aequilibrium

human intervention in undersea world

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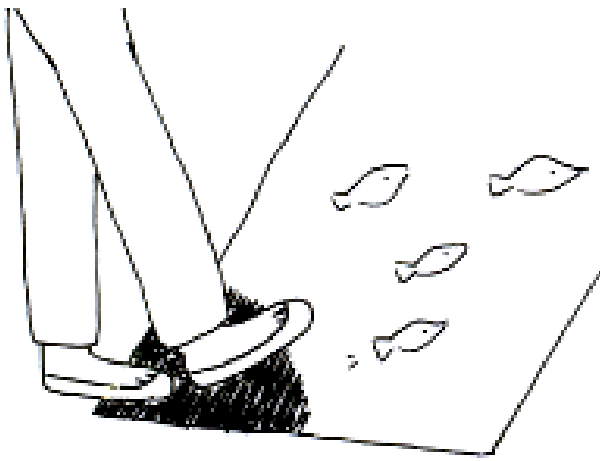
What

Experience the equilibrium between the aquatic life of the venetian lagoon and external human influences.

The biological cycle of the lagoon is affected by fishing (intensive or illegal), industrial fisheries, pollution, boats traffic and global warming.

With Aequilibrium you can experience the weight of your actions in a complex system and learn the importance of balancing different elements.

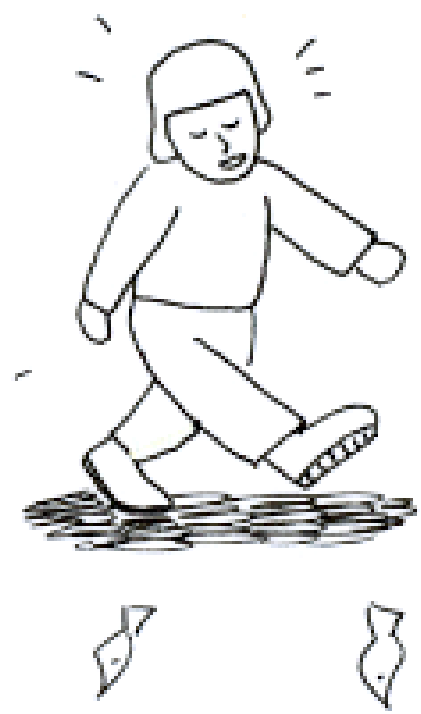


Who

Passersby, fish sellers and fishermen, Comune di Venezia, environmentalists.

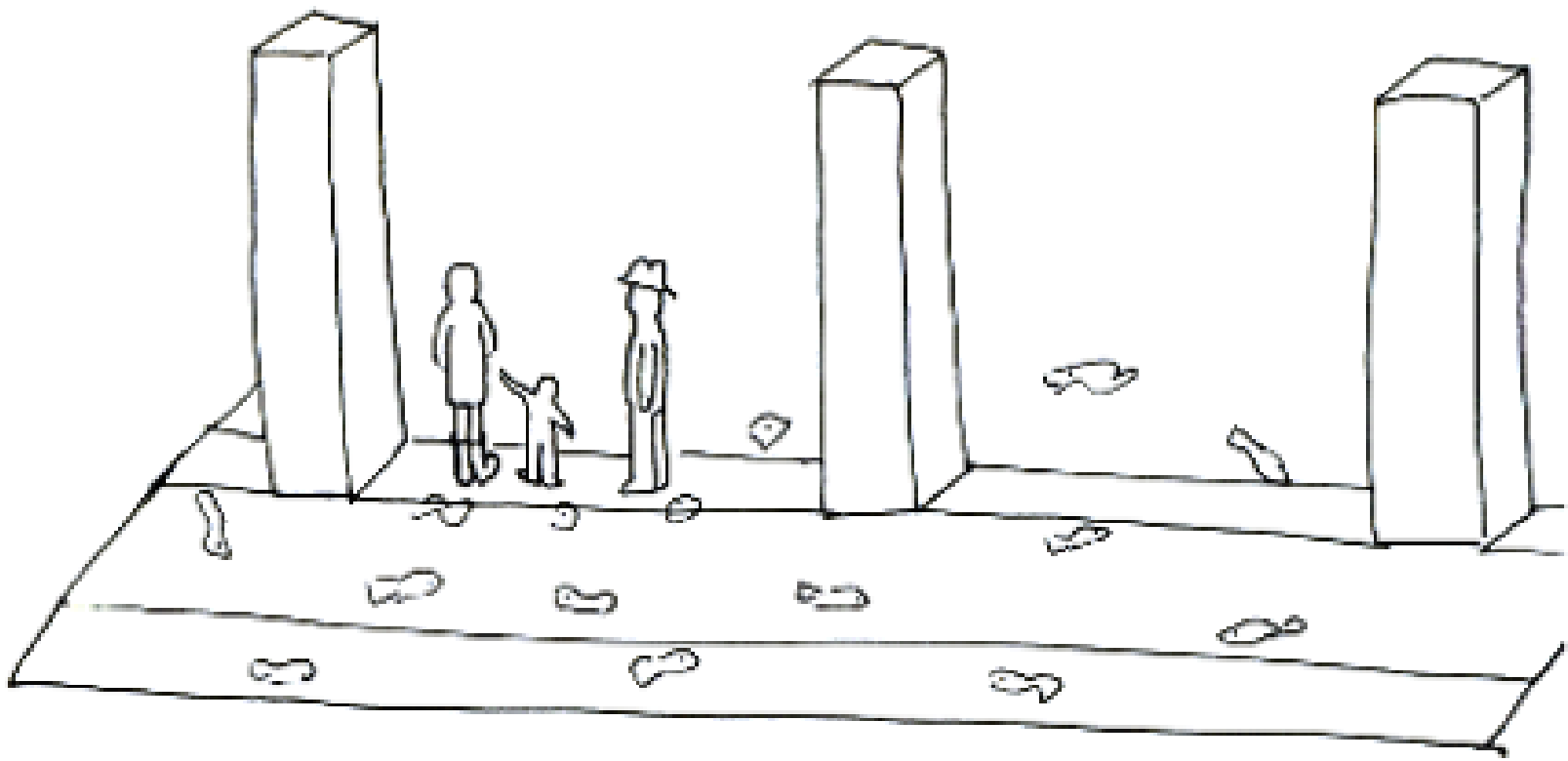
Also children even if the installation is only visible from afternoon to night.

You experience the installation in different ways: as a playful experience or as an abstract, still lifelike, model of the fishing dynamics in the lagoon.

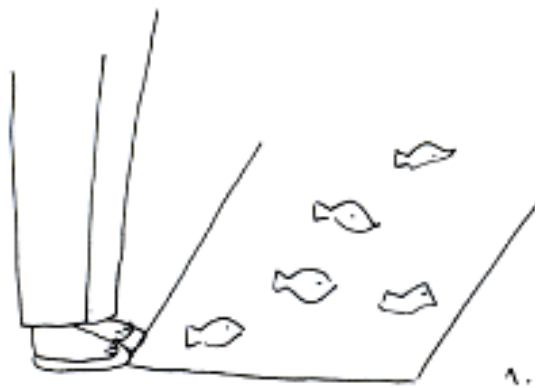


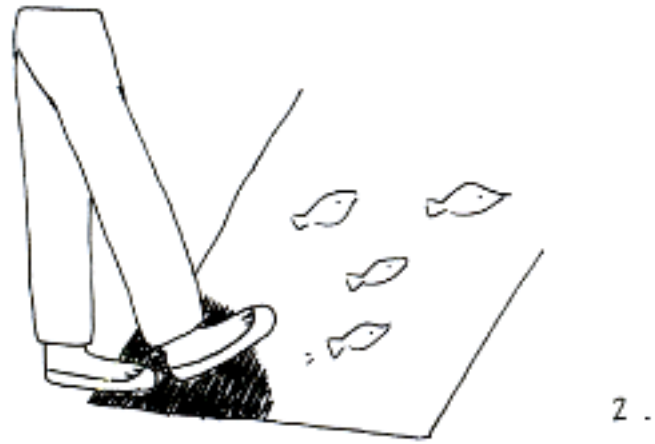
Where/How

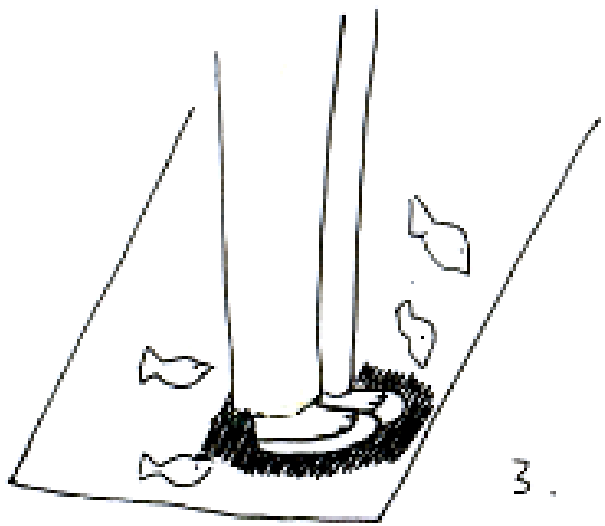
Aquatic environment continually simulated inside Rialto fishmarket (when not in use).



