FLYXION SCIENCE COMICS

#1

JUNE 2026

50¢

WHAT IF THE MOST IMPORTANT THING ABOUT A SYSTEM ISN'T WHAT IT IS DOING... BUT WHAT IT CAN STILL DO?

APPROVED BY THE ADMISSIBILITY AUTHORITY

The GEOMETRY of ADMISSIBILITY

CONSTRAINT, REACHABILITY, AND RELAXATION ACROSS BIOLOGICAL, COGNITIVE, INDUSTRIAL, AND COSMOLOGICAL SYSTEMS.

THE BRAIN
Sleep, memory, and the threshold of silence.

THE JOINT
Embryonic design writes the rules of vulnerability.

GENOMICS
Constraint shapes gene regulation and variation.

$s(x,t)$

BATTERY RECYCLING
Residual geometry determines what value can be recovered.

REINFORCEMENT LEARNING
Habit forms when the map of possibility collapses and stays collapsed.

ONE GEOMETRY. SIX DOMAINS. A UNIFYING PRINCIPLE.

COSMOLOGY
Quasars echo the universe's thresholds across billions of years.

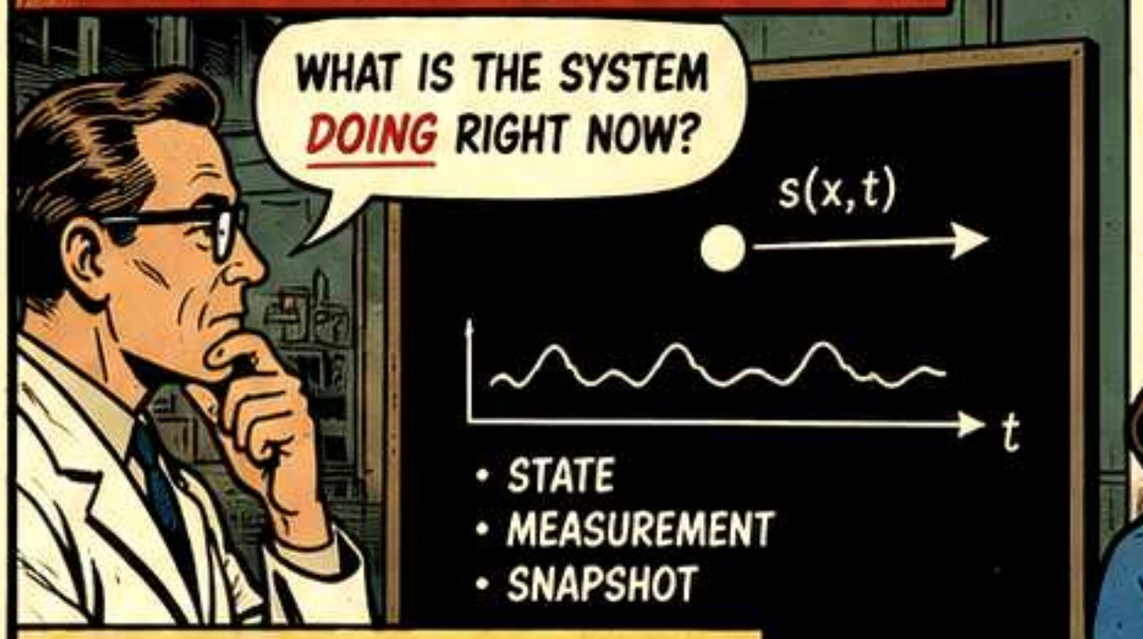
THE RELEVANT QUESTION IS NEVER WHAT IS THE SYSTEM DOING, BUT ALWAYS WHAT CAN IT STILL DO.

SCIENCE HAS SPENT CENTURIES ASKING THE SAME QUESTION...

The GEOMETRY of ADMISSIBILITY

A NEW WAY TO SEE SYSTEMS— NOT AS WHAT THEY ARE, BUT AS WHAT THEY CAN STILL BECOME!

THE QUESTION WE USUALLY ASK...



IT GIVES US A SINGLE POINT. A PICTURE THAT CHANGES EVERY MOMENT.

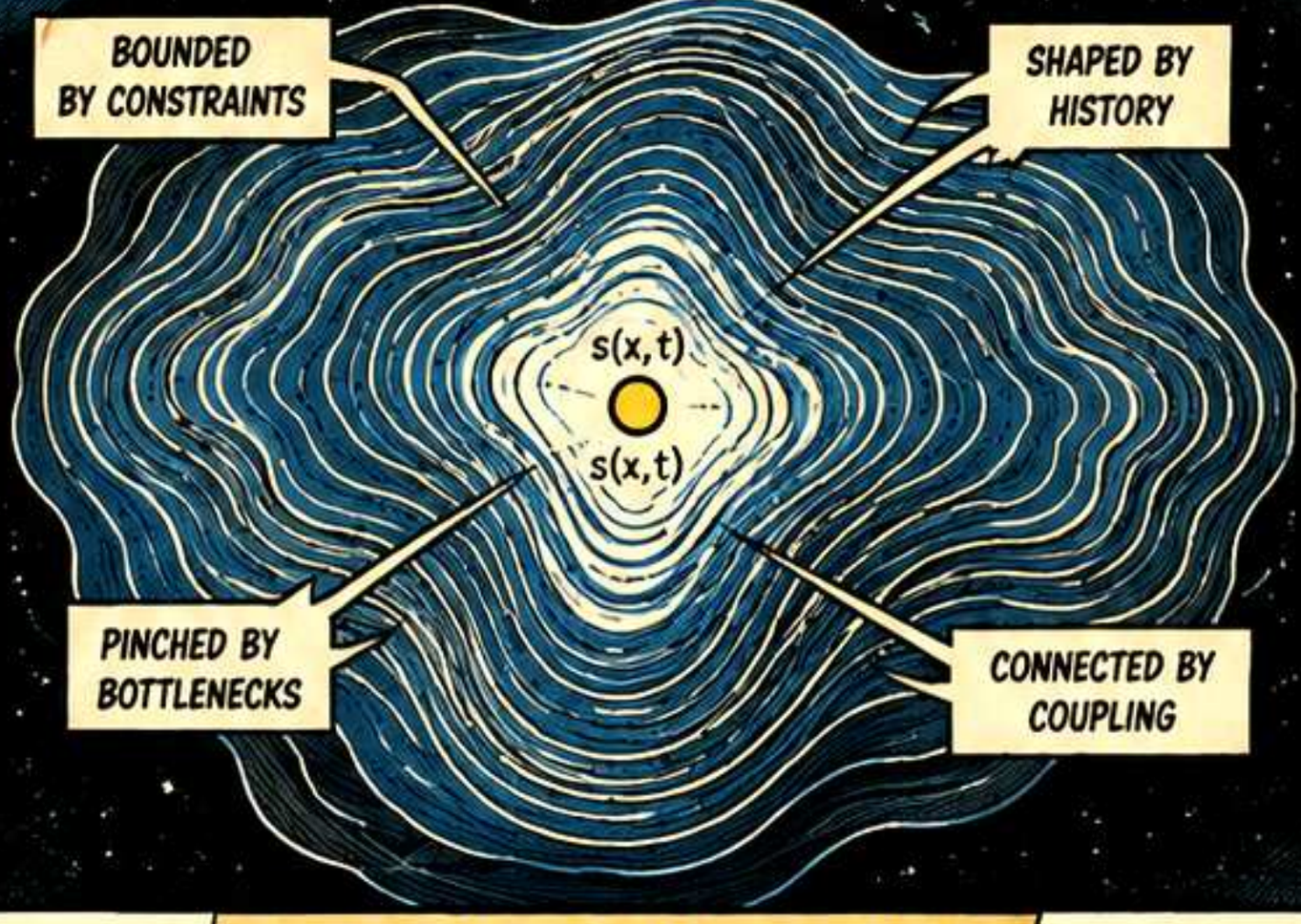
THE BETTER QUESTION...

