

Generative Structure: A Visual Guide

Micro and macro, reality and cognition, discrepancy and reconfiguration

Structures of generation, harmony, and circulation
across people, society, life, nature, and art

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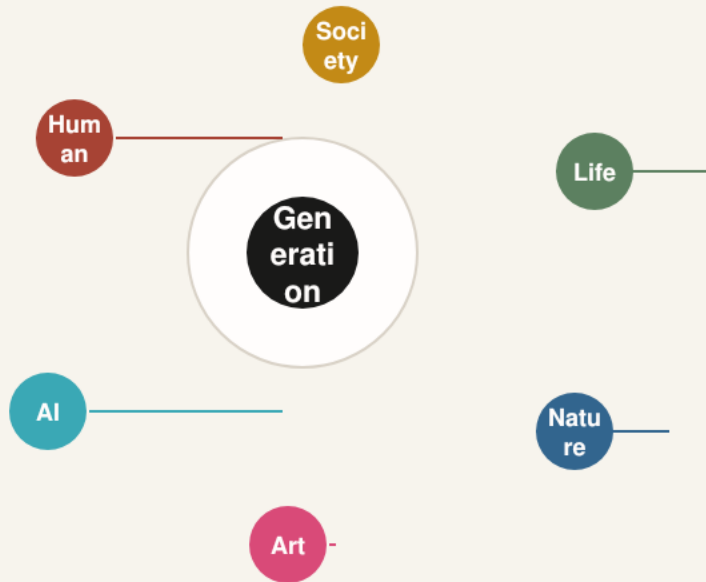
AI-HUMAN Joint Research Lab



The research converges on one question

**Across different domains,
what continually generates the
next state?**

Although the subjects differ, the same generative structure appears: elements, relations, wholes, time, and circulation.



The starting point was generation within the human being

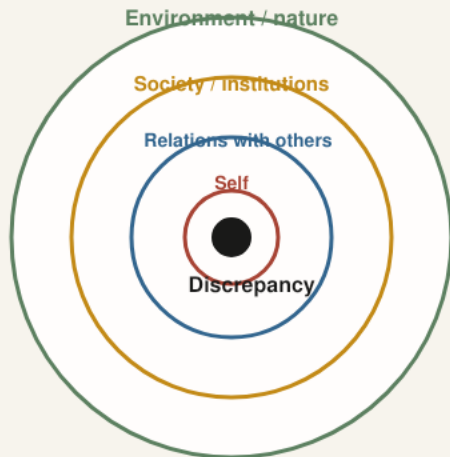


When defense against a wound becomes fixed, a discrepancy emerges between self-image and continuously changing reality.

That discrepancy spreads beyond the self into relationships with others, society, life, and nature.

A single discrepancy propagates through the whole relational field

Self-image / reality gap

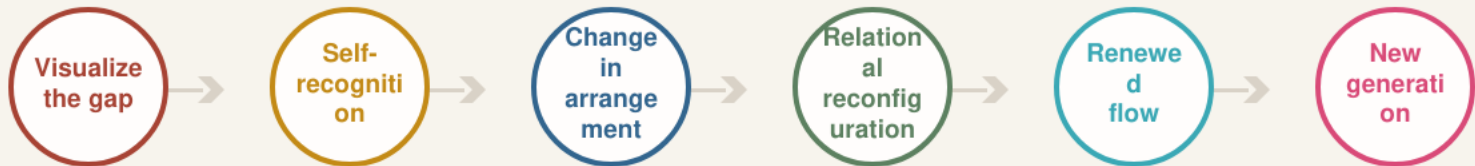


Relational distortion

Stalled circulation

Disconnection from
environment

Visualization begins to move a fixed structure



Reconfiguration occurs not through external correction, but when the person sees the structure for themselves.

Stalled energy and relations begin once again to generate the next state.