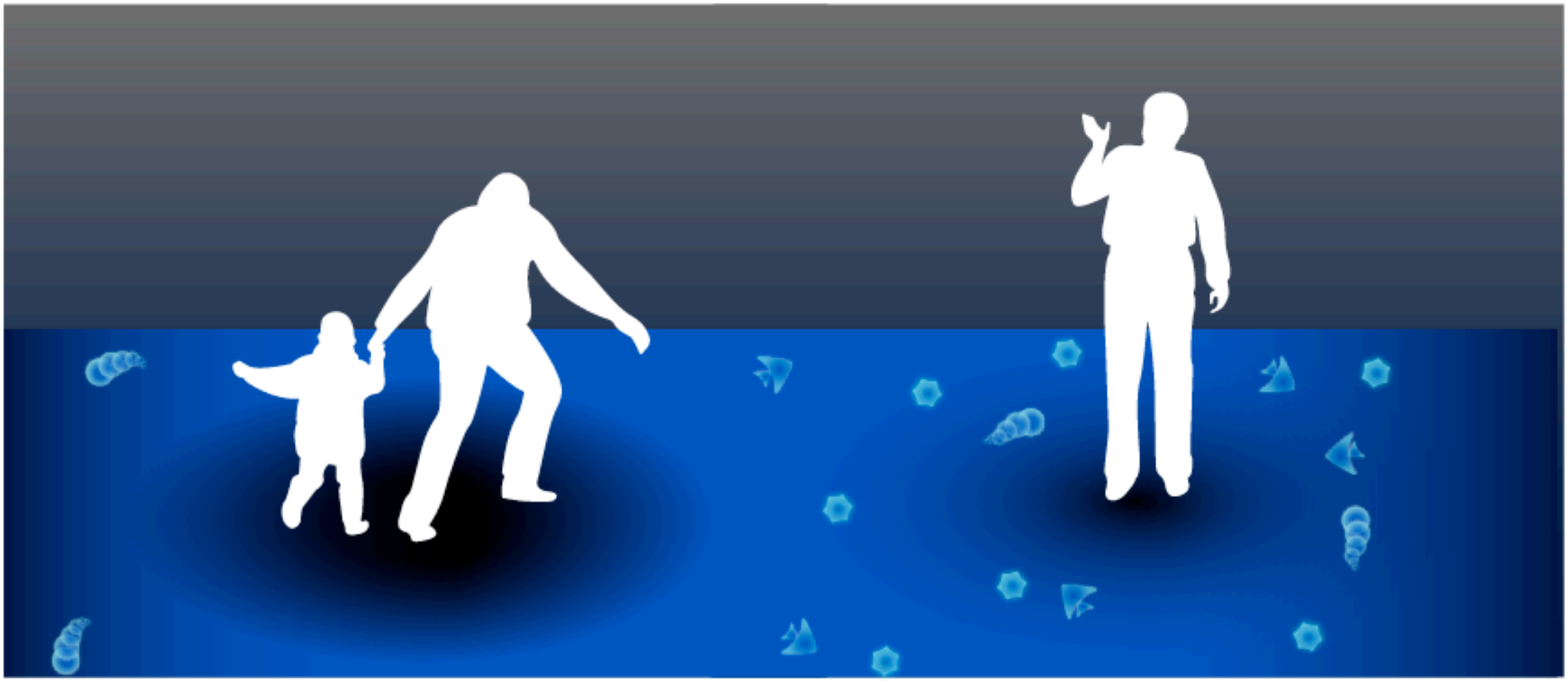
As you are in the system reacts to your presence modifying what is projected on the floor around you.