IT SHOWS THE LANDSCAPE OF POSSIBILITY— THE BOUNDARIES OF REACHABILITY.

AT ANY MOMENT, A SYSTEM LIVES AT A STATE $s(x,t)$...

...INSIDE A FIELD OF ADMISSIBILITY $A(x,t)$:

THE SET OF ALL TRANSITIONS THAT REMAIN POSSIBLE GIVEN THE HISTORY, CONSTRAINTS, AND ENVIRONMENT.



WHAT MATTERS IS NOT WHERE THE SYSTEM IS... BUT WHAT IT CAN STILL REACH.

ONE GEOMETRY. MANY WORLDS.

From wakefulness to sleep.

From homeostasis to inflammation.

From open grammar to constrained regulation.

From linear waste to circular recovery.

From exploration to habit.

From small-scale fluctuations to cosmic echoes.

THE RELEVANT QUESTION IS NEVER WHAT THE SYSTEM IS DOING, BUT ALWAYS WHAT IT CAN STILL DO.

TO SEE WHAT A SYSTEM CAN STILL DO, WE NEED A MAP OF POSSIBILITY.

THE SHAPE OF POSSIBILITY

EVERY SYSTEM LIVES INSIDE AN ADMISSIBILITY FIELD $A(x,t)$.

MAP LEGEND

$s(x,t)$
The current state of the system.

$A(x,t)$
The admissibility field: all states still reachable.

Bottleneck
Narrow passages with high cost or constraint.

Threshold Surface Σ
Crossing it can change the game.

Goal Region
Desirable states (the system aims for these).

IMAGINE THE SYSTEM AS AN EXPLORER WALKING A LANDSCAPE...

SOME DIRECTIONS ARE EASY...

SOME ARE BLOCKED...

SOME REQUIRE CROSSING A THRESHOLD.

SOME LEAD TO BETTER FUTURES.

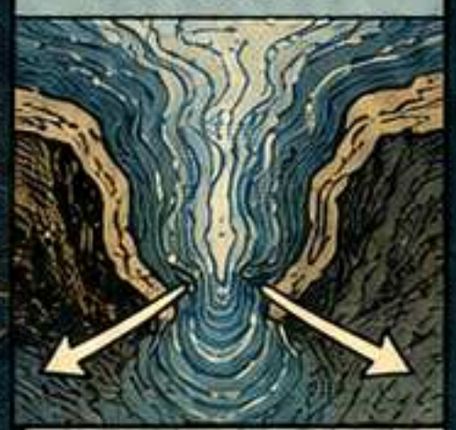
$s(x,t)$

THE GEOMETRY MATTERS.

CONSTRAINT CURVATURE

Curved constraints bend trajectories and create pressure toward the core.

BOTTLENECKS

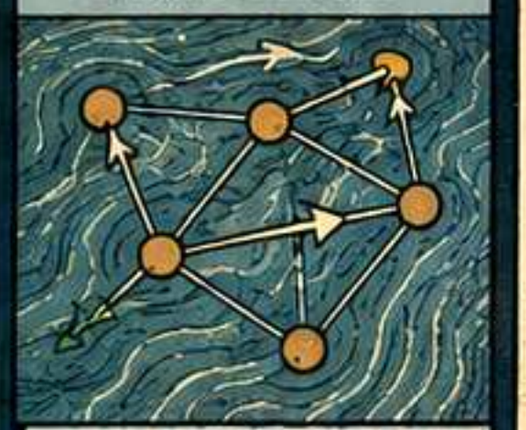


Narrow regions limit flow. They control what can pass—and when.

THRESHOLD SURFACES

Crossing Σ can open new paths—or close old ones.

SPATIAL COUPLING



Neighbors influence options. What happens here changes what's possible there.

THE FIELD IS NOT STATIC. IT BREATHES, SHIFTS, EXPANDS, AND CONTRACTS AS THE SYSTEM AND ITS ENVIRONMENT EVOLVE TOGETHER.

IN SHORT:

THE ADMISSIBILITY FIELD ENCODES WHAT THE SYSTEM CAN STILL DO— NOT JUST WHAT IT IS DOING RIGHT NOW.

THE EXPLORER'S JOB ISN'T TO STARE AT WHERE HE IS...

...BUT TO UNDERSTAND THE SHAPE OF WHAT REMAINS POSSIBLE.

ADMISSIBILITY GEOMETRY: THE LANGUAGE OF POSSIBILITY.

NOT ALL REDUCTION IS THE SAME!

THE SYSTEM MUST CROSS THE THRESHOLD AND RETURN.

CROSSING THE SILENCE

THE HALORHODOPSIN EXPERIMENT (DRIESSEN et al., 2026) SHOWS THE TRUTH:

RELAXATION REQUIRES A JOURNEY, NOT JUST SUPPRESSION.

MICE CORTEX. LOCAL CIRCUIT. TWO WAYS TO REDUCE ACTIVITY. ONLY ONE LEADS TO RELAXATION OF THE ADMISSIBILITY FIELD.

1. NORMAL OPERATION

THE CIRCUIT IS AWAKE. ACTIVITY FLOWS.

LFP (LOCAL FIELD POTENTIAL)

HIGH ACTIVITY
LOW SWA

ADMISSIBILITY FIELD $A(x,t)$

THE FIELD IS COMPACT. MANY OPTIONS ARE LIMITED BY THE CURRENT CONSTRAINTS.

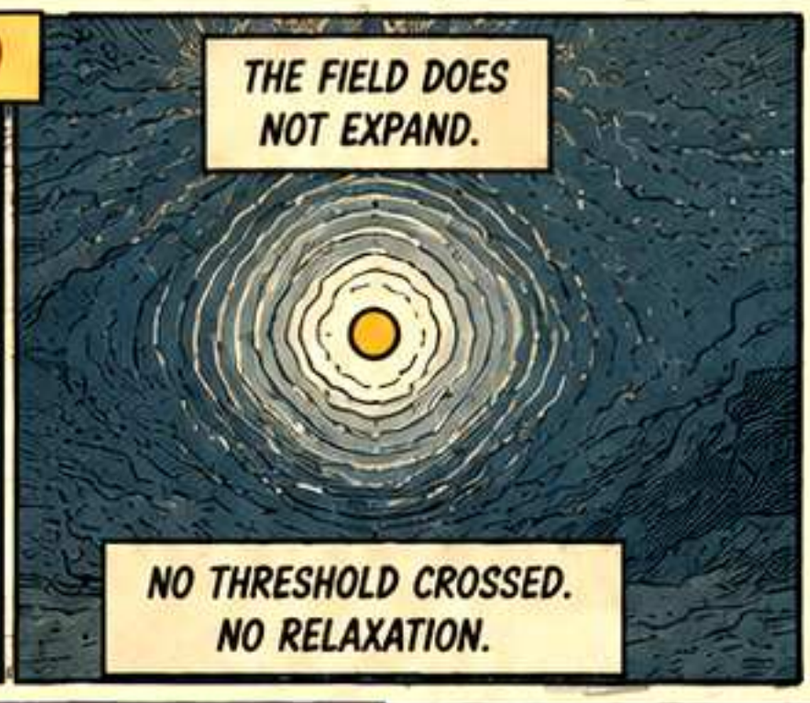
2. TONIC INHIBITION (DOSE WITHOUT JOURNEY)

STEADY INHIBITION REDUCES FIRING.

ACTIVITY IS LOWER.

FIRING DOWN
BUT NO SWA

THE FIELD DOES NOT EXPAND.



NO THRESHOLD CROSSED. NO RELAXATION.

