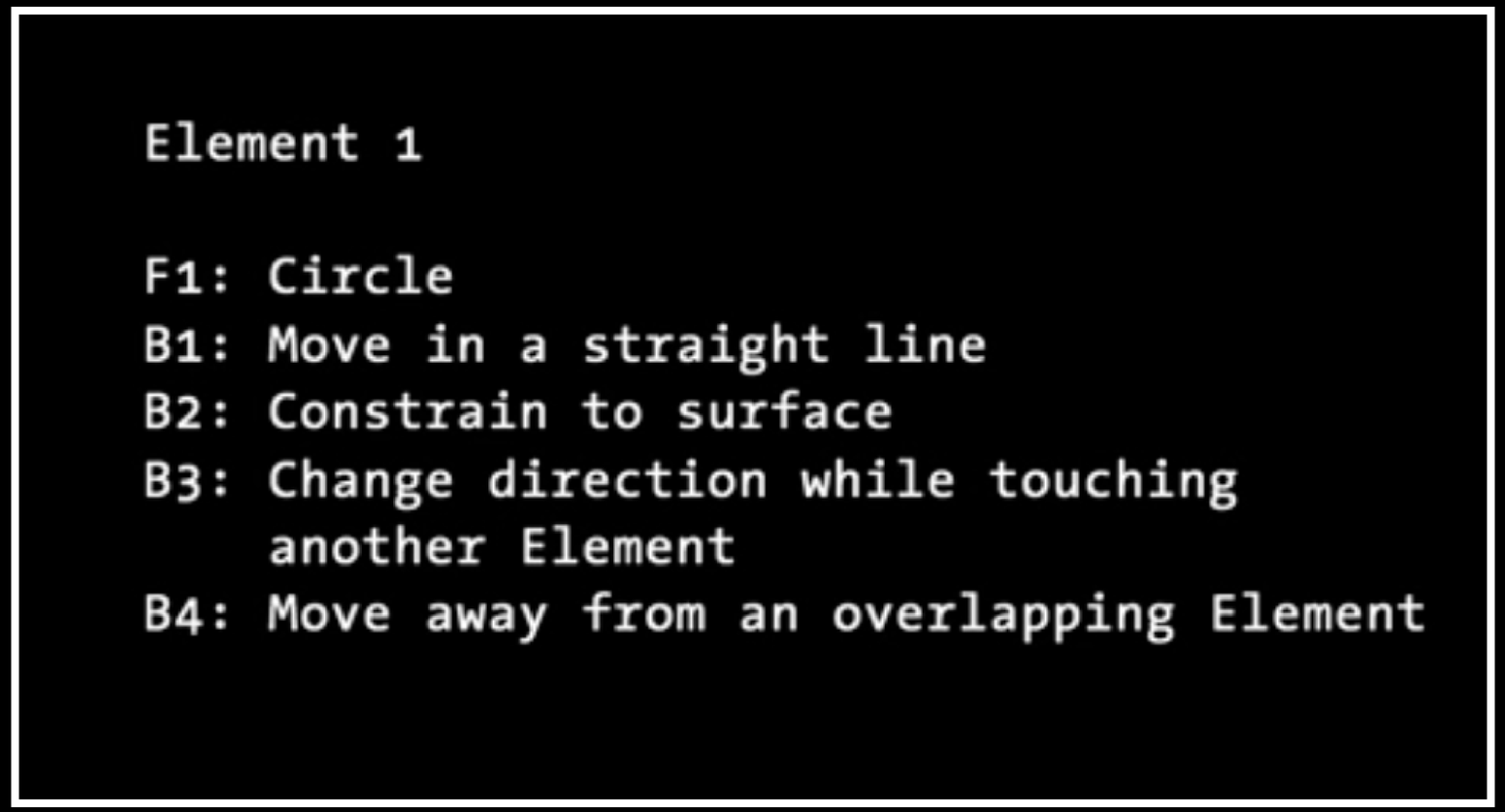
Positions

Tao

Unit 1 - Casey Reas

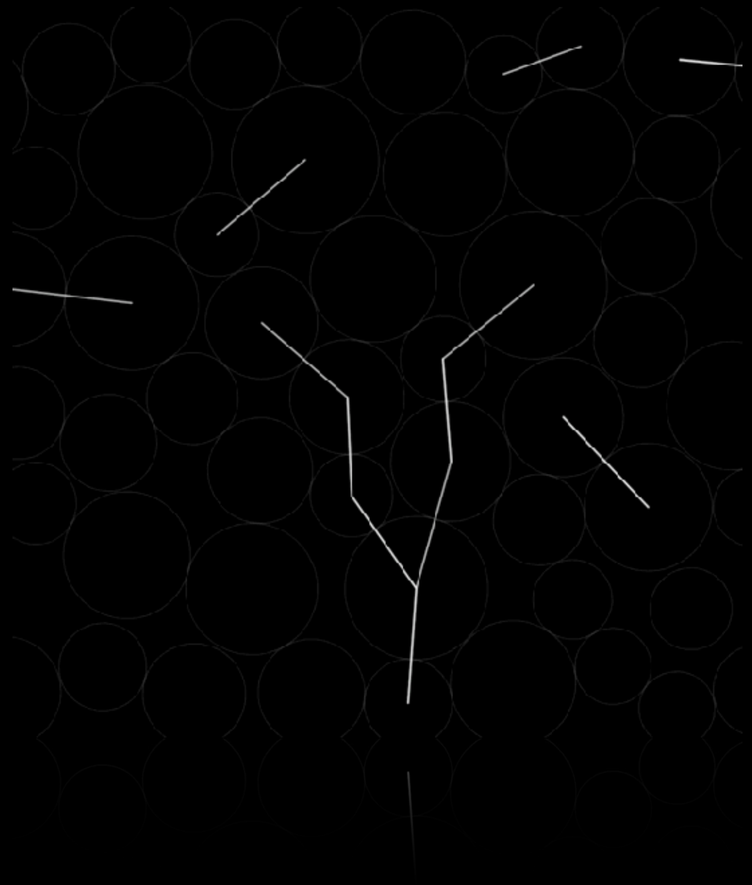
Casey Reas Process 4

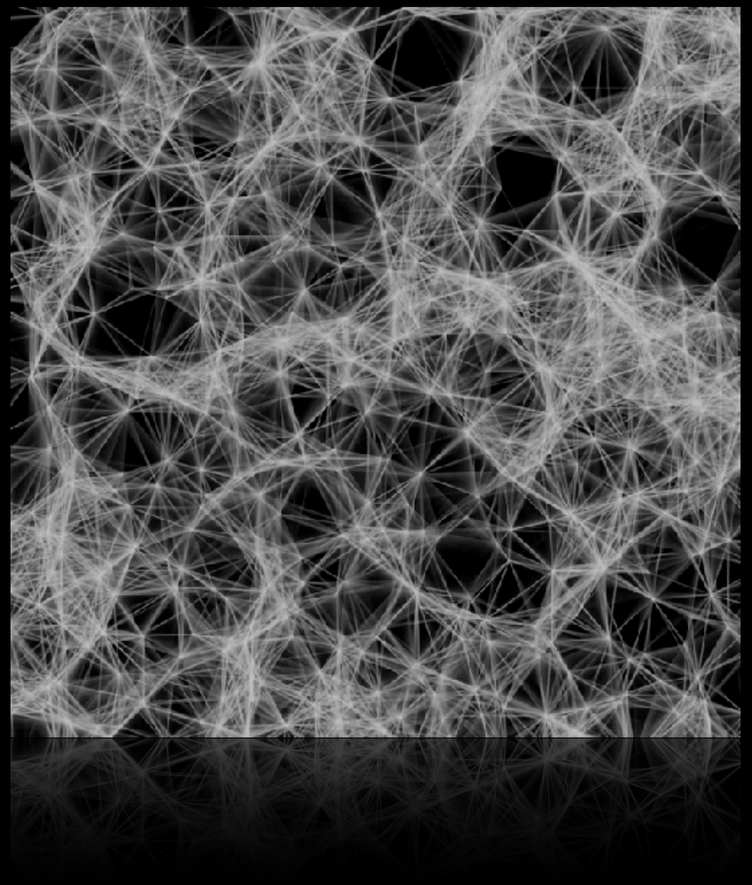
Unit 1- Rules rather than code



Casey Reas *Element 1* Rules Text

Unit 1- The process of reverse deduction

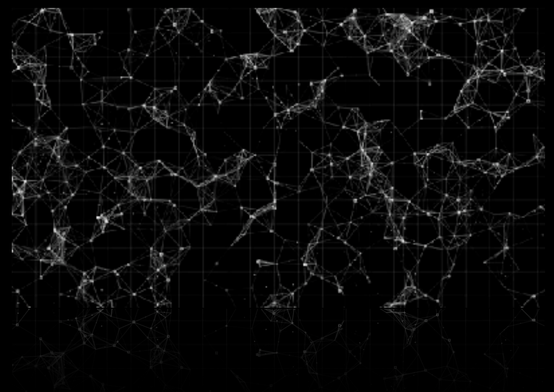


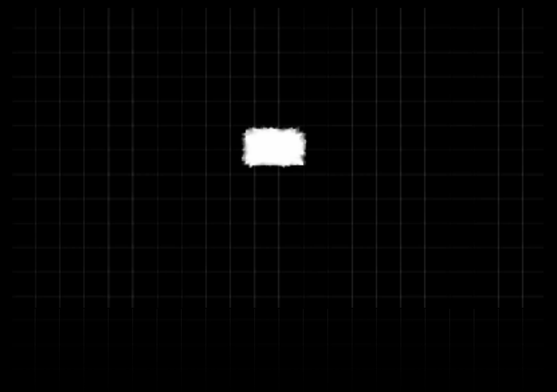


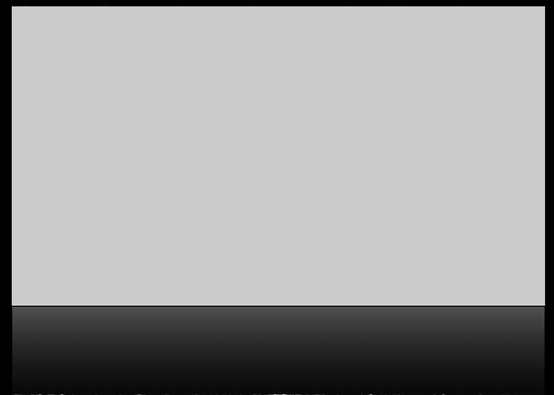
Early copies

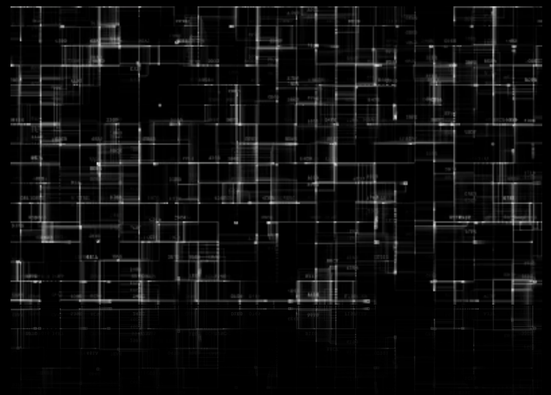
Later works

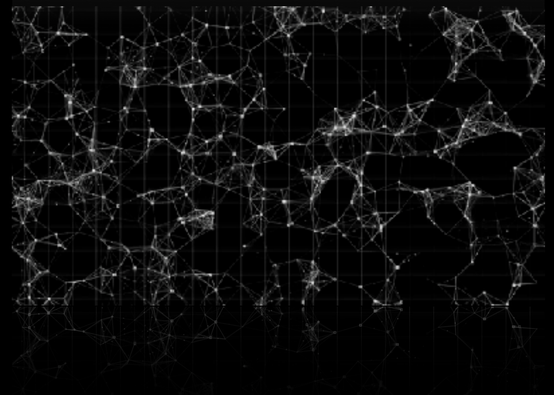
Unit 1- Grow according to the rules

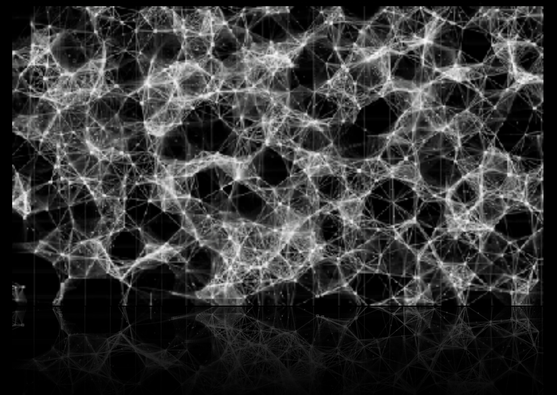












Conditional Design
A manifesto for artists and designers.

Through the influence of the media and technology on our world, our lives are increasingly characterized by speed and constant change. We live in a dynamic, data-driven society that is continually sparking new forms of human interaction and social contexts. Instead of romanticizing the past, we want to adapt our way of working to coincide with these developments, and we want our work to reflect the here and now. We want to embrace the complexity of this landscape, deliver insight into it and show both its beauty and its shortcomings.

Our work focuses on processes rather than products: things that adapt to their environment, emphasize change and show difference.

Instead of operating under the terms of Graphic Design, Interaction Design, Media Art or Sound Design, we want to introduce Conditional Design as a term that refers to our approach rather than our chosen media. We conduct our activities using the methods of philosophers, engineers, inventors and investors.

Process

The process is the product.

The most important aspects of a process are time, relationship and change.

The process produces formations rather than forms.

We search for unexpected but correlative, emergent patterns.

Even though a process has the appearance of objectivity, we realize the fact that it stems from subjective intentions.

Logic

Logic is our tool.

Logic is our method for accentuating the ungraspable.
A clear and logical setting emphasizes that which does not seem to fit within it.

We use logic to design the conditions through which the process can take place.

Design conditions using intelligible rules.

Avoid arbitrary randomness.
Difference should have a reason.

Use rules as constraints.
Constraints sharpen the perspective on the process and stimulate play within the limitations.