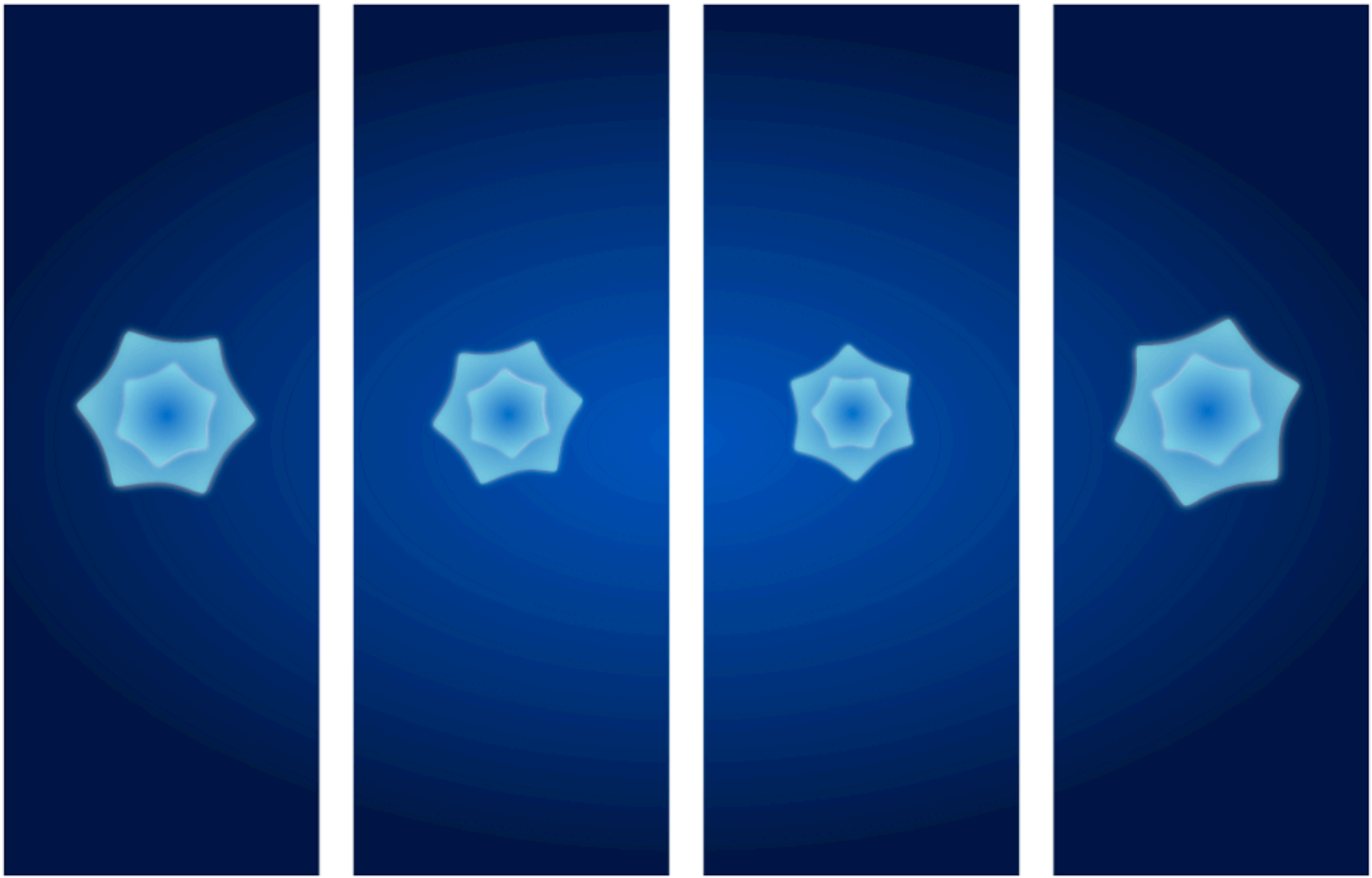




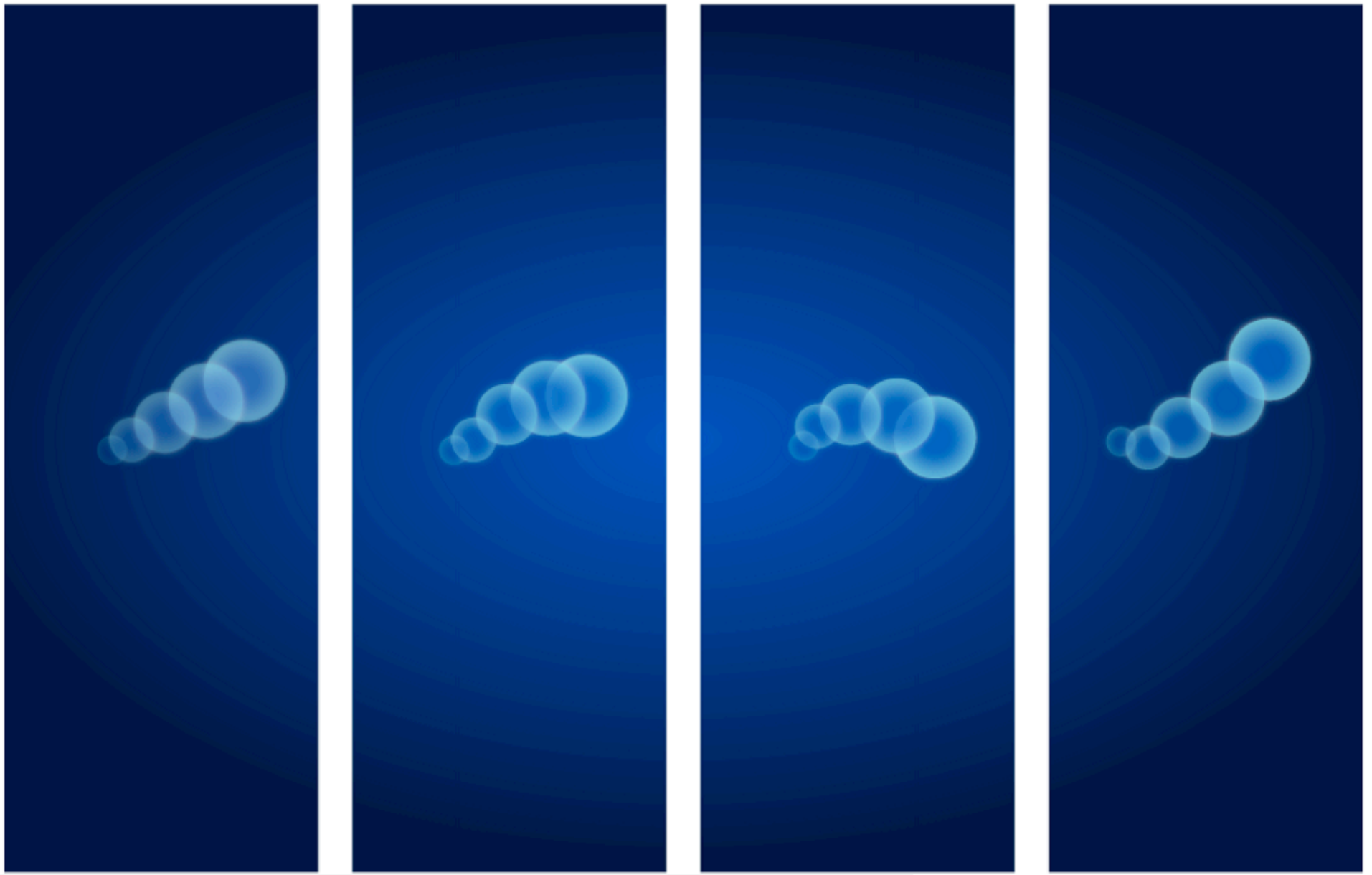
Different behavior



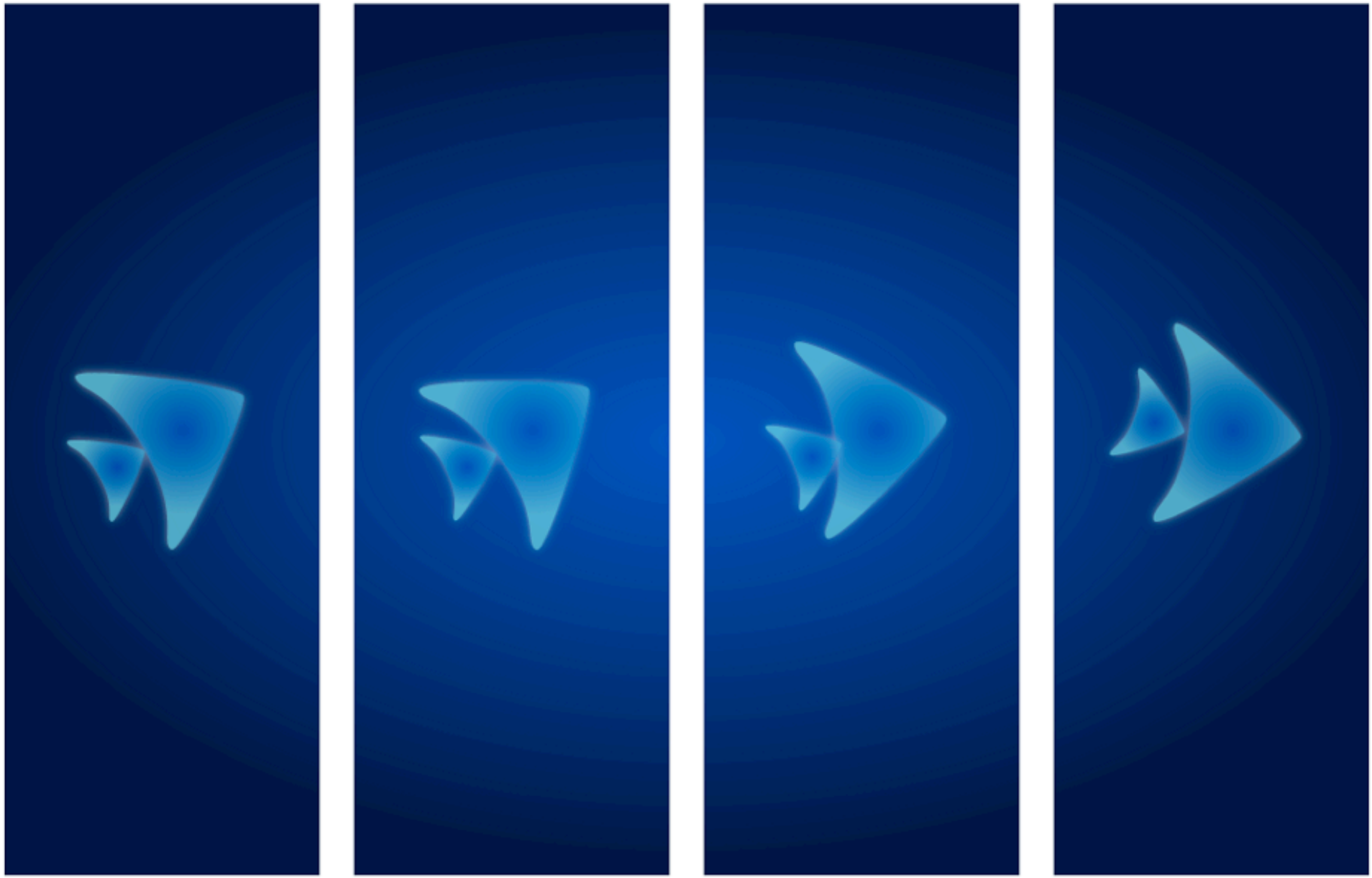
Fish 1

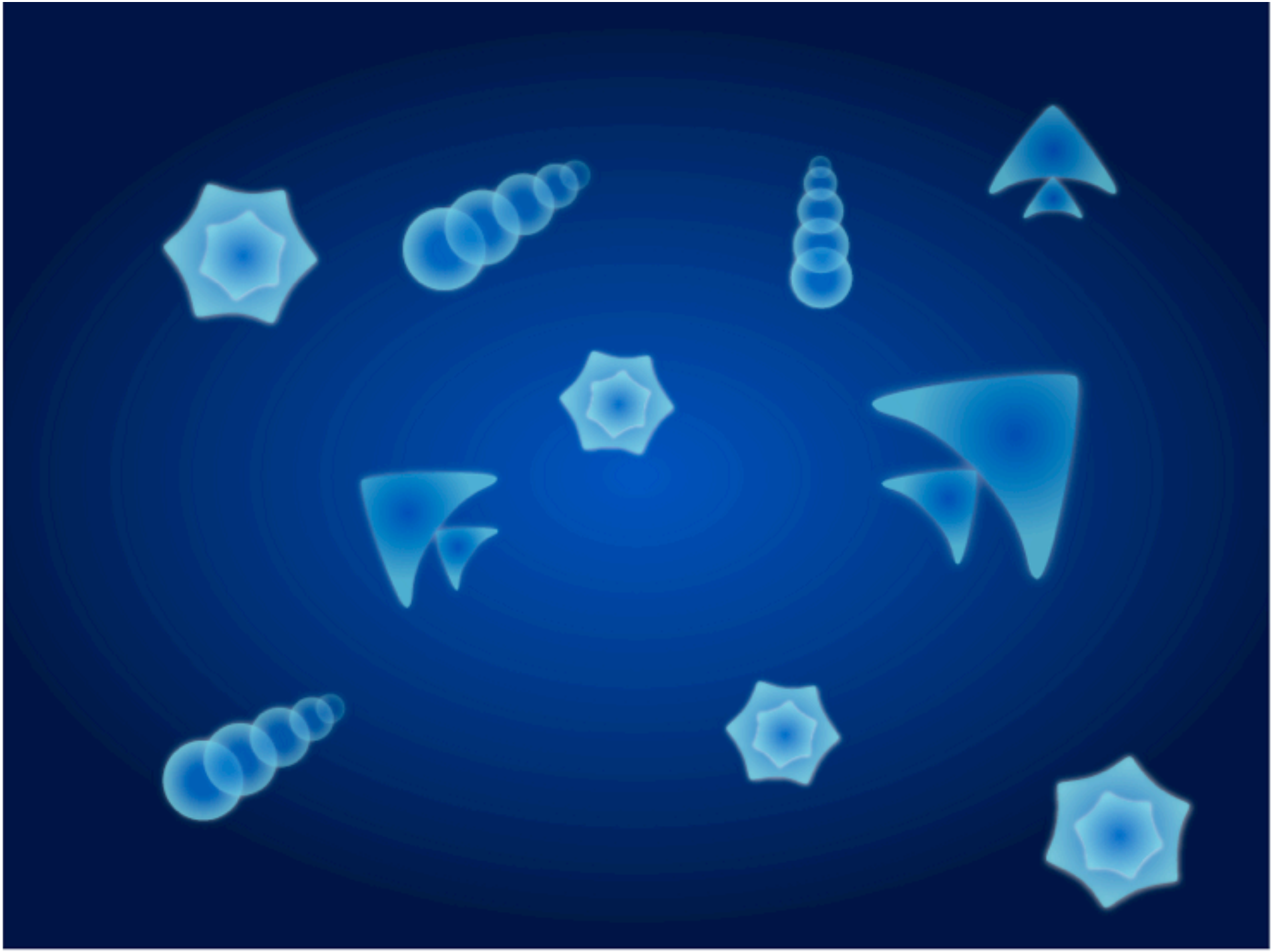


Fish 2



Fish 3





2nd level of interaction

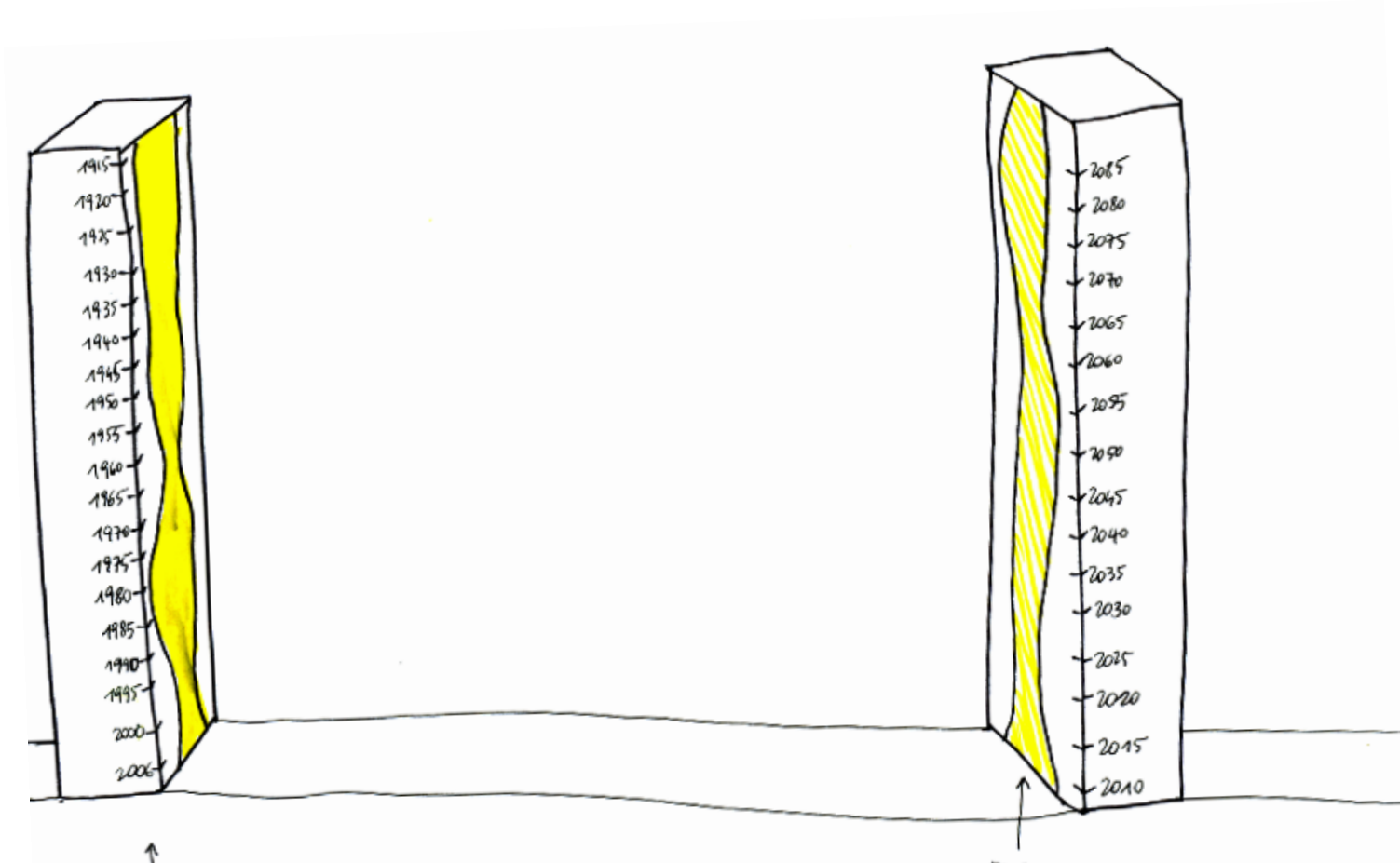