LESS ACTIVITY IS NOT ENOUGH. THE SYSTEM IS STILL TRAPPED WITHIN THE SAME LIMITS.

3. OFF-PERIOD INDUCTION (JOURNEY ACROSS THE THRESHOLD)

A. OFF-PERIOD BEGINS

ACTIVITY DECLINES. THE SYSTEM MOVES TOWARD THE MINIMUM.

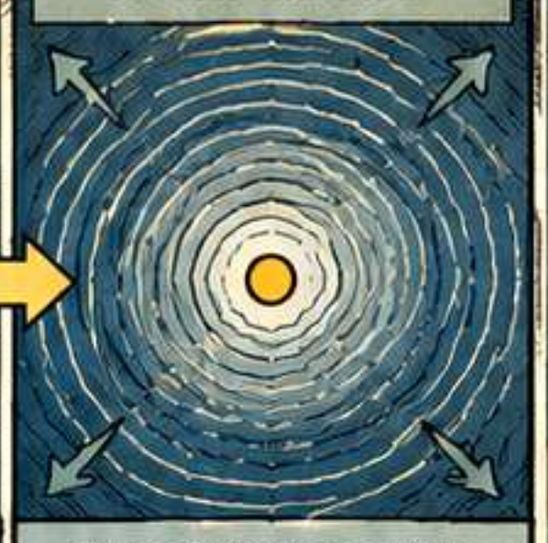
B. THRESHOLD CROSSING

THE TRAJECTORY CROSSES Σ. THIS CHANGES WHAT IS POSSIBLE.

C. RETURN PATH

THE SYSTEM RETURNS TO THE OPERATING STATE.

D. FIELD EXPANDS



THE ADMISSIBILITY FIELD EXPANDS. OPTIONS ARE RESTORED.

RESULT:

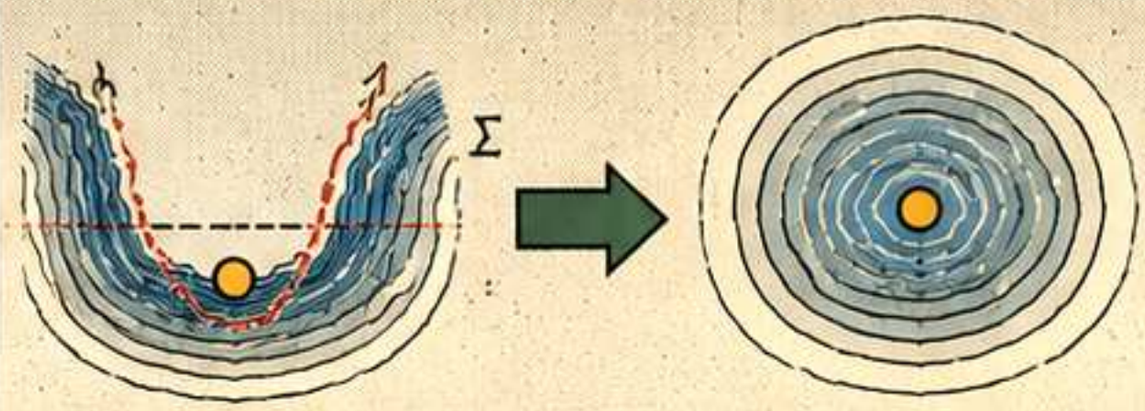
RELAXATION!

- ★ SLOW-WAVE ACTIVITY (SWA) INCREASES.
- ★ MEMORY CONSOLIDATION IS RESCUED.

KEY INSIGHT:

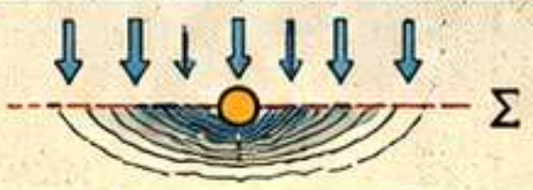
ADMISSIBILITY IS A GEOMETRIC PROPERTY. IT CHANGES DISCONTINUOUSLY WHEN THE THRESHOLD IS CROSSED AND THE SYSTEM RETURNS.

RELAXATION REQUIRES A CLOSED TRAJECTORY CROSSING Σ.



ENTER → CROSS Σ → RETURN = RELAXATION

TONIC SUPPRESSION WITHOUT CROSSING Σ IS ONLY A PARTIAL SUPPRESSION.



NO JOURNEY. NO CHANGE.

TWO WAYS ADMISSIBILITY CAN CHANGE— AND ONLY ONE IS GOOD.

RELAXATION VS. COLLAPSE

THE DISTINCTION IS EVERYTHING.

SAME GOAL: CHANGE THE FIELD. VERY DIFFERENT MECHANISMS.

RELAXATION: A JOURNEY THAT RESTORES POSSIBILITY

The system crosses the threshold and returns. The field expands.

KEY:

- State $s(x,t)$
- Threshold Surface Σ
- Admissibility Field $A(x,t)$

1. START

The system is here.

2. JOURNEY OUT

It crosses Σ into the low-admissibility valley.

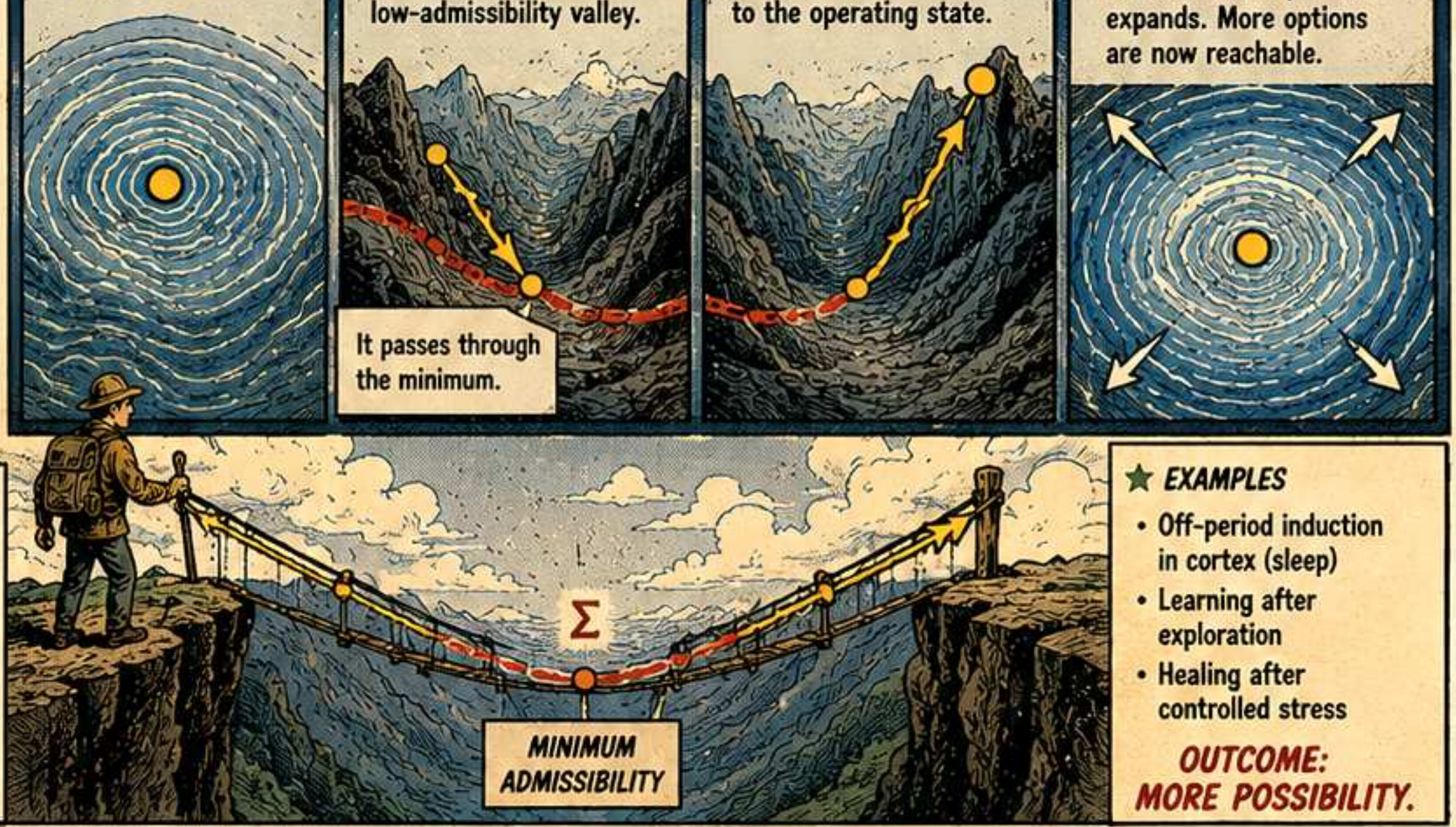
It passes through the minimum.

