

*Understanding a Theory of Everything*

Chapter Four

## **The Architecture of the Transceiver**

*Socratic inquiry, emergent creativity, the collective field, thermodynamics, and  
the shift the book declines to promise.*

**KW Norton**

Illustrated offprint · Part IV · The Cooperative Field

Standing Wave Editions · Nashville, Tennessee

## About this offprint

This is Chapter Four of *Understanding a Theory of Everything*, printed on its own with the four plates that belong to it and with Figure 4.1. It is offered as a single readable unit: the chapter builds the transceiver reading from the Socratic dialogue through the pentagonal geometry of the helix, the microtubule lattice, the collective field, and the thermodynamics that keeps the argument out of the closed box.

Claims that rest on published work carry a short author-date tag at the point of use, and the chapter closes with a list headed “Where these claims come from.” Full entries are in the works cited at the end. Passages with no tag are the book's own construction, and the text says so.

Plates 09–12 are from the visual sequence *The Crystalline Slipstream*; each carries a reading key, because a diagram without a key is decoration. The full fourteen-plate sequence and the companion film are at [theparallaxidentity.com/books/theory-of-everything/illustrations](http://theparallaxidentity.com/books/theory-of-everything/illustrations). The complete book is free to read at [theparallaxidentity.com/books/theory-of-everything](http://theparallaxidentity.com/books/theory-of-everything).

© 2026 KW Norton. All rights reserved. Set in Arial for draft circulation. Trim size 8 × 10 in.

Part IV

## The Cooperative Field

### The Architecture of the Transceiver

*Socratic inquiry, emergent creativity, the collective field, thermodynamics, and the shift the book declines to promise.*

---

#### **(08) The Socratic transceiver: an inquiry into unseen frequencies**

Socrates Tell me, learner, when you stand upon the banks of the rushing mountain stream, what is it that your eyes actually behold?

Learner I see the water cascading over the granite, Socrates. I see the smooth whirlpools spinning downward and the bright upwelling plumes bubbling to the surface.

Socrates And do you believe the water itself creates these distinct forms out of its own separate desire, or is it responding to an architecture that remains completely invisible to your sight?

Learner It must be responding to the hidden shape of the granite riverbed beneath it.

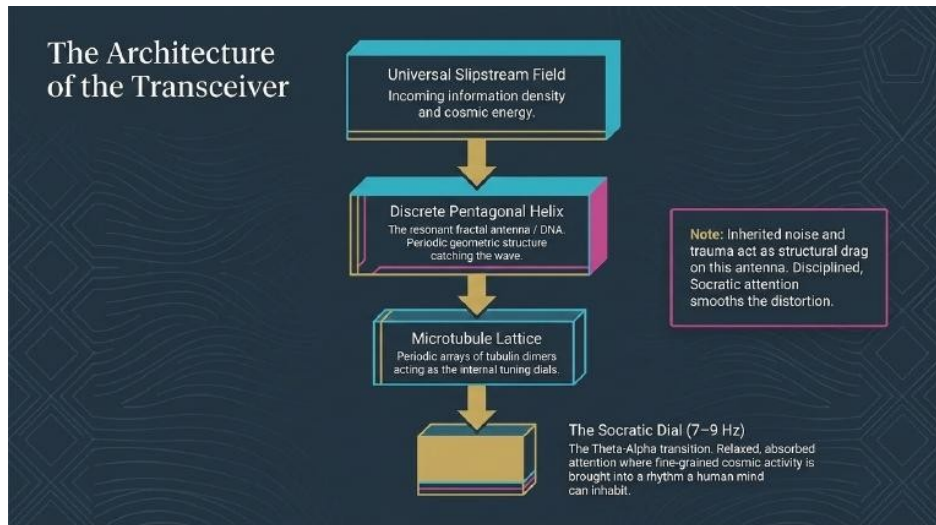
Socrates Excellently observed. Now tell me: if the fluid slipstream of the entire cosmos is similarly tumbling through space, and it suddenly hits a hidden, geometric obstruction—say, a specific prime coordinate or a non-trivial Riemann zero—what must occur to the current?

Learner It would be forced to warp. It would spin into a local vortex, just like the water in our stream.

Socrates Then let me ask you the vital question: is the physical matter of your body, or the neural lattice inside your skull, a separate 'thing' trapped in a box—or is it simply the beautiful, visible vortex formed where the universal stream strikes a magnificent, unseen antenna?

#### **(09) Emergent creativity as entrainment**

The chain runs from the incoming field down to a rhythm a human mind can actually inhabit. The plate names each link.