Columns display **historic** and **future** information about

a) sustainable fishing

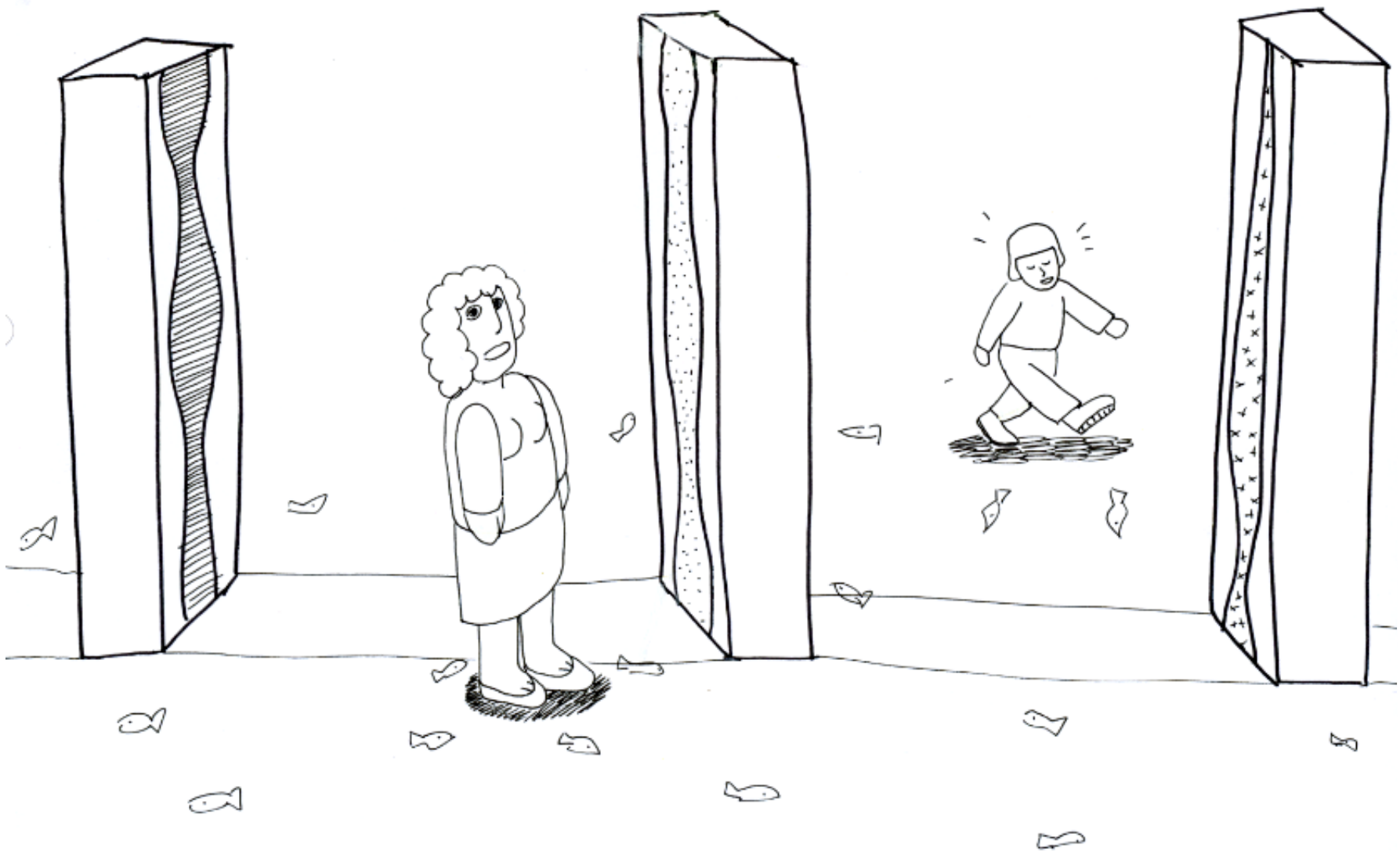
b) pollution

c) disturbances (boat traffic, building sites)

d) global warming



All the future columns react and change their prediction according to the visitors behavior.

