

Creative Making: Advanced Visualisation and Computational Environments

An approach to iterative, playful, interactive spaces

Today you will learn about:

Design tools for emotional design

What is a game

What is play

Basic game elements

Systems Dynamics

Emergence

Visceral Design

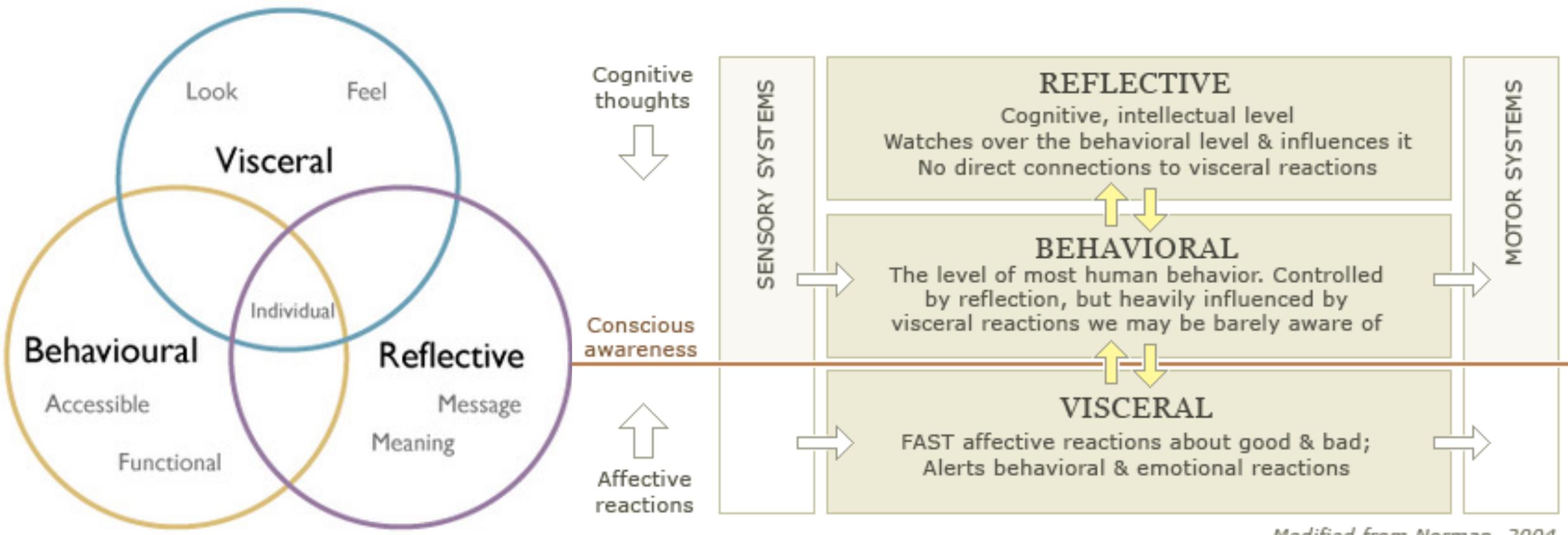
- Is what nature does
- Dominates physical features
- Has the same rules all over the world
- Is about initial reactions
- Can be studied quite simply by putting people in front of a design and waiting for reactions
- Is all about immediate emotional impact

Behavioral Design

- Is all about use
- Is the aspect practitioners focus upon
- Function comes first
- Is to understand how people will play a game
- Applying user-centered design
- Human-centered, focusing upon understanding and satisfying the needs of the player
- Has to be a fundamental part of the design process

Reflective Design

- Is all about the message, culture, the meaning of the product or its use
- Evoking personal remembrance
- Self-image
- All about long-term experience



What is a game?



journey

Actions, rules, goals, objects

A close-up photograph of a chessboard. In the foreground, a white king piece is being moved by a person's fingers. The background shows other chess pieces, including black pawns and a black king. The board has a light-colored square in the center.

Actions: The activities players can carry out in pursuit of goals



Goals: The outcome players try to achieve through play

RULE BOOK

Rules: The instructions for how
the game works



Objects: The things players use to achieve the game's goals

A group of children are playing outdoors in a grassy field. A young girl in a white tank top and black and white striped skirt is running towards the left. In the center, a group of children are sitting on the grass, some looking at a small object on the ground. A boy in a blue shirt and tan bucket hat is crouching nearby. To the right, another boy is squatting, and a woman in a blue jacket and sunglasses is sitting on the grass. The background shows a line of trees.

