

Key and Lock Puzzles in Procedural Gameplay

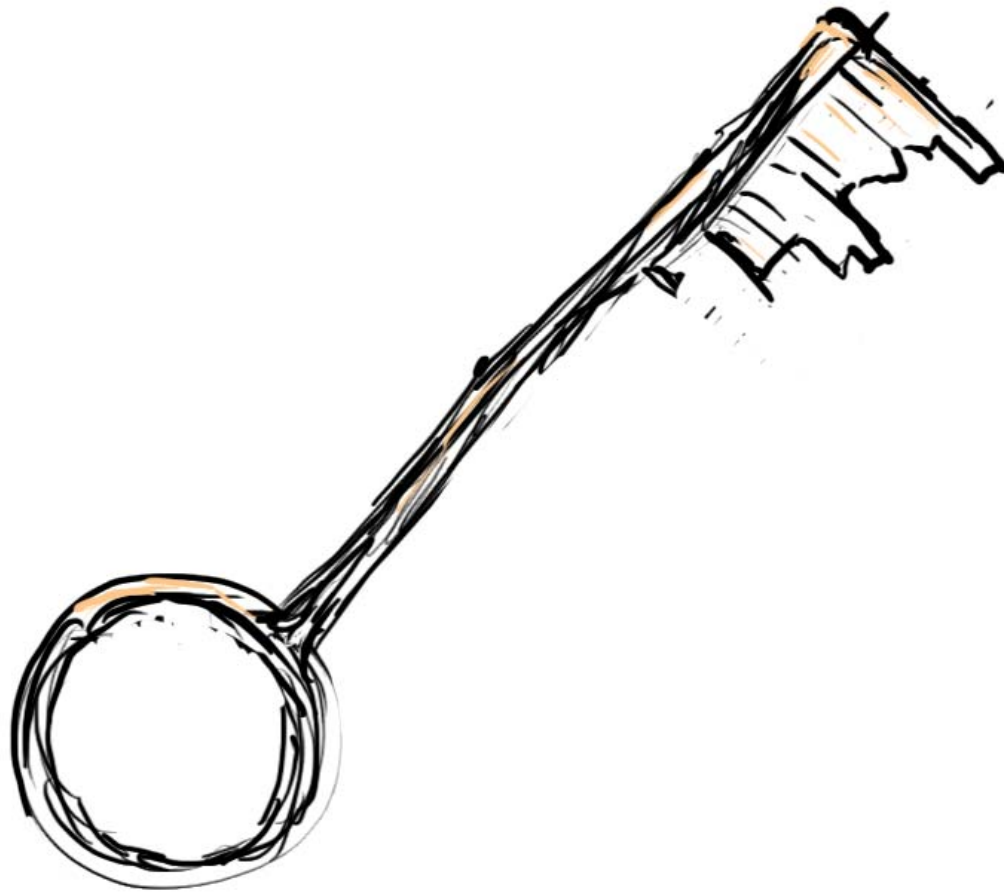
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Project Defense
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What this project is about

- What is procedural gameplay?
- Why is it important?

Conceptual Terms

Conceptual Terms



Keys

Conceptual Terms

Locks



Conceptual Terms



Tension

10 Properties

10 Properties

- 1) Keys have bearing on gameplay
- 2) Locks precede their key
- 3) Keys are rewards

10 Properties

4) Keys are encountered regularly

5) Old keys are useful

6) About 3 to 10 new areas are opened with each key

10 Properties

7) Locks protect small rewards and new areas

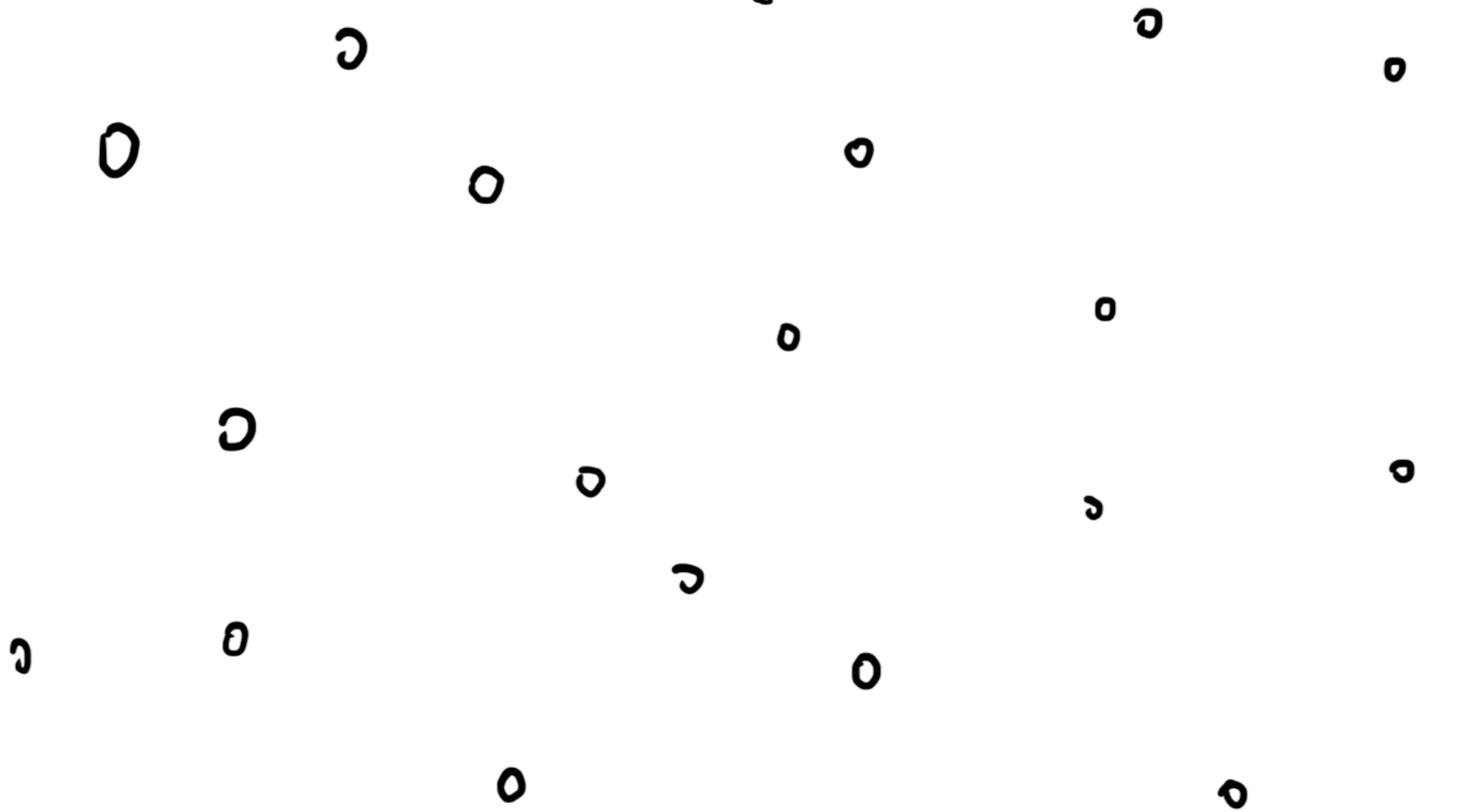
8) Keys improve movement through space, and change perception of it