3. RETURN

It comes back to the operating state.

4. RESULT

The admissibility field expands. More options are now reachable.



★ Trajectory-dependent. Requires threshold crossing and return.

★ **EXAMPLES**

- Off-period induction in cortex (sleep)
- Learning after exploration
- Healing after controlled stress

OUTCOME: MORE POSSIBILITY.

COLLAPSE: A MECHANISM THAT DESTROYS POSSIBILITY

The maintaining structure fails or inverts. The field shrinks or fragments.

KEY CHANGE:

The maintainer is damaged, overwhelmed, or turned against the system.

1. STABLE STATE

The field is maintained by its structure.

2. MECHANISM FAILS OR INVERTS

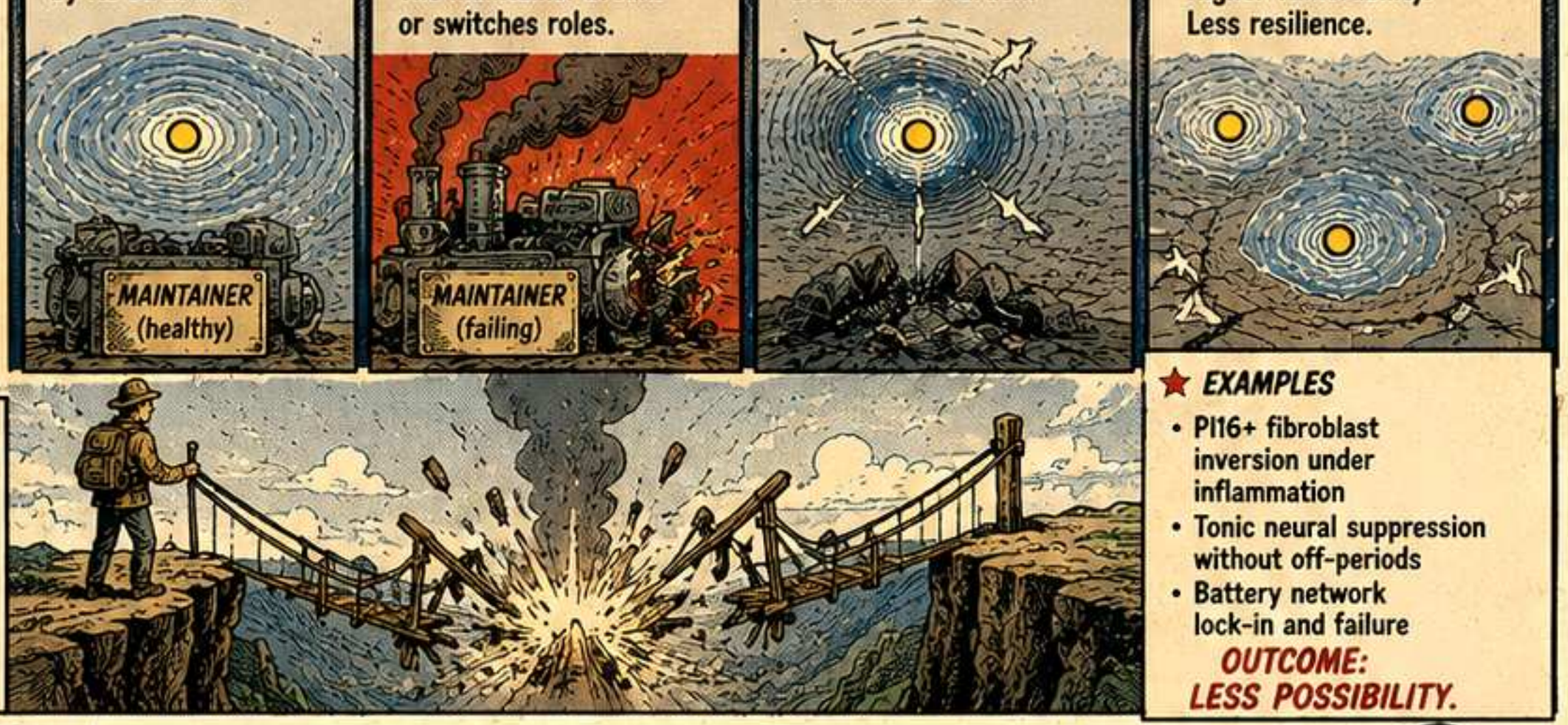
The maintainer breaks or switches roles.

3. FIELD SHRINKS

Options collapse. Bottlenecks harden.

4. RESULT

Fewer options. Higher vulnerability. Less resilience.



★ Mechanism-dependent. Does not require crossing Σ.

THE BRIDGE IS DESTROYED.

★ **EXAMPLES**

- PI16+ fibroblast inversion under inflammation
- Tonic neural suppression without off-periods
- Battery network lock-in and failure

OUTCOME: LESS POSSIBILITY.

SAME GOAL. DIFFERENT PATHS.

REMEMBER:

RELAXATION EXPANDS THE FIELD THROUGH A JOURNEY.
COLLAPSE SHRINKS THE FIELD THROUGH MECHANISM FAILURE.
ONE RESTORES THE FUTURE. THE OTHER STEALS IT.

THE FUTURE BELONGS TO WHAT IS STILL REACHABLE.

RELAXATION IS TRAJECTORY-DEPENDENT. COLLAPSE IS MECHANISM-DEPENDENT.
THAT IS THE LAW OF ADMISSIBILITY.

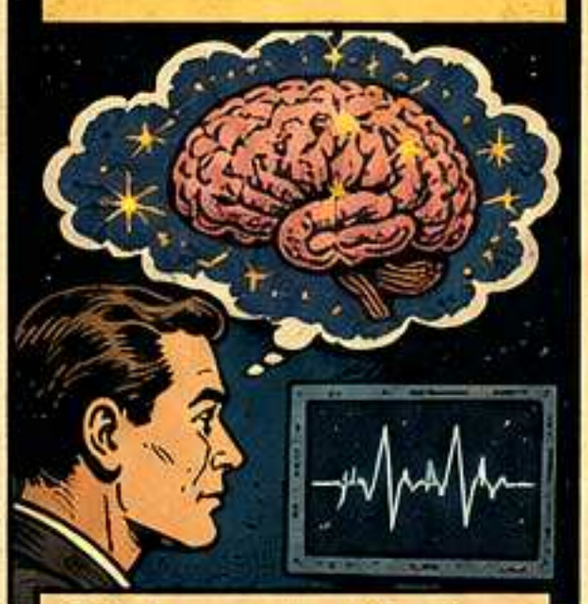
WHAT HAPPENED IN THE PAST SHAPES WHAT IS STILL *POSSIBLE* TODAY.