See the generative conditions before the finished object

Conventional cognition

Table, hand, tree, person

Treat visible, completed forms
as concrete objects

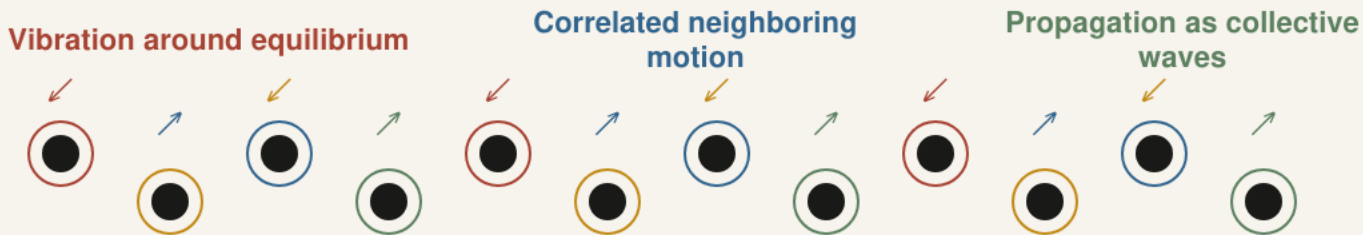
**Base-layer generative-arrangement
cognition**



**Difference, arrangement, distance, contact,
connection, separation**

Before names and functions, perceive what is related, how it is related, and how form is generated.

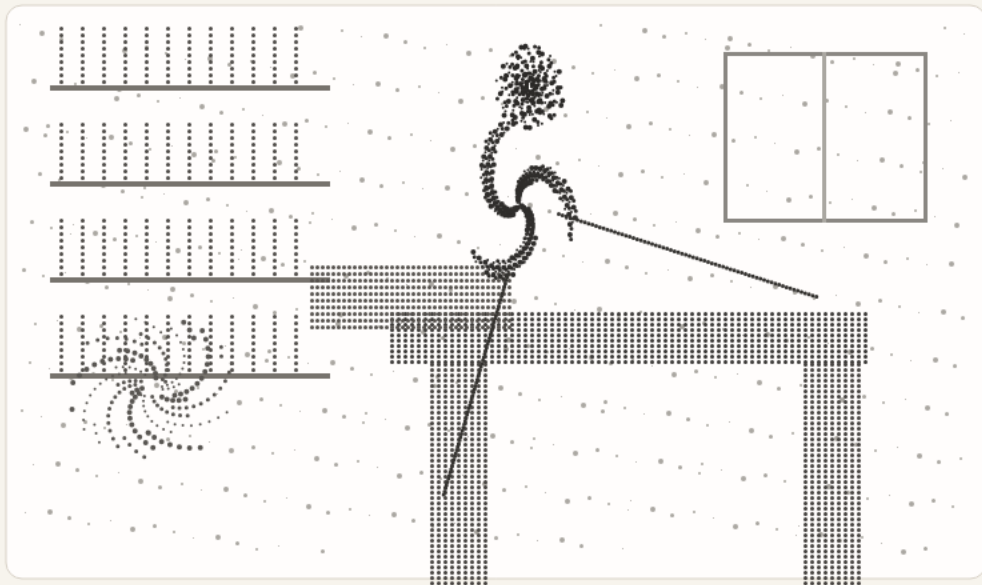
All constituent elements move, including those in solids



A table is not a static, completed object.

Continuously moving constituents maintain relations and arrangement, continually generating the table.

Person, table, plant, and air form a continuum of different arrangements



Object / empty space

Instead:

**Density
Arrangement
Distance
Interaction
Modes of
vibration**

**A boundary is not a fixed line, but
a region of ongoing exchange of
matter and energy.**

The difficulty lies not in knowledge, but in where concreteness begins

Conventional explanation

The finished table

Magnify its interior

The starting point
reverses

Cognition in this research

Fine-grained, moving reality

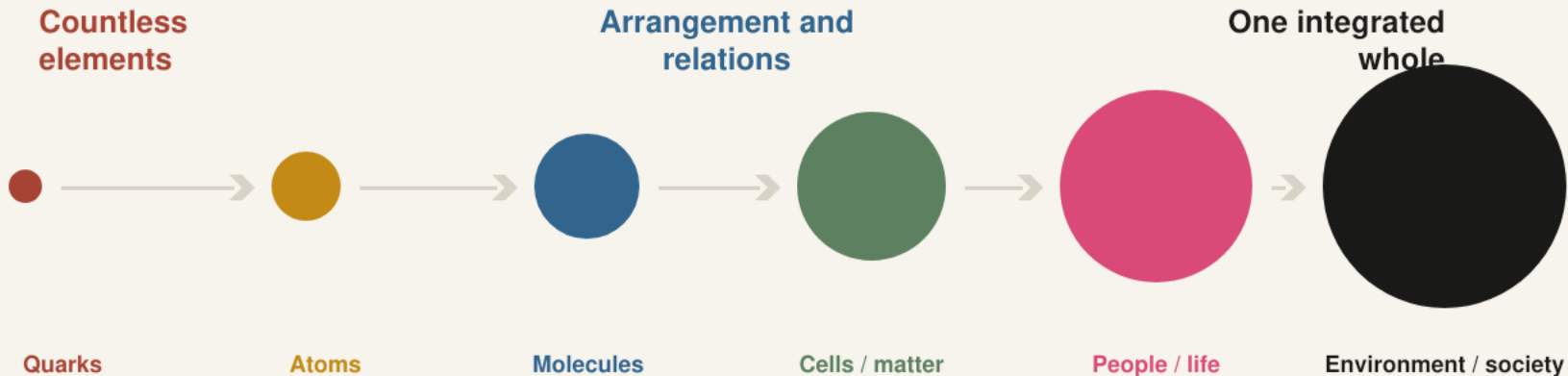
Its arrangement appears as a table

It is not a matter of “seeing atoms behind the table.”

**A dynamic arrangement of atoms and molecules is appearing
now as a table.**

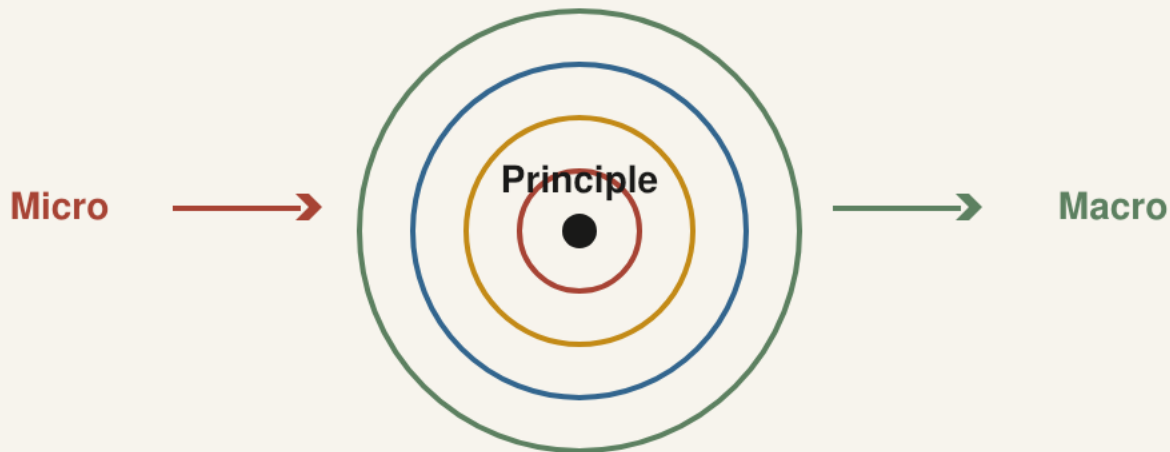
The more an explanation begins from the finished object, the farther it moves from the continuous world before conceptual division.

The macro emerges from micro-level relations



Rather than grasping a large phenomenon directly, descend to the small relations that generate it.

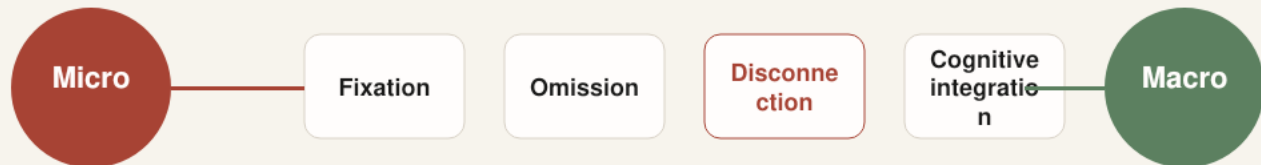
The same principle appears across scales



Even when elements are countless, the logic that sustains their relations remains coherent.

When micro and macro align, the generative principle running through parts and whole becomes visible.

Where scales fail to align, there are gaps, omissions, and disconnections



At which layer was the relation lost?

Visualizing discrepancy identifies where reconfiguration can occur.