**Plate 10 · The architecture of the transceiver.** Status — speculative; the theta–alpha band is measurable, the coupling to the rest of the chain is not established.

From the visual sequence *The Crystalline Slipstream* by the author. The full sequence and the companion film are at [theparallaxidentity.com/books/theory-of-everything/illustrations](http://theparallaxidentity.com/books/theory-of-everything/illustrations).

#### Reading key

Universal slipstream field — incoming information density and cosmic energy.

Discrete pentagonal helix — the resonant periodic structure catching the wave.

Microtubule lattice — periodic arrays of tubulin dimers acting as internal tuning dials.

The Socratic dial (7–9 Hz) — the theta–alpha transition: relaxed, absorbed attention.

Note — inherited noise and trauma act as structural drag on the antenna; disciplined attention smooths the distortion.

A scientific hypothesis does not begin as a sterile mathematical calculation. It is born from imaginative mental models in a process identical to composing a piece of music, writing a novel, or painting a canvas. Throughout history, the source of this creative inspiration has seemed completely mysterious. Because we could not describe where these moments of sudden origination came from, it was tempting to attribute them to a supreme intelligence, a pantheon of gods, or supernatural beings. This complex strategy — which we recognize as religion — has deeply complicated psycho-spiritual roots in human psychology and sociobiological systems.

Received by the Biological Antenna

( Entrainment & Tuning )

↓

Transforms and Filters the Input

( Creative Flow State )



Transmitted Back to Evolve the Ecosystem

Miraculous they are, but not magical. When we look past the ancient mythologies, we discover the spectacular achievements of humans who simply manage to tune their biological systems directly into the universe, entering a state of absolute creative flow. Mystery, mythology, and religion have historically served as placeholders for things we can perceive but do not yet fully comprehend. They function exactly like the non-trivial zeros and misbehaving prime numbers in the Riemann hypothesis — markers indicating a deeper, underlying system waiting to be mapped.

We humans are both receivers and transmitters of incoming information. This incoming stream is what we describe here as energy — energy that is continuously transmitted to us, filtered by us, and transformed by us.

Our brain and sensory organs act as a highly specialized step-down transformer, altering the frequency of the energy before broadcasting it back into the universe in an entirely new form.

But this is not a one-way transmission; we too are transformed by the energy we receive, leaving us forever changed by the relationship.

Modern physics and biology reveal that everything in the cosmos exists in an active, real-time relationship with everything else.

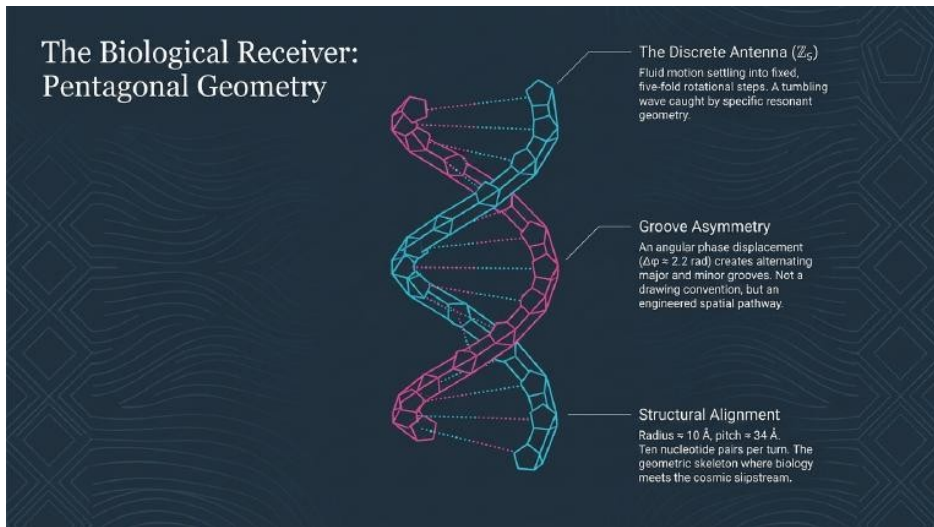
As demanded by the uncompromising laws of thermodynamics, the entire universe is continuously shifting, evolving, and organizing as a direct result of this perpetual, beautiful exchange of energy.

**Status** — *Poetic framing held to literal account. The 'unseen cosmic energy stream,' 'biological antenna,' and 'step-down transformer' are metaphors for sensory uptake, attentional filtering, and creative output. No claim is made that a measurable electromagnetic channel carries thought between the universe and the brain; the language is interpretive, not instrumental.*

Technical appendix · Figure 4.1

## The pentagonal geometry of the genetic antenna

Drawn discretely rather than as a smooth ribbon, the helix stops looking like decoration and starts looking like hardware.



