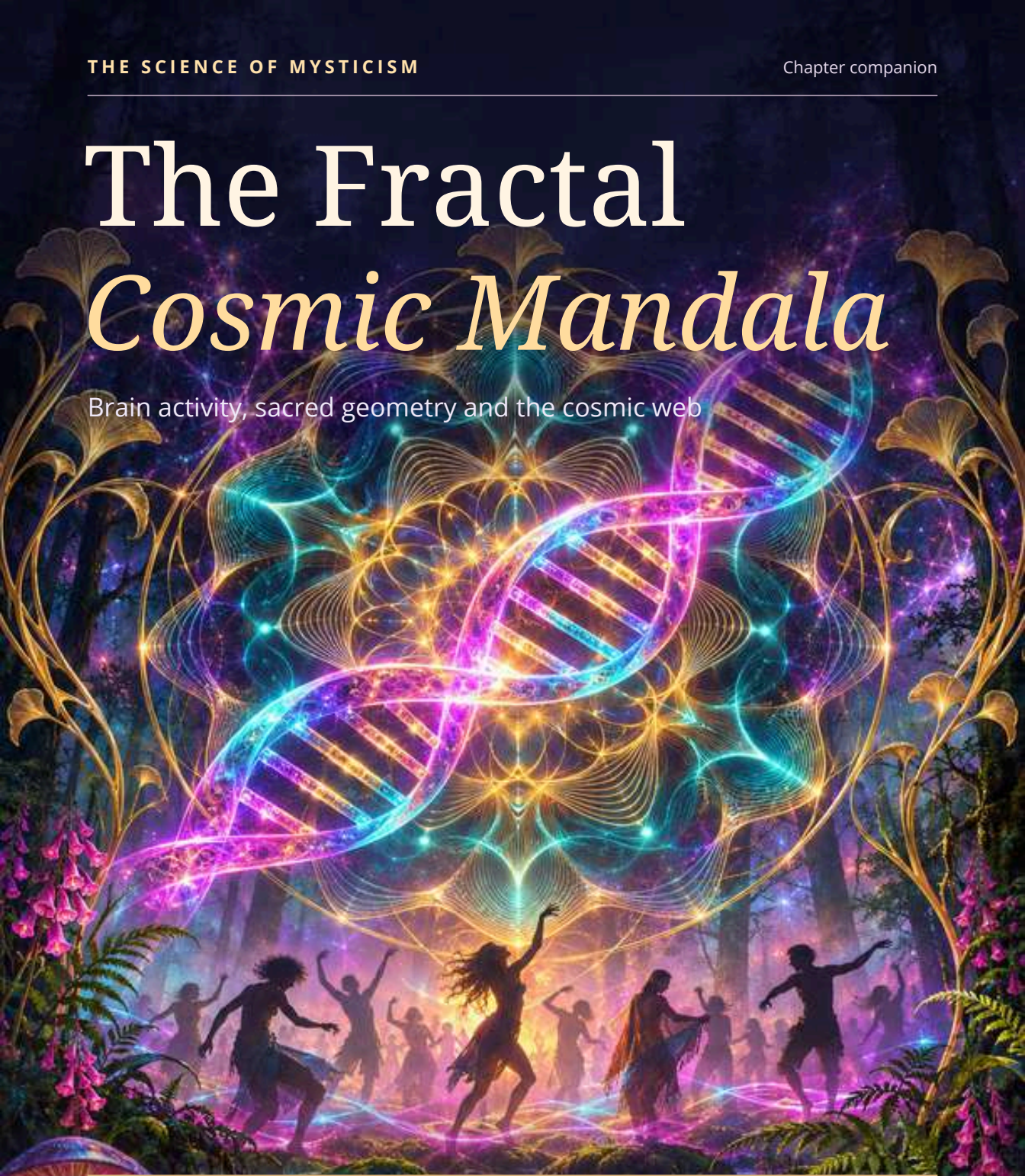
The Fractal *Cosmic Mandala*

Brain activity, sacred geometry and the cosmic web



SOMATIC CYMATICS

Play the progressive psytrance prelude

AkashicNET · November 2026

Contents

A mandala can repeat around a centre. A fractal can repeat, exactly or statistically, across scales. The two ideas can meet in an image, and each leads to a different question about what we can measure.