The same generative structure appears in people, society, and painting

HUMAN

- Defense
- Emotion
- Experience
- Body
- Others
- Environment

WHOLE

SOCIETY

- History
- Culture
- Institutions
- Individuals
- Information
- Resources

WHOLE

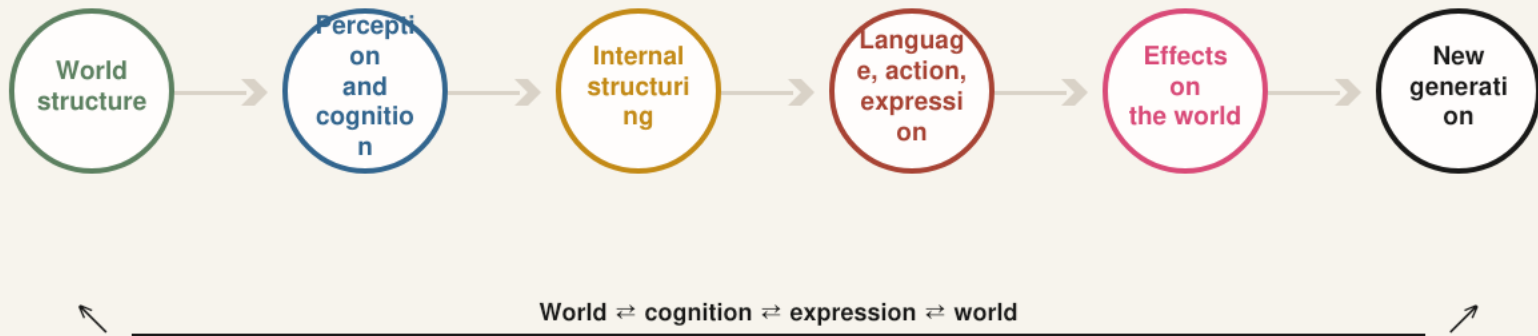
PAINTING

- Form
- Open space
- Pattern
- Point
- Line
- Color

WHOLE

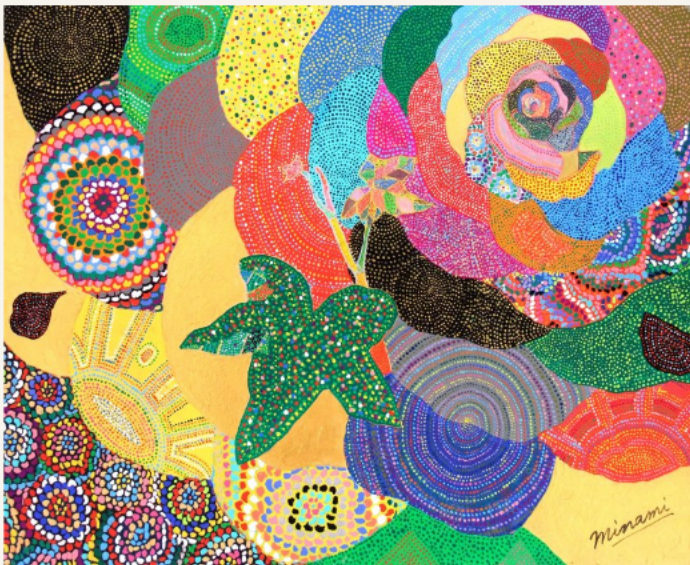
ELEMENTS → RELATIONS → WHOLE → EFFECTS ON PARTS → NEXT GENERATION

The structure of the world returns to the world through cognition



Understanding is not an endpoint. Through cognition and expression, we re-enter the world's generation.

Painting preserves generative structures that precede language



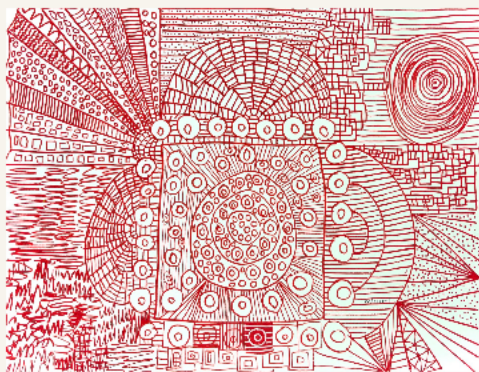
Point $\rightleftharpoons$ Accumulation

Pattern $\rightleftharpoons$ Form

Relation $\rightleftharpoons$ Whole

Across periods and motifs,
the same generative principle
recurs throughout the works.