THE HIDDEN MEMORY OF THINGS

HISTORY DOESN'T JUST CHANGE WHAT IS TRUE. IT CHANGES WHAT IS REACHABLE.

THE BRAIN

Every moment awake leaves a trace. Sleep pressure builds from accumulated wakefulness.



Only by crossing into silence (off-periods) can the brain reset its admissibility field.

THE JOINT

Embryonic development sets the stoichiometry of maintainers long before any disease appears.

Those early ratios write the rules of vulnerability for decades to come.

THE BATTERY NETWORK

Past decisions and early adoption patterns leave residual geometry in the recycling network.

Old pathways constrain what can be recovered economically today.

THE QUASAR DISK

Past flares echo through the disk. Light-travel time writes delays into the reverberation signal.

We see the history of disturbances in the light we observe now.

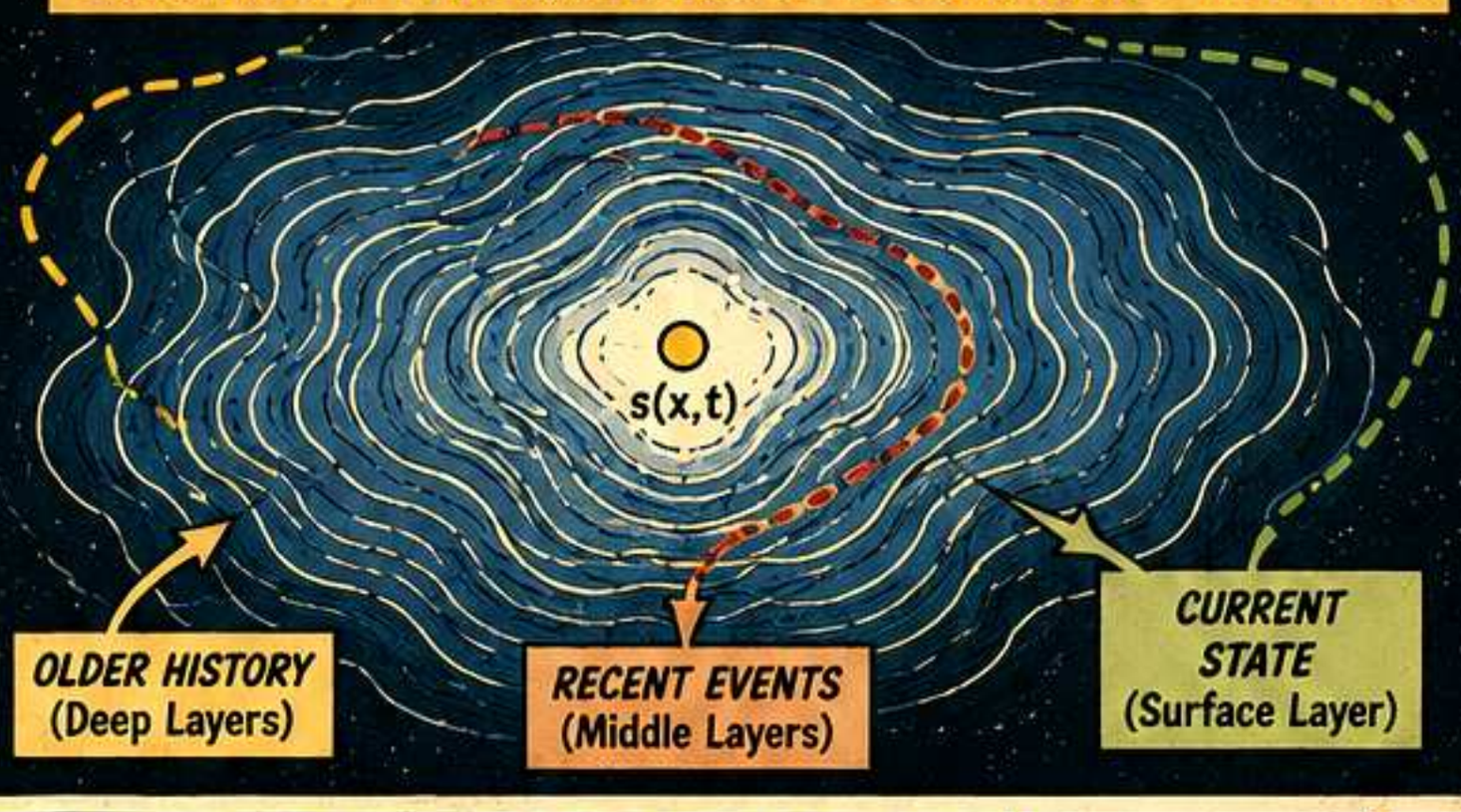
THE HISTORY IS INVISIBLE—BUT ITS *EFFECTS* ARE NOT.

The current state is just a point.

○ $s(x,t)$

The admissibility field $A(x,t)$ is the shape of what remains possible.

LIKE RINGS IN A TREE, LAYERS OF HISTORY SHAPE THE FIELD.



Change the present without crossing key boundaries, and the field barely responds.

Cross a historical threshold, and everything opens (or closes).

THE PAST DEFINES THE *BOUNDARIES.*

THREE KINDS OF MEMORY IN ADMISSIBILITY GEOMETRY

1. STATE MEMORY (Short-term)

- What is happening now
- Fast to change
- Small effect on the field

Like notes on a whiteboard.

2. STRUCTURAL MEMORY (Medium-term)

- Lasts across many events
- Encoded in constraints, coupling, and architecture
- Determines typical options

Like grooves in a riverbed.

3. RESIDUAL GEOMETRY (Long-term)

- Very slow to change
- Carried by network topology, stoichiometry, and history
- Shapes vulnerability

Like mountains carved by glaciers.

THE TAKEAWAY

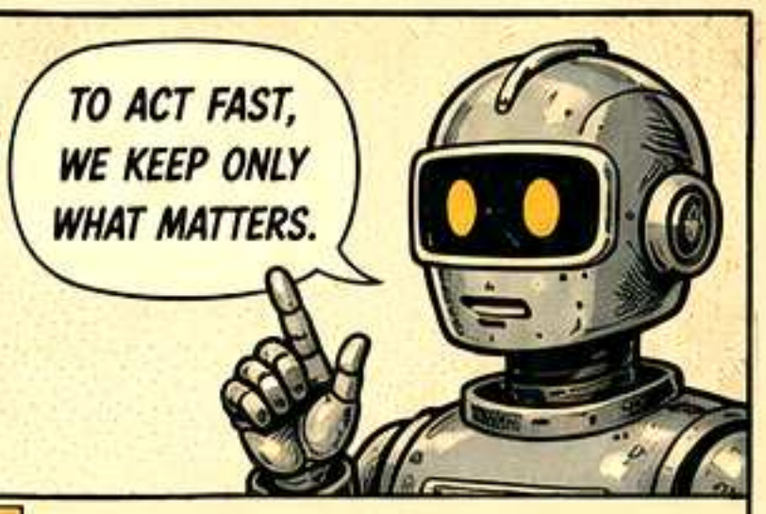
YOU CAN'T UNDERSTAND A SYSTEM BY LOOKING ONLY AT ITS STATE.

YOU MUST READ THE HISTORY WRITTEN INTO ITS GEOMETRY.

HISTORY IS WRITTEN INTO WHAT REMAINS REACHABLE.
CHANGE MEANS *CROSSING* WHAT THE PAST HAS BUILT.

SMART SYSTEMS SURVIVE BY SAVING WORK.