9) Locks are not immediately visible

10) Some keys are non-essential

The Model

The Model



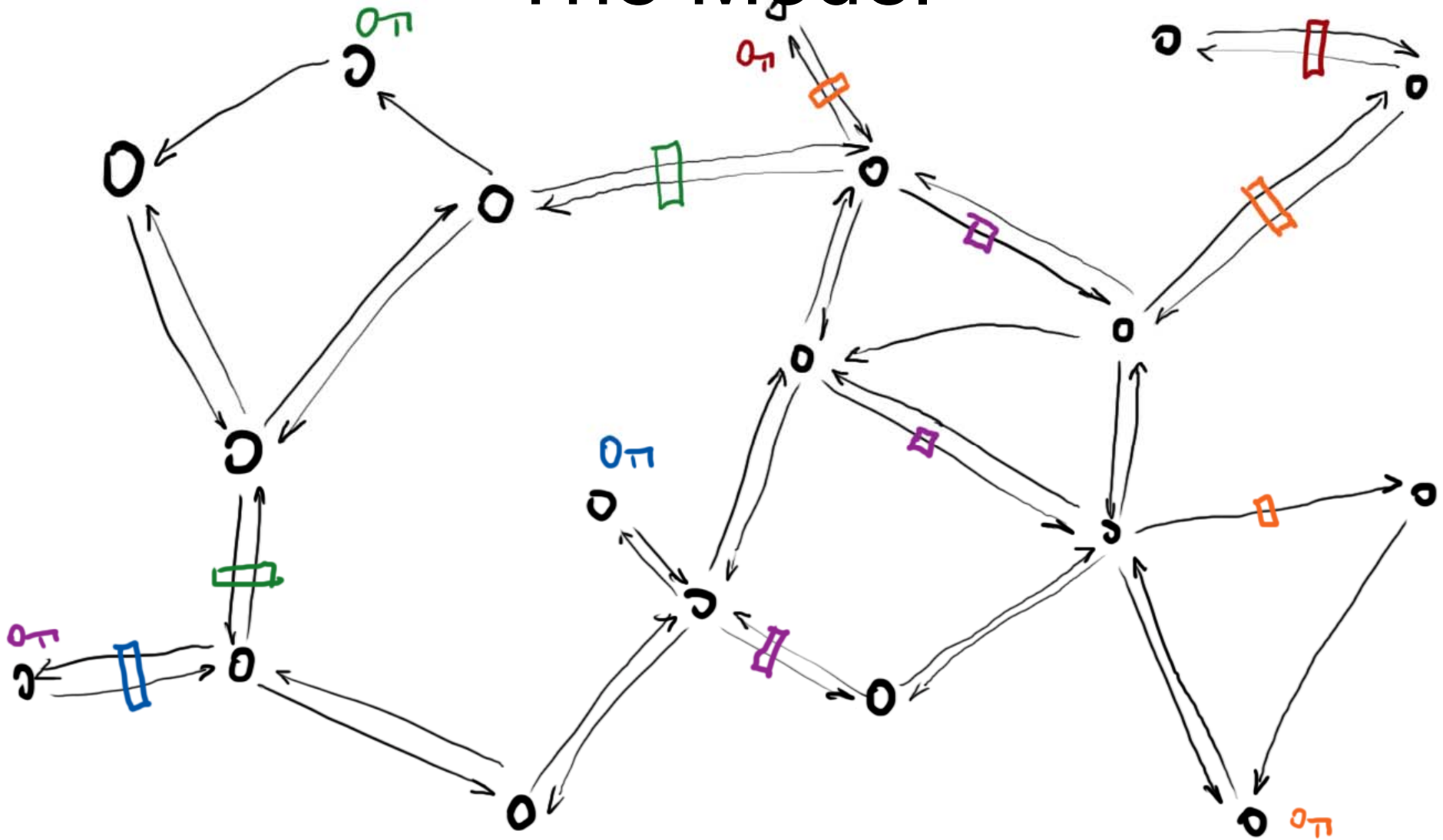
Areas

5



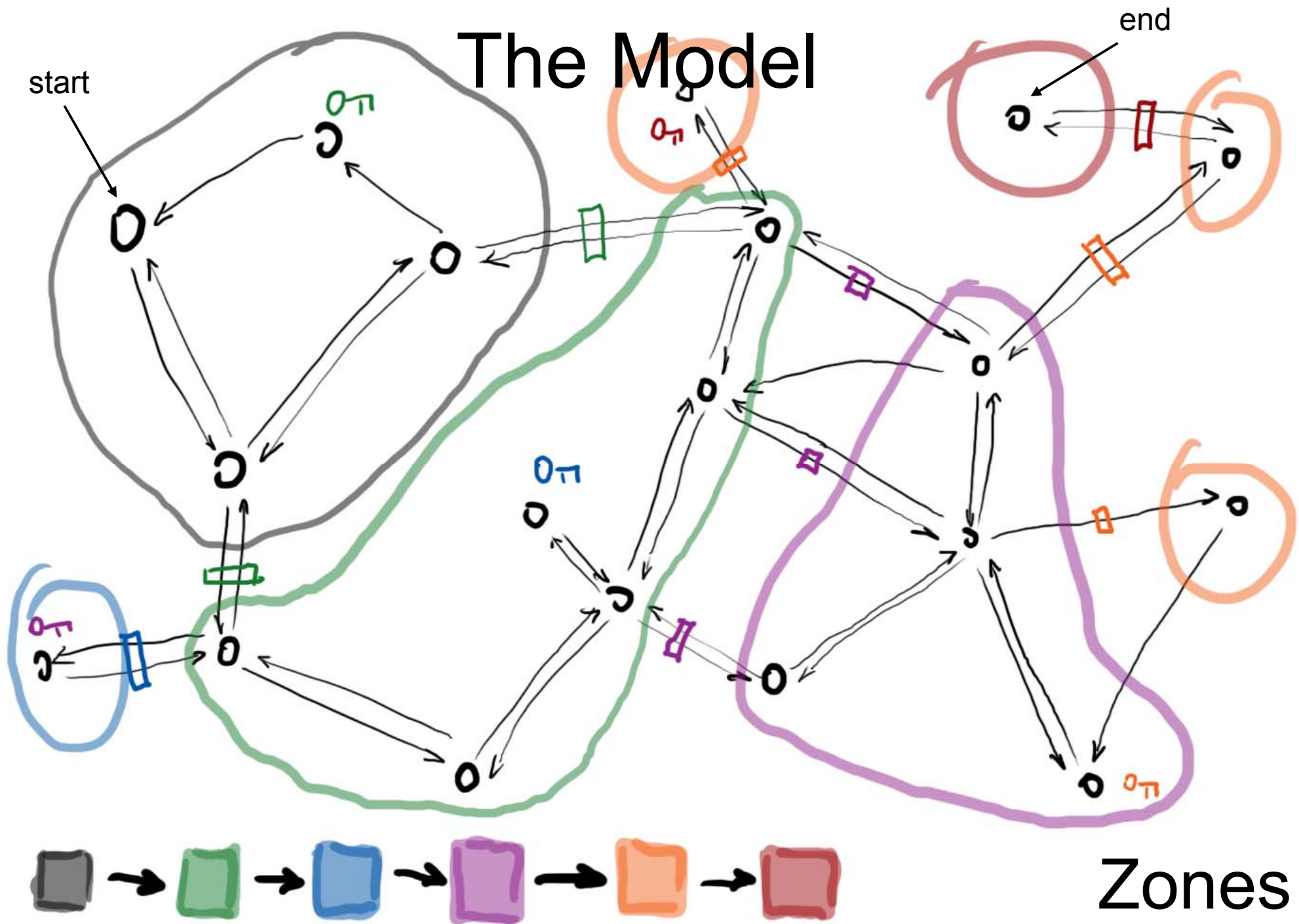
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The Model