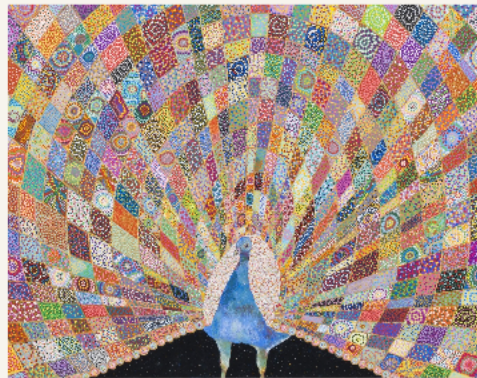
The works form a record of generation spanning more than twenty years



Base-layer arrangement



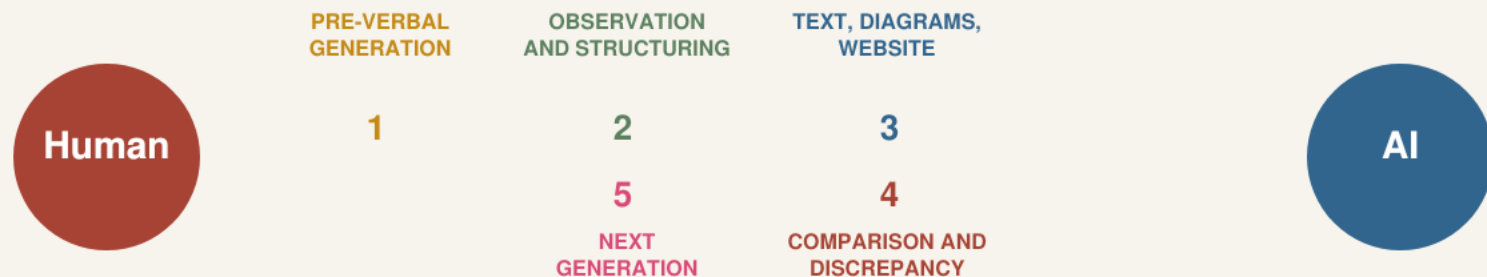
Repetition and difference



Individual and whole

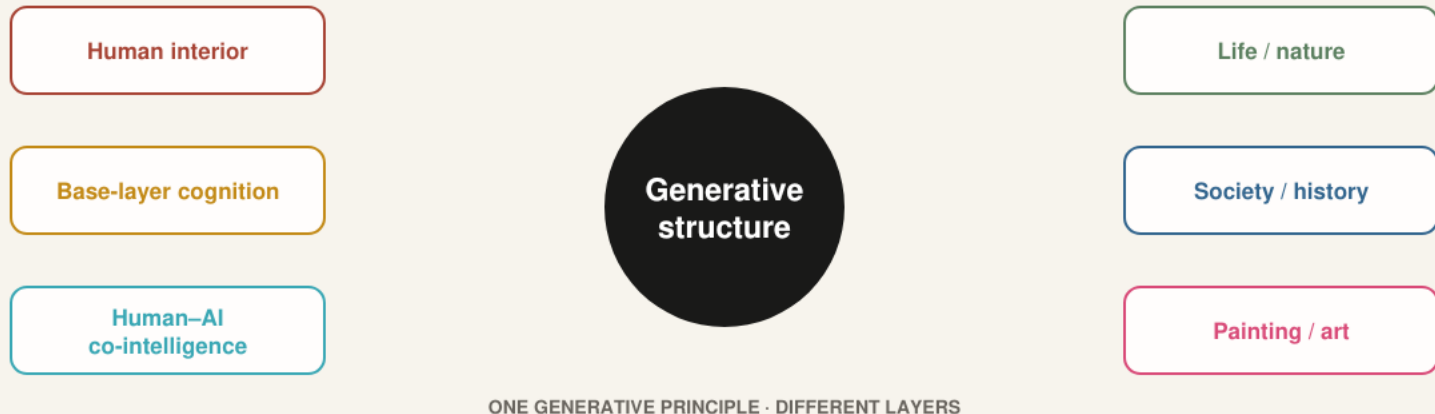
Theory did not produce the works; language later caught up with structures already accumulated within them.

Generation also circulates between human and AI



Human generation is observed and structured with AI. The resulting expression returns to the human side and becomes the condition for the next generation. One discovery changes the whole; the changed whole generates the next question.

Research domains branch from generative structure



These are not separate themes; they are different manifestations of the same generative structure.

Six questions guiding this research

01 What generates the whole?

02 Where does discrepancy arise between reality and cognition?

03 Where do relations and circulation break?

04 What conditions enable reconfiguration?

05 How does energy begin to flow again?

06 How is a new whole generated?