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Research, the Source Atlas and image credits

> *"The only way of discovering the limits of the possible is to venture a little way past them into the impossible."*
>
> Arthur C. Clarke, Profiles of the Future (1962)

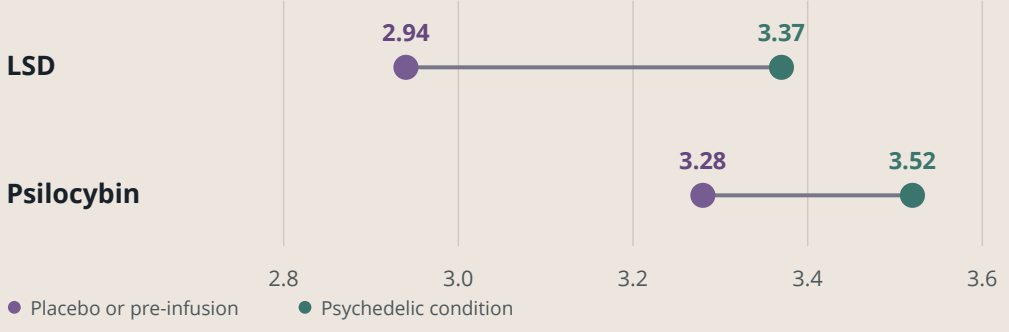
NEUROSCIENCE

A Brain in Patterns

Fractal dimension describes how a pattern changes when we examine it at different scales. The method depends on what is being counted.

FMRI · MEAN NETWORK FRACTAL DIMENSION

Varley and colleagues (2020)



The fMRI analysis estimated how many groups were needed to cover a network built from correlated blood-oxygen signals at different scales. The LSD comparison used 15 participants. The psilocybin network comparison used eight and compared pre-infusion with post-infusion periods. Dots show reported means.

A SECOND VIEW · MEG

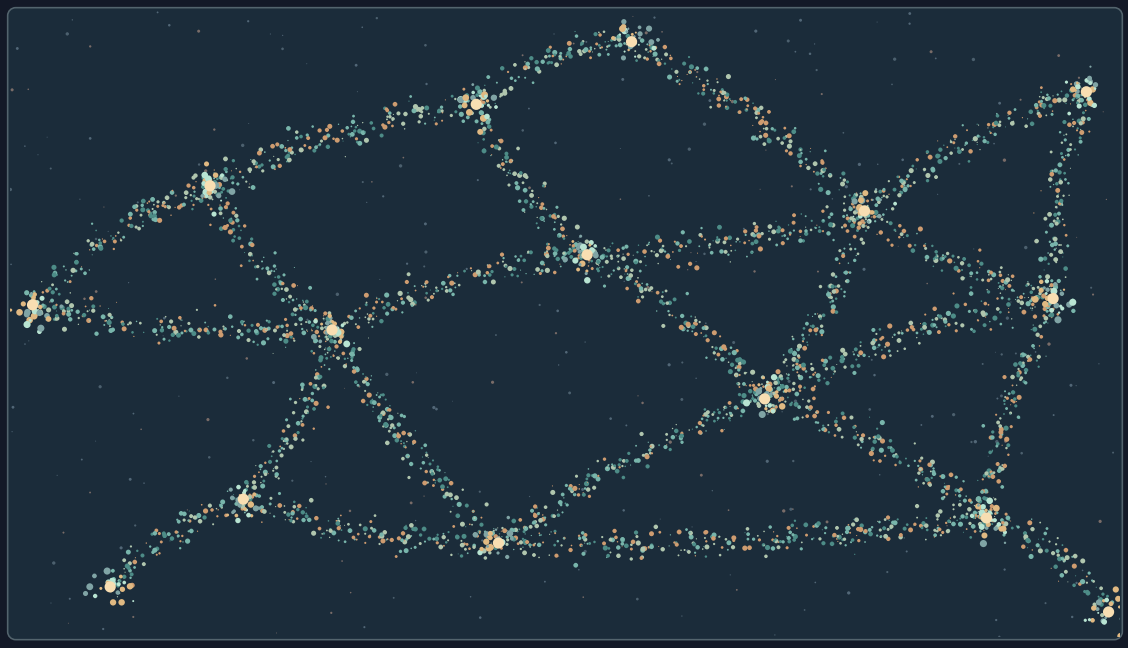
Subramani and colleagues reanalysed MEG recordings from 17 people and reported higher temporal fractal dimension under LSD than placebo. Here the quantity describes variation in recorded brain activity across timescales. The fMRI and MEG methods address functional activity on different scales.

Open question. Do changes in the signal track the timing or intensity of reported geometric imagery?

COSMOLOGY

The Web Between Galaxies

On some scales, matter gathers along filaments and around voids. Over much larger volumes, galaxy counts approach the scaling expected for a uniform distribution.



Cosmic-web schematic

FILAMENTS

Umehata and colleagues mapped glowing hydrogen in filaments around the SSA22 protocluster. Surveys ask a complementary question by counting galaxies in spheres of increasing radius.

LARGE-SCALE UNIFORMITY

In a uniform three-dimensional distribution, doubling the radius gives about eight times the count. WiggleZ found convergence towards uniform scaling. A DESI preprint reports a transition for the populations it studied.