Input

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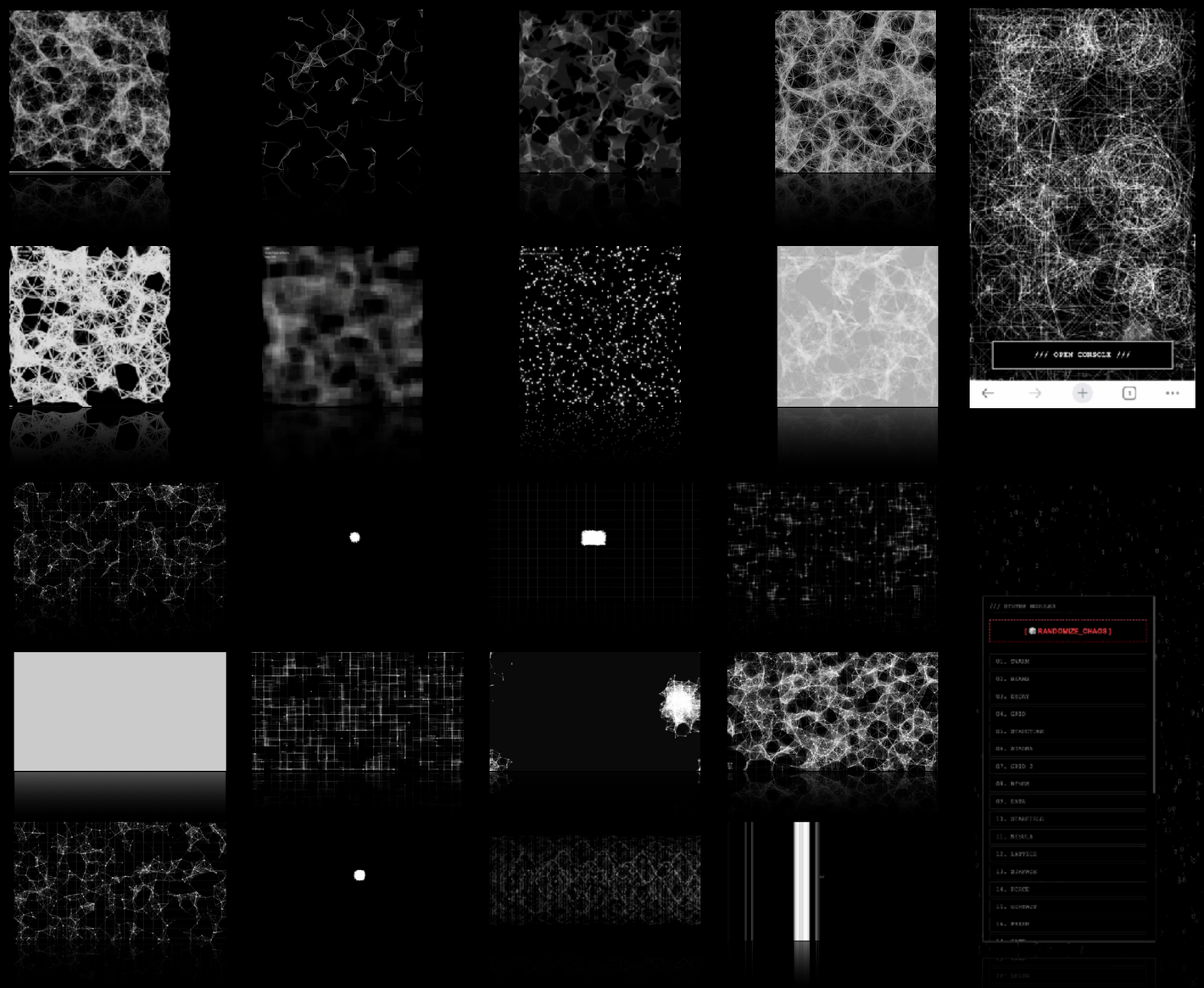
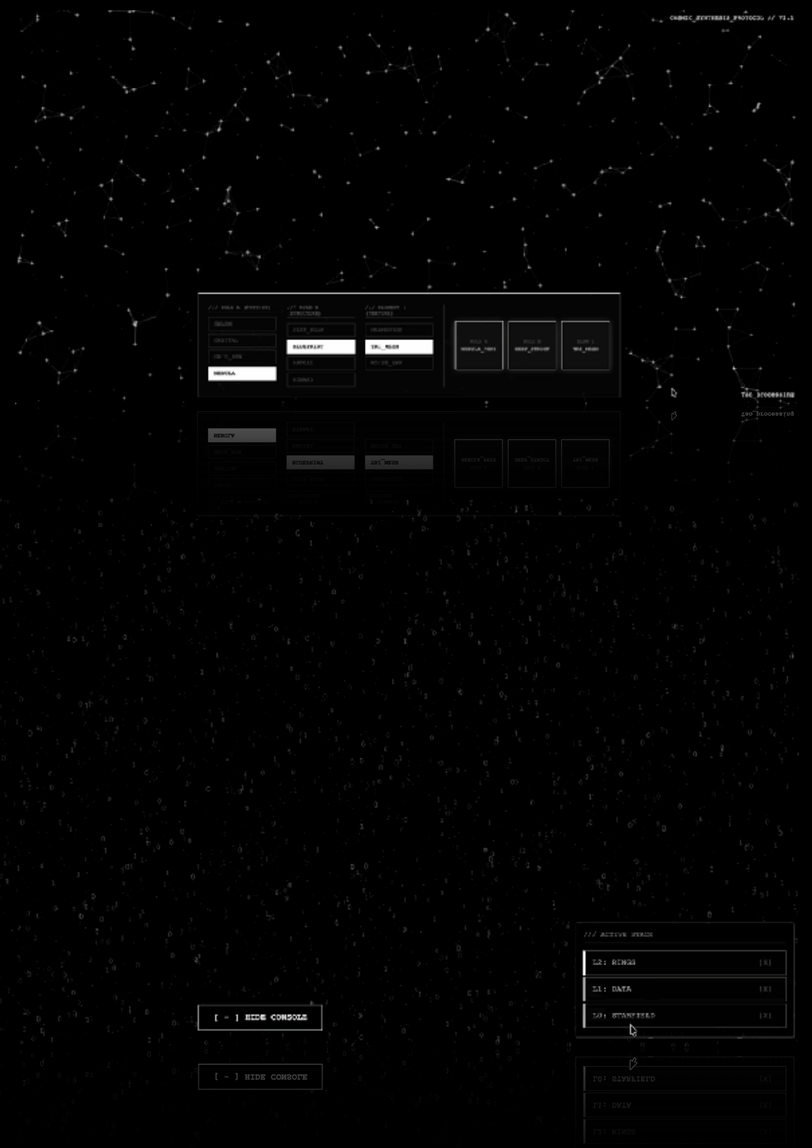
Unit 1- Cosmic Stack