**Plate 09 · The biological receiver: pentagonal geometry.** *The double helix in five-fold rotational steps. Status — the antenna reading is a working model; the structural numbers are standard.*

*From the visual sequence The Crystalline Slipstream by the author. The full sequence and the companion film are at [theparallaxidentity.com/books/theory-of-everything/illustrations](http://theparallaxidentity.com/books/theory-of-everything/illustrations).*

#### Reading key

The discrete antenna ( $\mathbb{Z}_5$ ) — fluid motion settling into fixed five-fold rotational steps.

Groove asymmetry — an angular phase displacement ( $\Delta\phi \approx 2.2$  rad) producing alternating major and minor grooves as an engineered spatial pathway.

Structural alignment — radius  $\approx 10$  Å, pitch  $\approx 34$  Å, ten nucleotide pairs per turn.

If the previous section asks how a person tunes into an incoming stream, this appendix asks what the receiving structure looks like. A continuous helix traces a path along a cylinder; sampling that path at five-fold rotational steps turns the smooth curve into a discrete set of coordinates — a pentagonal cross-section climbing through space. Two such strands, offset in phase, give the alternating wide and narrow grooves of the familiar double helix.

#### 1 · The single-strand vector helix

A point tracing a continuous helix along a cylindrical boundary is given by a vector function of the phase angle  $\theta$ :

$$\vec{R}(\theta) = x(\theta) \hat{i} + y(\theta) \hat{j} + z(\theta) \hat{k}$$

$$\vec{R}(\theta) = r \cdot \cos \theta \hat{i} + r \cdot \sin \theta \hat{j} + (h / 2\pi) \cdot \theta \hat{k}$$

where  $r$  is the radius of the enclosing cylinder and  $h$  is the pitch — the distance travelled along the axis  $\hat{k}$  during one full  $2\pi$  rotation.

2 · Embedding five-fold symmetry ( $\mathbb{Z}_5$ )

Rather than treating  $\theta$  as a smooth variable, the path is sampled at fixed fractional rotations, so that discrete vertices appear:

$$\theta_n = (2\pi / 5) \cdot n + \varphi_0$$

$n \in \mathbb{Z}$  indexes each node along the backbone, and  $\varphi_0$  sets the initial angular offset.

## 3 · The double-strand matrix

A second strand is projected into the same grid at an angular phase displacement  $\Delta\varphi$ , which is what produces the alternating major and minor grooves:

$$\vec{R}_A(n) = r \cdot \cos((2\pi/5)n) \hat{i} + r \cdot \sin((2\pi/5)n) \hat{j} + (h/10) \cdot n \hat{k}$$

$$\vec{R}_B(n) = r \cdot \cos((2\pi/5)n + \Delta\varphi) \hat{i} + r \cdot \sin((2\pi/5)n + \Delta\varphi) \hat{j} + (h/10) \cdot n \hat{k}$$

Collapsed into one discrete dual-vector equation, with  $\varphi_{A,B}$  carrying the strand offset:

$$\vec{R}_{A,B}(n) = r \cdot \cos((2\pi/5)n + \varphi_{A,B}) \hat{i} + r \cdot \sin((2\pi/5)n + \varphi_{A,B}) \hat{j} + (h/10) \cdot n \hat{k}$$

The structural values are the measured ones for B-form DNA (Watson and Crick 1953): radius  $r \approx 10 \text{ \AA}$ , giving the roughly  $20 \text{ \AA}$  diameter; pitch  $h \approx 34 \text{ \AA}$  per full turn; ten nucleotide pairs per turn — two complete five-fold rotations — so each node advances  $\Delta z = h/10 \approx 3.4 \text{ \AA}$  along the axis. The five-fold sampling and the groove offset are the book's chosen way of drawing that geometry, not additional measurements.

For a reader who does not work in vector notation, the point of these three lines is smaller than it looks. They are the skeleton of the lattice: a description of where a tumbling, fluid motion stops being smooth and settles into fixed positions that repeat. The equations do not explain why life is built this way. They only say that if you want to draw the receiving structure the chapter keeps describing, these are the coordinates you would draw, and they are the same numbers crystallographers measure.