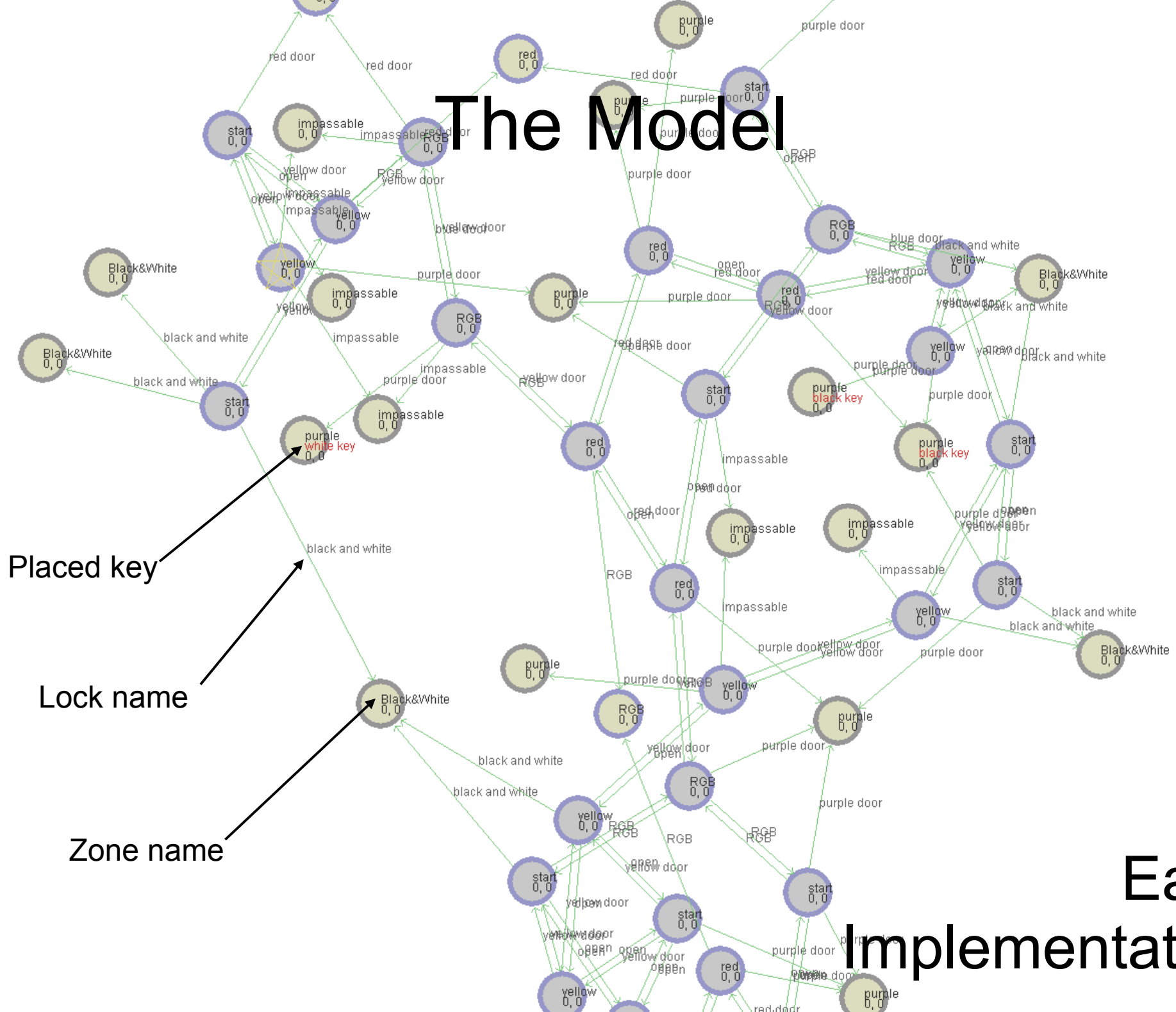


Keys and Locks

The Model



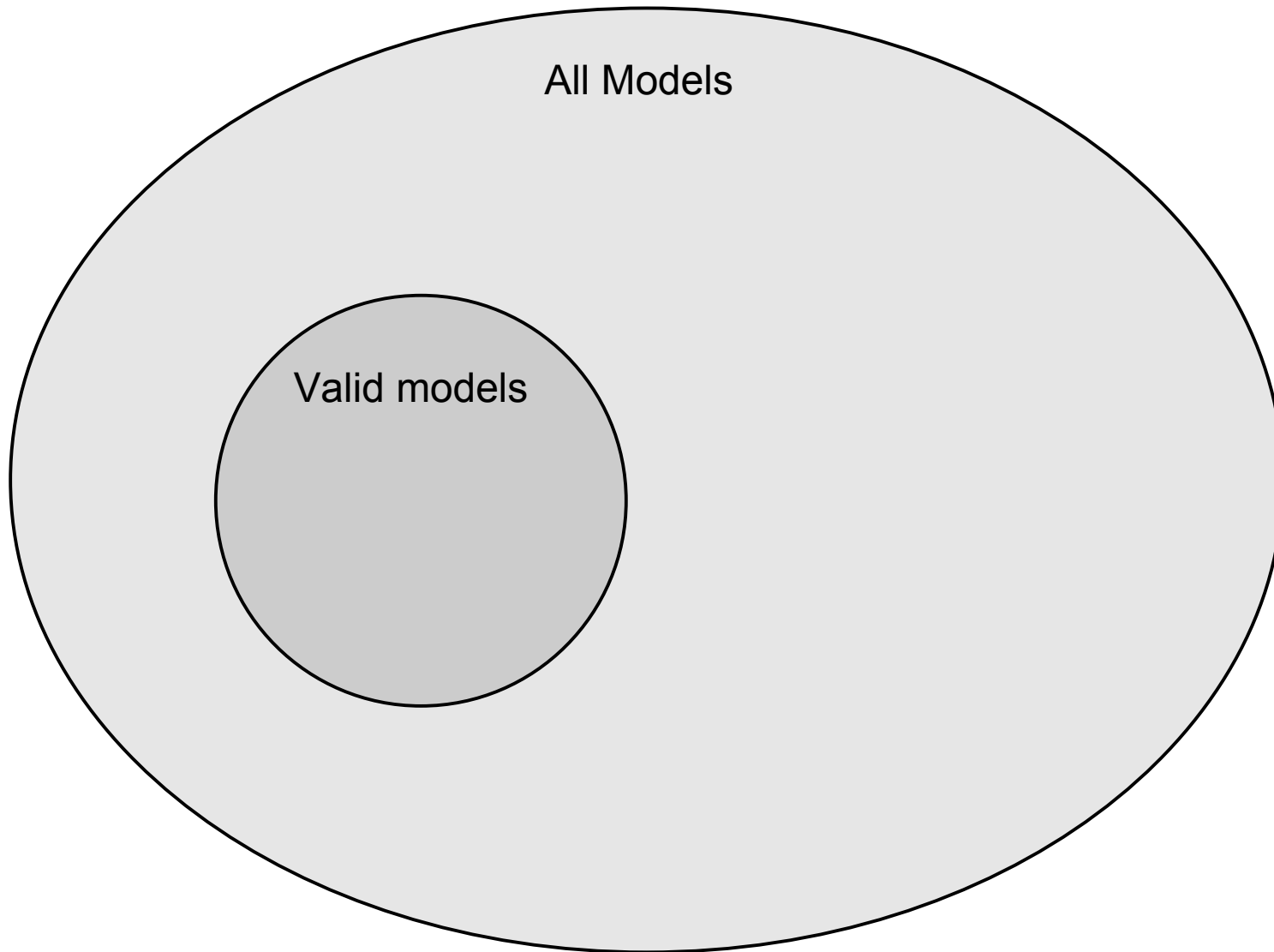
The Model



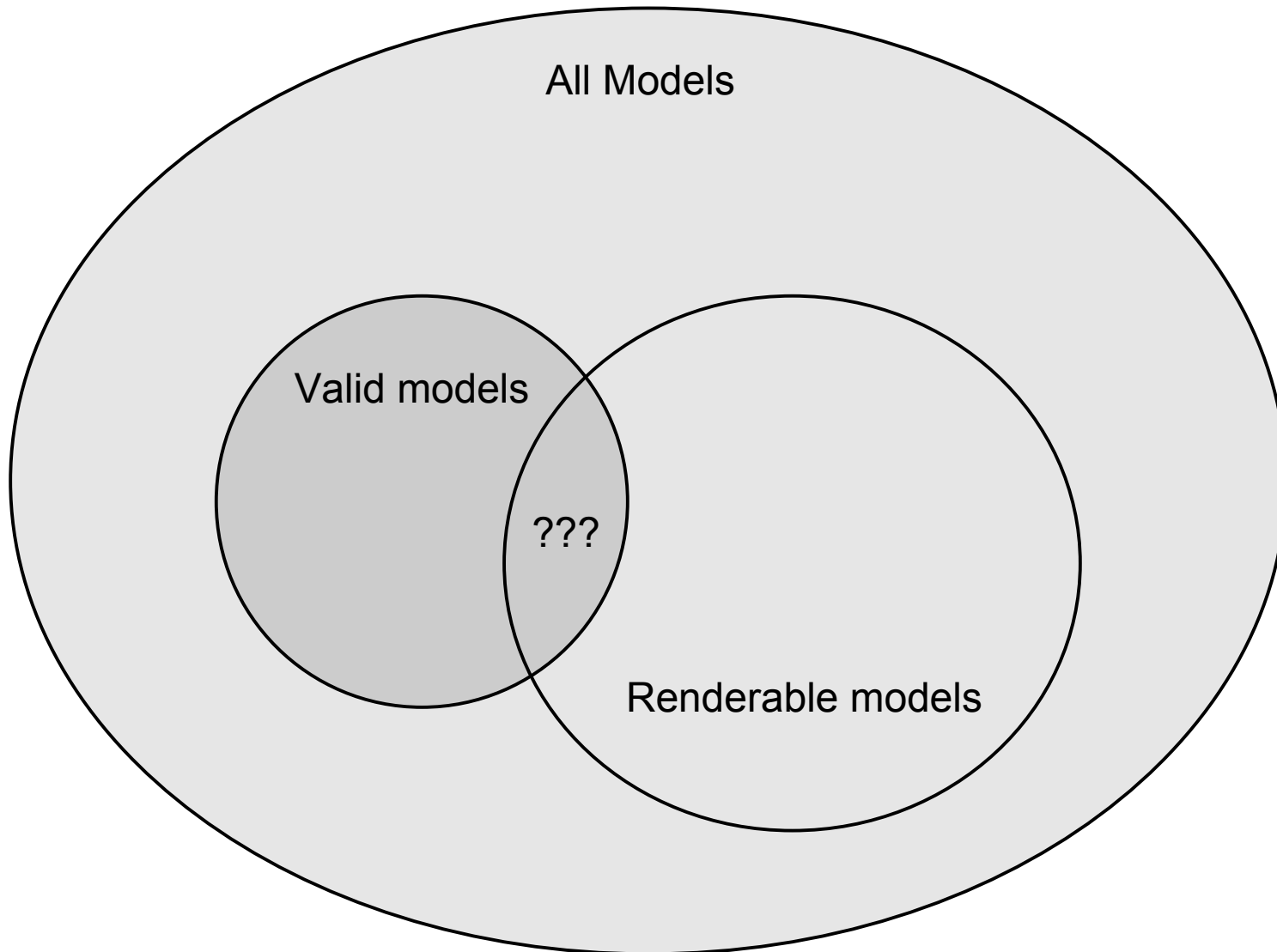
Early