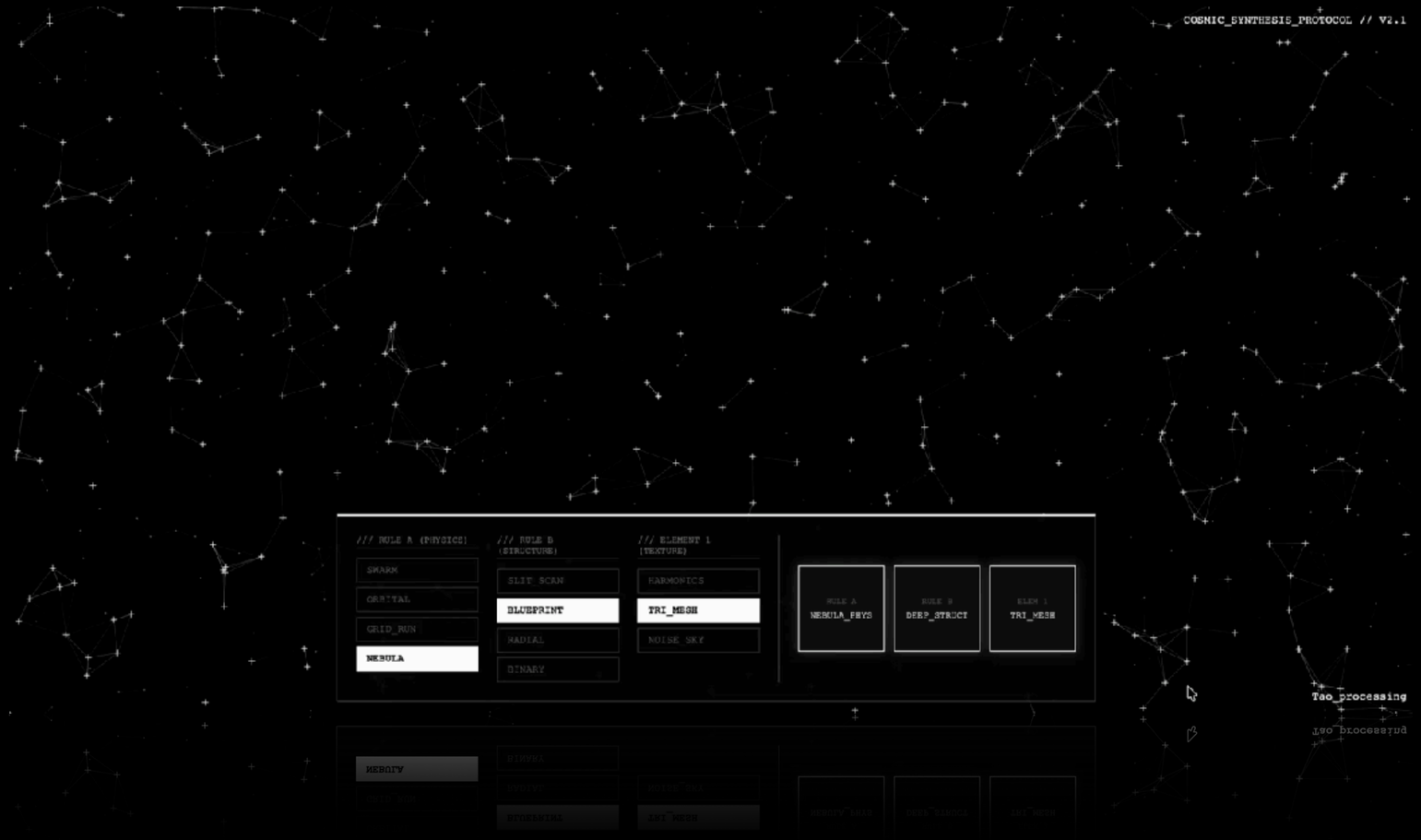




Unit 1- One thing is missing

However, how to convey these complex ideas to a wider audience?