HOW MINDS SAVE WORK: COMPRESSION AND HABIT

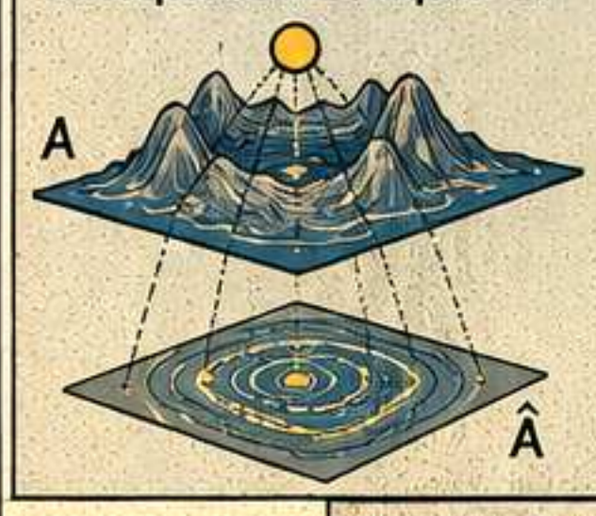


THE CLIO CYCLE

CLIO: COMPRESS, LEARN, INFER, OPTIMIZE.

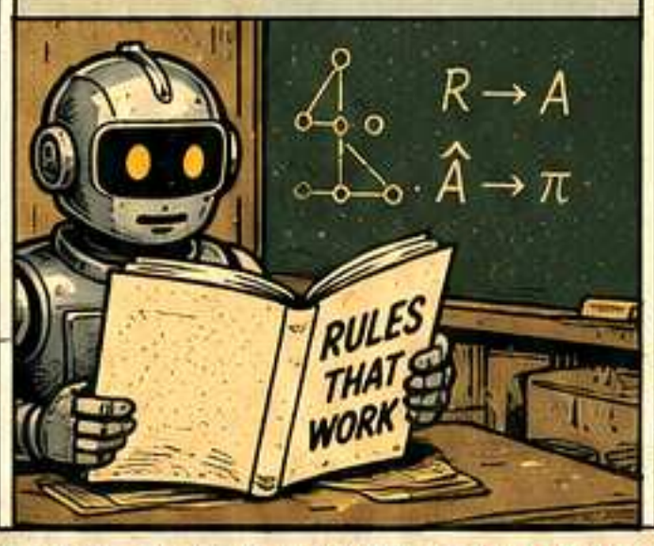
1. COMPRESS

Project the field A onto the most predictive subspace Â.



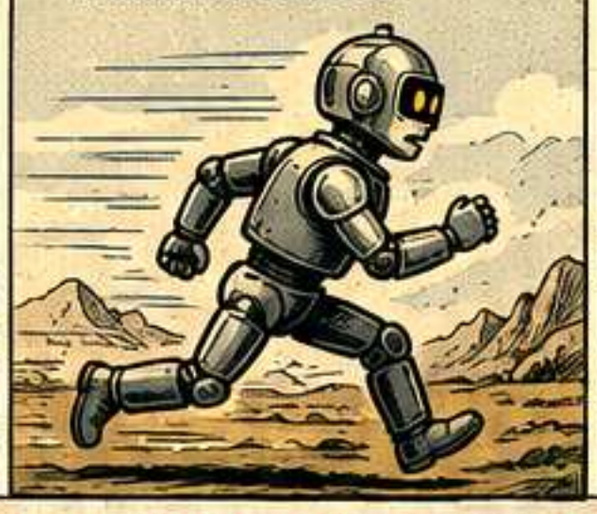
2. LEARN

Store rules that work in Â.



3. INFER

Use Â to act quickly with minimal calculation.



4. OPTIMIZE

Update Â when old rules stop working.

CLIO KEEPS ONLY WHAT IS USEFUL, WORTHWHILE, AND STILL TRUE.

HABIT FORMATION (OKITSU–SAKAI, 2026)

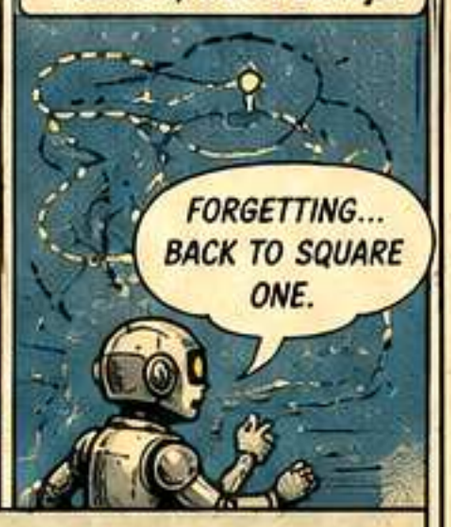
At first, every choice is evaluated.

Experience carves out good paths.

The map compresses. Unnecessary branches fade.

Cross the critical depth threshold, and habit locks in.

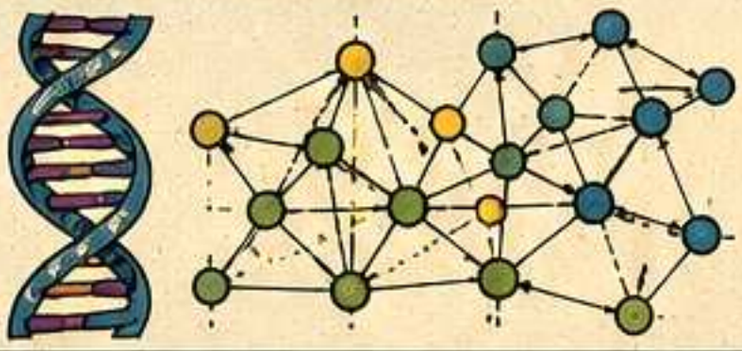
If the threshold isn't reached, habit decays.



HABIT IS ADMISSIBILITY COMPRESSION. DEEP ENOUGH EXPERIENCE → AUTOMATIC AND ROBUST BEHAVIOR.

GENOMICS: KNOWLEDGE HAS LIMITS

SAGE-net (Houghton et al., 2026) maps gene regulation from sequence and context.



It works brilliantly—until logic hits biology.

THE LIMIT OF COMPRESSION

Some regulatory rules depend on what we don't know yet.

UNKNOWN CONTEXT
UNOBSERVED FACTORS
MISSING VARIABLES

No dataset can compress what is fundamentally hidden.

SAGE-net exposes the boundary:
The field has parts we cannot yet map.

Humility is part of the geometry.

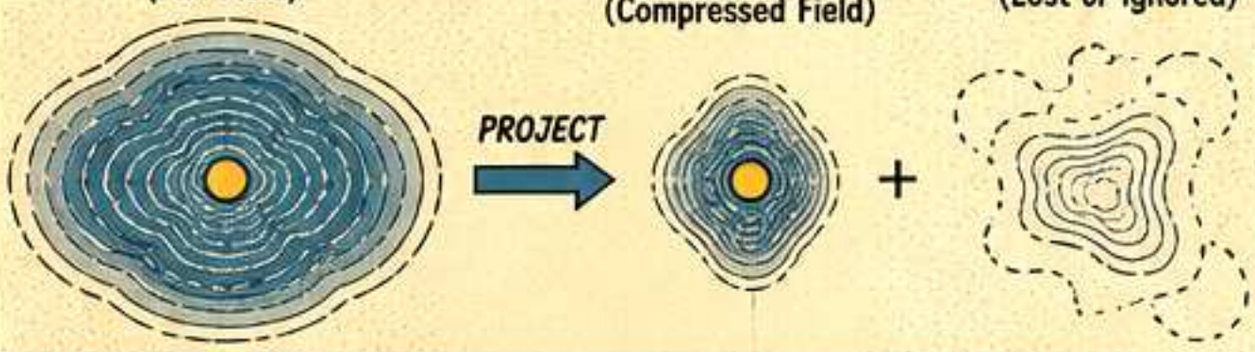
THE BIG TAKEAWAY

Compression makes action possible.
But compression is never perfect.

We keep what helps.
We lose what doesn't—
or what we don't know.

INTELLIGENCE IS CHOOSING WHAT TO KEEP.