Implementation

Representation of properties in the Model

Representation of properties in the Model

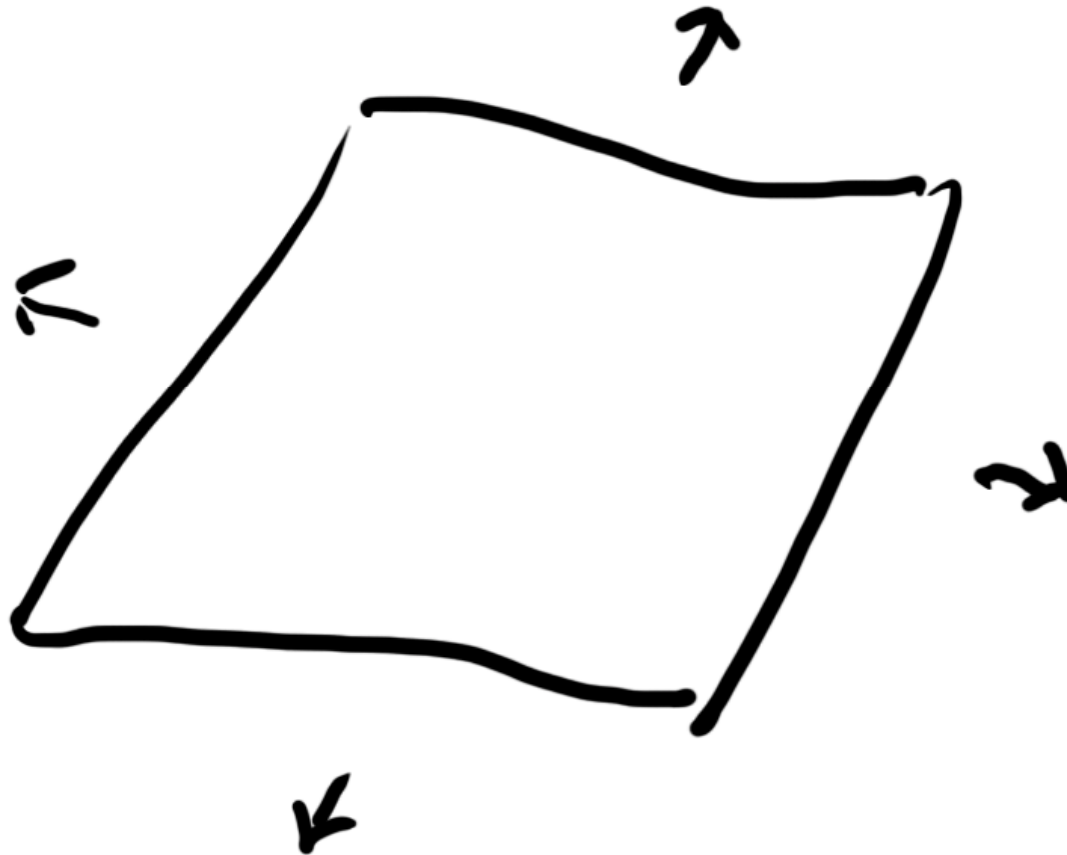


Representation of properties in the Model