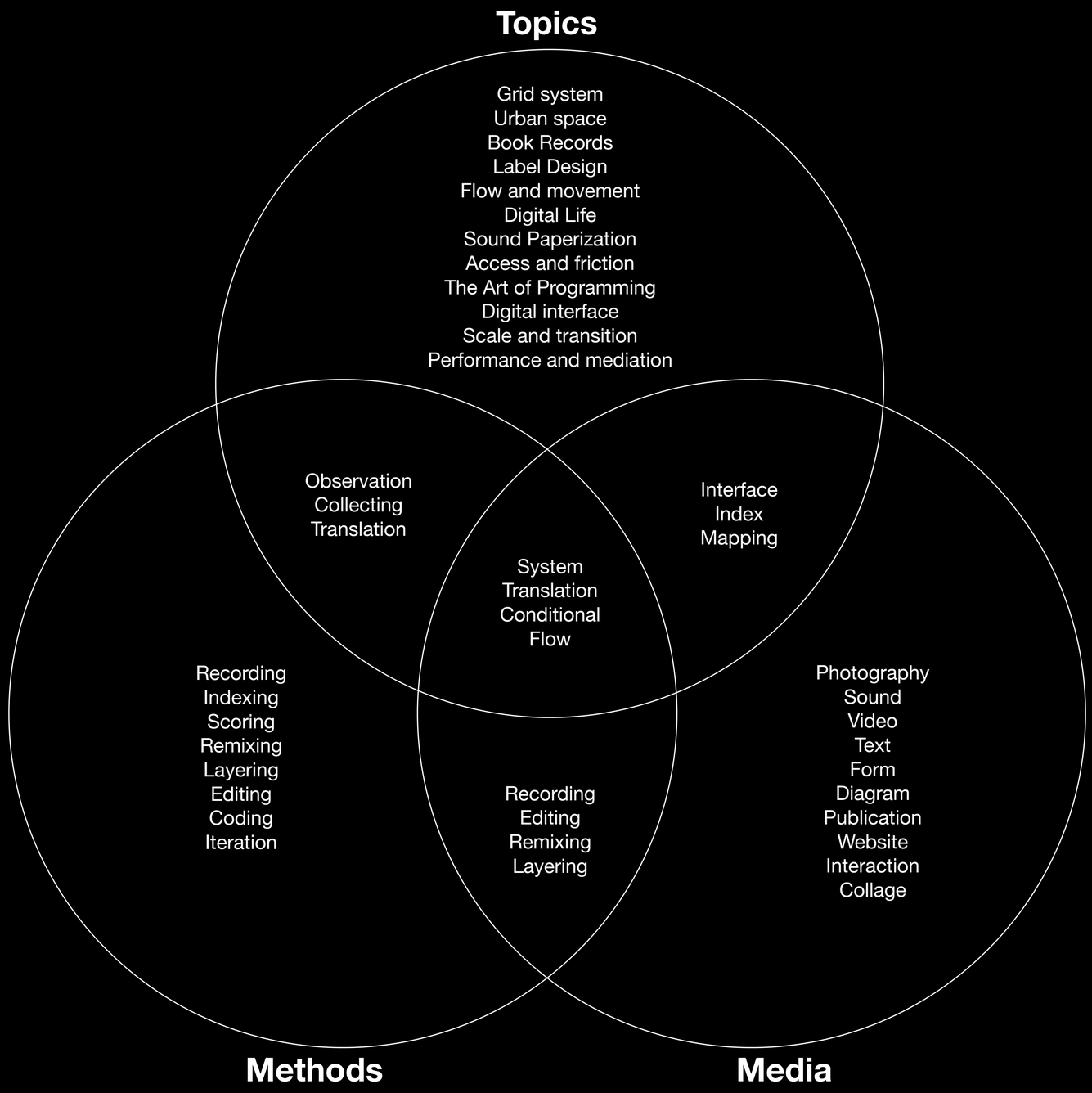
Unit 1- Reflection - Two Directions



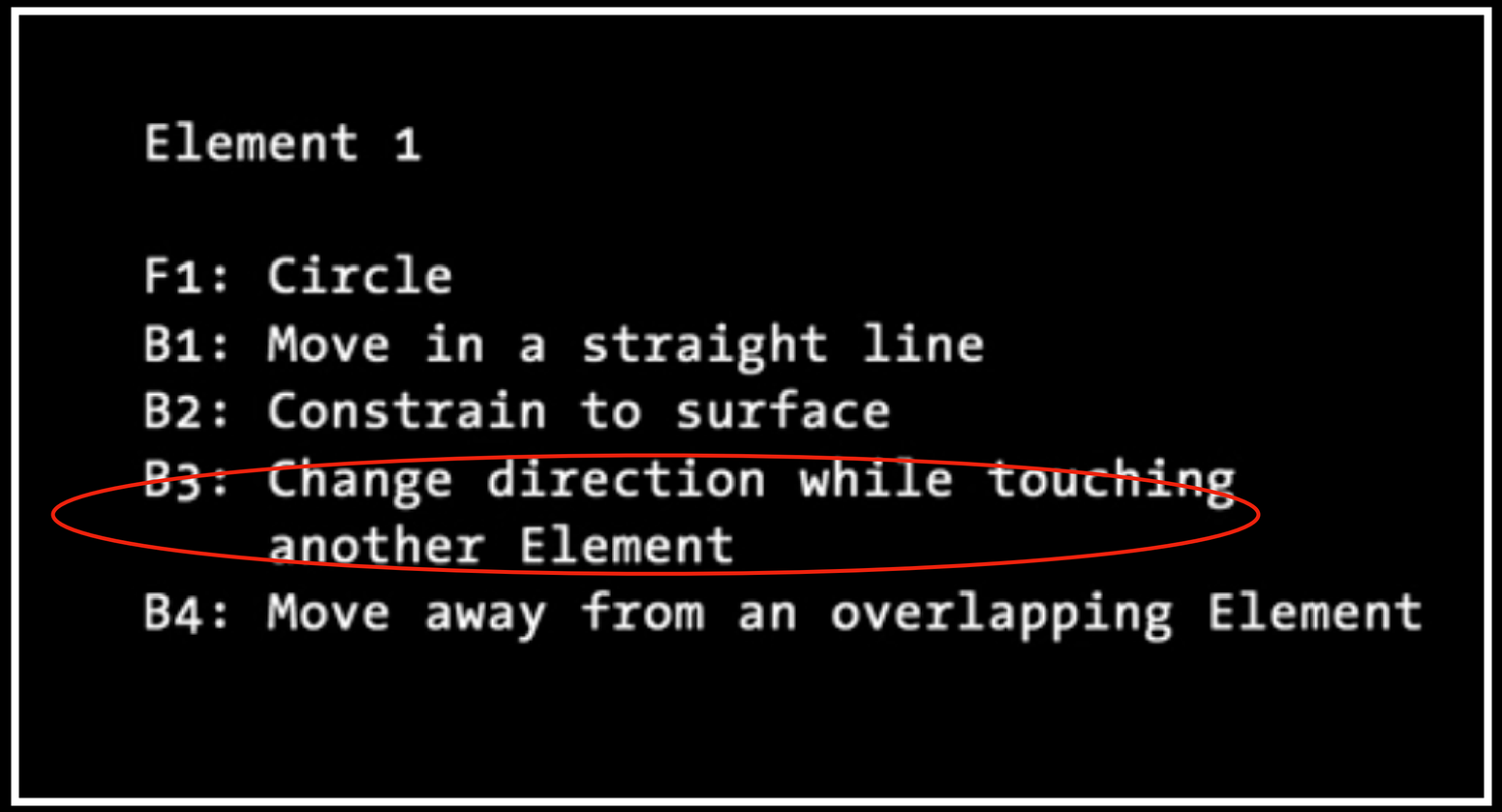
Unit 1 → One rule → 31 engines → 215 trillion possibilities

Unit 2 → Return to that rule → Exhaust it → Make logic visible

Venn


Topics
Grid system
Urban space
Book Records
Label Design
Flow and movement
Digital Life
Sound Paperization
Access and friction
The Art of Programming
Digital interface
Scale and transition
Performance and mediation
Observation
Collecting
Translation
Interface
Index
Mapping
System
Translation
Conditional
Flow
Recording
Indexing
Scoring
Remixing
Layering
Editing
Coding
Iteration
Recording
Editing
Remixing
Layering
Photography
Sound
Video
Text
Form
Diagram
Publication
Website
Interaction
Collage
Methods
Media