Playspace: The space, defined by the rules, on which the game is played



Players: Operators of the game





Second-order design: what we create through rules, actions & goals. Gone Home





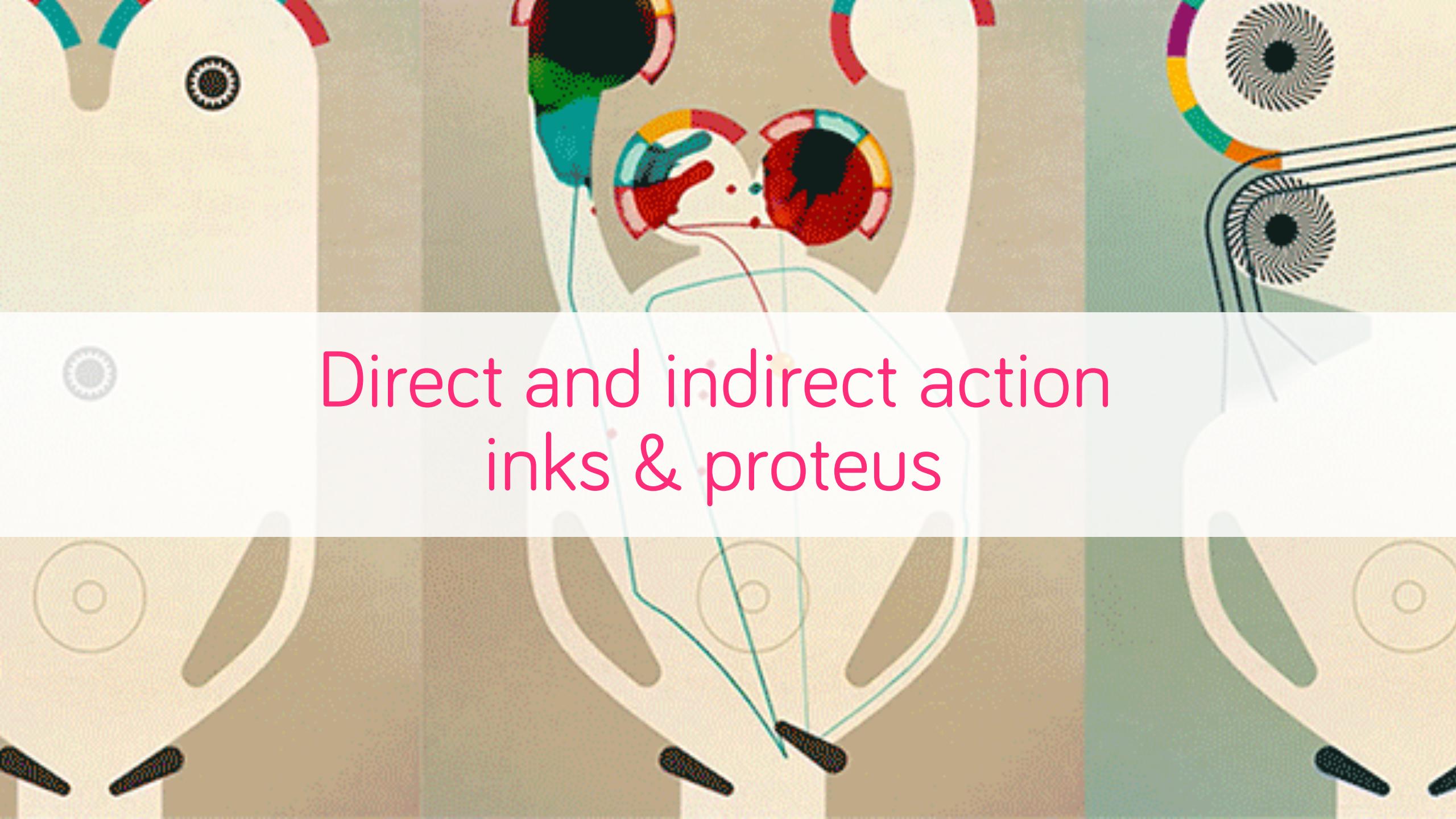
Space of possibilities: Papers Please



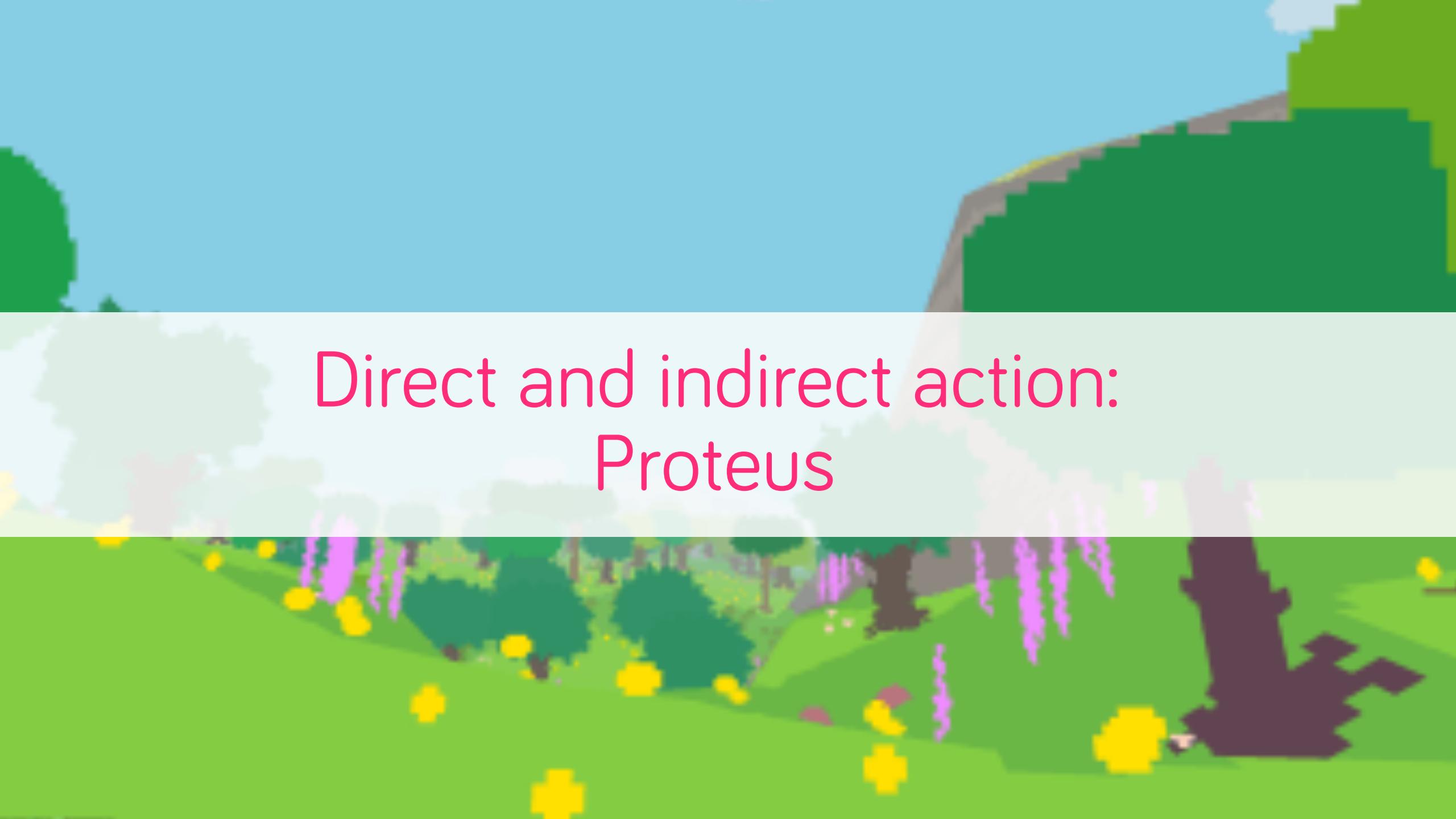
Game state



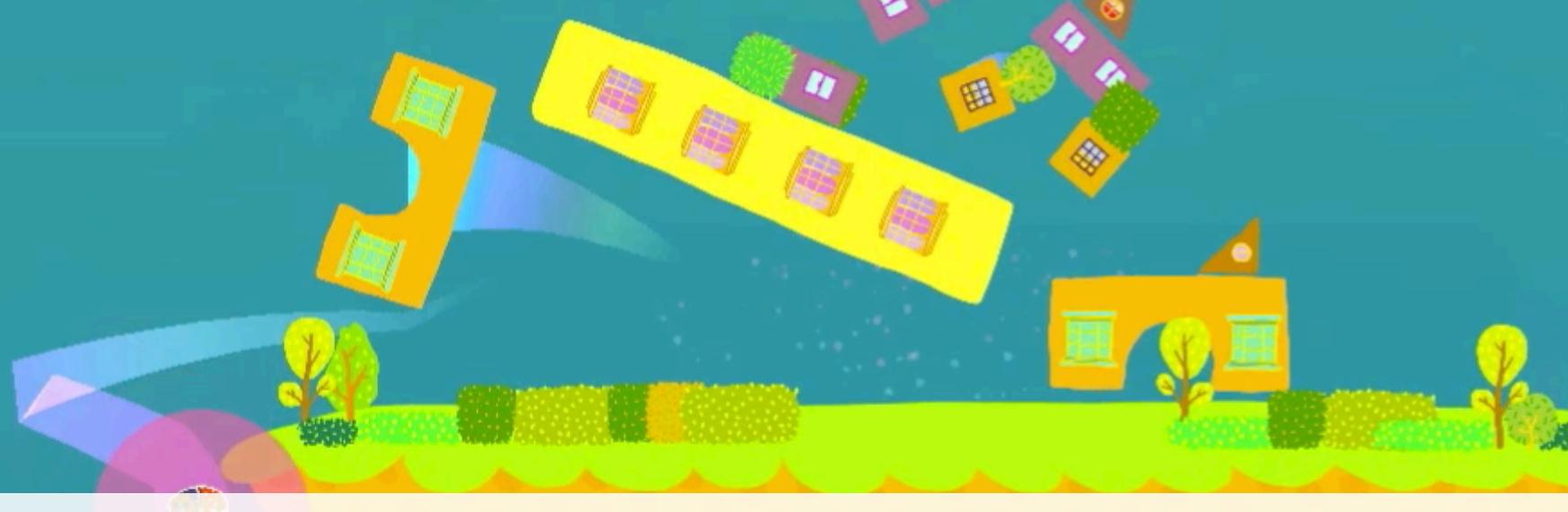
Constraint: Limits



Direct and indirect action
inks & proteus



Direct and indirect action:
Proteus



Goals: Slam City Oracles

The background of the image is a sunset scene with a large, bright sun on the horizon, casting a warm glow over rolling hills and mountains. In the foreground, there's a dark room with a desk. On the desk, there's a map spread out, some books, and a small statue. A lamp is also visible on the desk. The overall atmosphere is cozy and suggests a quiet evening.