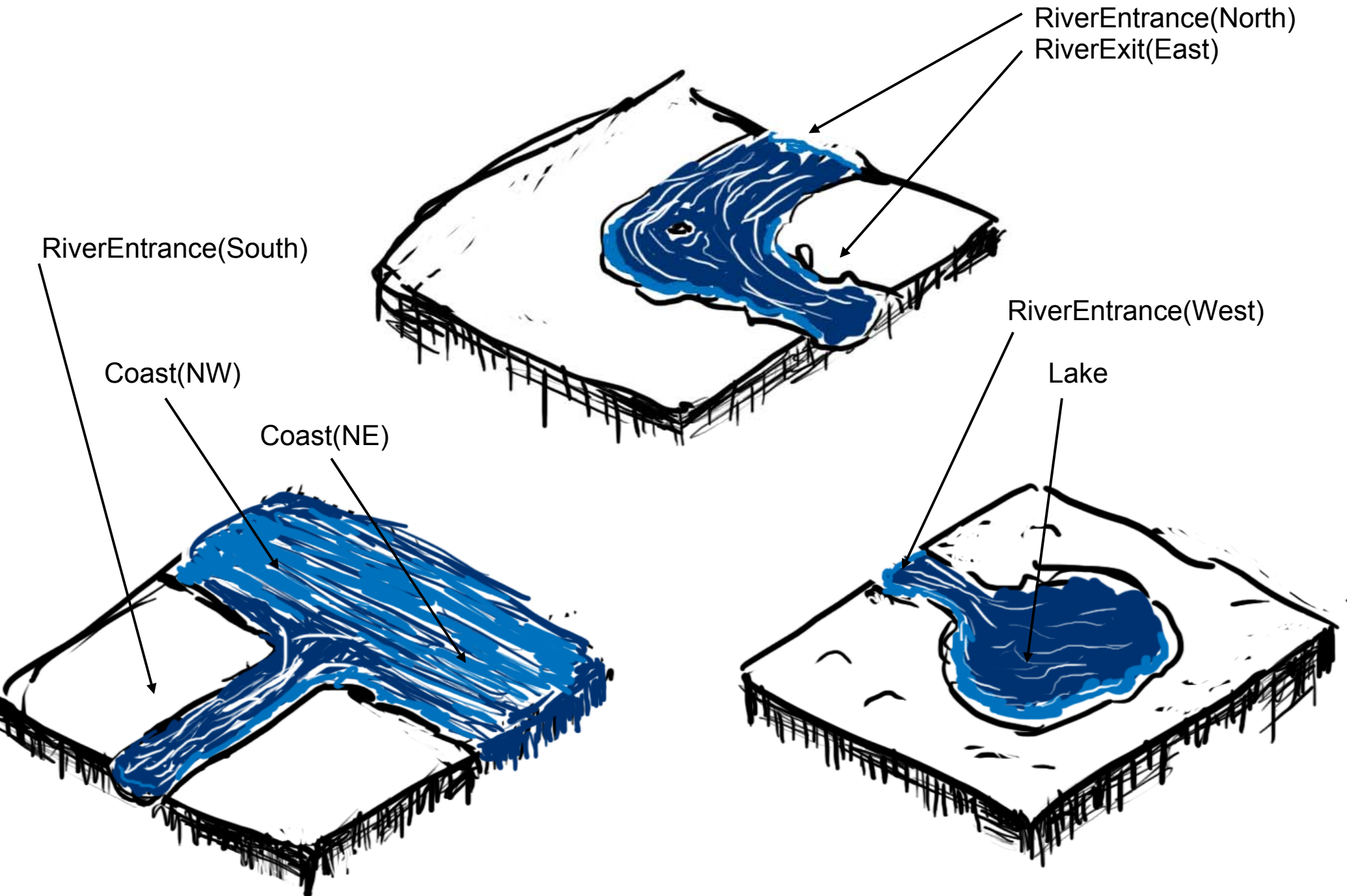


The Renderer (Charbitat!)

The Renderer



The Renderer



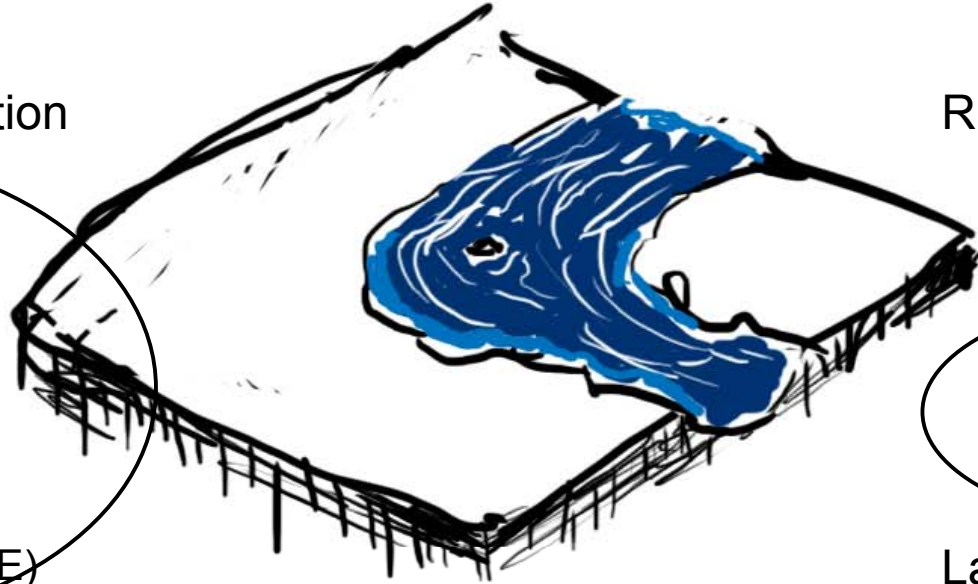
The Renderer

River Mouth Configuration