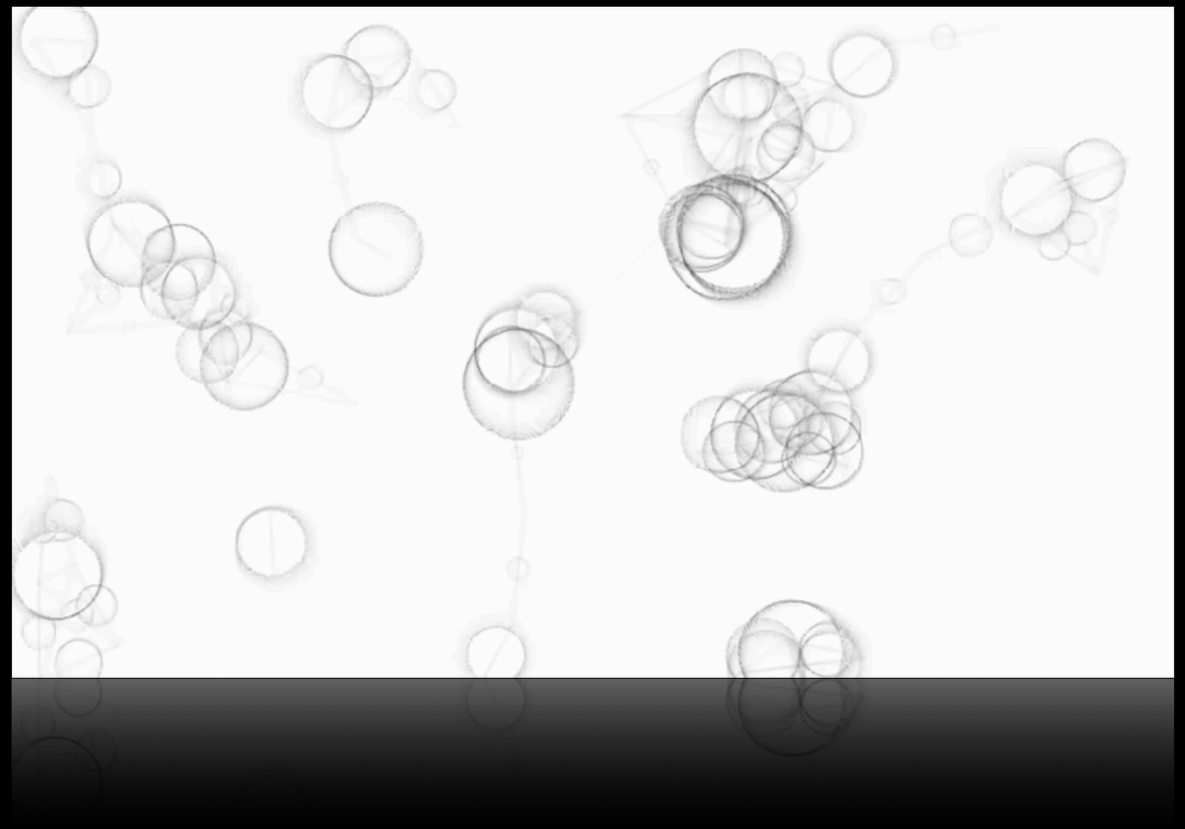
Unit 2- The only problem



Casey Reas's *Element 1*

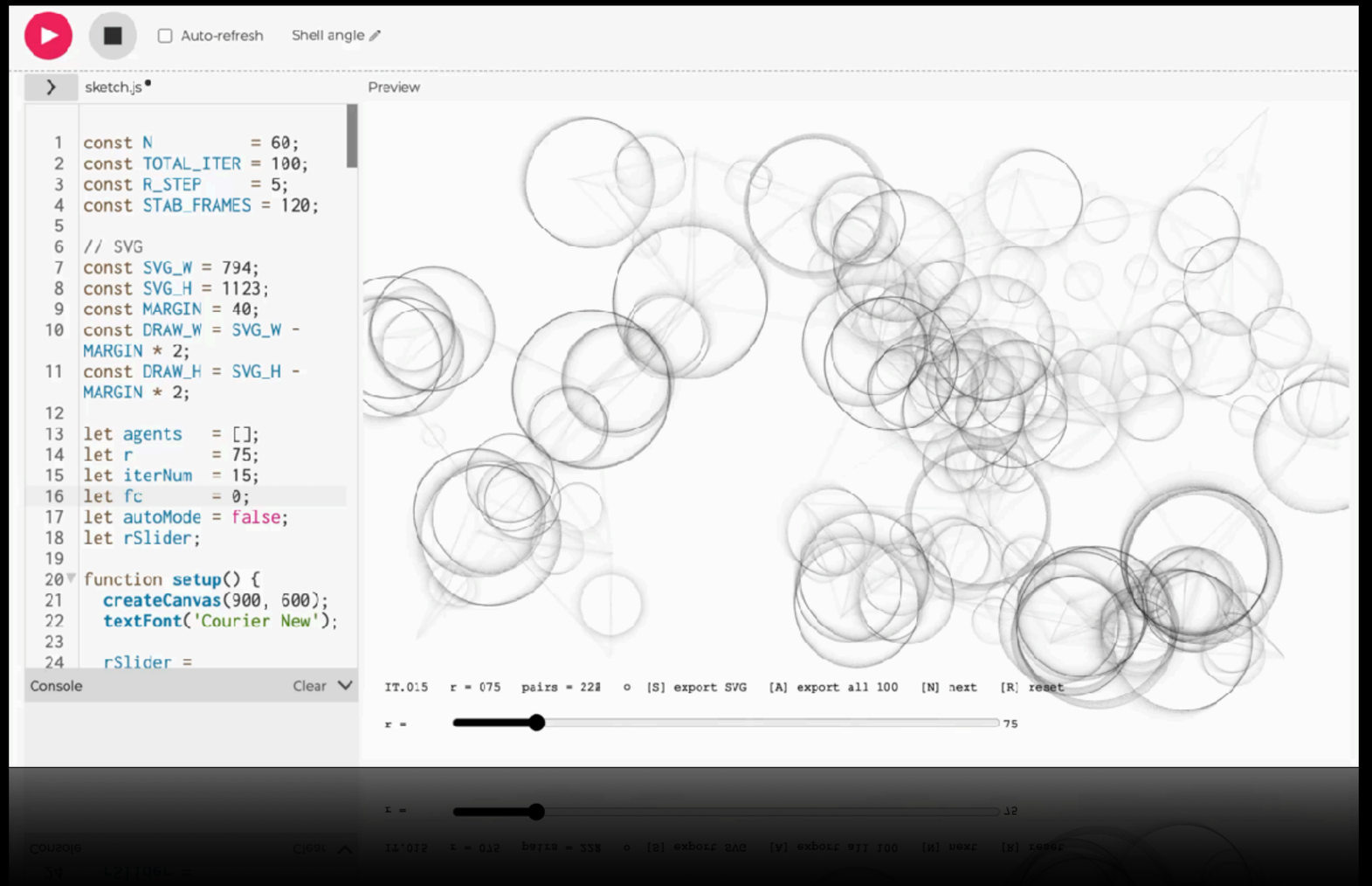
What is contact/touch?

Unit 2- The operation mode of the system



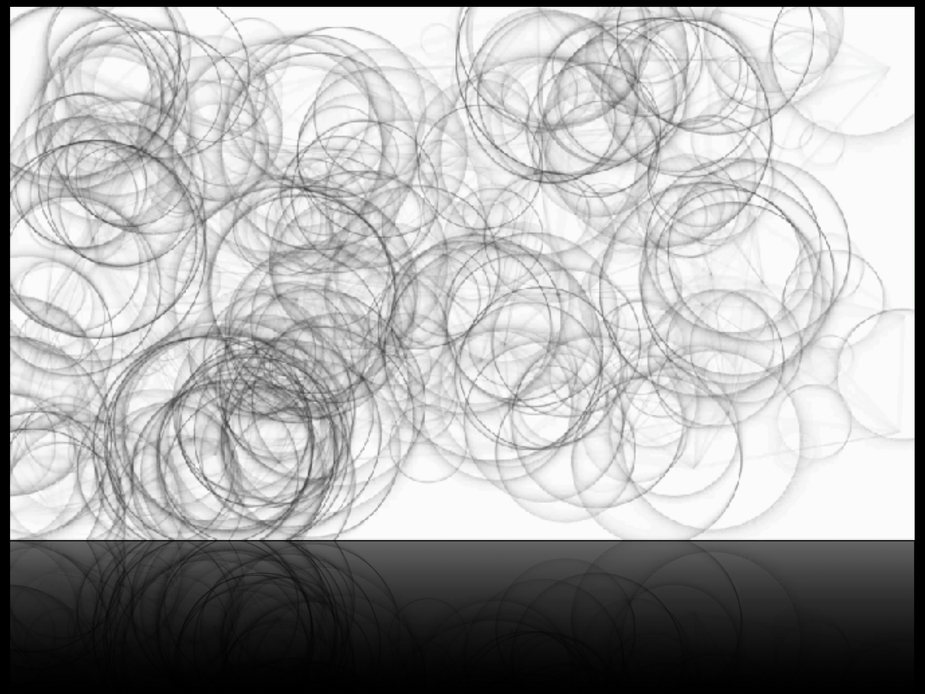
I changed this restriction from the strictest to the loosest, doing it a hundred times, taking a picture each time.

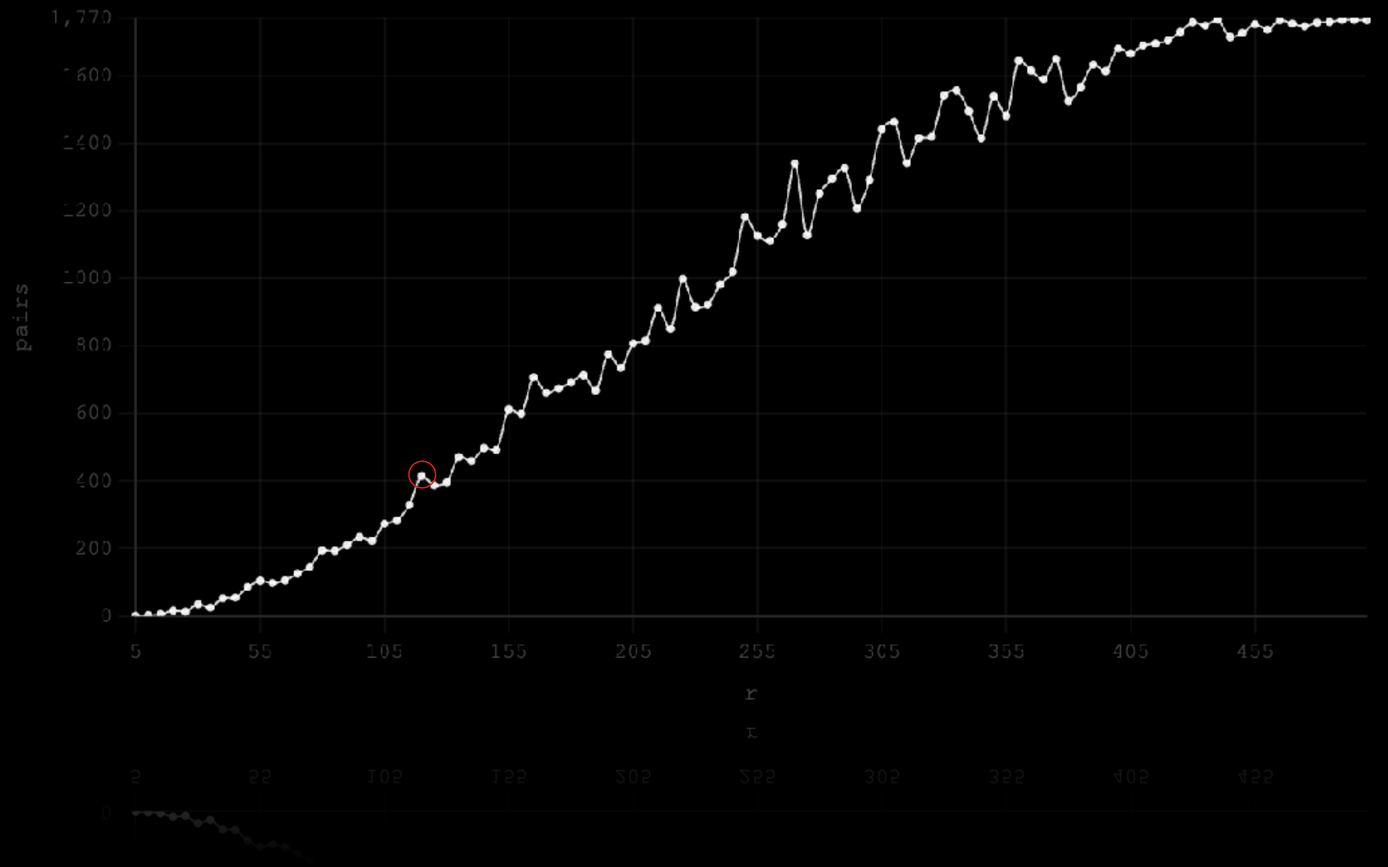
Unit 2- Real-time preview



There are no random factors, no manual intervention, and no aesthetic judgment. The appearance of each picture is entirely determined by r.