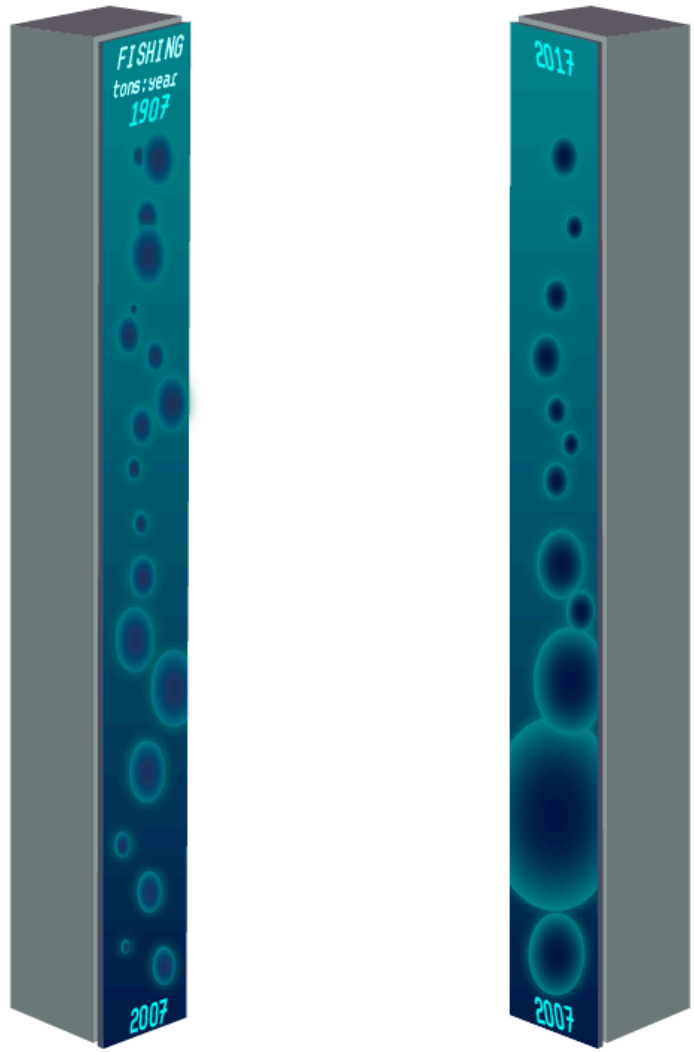


4 topics correspondences

what	floor fishes	columns
fishing	get darker, up to disappear	something get darker
pollution	changing color	things fall (as in a sand-glass)
disturbances	are scared, scatter away	colorful lights
global warming	get smaller, up to vanish	changing color and texture

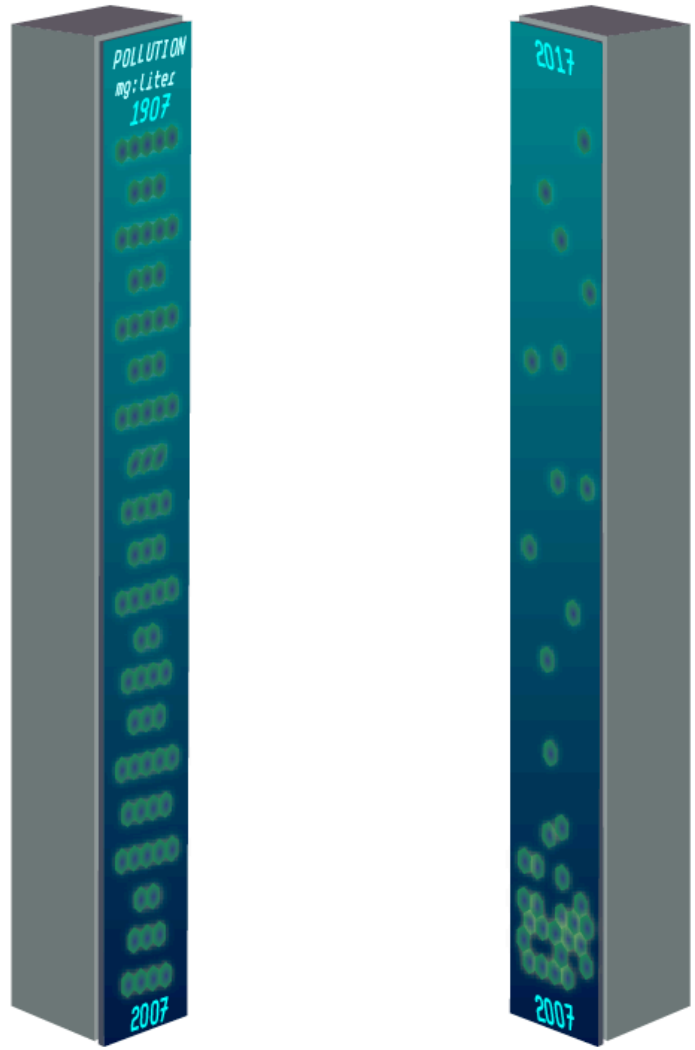
Fishing

Quantity of fishes fished every year, even illegally (tons).



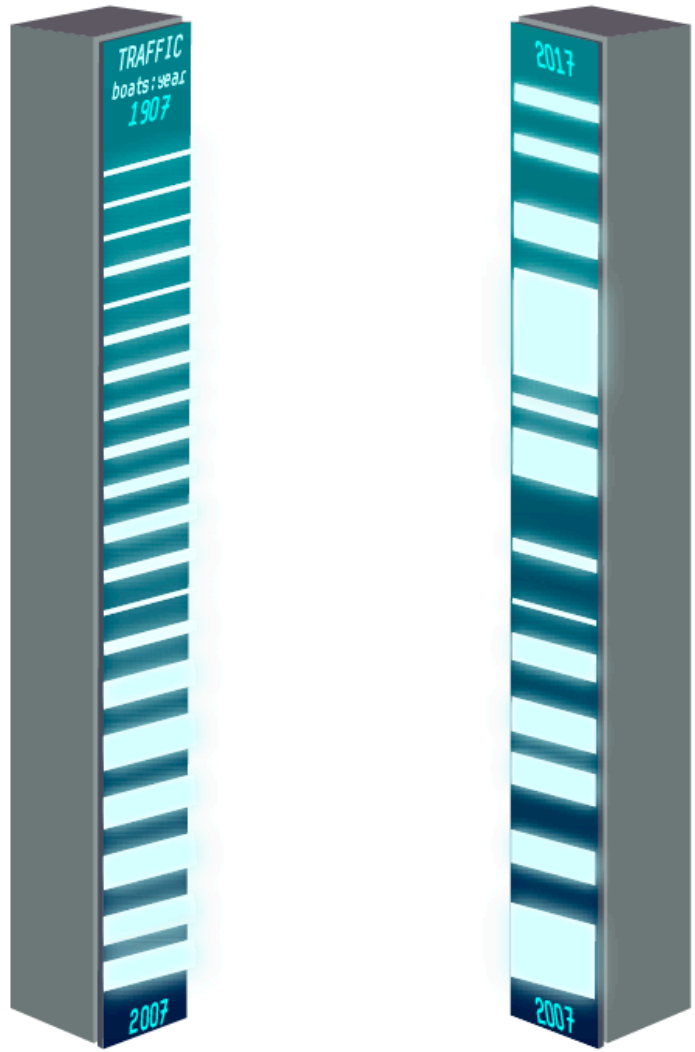
Pollution

Average of polluting substances in air and water (milligrams/liter).