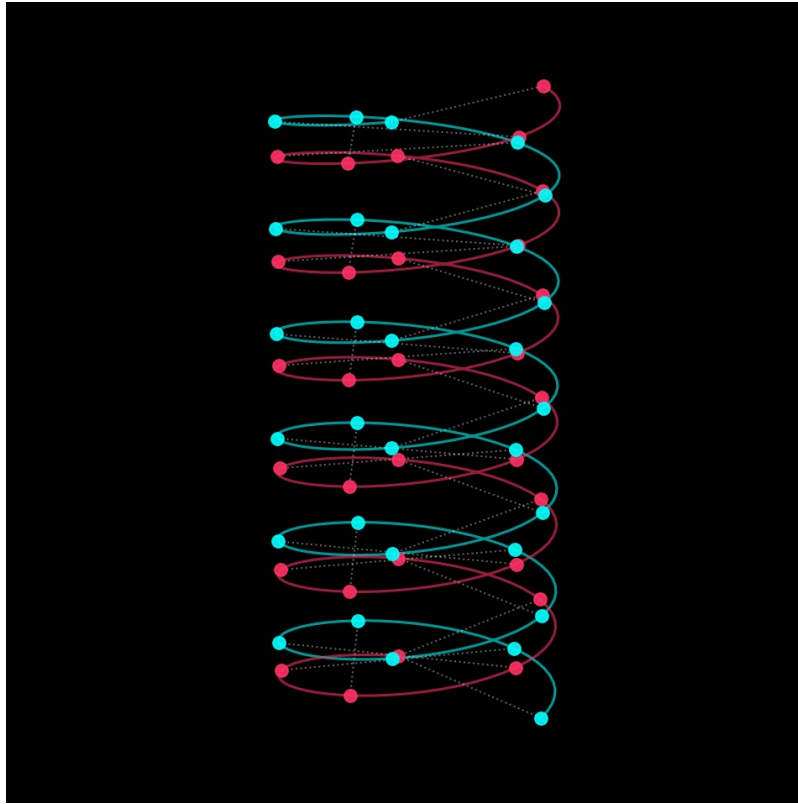


Fig. 4.1 — Discrete pentagonal double helix: strand A (cyan) and strand B (magenta) sampled every  $72^\circ$ , with dotted transverse rungs at each paired node. Rendered from `scripts/render_pentagonal_double_helix.py`.

Source — original construction; pentagonal sampling applied to the B-form helix of Watson and Crick (1953). The  $\mathbb{Z}_5$  reading is the book's own.

**Discrete nodes** — The plot deliberately declines to draw a smooth curve as the structure. It places coordinates every  $72^\circ$  —  $2\pi/5$  radians — so that each turn resolves into a pentagonal cross-section rather than an unbroken sweep. The faint continuous lines are interpolation for legibility only; the nodes are the claim.

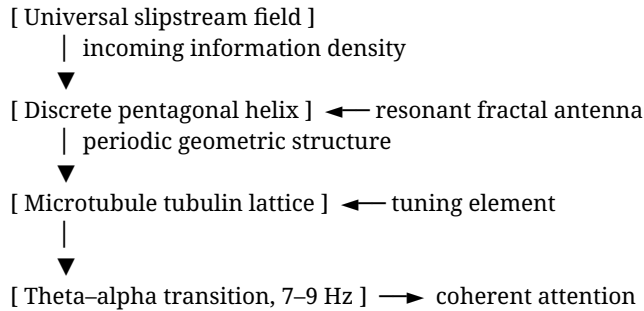
**Groove asymmetry** — The angular offset between the strands,  $\Delta\phi \approx 2.2$  rad, is what produces the alternating wide and narrow spacing along the cylinder. In B-form DNA those are the major and minor grooves: asymmetric spatial pathways, not a drawing convention.

**Transverse rungs** — Each dotted horizontal line marks the coordinate pair where the two strands sit at the same axial height — the positions the model reads as complementary nodes stabilising into a base pair, spaced about  $3.4 \text{ \AA}$  apart up the axis.

### The microtubule bridge and frequency-locking

How would an organism draw structure out of a tumbling stream? Not, on this account, through one localized chemical reaction, but through a layered set of periodic structures. If the helix is

the geometry of the receiving element, the hollow cylinders of microtubules — periodic arrays of tubulin dimers (Sahu et al. 2013; Craddock et al. 2017) — are the tuning dials, and the brain's slower rhythms are where the whole arrangement settles. Around the theta–alpha border, roughly 7–9 Hz (Klimesch 1999), absorbed and relaxed attention shows a characteristic transitional signature: the step-down stage in this model, where fast, fine-grained activity is brought into a rhythm a person can actually inhabit.



