

Unless your game is about frustration...

- Embrace dynamic difficulty
- Support more than one way to do things
- Help the idiots



**Tip #8/8: Keep changing everything until the end, AKA...**

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# End of project miracles





Tip #8/8: Keep changing everything until the end, AKA...

# End of project miracles

- You finally understand what you're making
- You finally have the tools to do it
- Hopefully you know what's unlikely to explode
- Note: the window does get smaller over time...

# A Tale of Three Miracles



Miracle #1/3: We rewrote half of Edith's VO in the last week

Whatever Milton had found in the house, Mom didn't want it getting out

# Miracle #2/3: Redesigning every bedroom, again

- The last bedroom we designed showed us how all the others should be made



# Miracle #3/3: Our ending

- We spent 12+ months floundering



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- Then we had a playtest with a pair of smart designers



*Dino*



*Jenova*

# Miracle #3/3: Our ending

- We spent 12+ months floundering
- Then we had a playtest with a pair of smart designers
- One of them asked, “What if there was a birth?”



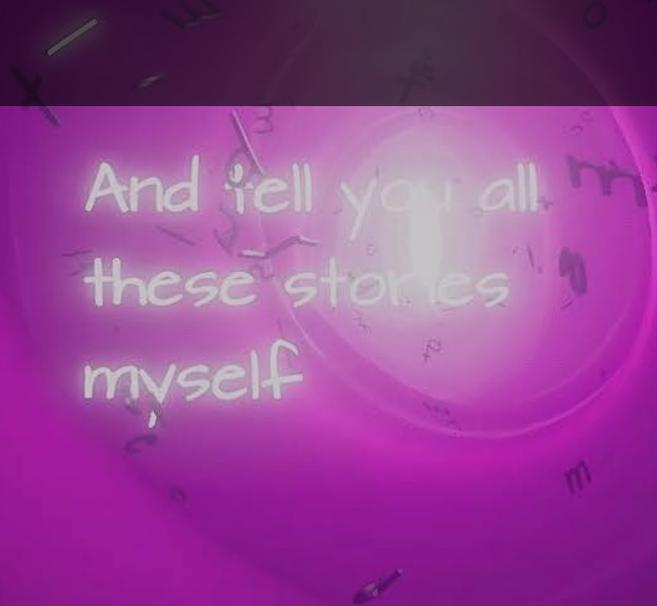
*Dino*



*Jenova*

# Miracle #3/3: Our ending

- We spent 12+ months floundering
- Then we had a playtest with some smart designers
- One of them asked, “What if there was a birth?”
- Oh.... right.



And tell you all  
these stories  
myself

# How did they do it?

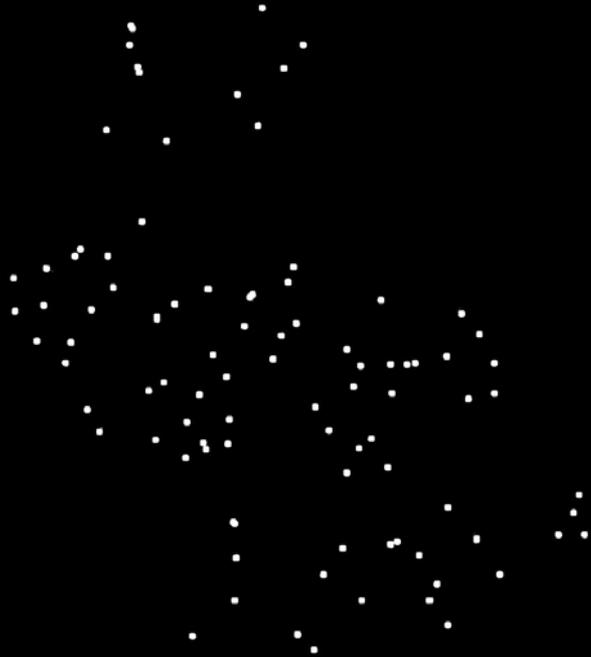


# How did they do it?

- HINT: They're not geniuses
- (though I guess they could be, for all I know)



It's the magic at the end of projects



It's the magic at the end of projects



...finally, you've got enough to connect the dots

It's the magic at the end of projects



...finally, you've got enough to connect the dots  
(though it helps to have fresh eyes)

A group of approximately 15 people, including men and women of various ages, are standing outdoors at dusk or dawn. They are holding a large, light-colored map of the United States. The background shows trees and a building. The overall mood is celebratory and grateful.

# Thank you, thank you, thank you!

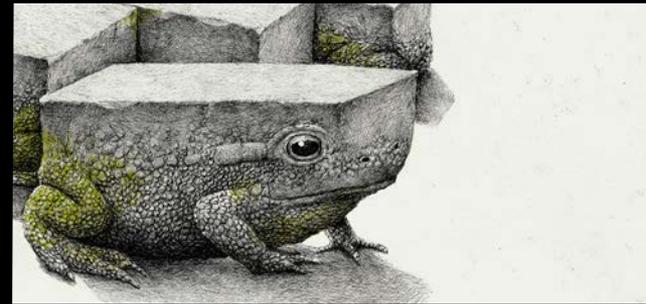
- To our team
- To our publishers
- To the press
- To the Edith Finch speedrun community
- To all our fans

*Hi, I am from Hungary.. sry, for my bad english...  
I am 48, but look like 40 (on better days :) ) and  
have a 16 old son too... After finishing the game we  
both were crying a bit, face to face in the sofa... :)  
Man usually cannot say thx for a crying, but we do  
now... thanks a lot, all of u..*

# We're hiring!

An Animation Programmer  
and a Lead Animator

[GiantSparrow.com/jobs](http://GiantSparrow.com/jobs)



Our next game is about “the enchanting beauty of animal locomotion”

# Q & A



## Other Edith Finch talks at GDC

The Distributed Art Direction of 'Edith Finch'  
*by Chelsea Hash, our lead technical artist*

The Narrative Innovation Showcase 2018  
*by Chris Bell, our lead designer*

Foolproofing the Controls for 'Edith Finch'  
*by Evan Rogers, our gameplay programmer*