RiverEntrance(South)

Coast(NW)

Coast(NE)



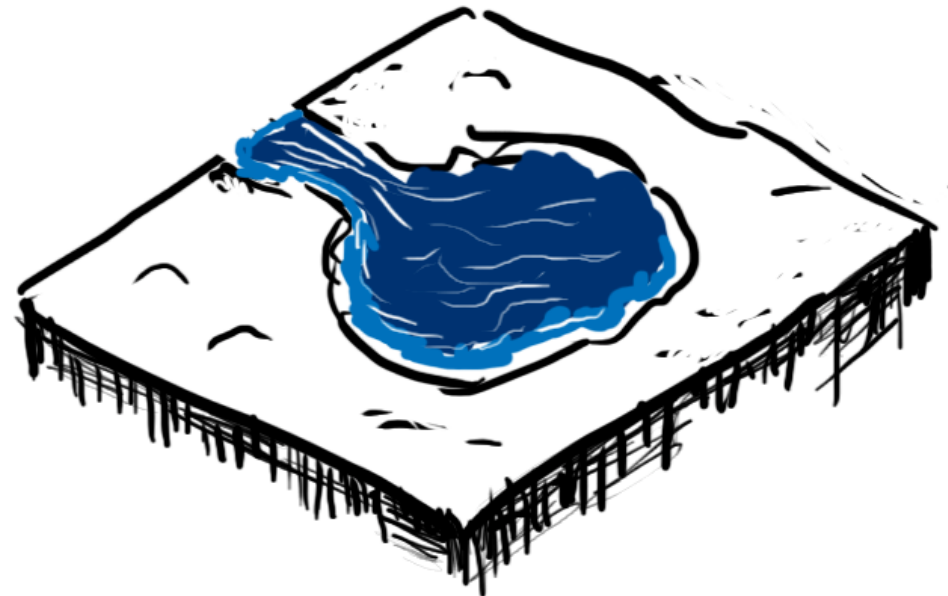
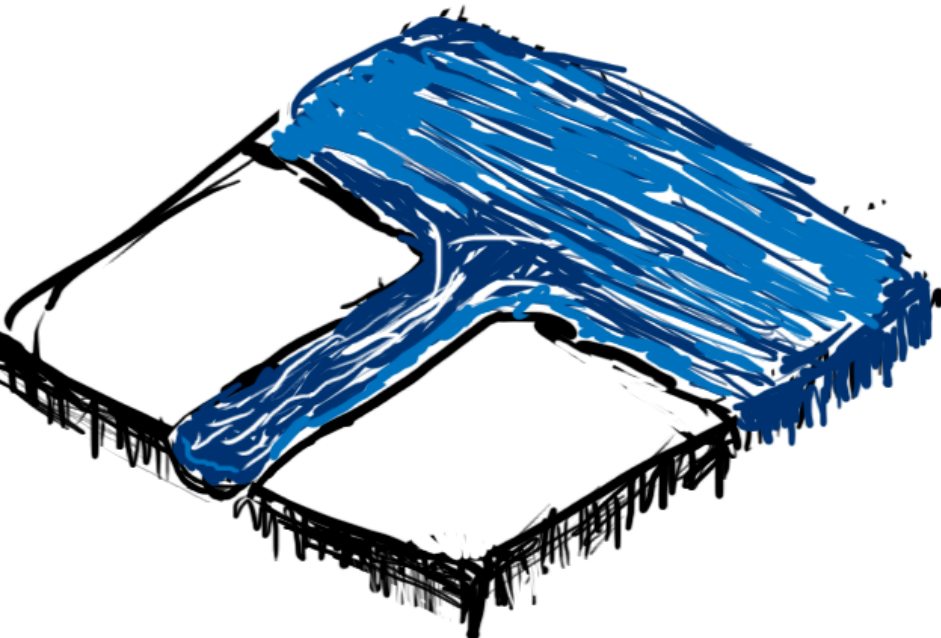
RiverEntrance(North)
RiverExit(East)