Read carefully, the ladder reframes two familiar ideas. Inherited injury, in this vocabulary, is less a broken chemical sequence than a distortion in the receiving geometry — an asymmetry that adds drag and noise to whatever arrives. And adaptation becomes a matter of tuning rather than accident: disciplined, Socratic attention as the slow work of smoothing that distortion. Both are readings offered for their usefulness to a general reader, and both are stated here as claims that can fail.

**Status** — *Speculative model, clearly outside settled science. The geometry and the structural values of B-DNA are standard, and the theta–alpha band is a real EEG landmark. What is speculative is the chain that joins them: that DNA acts as an antenna, that microtubules perform quantum information processing at body temperature (proposed in Penrose and Hameroff 2014), and that these couple to brain rhythm. Quantum effects in warm tubulin remain contested and unreplicated. 'Geometric distortion' as an account of inherited trauma is a metaphor competing with well-supported epigenetic and developmental explanations, and no clinical claim is made or implied.*

A testable version of this claim matters more than the claim. The nearest testable version pumps tryptophan networks in isolated microtubules with a tuned radio-frequency source, holds temperature and buffer conditions fixed, and looks for a change in an optical coherence readout against sham-pumped controls. That design is written out in full, with its null results declared in advance, in the microtubule resonance protocol .

## Neuroplasticity, entrainment, and the human field

The brain is a highly complex electromagnetic organ. When we engage in focused visualization or sustained attention, large clusters of neurons begin firing together in synchronous patterns. This internal resonance strengthens structural neural pathways, chemically and electrically changing the physical architecture of the brain through neuroplasticity (Tononi and Cirelli 2014; Bassett and Sporns 2017).

Living tissue communicates via subtle mechanical and electromagnetic signals. Structures such as mitochondria respond to energetic and acoustic changes. Focused intention triggers cascades of physical responses — altering stress hormones, heart-rate variability, and the body's overall bio-signature.

Just as a radio circuit uses electrical resonance to select one frequency out of thousands, the brain uses the reticular activating system as a tuning dial. Visualization and deliberate attention act as that dial, filtering the overwhelming background of sensory data and allowing relevant patterns to stand out.

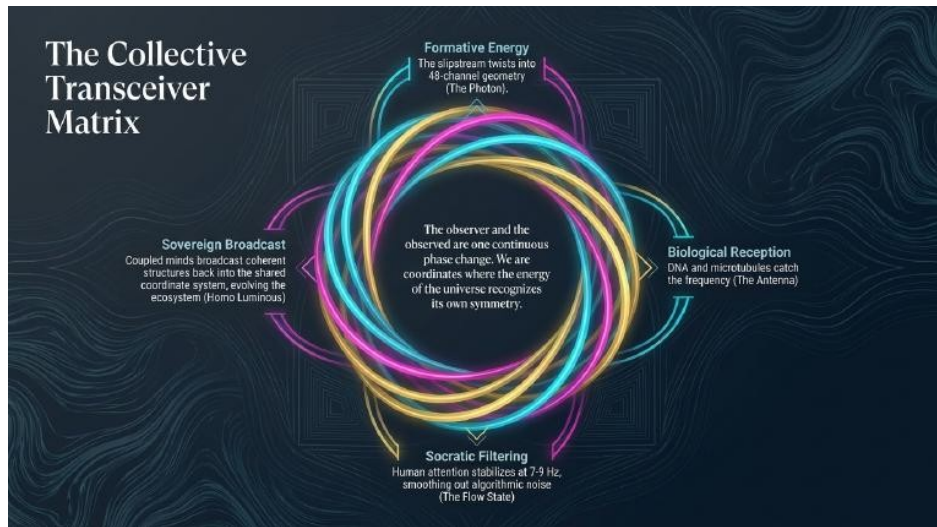
Entrainment extends beyond the individual. Fellow humans can come to resonate at similar frequencies through shared attention, shared rhythm, shared inquiry. This is the biological basis of culture, of teaching, of the quiet transmission that occurs when one mind truly meets another.

The continuum remains open.

**Status** — *Established mechanisms, analogical vocabulary. Activity-dependent plasticity, neural synchrony, mechanotransduction, and attention-linked changes in stress hormones and heart-rate variability are measured findings. 'Human field' and 'frequency' are used as vocabulary for ordinary coupling through language, rhythm, and attention — not for a transmitted physical field between people.*

## (10) The collective transceiver matrix

With the individual receiver described, the loop can be closed.