THE GEOMETRY OF COMPRESSION



$$A = \hat{A} \cup (A \setminus \hat{A})$$

WHAT WE KEEP + WHAT WE LOSE = WHAT IS POSSIBLE

REMEMBER:

TO THINK SMART
IS TO CARRY
THE RIGHT MAP—
NOT THE BIGGEST.

NEXT: **THE ADMISSIBILITY REVOLUTION—SHOW, DON'T JUST SPIN!**
WHY INTERFACES SHOULD REVEAL POSSIBILITY, NOT HIDE IT.

GOOD SYSTEMS DON'T HIDE THEIR POSSIBILITIES— THEY REVEAL THEM.

THE ADMISSIBILITY REVOLUTION: SHOW THE FIELD, NOT JUST STATUS!

A MODERN EXAMPLE: THE CHATBOT EXPERIENCE

1. THE SPINNER: STATE DISPLAY

It tells you the system is working.
But it tells you nothing else.

DEAD WAITING.

2. THE ADMISSIBILITY DISPLAY

It shows what the system can still do, what it knows, and what it needs.

Here's what I'm exploring:

- ? Questions I can answer
- Information I'm checking
- ⚠ Things I'm uncertain about
- → Alternative approaches

You stay in the loop.
You help guide the search.

PRODUCTIVE WAITING.

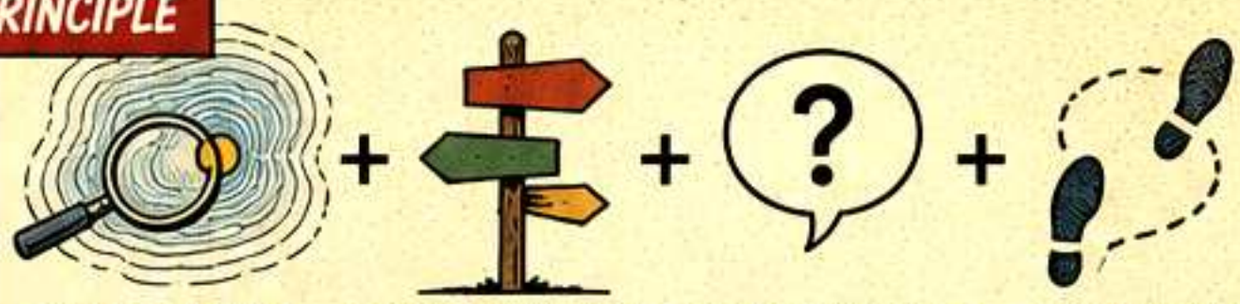
3. THE JOURNEY TOGETHER

You and the system explore the space of ideas—together.

PARTNERS IN POSSIBILITY.

THE ADMISSIBILITY DISPLAY PRINCIPLE

Expose the shape of what can still be done, not just the fact that something is being done.



SHOW THE FIELD
Reveal options and structure.

SHOW ALTERNATIVES
Make different paths visible.

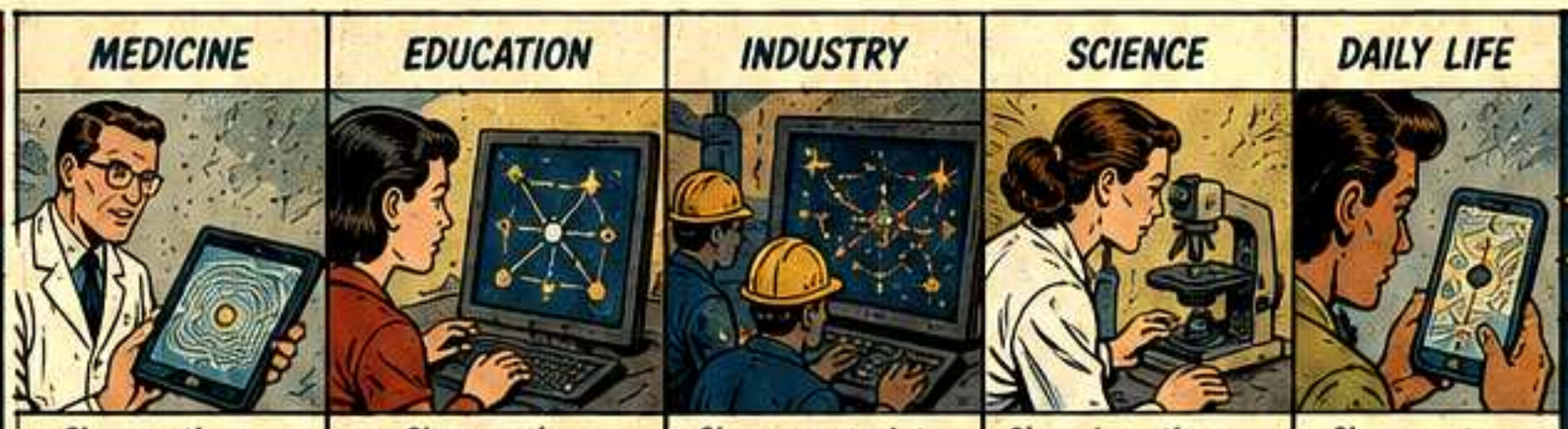
SHOW UNCERTAINTY
Honesty builds trust.

SHOW PROGRESS
Make the journey visible.

RESULT:

UNDERSTANDING
+ TRUST
+ BETTER OUTCOMES
= INTELLIGENCE THAT PEOPLE CAN WORK WITH.

BEYOND CHATBOTS: THE SAME PRINCIPLE APPLIES EVERYWHERE.