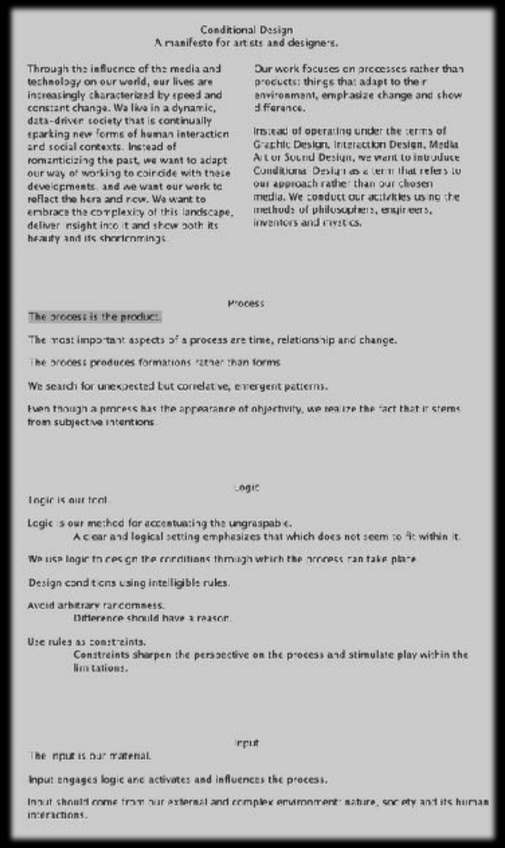
Unit 2- That unanticipated critical point





Around r = 120, there is a critical point.

Unit 2- Three references



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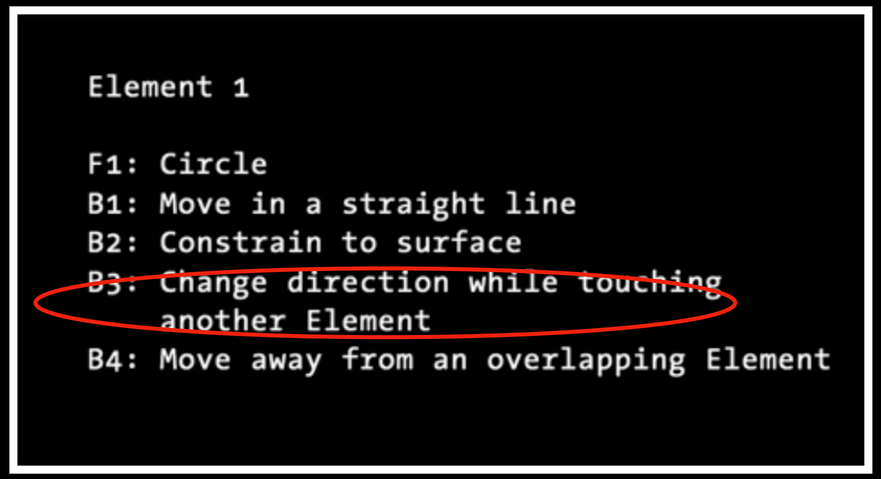
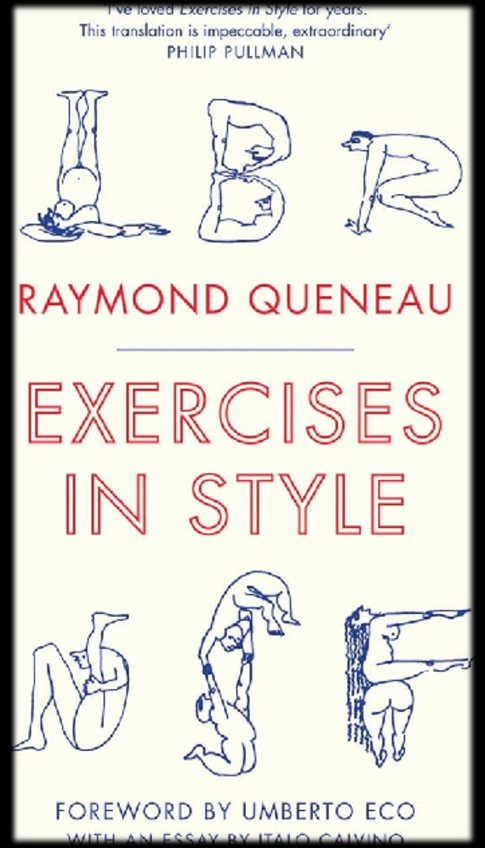
Conditional Design Workbook
Constraints - Differences must have causes