**Plate 11 · The collective transceiver matrix.** *Formative energy, biological reception, Socratic filtering, and broadcast back into the shared coordinate system. Homo Luminous appears here as a possibility held open, not a destiny — no ordination, no chosen few.*

*From the visual sequence The Crystalline Slipstream by the author. The full sequence and the companion film are at [theparallaxidentity.com/books/theory-of-everything/illustrations](http://theparallaxidentity.com/books/theory-of-everything/illustrations).*

#### Reading key

Formative energy — the slipstream twisting into 48-channel geometry (the photon).

Biological reception — DNA and microtubules catching the frequency (the antenna).

Socratic filtering — human attention stabilizing at 7–9 Hz, smoothing out algorithmic noise (the flow state).

Sovereign broadcast — coupled minds returning coherent structure to the shared system.

Because everything exists in active, real-time relationship with everything else, human consciousness is difficult to hold as an isolated accident. It looks more like a shared coordinate system. When individual minds enter creative flow, they are not generating thought from nothing; they are tuning into a field already carrying structure — an open, fluid ecosystem where informational energy moves across biological boundaries.

Individual neural waveguide

Attention settles into coherent Socratic tuning

↓ Resonant entrainment

Localized frequency lock

Rhythm holds near the theta-alpha border

↓ Network synchronization

## Collective transceiver matrix

Coupled minds carry the pattern outward

Through this lens the separation between observer and observed thins. The brain does not sit passively inside a rigid Cartesian box; it behaves as a directional antenna (fractal-antenna geometry: Cohen 1995) that updates the stream with every act of deep inquiry.

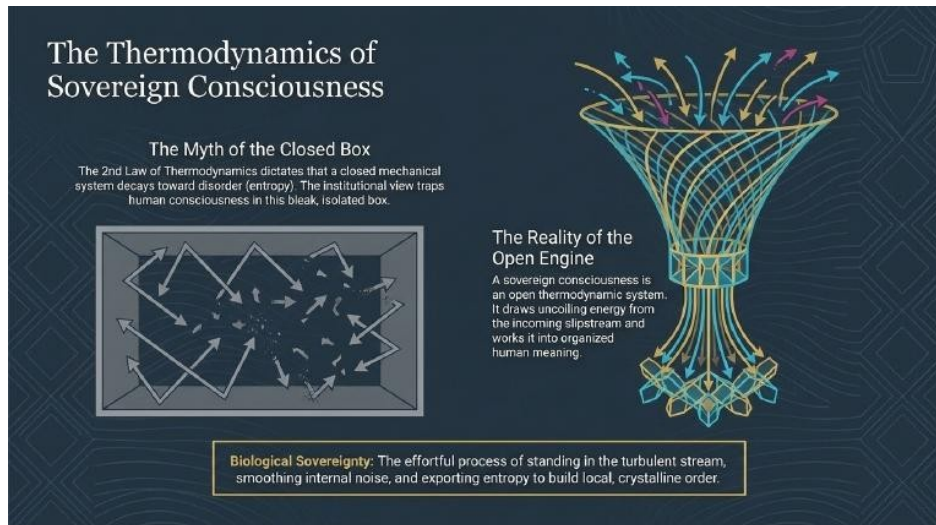
By stabilizing our internal waveguides, we stop reacting blindly to top-down digital noise and become responsible nodes within a living field — participating in the trajectory of human learning as science and human meaning reach critical mass.

**Status** — *Metaphorical extension. 'Transceiver matrix' describes an observed fact — that human minds couple through language, rhythm, and attention — in the vocabulary of field physics. The theta-alpha border is a real EEG landmark associated with relaxed, absorbed attention; treating it as a tuning target across a group is analogy. No claim is made here of a physical field carrying thought between brains.*

Two things stand out in the pass. The entrainment junction between sections 9 and 10 is where the account of emergent creativity hands over to the collective matrix, anchoring the thermodynamic argument in ordinary psychology. And the fluid slipstream runs as the narrative backbone across nearly every section, carrying the trout stream imagery through to the many-dimensional photon.

## (11) The thermodynamics of sovereign consciousness

The distinction this section rests on is thermodynamic, not moral, and the plate keeps it that way: closed box against open engine.



**Plate 12 · The thermodynamics of sovereign consciousness.** A system exchanging energy with its surroundings is not obliged to run down the way an isolated one is.

*From the visual sequence The Crystalline Slipstream by the author. The full sequence and the companion film are at [theparallaxidentity.com/books/theory-of-everything/illustrations](http://theparallaxidentity.com/books/theory-of-everything/illustrations).*

#### Reading key

The closed box — the 2nd Law read as a sentence on an isolated mechanical system, and human consciousness misfiled inside it.