Goals: Sunset

SUPER HEKAGON

Skill





chance and uncertainty

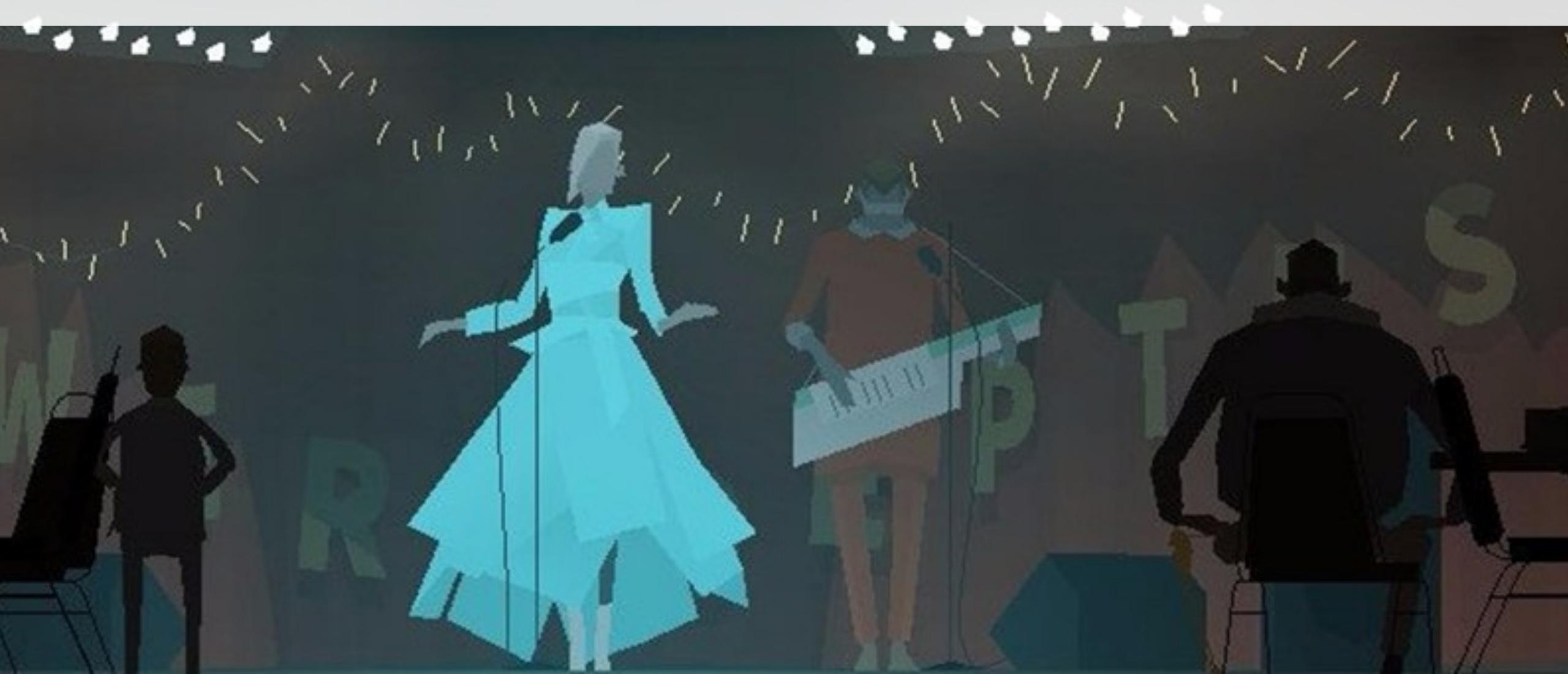


Decision-Making and Feedback: World of Goo

The background of the image consists of numerous overlapping circles of various sizes and colors, including shades of gray, white, orange, and black. These circles overlap to create a complex, layered texture across the entire frame.

Abstraction

Theme



Storytelling

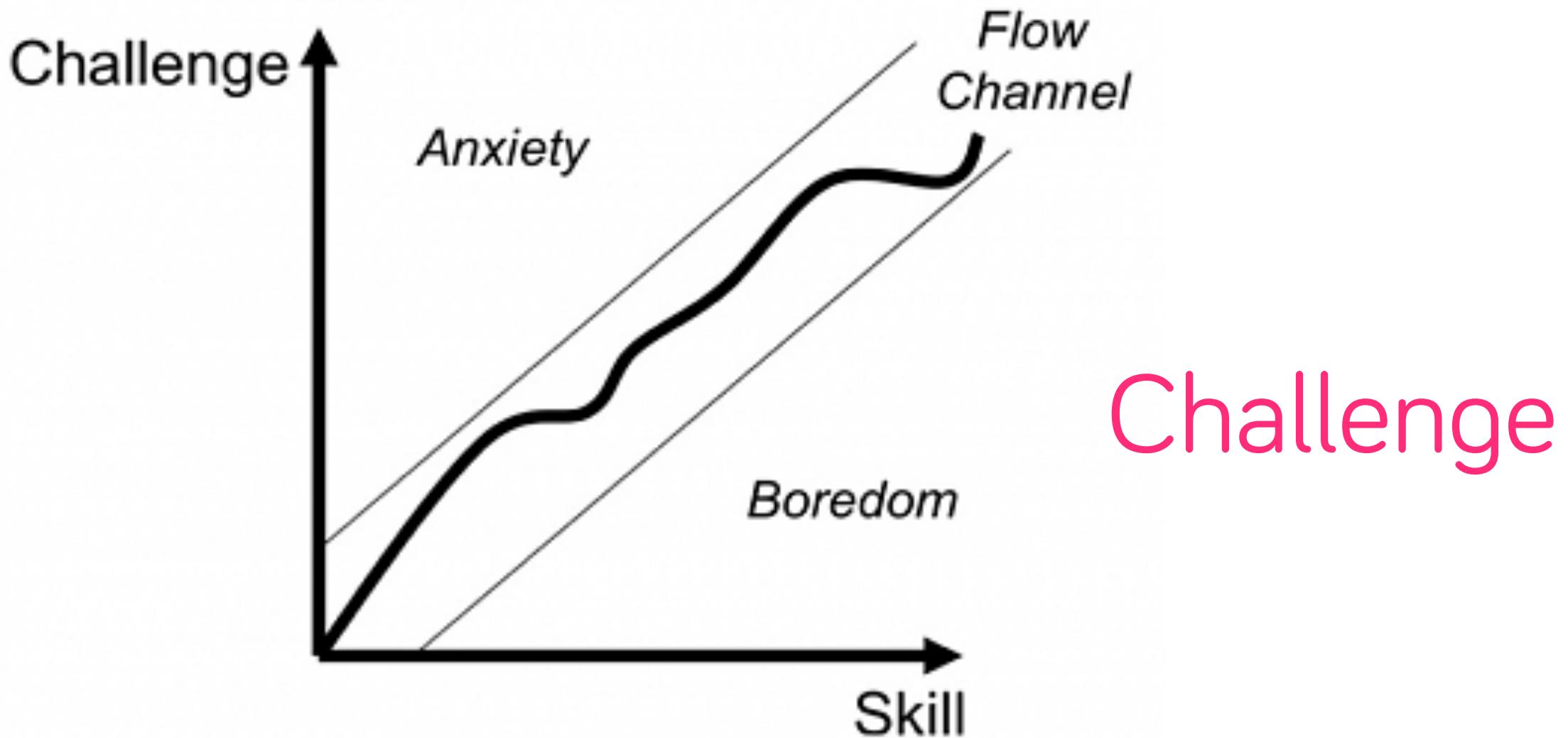
how do you
Do It?