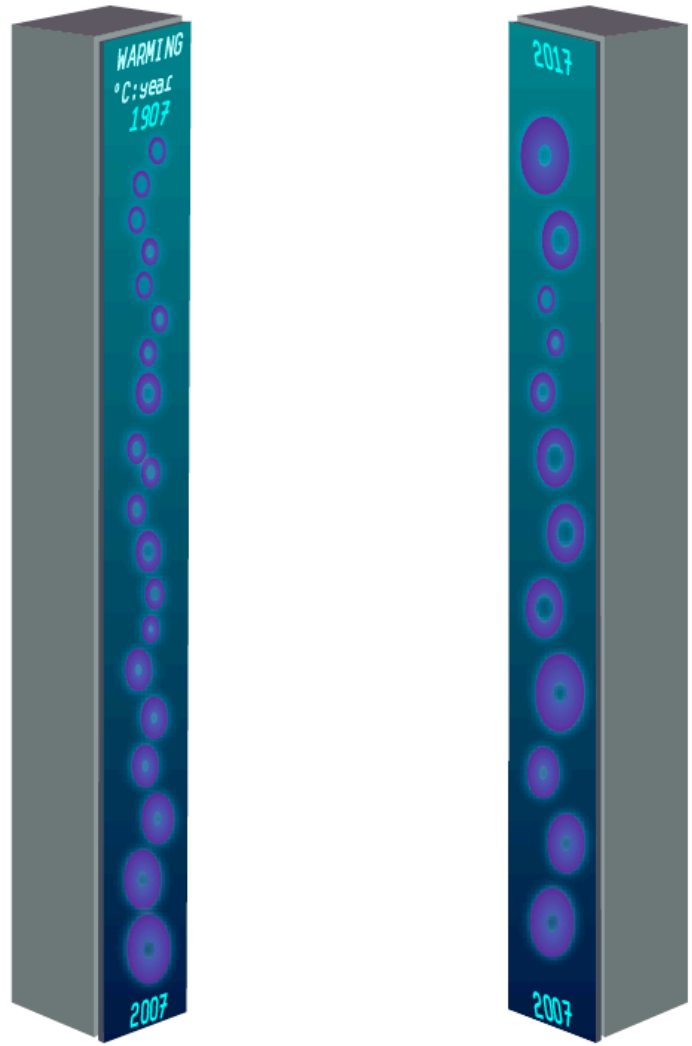
Disturbances

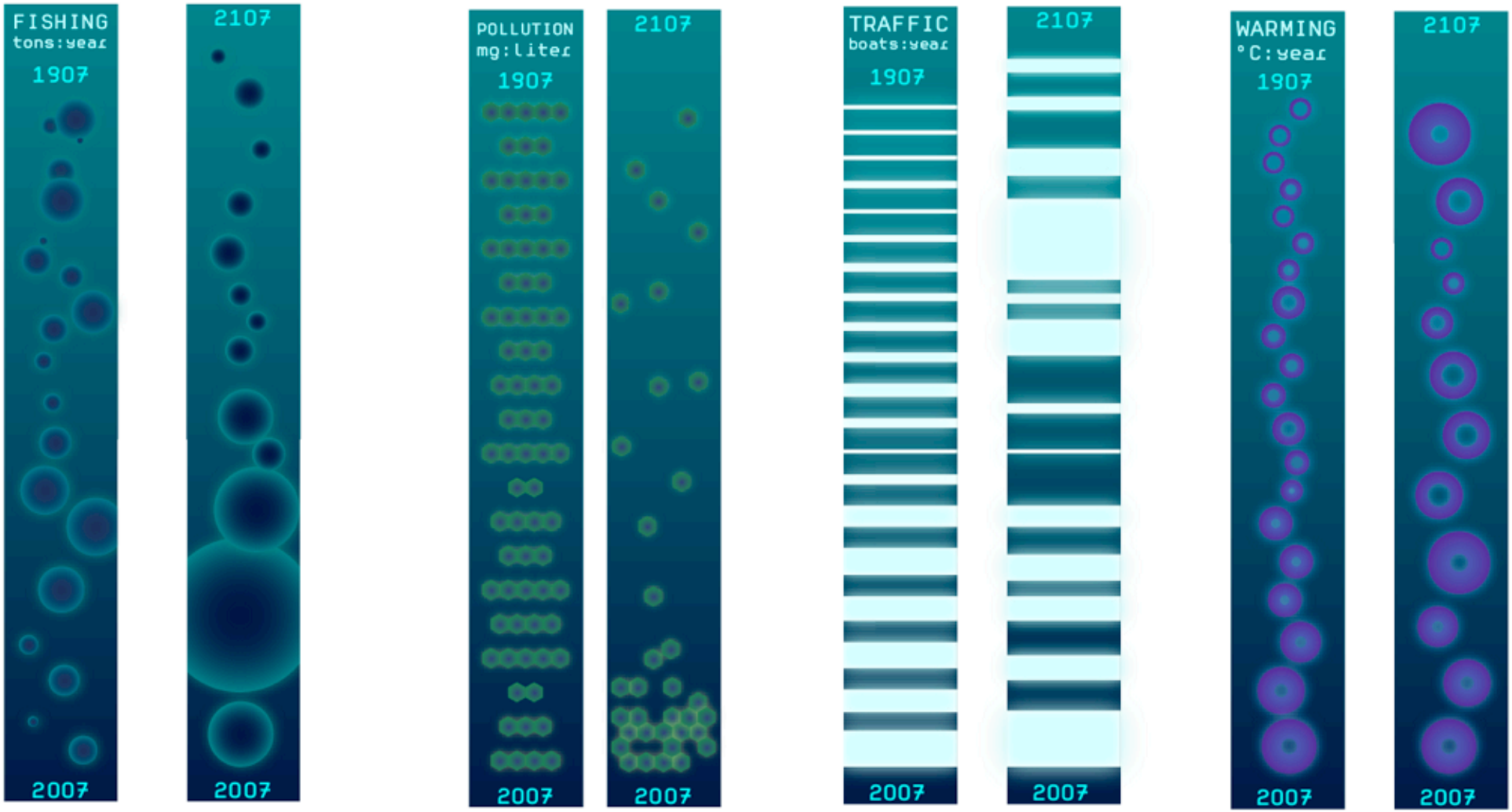
Number of boats registered every year in Venice (n).

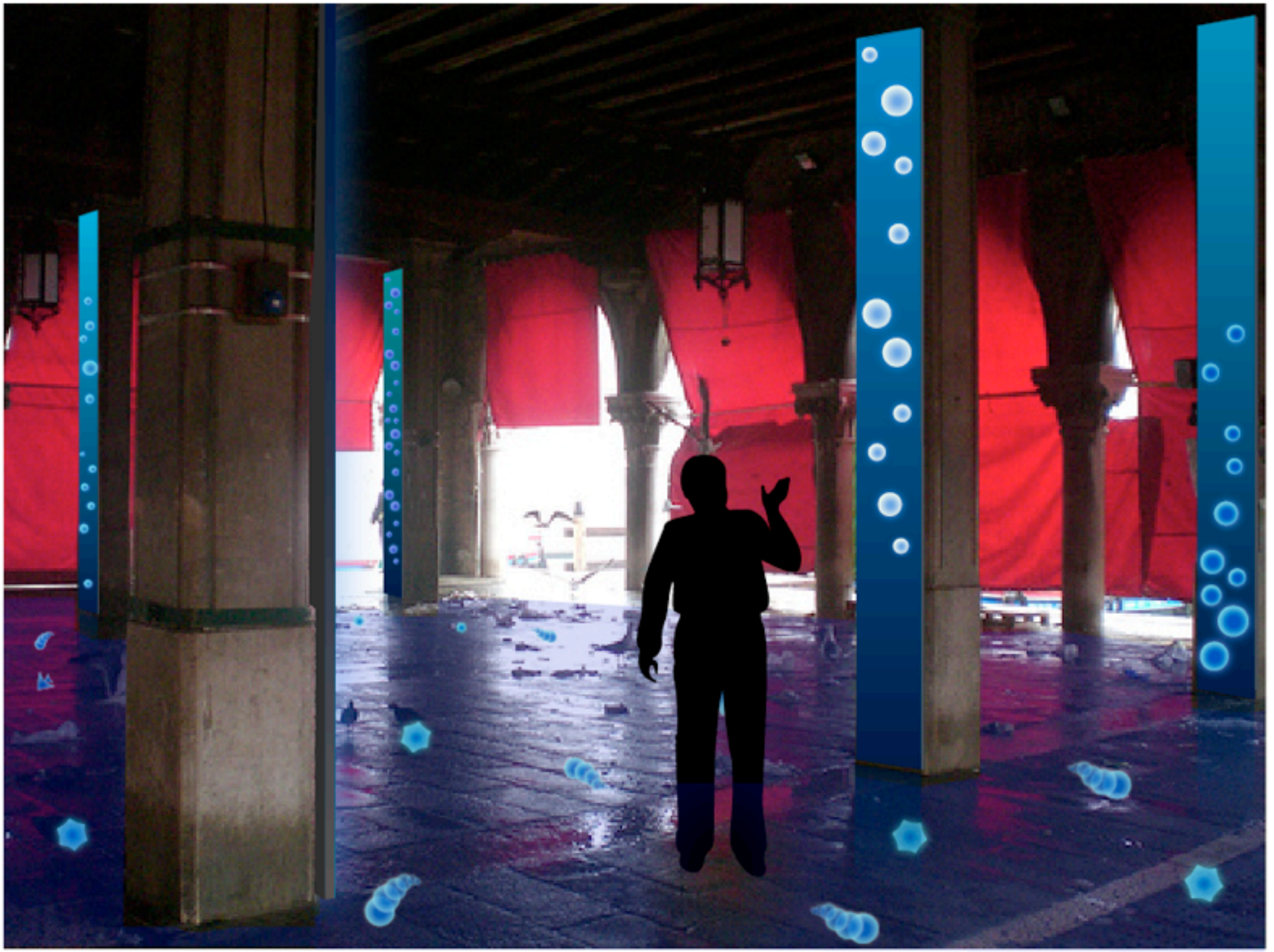


Global Warming

Seasonal average of air and water's temperature every year (°C).