River Curve Configuration

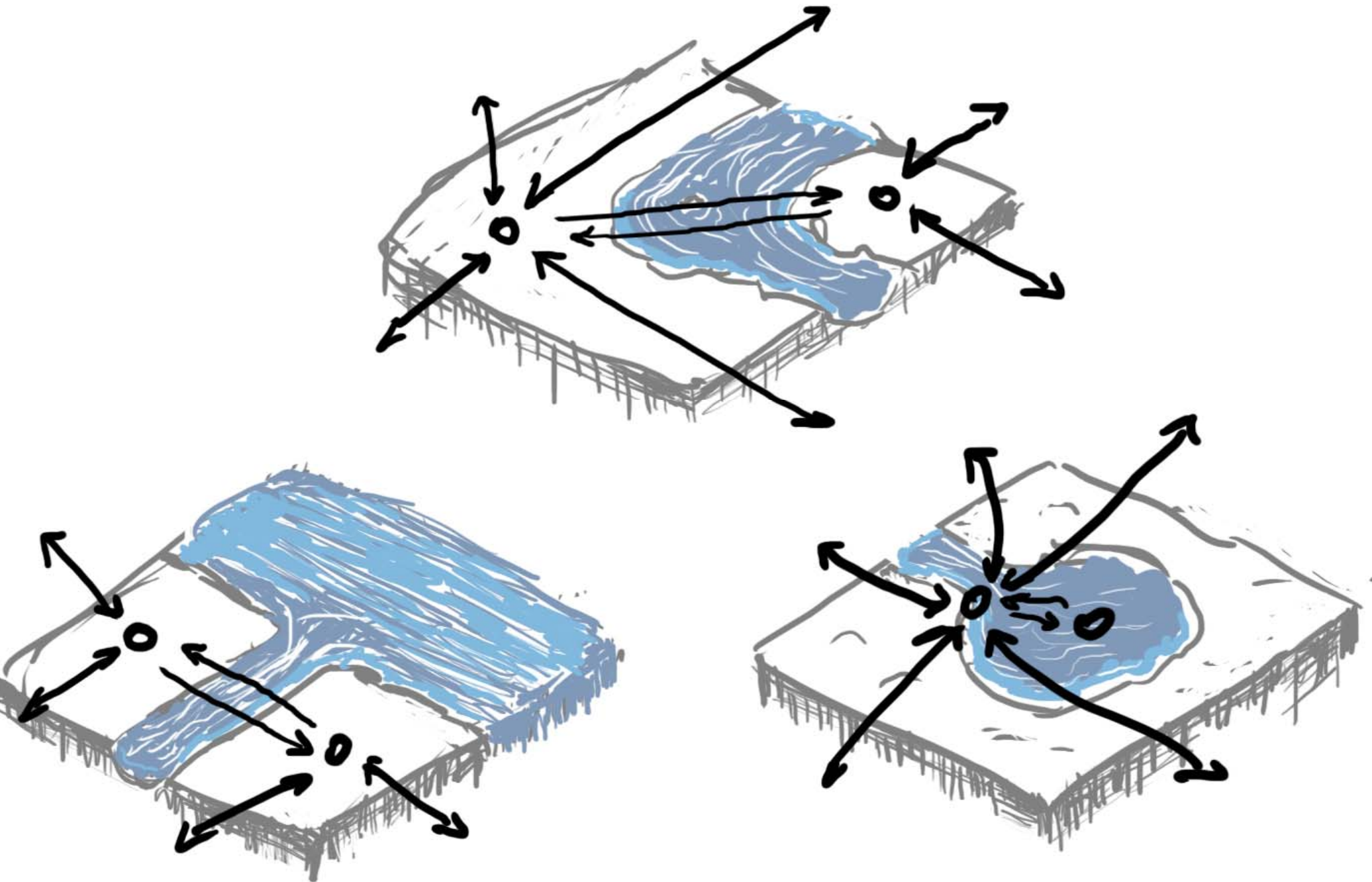
RiverEntrance(West)