Contexts of Play: Pacmanhattan

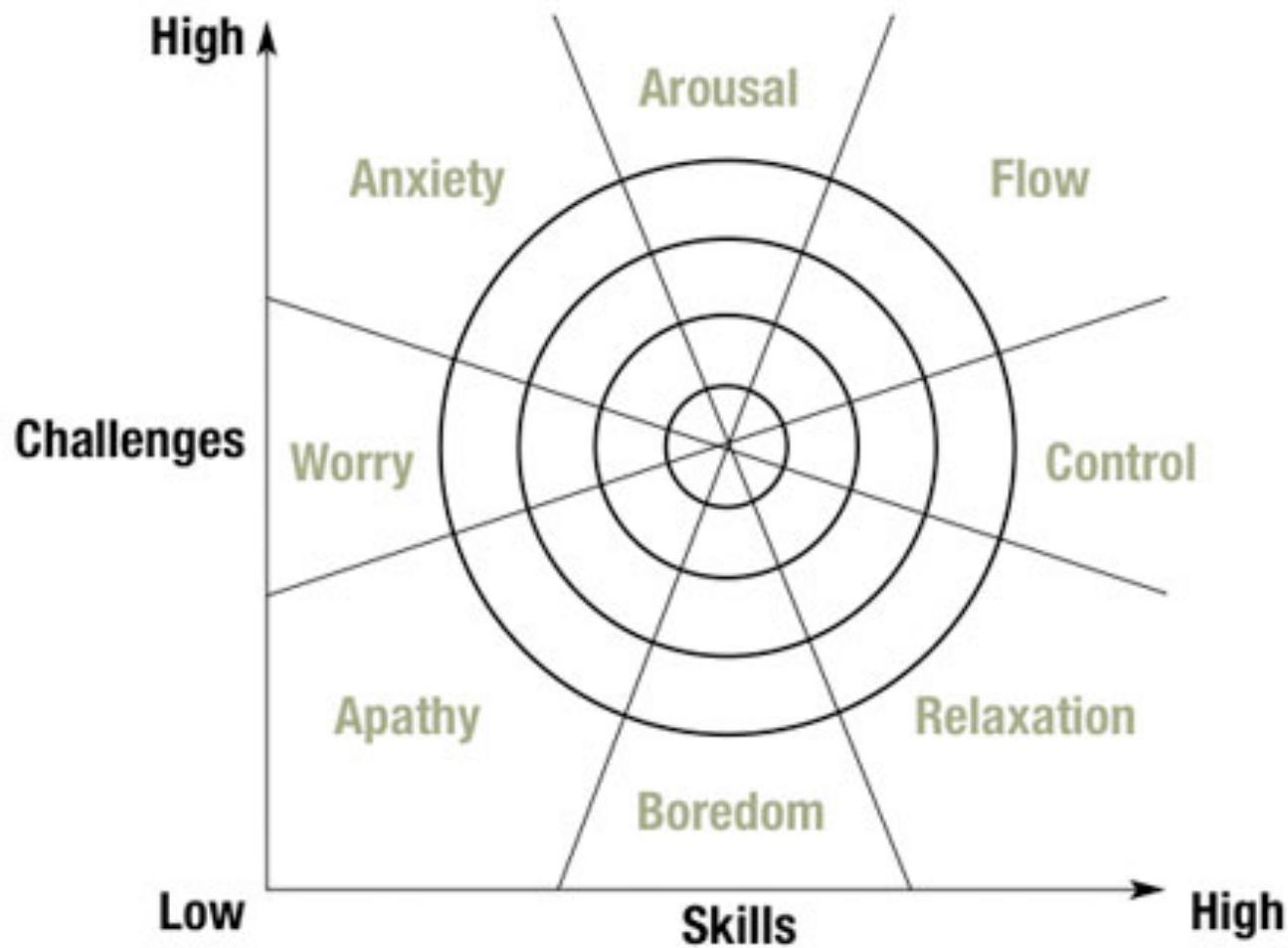


The background of the slide features a complex, abstract pattern composed of numerous overlapping circles of varying sizes and colors. These circles are primarily shades of grey, black, and white, with some orange and yellow accents. They overlap in a way that creates a sense of depth and texture, resembling a microscopic view of organic tissue or a stylized digital artwork.

Ludology: the study of games and play



"Flow" concept by Mihaly Csikszentmihalyi. Drawn by Senia Maymin.