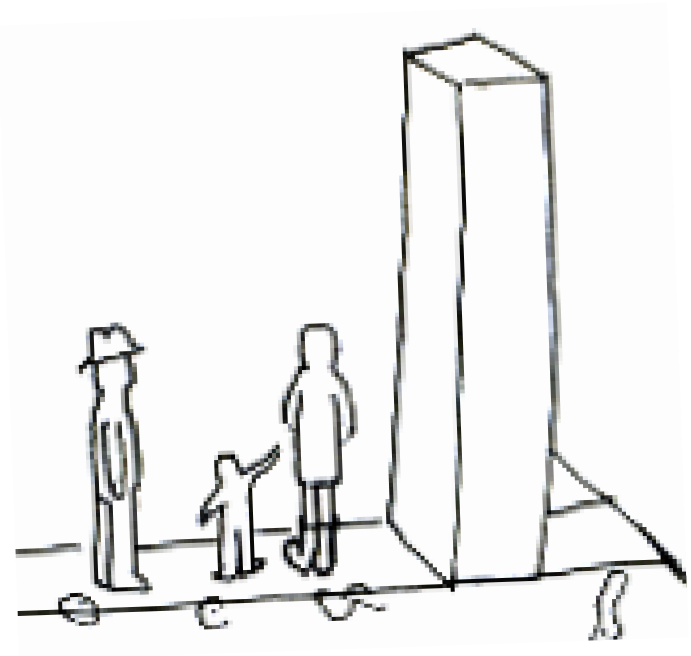



FISHING
tons:year
1907
2007
2107
2007
POLLUTION
mg:liter
1907
2007
2107
2007
TRAFFIC
boats:year
1907
2007
2107
2007
WARMING
°C:year
1907
2007
2107
2007

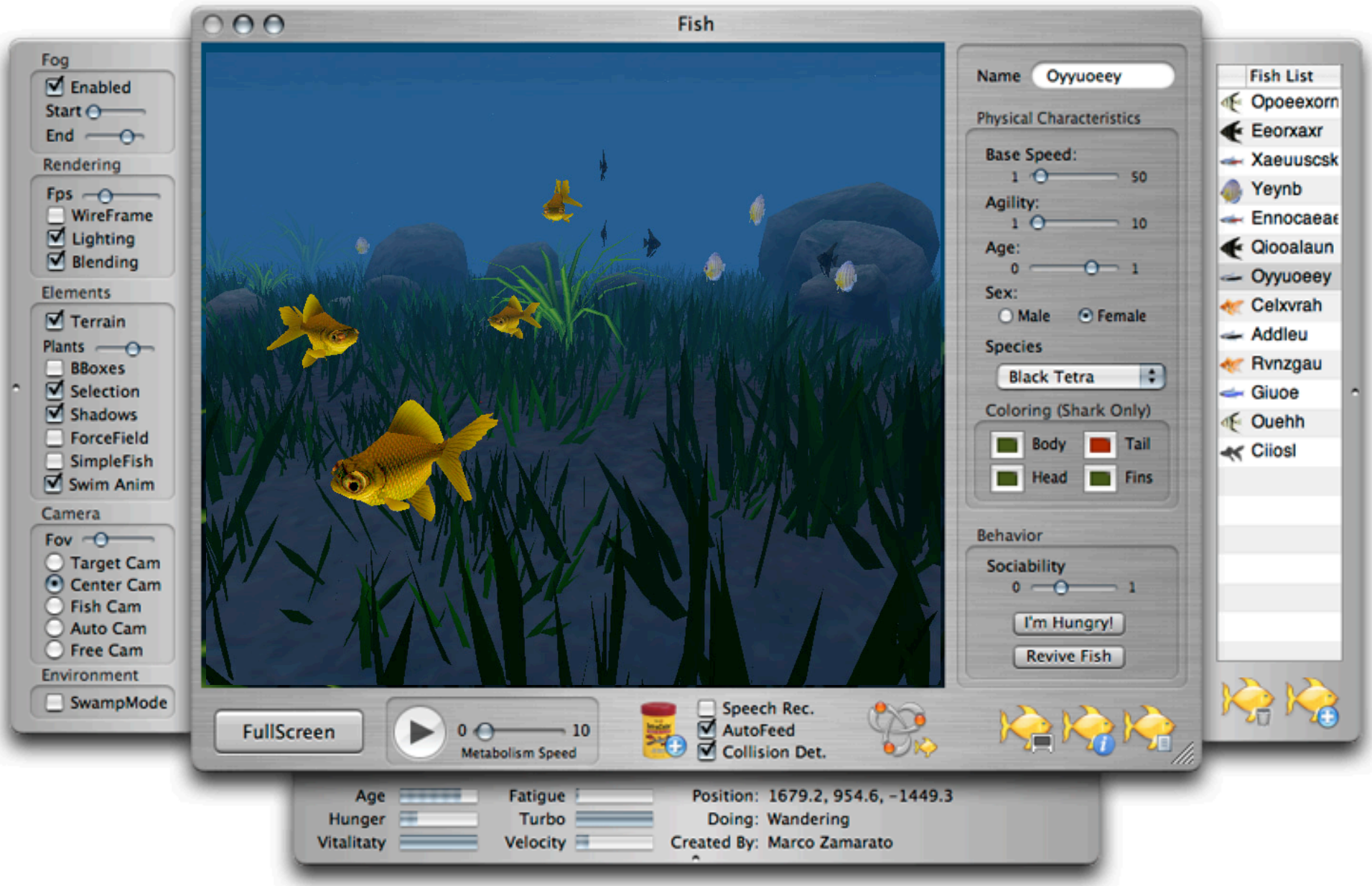


Why/Goals

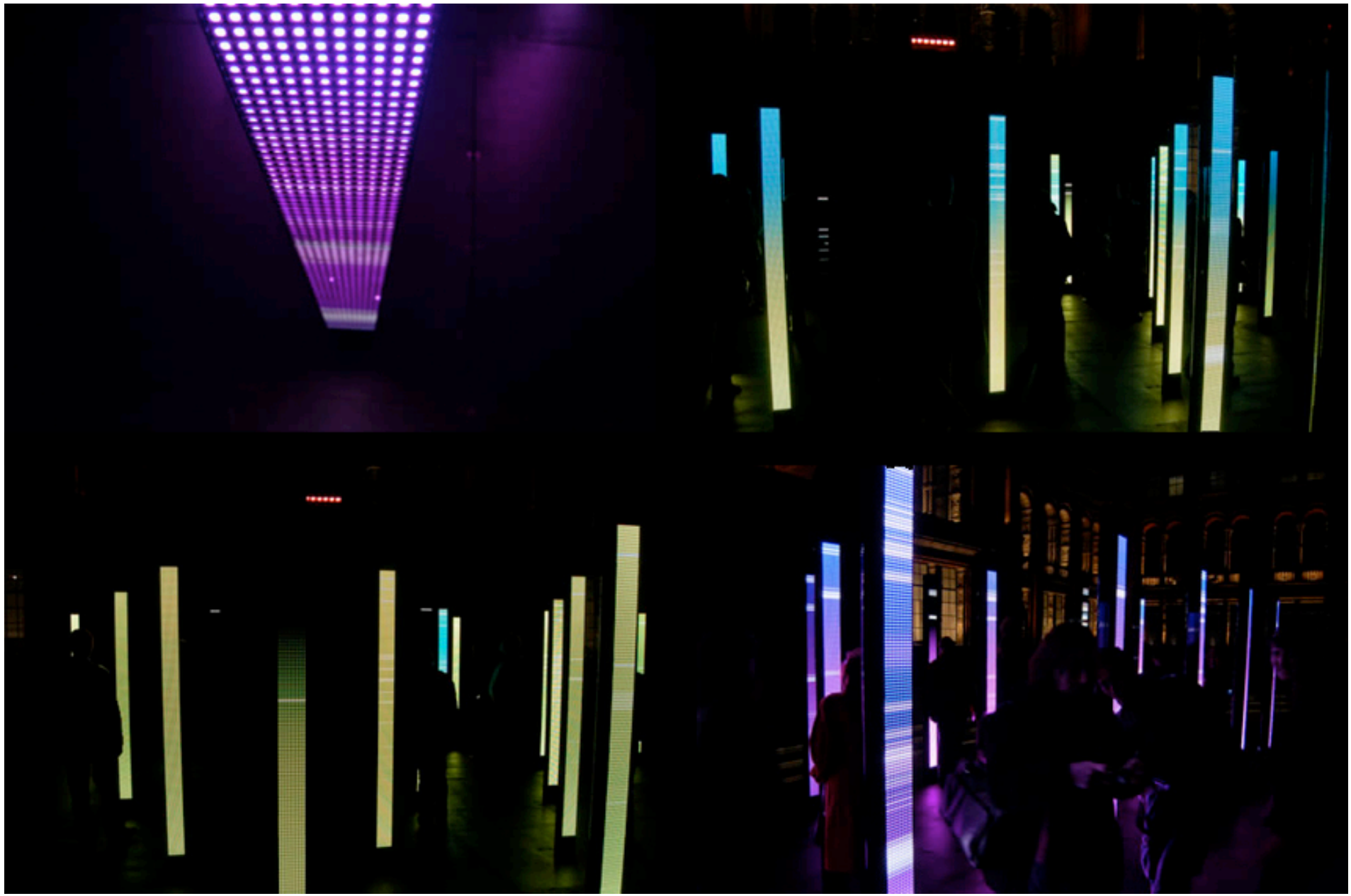
- Mesmerising experience
- Simple and intuitive interaction
- Make visible and fascinating an invisible world
- Increase people awareness about the lagoon situation by making explicit their impact on the system