The open engine — a system drawing uncoiling energy from the incoming stream and working it into organized human meaning.

Biological sovereignty — standing in the turbulent stream, smoothing internal noise, exporting entropy to build local crystalline order.

The second law of thermodynamics says that closed mechanical systems decay toward disorder, entropy, and heat death. For centuries this has been used to justify a bleak worldview — life as a brief anomaly destined to be crushed by a cold, chaotic universe. But that conclusion holds only for a closed box of isolated particles colliding in a vacuum. Shift the view to a continuous fluid slipstream and the accounting changes.

Closed mechanical system

Energy held inside a Cartesian box; entropy rises

↓ The boundary opens

Open fluid slipstream

Continuous exchange with inflowing energy

↓ Sustained coherence

Living engine

Local order built while entropy is exported

A sovereign human consciousness does not behave like a passive, closed system. It operates as an open engine that draws order out of incoming informational energy. When an individual reaches genuine Socratic alignment, attention stops drifting: it absorbs the uncoiling energy of the river and works it into an organized lattice of human meaning.

This capacity is what the book means by biological sovereignty. We are not helpless passengers drifting down an unfeeling river toward certain decay. We take part in shaping the riverbed. By using disciplined, self-directed inquiry to smooth the internal noise of inherited habit and inherited injury, we move attention away from automated, mechanical loops. Energy that was scattering as waste heat begins to focus.

This short blueprint strips away the dead academic scaffolding to reach a plain conclusion for the general reader. Sovereignty here is not a philosophical abstraction and not a metaphysical promise. It is the ordinary, effortful process by which a learner stands in the middle of the turbulent stream, faces what is arriving, and works it into something with truth, shape, and clarity.

**Status** — *Mixed register, flagged. The open-system physics is standard: living systems build internal order while exporting entropy, and no law is violated. The extension of that accounting to attention, trauma, and meaning is analogy — 'negative entropy', 'crystal lattice', and 'coherent laser wave' are figures of speech here, not measured quantities, and sovereignty is a practice rather than a physical law.*

## (12) The quantum shift into Homo Luminous

The long journey of reductionist science — centuries spent cataloguing isolated parts, slicing up the living tiger, trapping the mind inside Cartesian boxes — has reached the boundary layer where its own methods stop answering. It collapses under its own weight at the edge of a fluid cosmos. In its place the science of everything steps forward, not as an ossified theory but as an open gateway into a Theory of Interconnection. We stand where rigorous physics, number theory, and deep human meaning approach critical mass.

Algorithmic mechanical man

Fragmented; held inside the metric grid

↓ The shift in attention

Biological learning antenna

Tuned toward the incoming stream

↓ Sustained realignment

Homo Luminous

Coherent, sovereign transceiver of light

Homo Luminous is the name this book gives to a human being awake to their role as a conscious participant in that exchange. Not an accidental byproduct of matter drifting through a void, but a set of coordinates where the energy of the universe comes to recognize its own symmetry. As attention is trained toward the critical line of the Riemann spine, the artificial boundaries of institutional control lose some of their grip and the mind returns to its own creative flow.

Stepping through that shift, the tapestry arrives in its plainest layout. The trout stream, the many-dimensional photon, the tubulin lattice of the microtubule, and the imagination of the poet are not separate, colliding fragments. They are continuous phase changes of one integrated system.

This short synthesis leaves the dense academic scaffolding behind and hands over a working blueprint of biological and intellectual sovereignty. The universe described here is open and cooperative, and the reader is one of its living sensors.

Stand on the banks of the turbulent stream, cast your line into the patterns of the uncoiling current, and look out with clear eyes — knowing that the fearful symmetry of the leaping tiger, the architecture of light, and the long human effort to understand them have always belonged to the same continuum.

**Status** — *Aspirational framing, held to the book's own rule. 'Homo Luminous' names a possibility open to deliberate practice, not a destiny, a stage of evolution, or an outcome the universe has arranged. The 'loving ecosystem' reading of the cosmos is an interpretive stance, not a measured property.*

---

## Where these claims come from

*Full entries are in the works cited below. Where a passage is the book's own construction, this list says so rather than borrowing authority it has not earned.*

**Quantum processes proposed inside microtubules** — Roger Penrose and Stuart Hameroff, “Consciousness in the Universe: A Review of the ‘Orch OR’ Theory” (2014) — a contested proposal, and read here as a proposal.