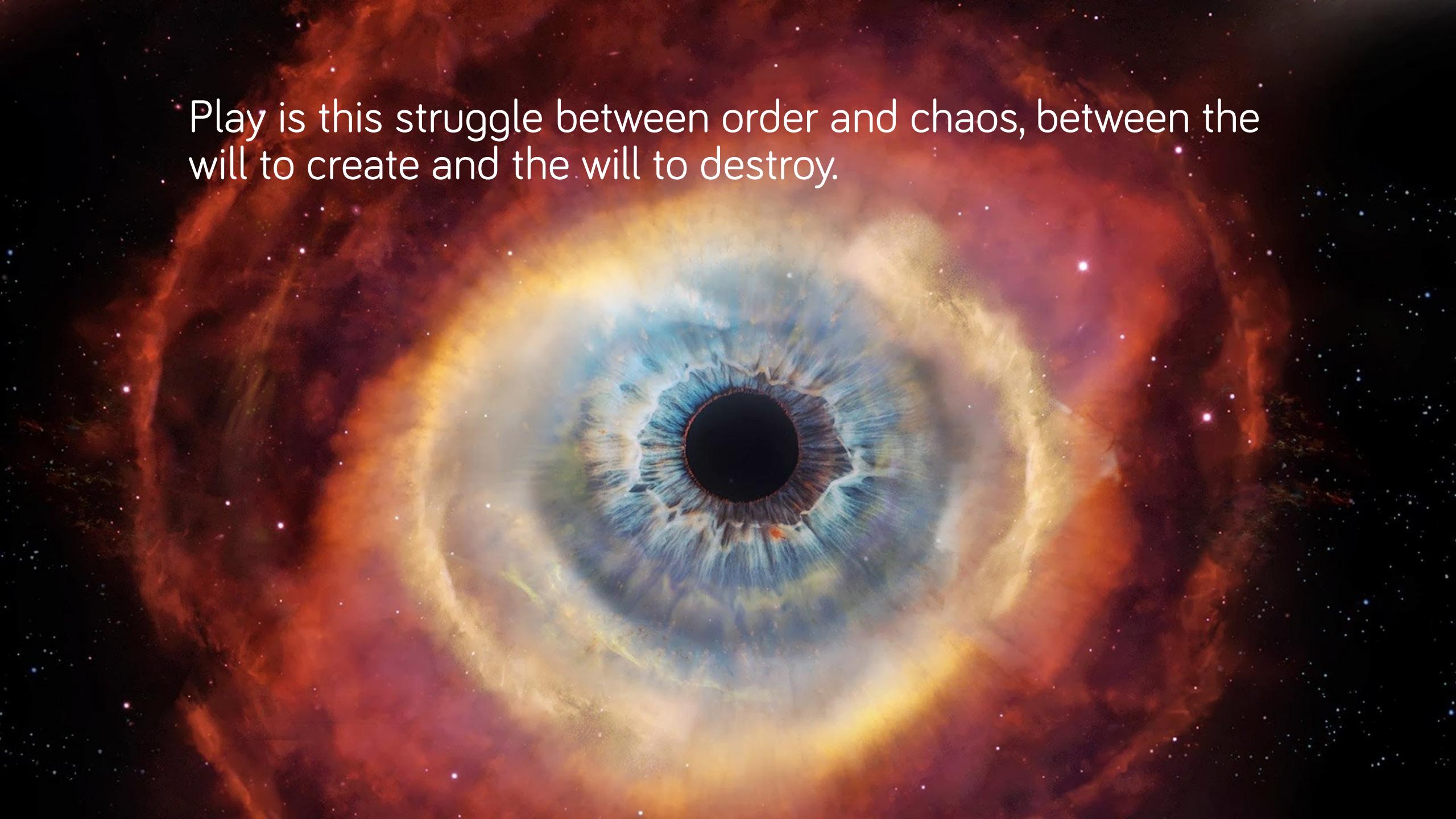


Absorption

Source: From the book *Finding Flow: The Psychology of Engagement with Everyday Life*, by Mihaly Csikszentmihalyi. Excerpted by arrangement with Basic Books. Copyright © 1998.

What is Play?

Creating wonder



Play is this struggle between order and chaos, between the will to create and the will to destroy.

A theatrical performance is captured against a black background. In the center, a figure wearing a mask with large, bulbous ears and a dark, textured costume stands atop a large, multi-colored fabric structure. The fabric is draped in a fan-like shape, with panels in yellow, red, green, blue, and orange. Several performers are visible around the base of the fabric: one on the left in a green and yellow outfit, another in the center in a dark outfit, and one on the right in a white shirt and dark pants. The overall atmosphere is dramatic and colorful.