Visual references



Fish, Oriol Ferrer Mesià



Volume, United Visual Artistis

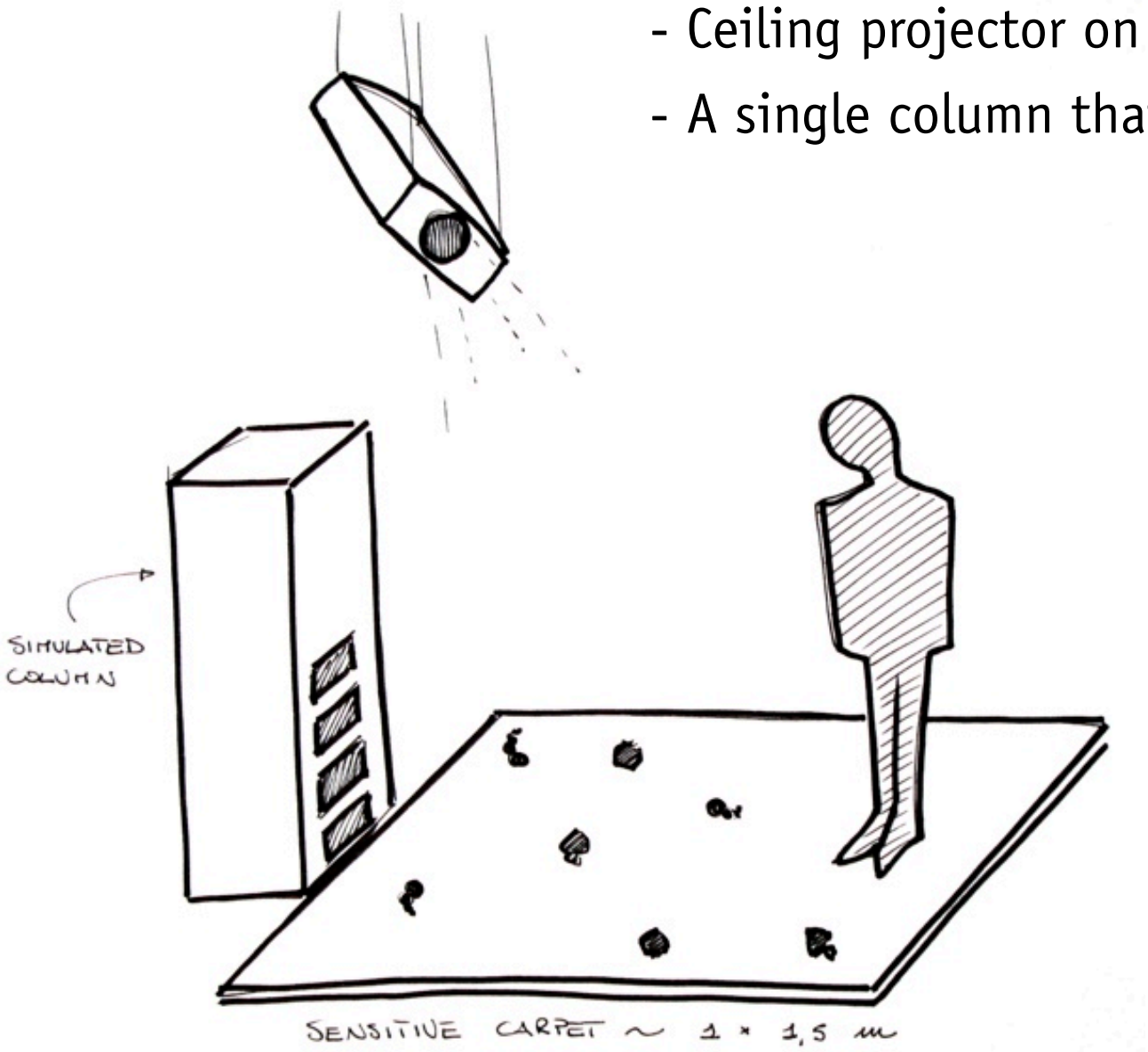
Electroplankton, Nintendo

Art+Com

Technology

- Photocell sensors count people going in/out
- IR cams record people position
- Floor microphones (around the columns) to trace footsteps
- Ceiling projectors (floor fish environment)
- Loudspeakers
- LED displays for columns
- Computer + Wiring

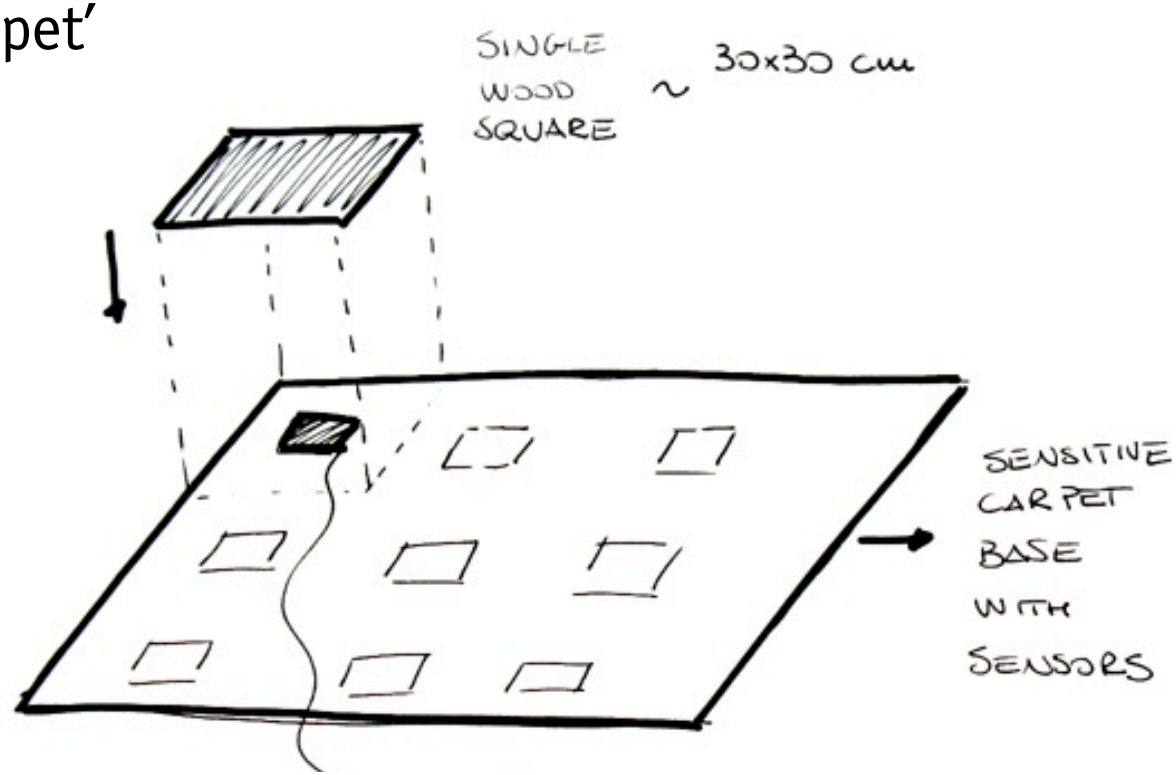
Prototype



- Ceiling projector on a sensitive carpet
- A single column that reacts to your action

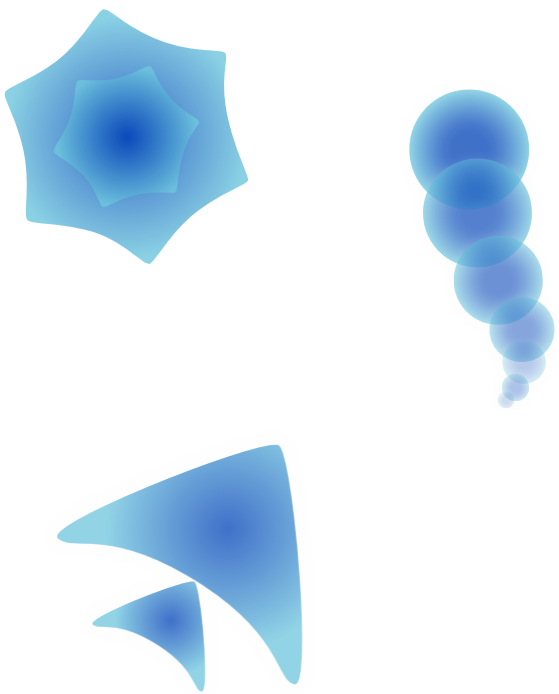
Sensors and hardware

- Pressure sensors to detect position and movements
- A single microphone to track noises
- Computer + Wiring board
- Projector
- Double-layer wood ‘carpet’



Programming

The application need to simulate the fishes' reactions to external disturbances by checking fishes' life cycle and position and relating these data with visitors' movements and noises.



Next steps

We need to refine the fishes simulation and plan how to relate simulated fishes to people position and movements.

thank you