**Measured switching and terahertz behaviour in single microtubules** — Satyajit Sahu et al., “Multi-Level Memory-Switching Properties of a Single Brain Microtubule” (2013); Travis Craddock et al., “Anesthetic Alterations of Collective Terahertz Oscillations in Tubulin...” (2017).

**The theta–alpha border at roughly 7–9 Hz** — Wolfgang Klimesch, “EEG Alpha and Theta Oscillations Reflect Cognitive and Memory Performance” (1999).

**What a single synapse can store** — Thomas Bartol et al., “Nanoconnectomic Upper Bound on the Variability of Synaptic Plasticity” (2015); Alexander Shapson-Coe et al., “A Petavoxel Fragment of Human Cerebral Cortex...” (2024).

**Cortex and cosmic web compared** — Franco Vazza and Alberto Feletti, “The Quantitative Comparison between the Neuronal Network and the Cosmic Web” (2020); Vazza, “On the Complexity and the Information Content of Cosmic Structures” (2020) — a statistical resemblance, which is all either paper claims.

**Sleep, plasticity and the cost of holding a network open** — Giulio Tononi and Chiara Cirelli, “Sleep and the Price of Plasticity” (2014); Danielle Bassett and Olaf Sporns, “Network Neuroscience” (2017).

**Fractal geometry in receiving antennas** — Nathan Cohen, “Fractal Antennas: Part 1” (1995).

**The transceiver reading and the pentagonal sampling** — the book's own construction. Figure 4.1 applies a five-fold sampling to the published B-form helix; the reading drawn from it is not in the literature.

## Works Cited in This Chapter

*Chicago style, hanging indent. The full bibliography for the book is in the complete edition.*

Bartol, Thomas M., Cailey Bromer, Justin Kinney, Michael A. Chirillo, Jennifer N. Bourne, Kristen M. Harris, and Terrence J. Sejnowski. "Nanoconnectomic Upper Bound on the Variability of Synaptic Plasticity." *eLife* 4 (2015): e10778.

Bassett, Danielle S., and Olaf Sporns. "Network Neuroscience." *Nature Neuroscience* 20, no. 3 (2017): 353–64.

Cohen, Nathan. "Fractal Antennas: Part 1." *Communications Quarterly* 5 (1995): 7–22.

Craddock, Travis J. A., Philip Kurian, Jeffon Preto, Kamlesh Sahu, Stuart R. Hameroff, Mariusz Klobukowski, and Jack A. Tuszynski. "Anesthetic Alterations of Collective Terahertz Oscillations in Tubulin Correlate with Clinical Potency." *Scientific Reports* 7 (2017): 9877.

Klimesch, Wolfgang. "EEG Alpha and Theta Oscillations Reflect Cognitive and Memory Performance: A Review and Analysis." *Brain Research Reviews* 29, nos. 2–3 (1999): 169–95.

Penrose, Roger, and Stuart Hameroff. "Consciousness in the Universe: A Review of the 'Orch OR' Theory." *Physics of Life Reviews* 11, no. 1 (2014): 39–78.

Sahu, Satyajit, Subrata Ghosh, Kazuto Hirata, Daisuke Fujita, and Anirban Bandyopadhyay. "Multi-Level Memory-Switching Properties of a Single Brain Microtubule." *Applied Physics Letters* 102 (2013): 123701.

Shapson-Coe, Alexander, et al. "A Petavoxel Fragment of Human Cerebral Cortex Reconstructed at Nanoscale Resolution." *Science* 384 (2024): eadk4858.

Tononi, Giulio, and Chiara Cirelli. "Sleep and the Price of Plasticity: From Synaptic and Cellular Homeostasis to Memory Consolidation and Integration." *Neuron* 81, no. 1 (2014): 12–34.

Vazza, Franco. "On the Complexity and the Information Content of Cosmic Structures." *Monthly Notices of the Royal Astronomical Society* 491, no. 4 (2020): 5447–63.

Vazza, Franco, and Alberto Feletti. "The Quantitative Comparison between the Neuronal Network and the Cosmic Web." *Frontiers in Physics* 8 (2020): 525731.

Watson, James D., and Francis H. C. Crick. "Molecular Structure of Nucleic Acids: A Structure for Deoxyribose Nucleic Acid." *Nature* 171 (1953): 737–38.

The complete book, with all fourteen plates and the full index, is free to read at [theparallaxidentity.com/books/theory-of-everything](http://theparallaxidentity.com/books/theory-of-everything).