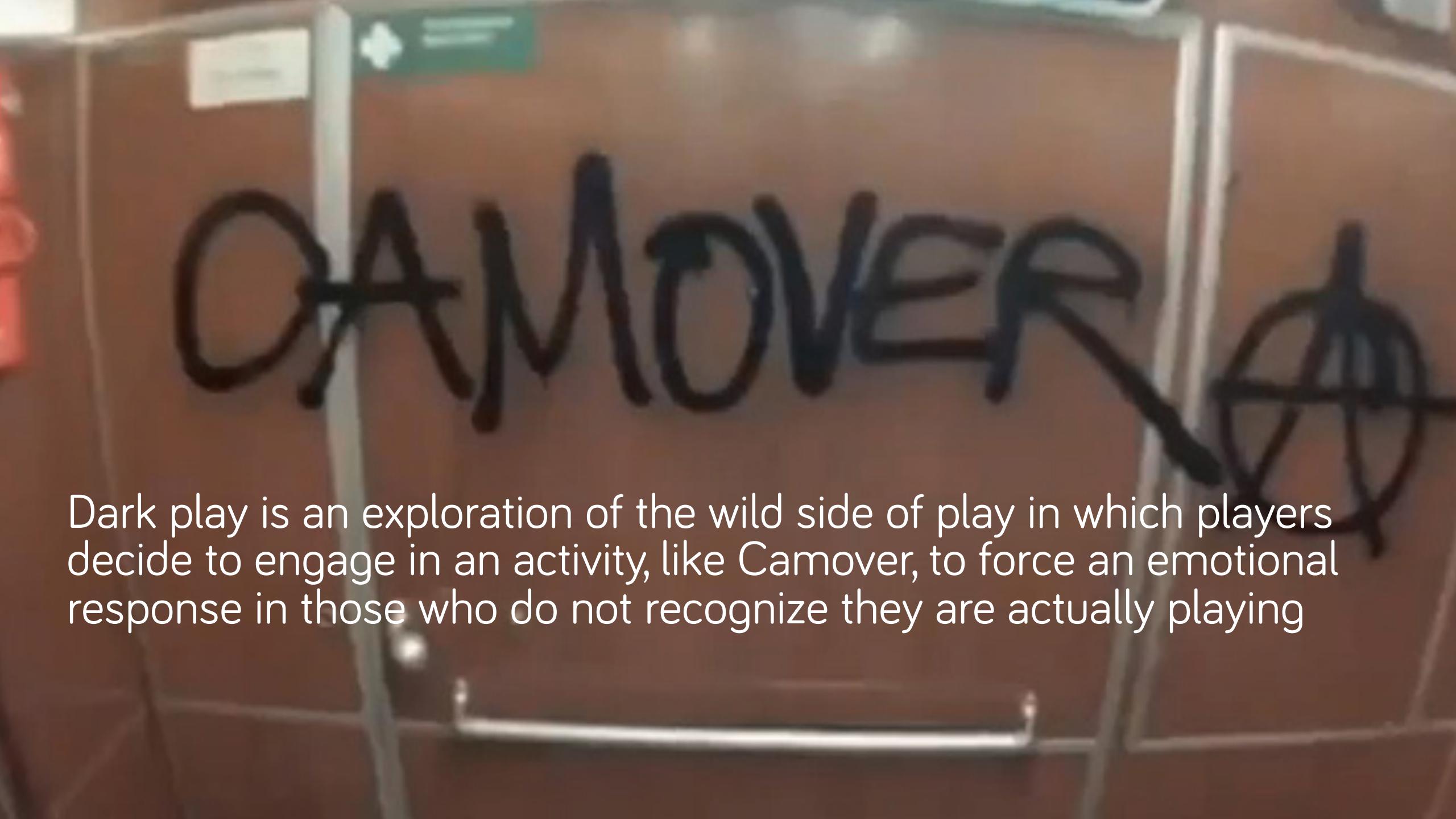
Play is carnivalesque

Equilibrium between creation and destruction in the embodied laughter.



Play is appropriative

It can take over the context it is embedded within



Camover

Dark play is an exploration of the wild side of play in which players decide to engage in an activity, like Camover, to force an emotional response in those who do not recognize they are actually playing



CAMOVER MONTREAL

In **CAMOVER**, you play a group of humans confronted with an invasion of cameras in a gentrified neighborhood. The struggle against the cameras is important, but your own survival is essential! To win you must form teams with friends in your neighborhoods and destroy as many cameras as possible. The game takes place throughout the summer. At the end, the neighborhood with the most points wins the game.

**Let the vandalism begin!
Let's make our summer nights
magical and vibrant!**

Terms of Engagement

1. Preparation

Speak with your friends and gather a small affinity group. Walk around your area and identify the potential targets. During the scouting, take care to note the following aspects for each target: where to mask up without being seen, where to position the lookouts, and where the exit route will be.

Gather the following items:



mask, gloves & unidentifiable clothing



extinguisher / hammer / rope / spraypaint / rocks

2. Sabotage

The night has arrived. Choose the right tool and be on your way. Position the lookouts, mask up at the predetermined spots and check that no one sees you. Carry out the act of sabotage and then take the exit route as quickly as possible.

3. Let people know

Count up your points: one for each camera. Write a short text recounting the actions and send it to mtlcounter-info.org. You can also attach an image or video to the text. If you manage to leave with any of the destroyed cameras, get creative: pose with them, dance with them, turn them into puppets or an art installation.

Why play?

- To develop skills that can be used in many situations: using certain tools, planning actions, becoming unidentifiable, escaping from the police, communicating during these types of moments.
- Developing and nourishing complicity and affinity between friends through action.
- Transform our relationships to our neighborhoods: develop an intimate knowledge of the streets, the buildings, the alleys, etc.
- Make the neighborhood safer: for people whose daily activities are criminalized (drug dealers, sex workers, etc.), for graffiti writers, and for those who wish to struggle against systems of domination.

For camera mapping in Montreal:

montreal.sous-surveillance.net

To post communiques of your actions:

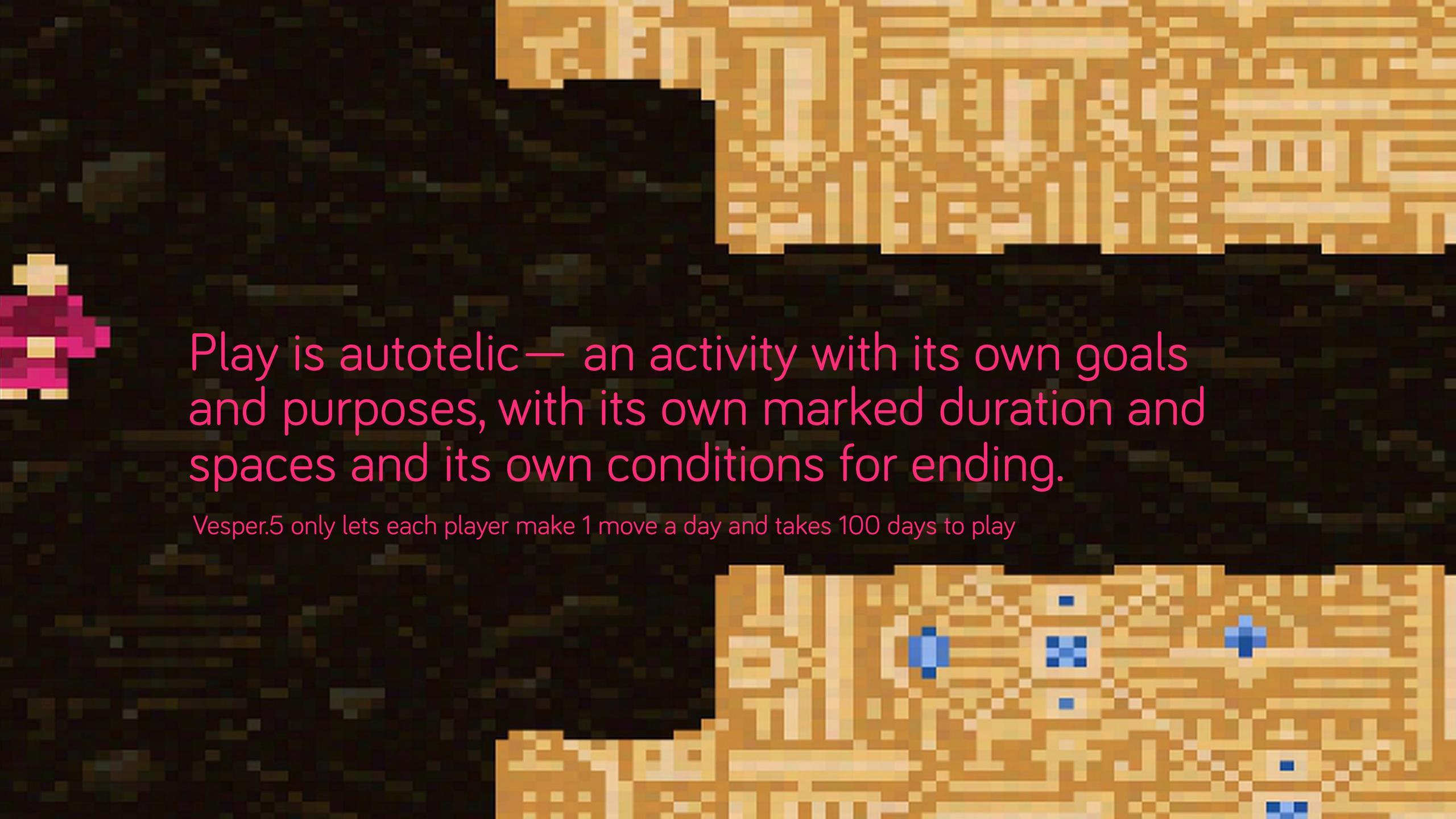
mtlcounter-info.org

Using rope

- Attach a small object, such as a piece of wood, to a rope.
- Throw the rope over the camera arm.
- Grab the two ends of the rope and pull!

How to fill an extinguisher with paint

- The right extinguishers are silver and have a nut and a valve. They can be found in apartment buildings and restaurants.
- Empty the extinguisher by squeezing the trigger, and remove the top by unscrewing the nut. Pour in a mix of latex paint and water, with a 1:1 ratio.
- Replace the top and pressurize the extinguisher with a bike pump or a pressurizer, to 100 PSI.
- Use gloves while touching the extinguisher to avoid leaving fingerprints on it. It's a good idea to wear a raincoat to keep the spray off your clothes.



Play is autotelic— an activity with its own goals and purposes, with its own marked duration and spaces and its own conditions for ending.

Vesper.5 only lets each player make 1 move a day and takes 100 days to play



The main difference between play and playfulness is that play is an activity, while playfulness is an attitude.



A close-up photograph of a large tree trunk. A significant portion of the trunk has been hollowed out, creating a large, dark, circular opening. The interior of the hollow is filled with a dense, intricate network of smaller branches and twigs, resembling a complex web or a natural labyrinth. The tree is covered in dark, textured bark, and moss is visible on the lower right side. In the background, a grassy field and some bare trees are visible under a clear sky.

Playfulness glues together an ecology of
playthings, situations, behaviors, and people

Emergence

larger systems arise through interactions among smaller or simpler systems such that the larger systems exhibit properties the smaller/simpler entities do not exhibit.

Conway's Game of Life

In 1970, Martin Gardner wrote an article in *Scientific American* that documented mathematician John Conway's new "Game of Life," describing it as "recreational" mathematics and suggesting that the reader get out a chessboard and some checkers and "play."



Perlin Noise

Perlin noise is a type of gradient **noise** developed by Ken **Perlin** in 1983 as a result of his frustration with the "machine-like" look of computer-generated imagery (CGI) at the time. He formally described his findings in a SIGGRAPH paper in 1985 called An image Synthesizer.



Systems Theory

Systems theory is the interdisciplinary study of systems. A system is a cohesive conglomeration of interrelated and interdependent parts that is either natural or man-made.

Systems Theory

- spatial and temporal boundaries
- surrounded and influenced by its environment
- described by its structure and purpose or nature and expressed in its functioning.

Systems Theory

- Changing one part of the system usually affects other parts and the whole system, with predictable patterns of behavior.
- For systems that are self-learning and self-adapting, the positive growth and adaptation depend upon how well the system is adjusted with its environment.



System Dynamics

System Dynamics

- Games as systems of rules (mechanics) which come together to create system dynamics
- Focus on the actions and interactions between parts
- Games create play which in turn generate physical, intellectual and emotional responses (Visceral, Behavioral, and Reflective responses)