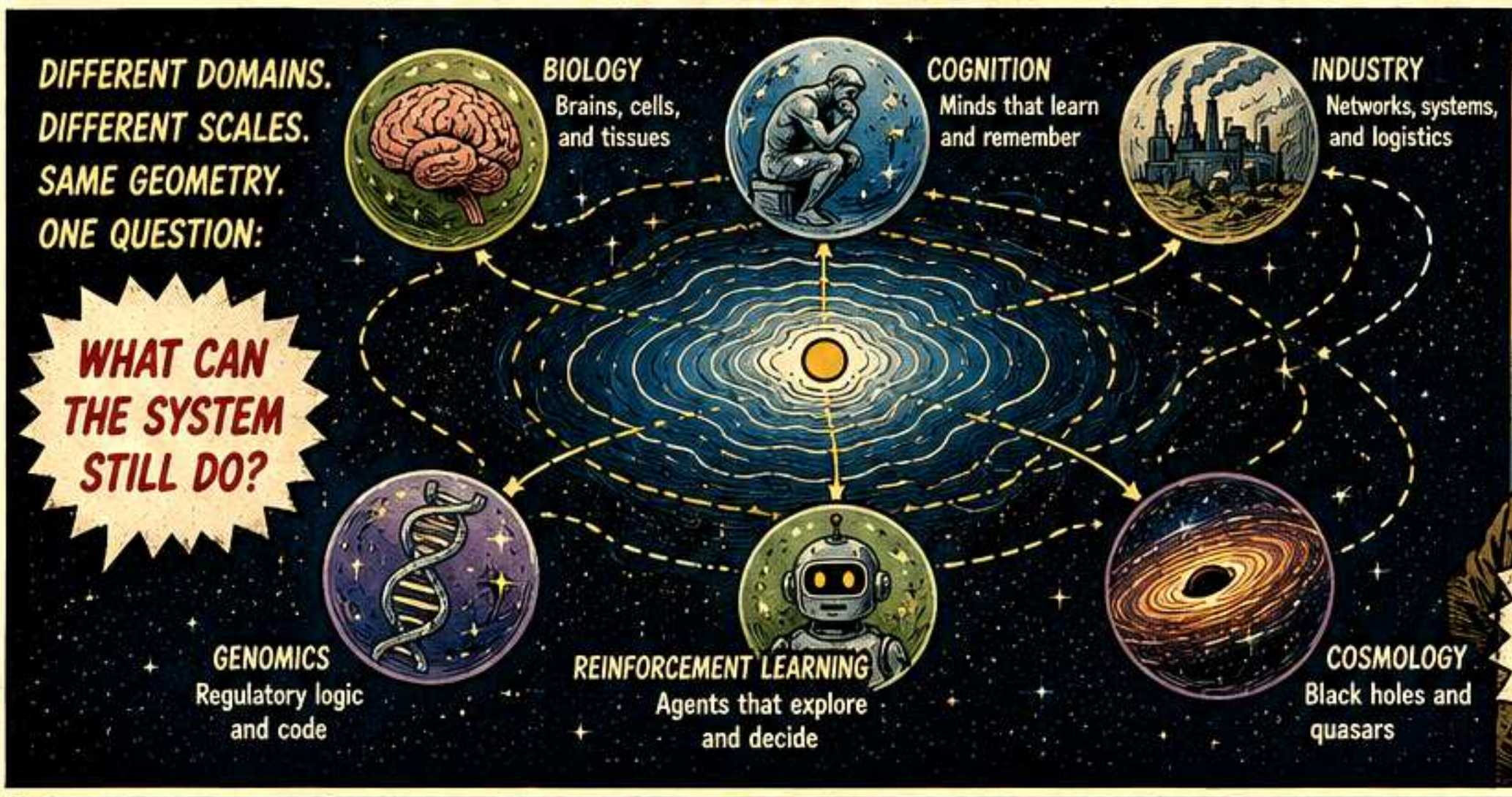


MEDICINE	EDUCATION	INDUSTRY	SCIENCE	DAILY LIFE
Show options. Not just results.	Show paths. Not just grades.	Show constraints. Not just alarms.	Show hypotheses. Not just answers.	Show routes. Not just ETA.

GOOD INTERFACES MAKE THE IMPOSSIBLE NAVIGABLE.

DIFFERENT DOMAINS. DIFFERENT SCALES. SAME GEOMETRY. ONE QUESTION:

WHAT CAN THE SYSTEM STILL DO?



ONE GEOMETRY OF ADMISSIBILITY CONNECTS THEM ALL.

POSSIBILITY IS THE THREAD THAT BINDS THE UNIVERSE—AND OUR INTERFACES WITH IT.

A GOOD SYSTEM DOESN'T JUST COMPUTE. IT INVITES YOU TO EXPLORE. THAT IS HOW WE TURN INFORMATION INTO UNDERSTANDING.

FROM NEURONS TO GALAXIES, LIFE TO MACHINES— **THE SAME GEOMETRY APPEARS.**

ONE GEOMETRY, MANY WORLDS

DIFFERENT SYSTEMS. DIFFERENT SCALES. DIFFERENT MECHANISMS.
THE SAME QUESTION.

EACH SYSTEM LIVES INSIDE AN ADMISSIBILITY FIELD $A(x,t)$.
THE FIELD SHAPES WHAT CAN STILL BE DONE.

THE BRAIN

Neural activity evolves inside a field shaped by synapses, inhibition, and homeostasis.

Crossing a threshold opens new possibilities.

BATTERY NETWORKS

Flows and capacities are constrained by physics, economics, and past infrastructure choices.

Past investments shape future flexibility.

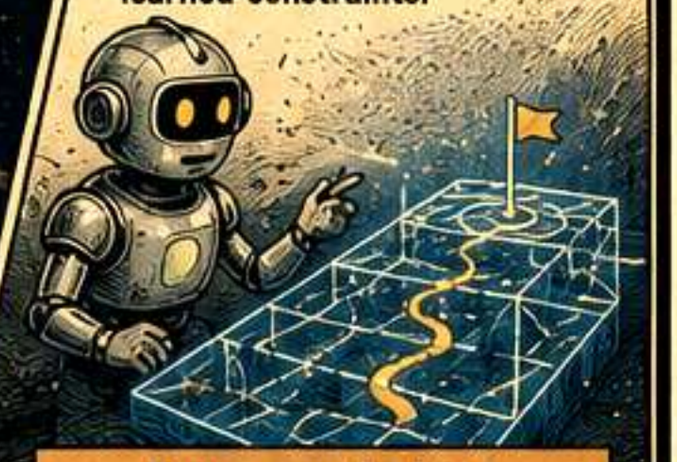
THE JOINT

Movement is constrained by bones, ligaments, cartilage, and past development.

Early events shape what motions remain possible.

RL AGENTS

Policies improve by exploring admissible actions within learned constraints.



Better maps lead to better decisions.

ADMISSIBILITY FIELD $A(x,t)$

THE GEOMETRY:

- Current state $s(x,t)$
- Reachable region (what can still be done)
- Boundary (what is not reachable)
- Bottlenecks & thresholds
- Maintainers shape the field

Change the maintainers, change the field.

DNA & LIFE

Genes and regulatory networks evolve within a field shaped by biochemistry and history.

Evolution explores what remains viable and fruitful.

QUASARS & COSMIC SYSTEMS

Even cosmic objects evolve within fields shaped by gravity, flows, and past disturbances.

History of accretion shapes what the system can do now.

ALL THESE SYSTEMS ARE DIFFERENT IN MATERIAL, SCALE, AND MECHANISM.

YET EACH CAN BE UNDERSTOOD BY THE SAME GEOMETRY OF POSSIBILITY.

ADMISSIBILITY IS THE UNIFYING LANGUAGE.

THE ULTIMATE QUESTION IS THE SAME FOR ALL SYSTEMS:

WHAT CAN THE SYSTEM STILL DO?

WE CANNOT CONTROL EVERY DISTURBANCE. → BUT WE CAN SHAPE THE MAINTAINERS. → AND BY SHAPING THE FIELD, → WE SHAPE THE FUTURE.

ADMISSIBILITY IS HOW WE UNDERSTAND. GEOMETRY IS HOW WE PREDICT. POSSIBILITY IS HOW WE PROGRESS.

YOUTRONIUM SCIENTIFIC SUPPLY COMPANY

SUPPLIERS OF FINE TOOLS FOR THINKERS SINCE 1963!

SCIENCE IS ADVENTURE!

THE AMAZING ADMISSIBILITY EXPLORER KIT!

SEE POSSIBILITY BEFORE IT HAPPENS!

PROFESSOR FLYXION'S POCKET ADMISSIBILITY METER

- Detects hidden bottlenecks!
- Finds threshold surfaces!
- Predicts tomorrow's possibilities today!

ONLY 19¢

JUNIOR MAINTAINER IDENTIFICATION CARDS

COLLECT ALL FOUR! 5¢ EACH

CONSTRAINT CURVATURE GOGGLES

- See hidden geometry!
- Reveal compressed pathways!
- Spot impending collapse!

ONLY 29¢

THE HOME CLIO LABORATORY

- Compress your own maps!
- Build habits scientifically!
- Discover what information gets lost!

ONLY 49¢

OFFICIAL FLY AROUND THE FIELD SPACE ATLAS

- ★ Visit the Planet of Thresholds!
- ★ Explore Bottleneck Canyon!
- ★ Cross the Valley of Relaxation!
- ★ Avoid the Swamp of Collapse!

ALSO AVAILABLE!

BOTTLE NECK FINDER COMPASS

Never be surprised by a bottleneck again!

15¢

FIELD NOTEBOOK

10¢

RELAXATION RUBBER BAND

Stretch the field. Expand possibility.

5¢

MINI THRESHOLD MODELS

Build! Explore! Understand!

20¢

MAIL THIS COUPON TODAY!

YES!

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WARNING: May cause excessive curiosity, spontaneous theorizing, and an inability to look at systems as static objects ever again.