Lake

Lake Sink Configuration

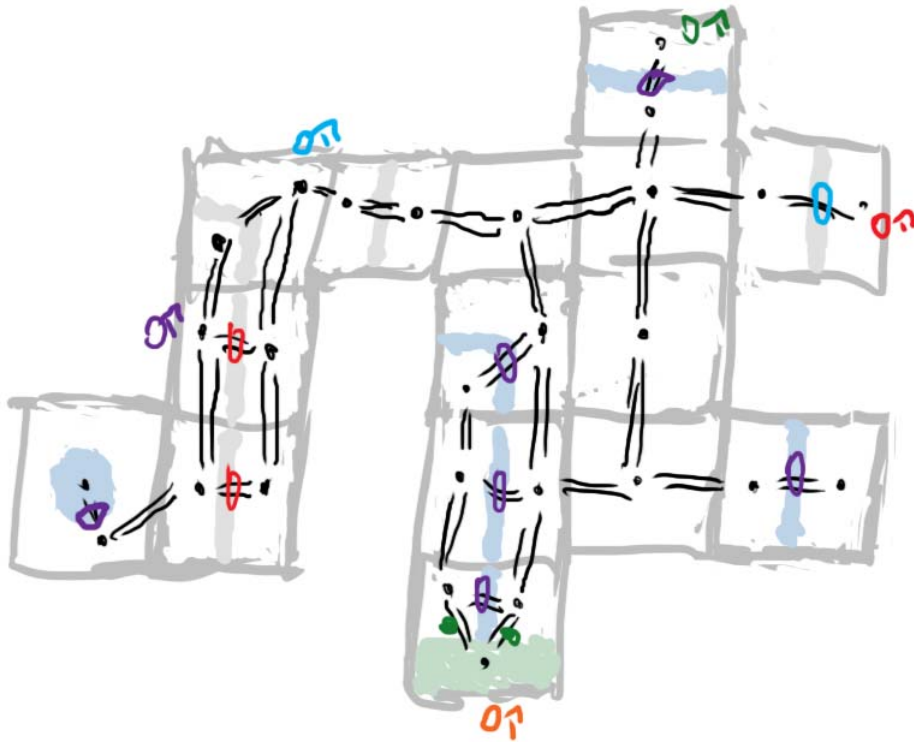


The Renderer



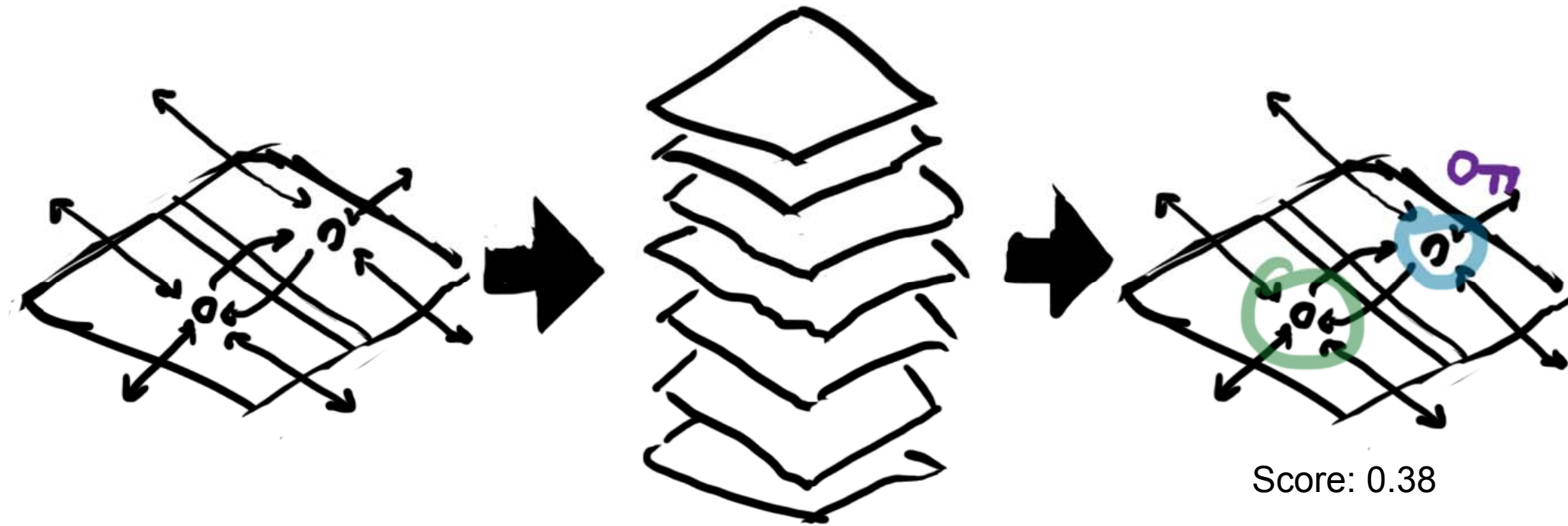
The Simulator

The Simulator

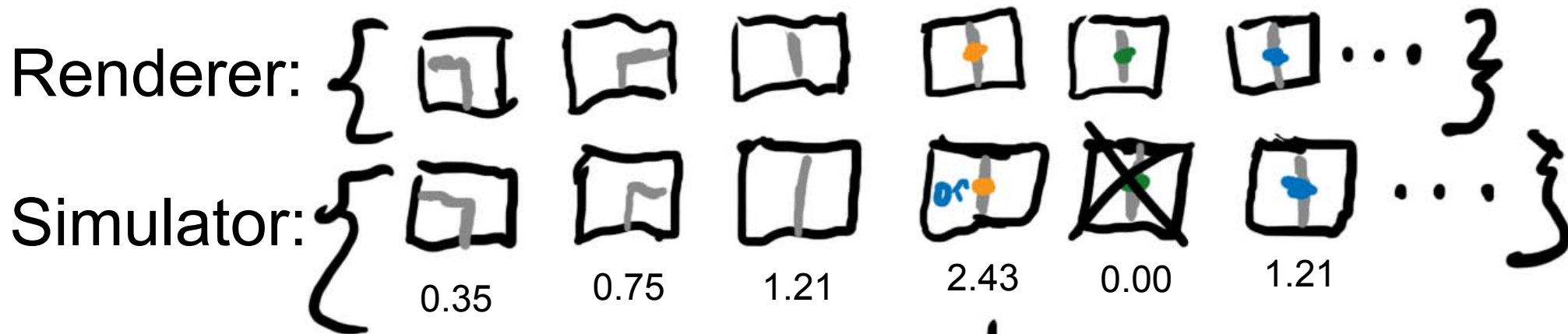


Keys precede locks?	0.81
Tension balances properly?	1.03
Zones balance enough?	0.54
Key distances OK?	0.97
Keys reused enough?	0.12
Enough new areas for keys?	0.70
Total Score:	0.0367

The Simulator



The Simulator



The Simulator