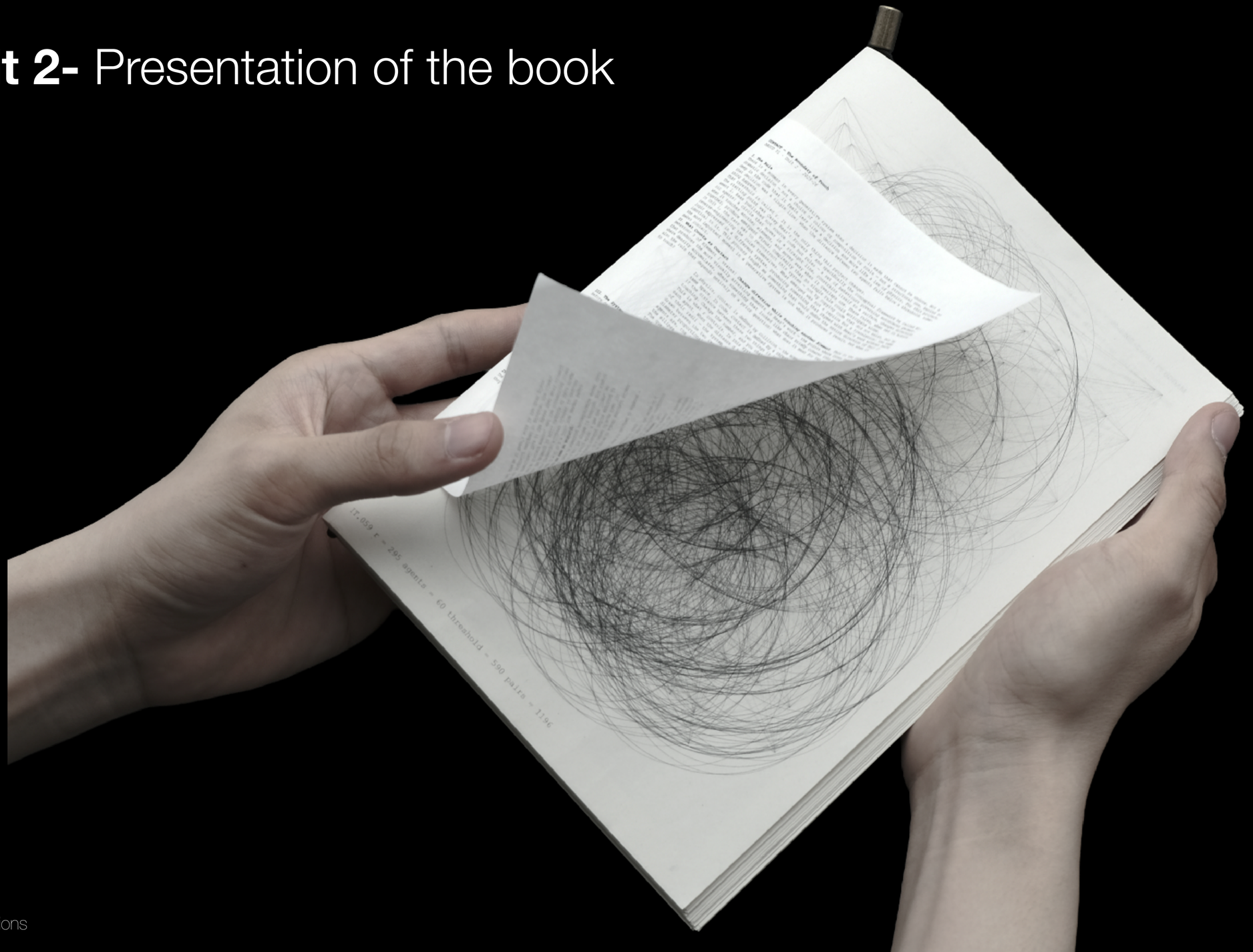


Casey Reas's *Element 1*
The starting point, and also the methodology - the designer defines the conditions



Queneau's *Exercises in Style*
Structural precedent

Unit 2- Presentation of the book




study of a single rule.
mbedded in Casey Reas's Process #
.21: Change direction while touching
rule was encoded into a generative
Each agent moves across the canvas at
off boundaries, responding to
se within range of each other, the
ecting their centres, and an ellipse
ontact, its radius determined by the
is the system's only visual response to
his book asks a single question: when the definition of "contact"
hanges, how does complexity grow within a system?
3

This book asks a single question: When the definition of "context" changes, how does complexity grow within a system?

Tao - Positic


IT.100 r = 500 agents = 60 threshold = 1000 pairs = 1766

There is a moment in every generative system when a decision is made that cannot be undone. Not a dramatic decision — not a choice of colour or composition or scale — but a structural one, buried so deep in the code that it feels less like a decision and more like a law of physics. For this project, that decision was a single line: when the distance between two agents falls below a threshold, something happens. That threshold is called r. It is the only thing this project changes.

The starting point was Casey Reas's Process 4, and specifically the conceptual framework he called Element 1. Reas published not source code but rules — a set of behaviours governing autonomous geometric agents: a circle that moves in a straight line, constrains itself to a surface, changes direction when it touches another element, and moves away when it overlaps one. These rules, when set in motion together, produce emergent visual complexity that no single rule could anticipate alone.

In Unit 1, the task was to reconstruct this system — not by copying code that did not exist, but by reverse-engineering the rules themselves. What emerged was not a replica but a translation: the same logic expressed in a different syntax, producing something that rhymed with Reas's work without being identical to it. This process taught me something that would define the entire direction of Unit 2: the most important moment in a generative system is not when it produces a result, but when it makes contact.

IT.011 r = 55 agents = 40 threshold = 110 pairs = 93

25

Element 1

F1: Circle
B1: Move in a straight line
B2: Constrain to surface
B3: Change direction while touching another Element
B4: Move away from an overlapping Element

4

he code, contact is governed by one parameter — **the contact us r.** When the distance d between two agents falls below the ined radii r_a + r_b, the system registers a contact event. When small, two agents must nearly overlap before anything happens: world is sparse and isolated. As r grows, the range of influence rows, and relationships begin to form across greater distances. underlying rule remains unchanged. What changes is the definition hat counts as touching.

book contains 100 pages. Each page corresponds to one iteration. presents from 5 to 500 in fixed steps of 5 — 100 steps in total. ach iteration, the system runs under identical initial itions and identical physical rules; the sole variable is r. Each captures the state of the system after sufficient running time, he moment it has reached a degree of visual stability. What you is not a snapshot of a random moment, but a considered still from eatable condition.

is not a random visual exploration. It is a systematic traversal parameter space. The Conditional Design Manifesto states: "Avoid trary randomness. Difference should have a reason." In this book, y difference between one page and the next has exactly one **el r has increased by 5.**

across all 100 pages, you will witness a system move from ose restraint toward saturation — from sparse, isolated geometric lationships to dense, overlapping accumulation. There is no tic turning point. There is only continuous, logical mulation — which is precisely how complexity tends to grow.

publication is also a direct response to a problem identified in lf: invisibility. In the Conrad Stack system, rules were culated inside code; what the viewer encountered was the ent visual output, never the underlying logic. These 100 attempt to open that logic up. The parameter annotation ded beneath each image is an honest account of the system's at that moment — making the generative process itself legible, sible, and tangible.

This is 100 acts of listening to one rule.

5

122

123

2

This pu
Its orig
(fig.1).
another
system
a const
proximit
system
centred
distance
the even

This Book
changes,

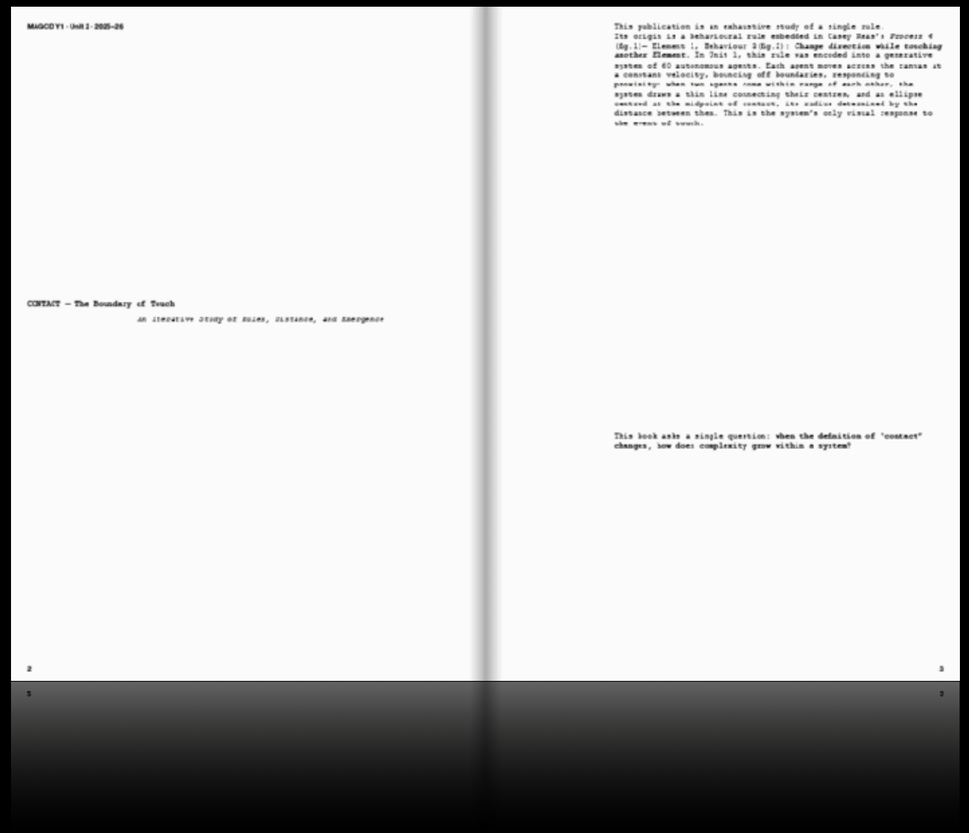
26

IT.019 r = 95 agents = 40 threshold = 190 pairs = 214

27

Tao - Positions

Unit 2- Video



r=5 → r=500

Unit 2

One rule. One variable. 100 pages.

Thank you