Reading the picture. The artwork illustrates filaments, nodes and voids. Survey counts establish how clustering changes with scale.

Circles, Nodes & Meaning

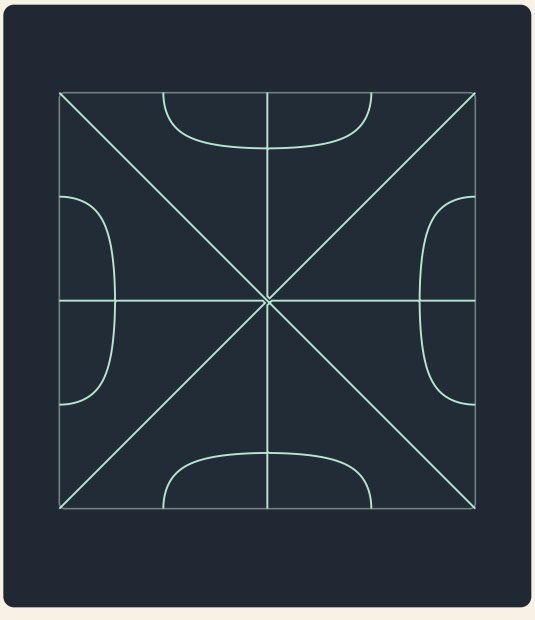
Rotational symmetry, scale symmetry and vibration can each generate striking patterns. Their resemblance is a starting point for inquiry.



MANDALA

Mandala of Jnanadakini, Tibet, late 14th century. The Met, 1987.16. Public domain.

The Tibetan Mandala of Jnanadakini places ritual figures and gateways within concentric rings. The 84000 translation of the Tantra of Ca□□amahāro□a□a supplies a text-based example of mandala practice in its own tradition.



CYMATICS

Calculated nodal lines for an idealised square standing-wave model.

In a Chladni demonstration, grains move towards nodal lines, where the surface moves least. Change the vibration mode or the shape of the plate and the pattern changes. The diagram above is a simplified model.

The Met collection · 84000 translation · Science Museum Group collection

MOLECULAR-SCALE INQUIRY

Could DNA Act as an Antenna?

Anatoly Goldstein and John A. Shuster use the antenna idea to ask whether molecular geometry could help explain a possible observer effect.



MOLECULAR ILLUSTRATION

2011 · ELECTROMAGNETIC REVIEW

Martin Blank and Reba Goodman reviewed reported DNA responses to electromagnetic fields across frequency ranges and argued for an antenna interpretation.

2024 · CONSCIOUSNESS HYPOTHESIS

Shuster and Goldstein proposed a possible fractal DNA antenna mechanism in conference materials about attitude and experimental outcomes. The mechanism remains an open research question.

2022 · ENGINEERED NANOANTENNA

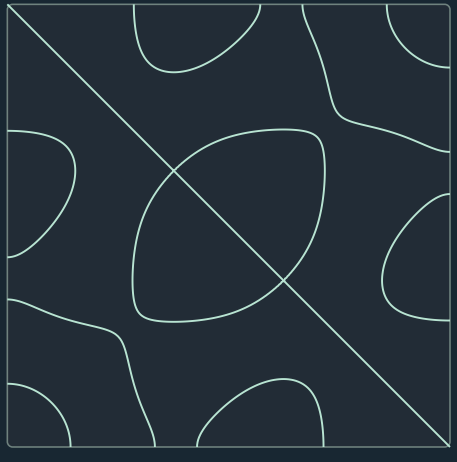
Scott Harroun and colleagues used a fluorescent nanoantenna to monitor protein shape changes. The experiment gives the term antenna a concrete, different use at molecular scale.

A question for the authors. What signal, frequency range and measurable response would distinguish the proposed mechanism from other explanations?

EMBODIED LISTENING

Somatic Cymatics

On a dance floor, bass can arrive as pressure, rhythm and movement. The experience invites us to ask what reaches the ear, the skin and the body.



A PATTERN OF VIBRATION

A plate makes a vibration mode visible in sand. A dancer feels rhythmic vibration and responds with movement.

Left. Calculated nodal pattern for an idealised plate.

WHAT A CONCERT STUDY MEASURED

Cameron and colleagues switched very-low-frequency loudspeakers on and off during an electronic music concert. Audience movement increased while the extra low-frequency sound was on. The measure was movement during that concert.

VIBROACOUSTICS AND THE BODY

A scoping review by Kantor and colleagues mapped human studies of vibroacoustic therapy in adults with pain. Differences in interventions and study designs left the size and consistency of any benefit uncertain.

In the film, pulses and rings suggest how bass feels. The soundtrack is an original progressive psytrance composition.

PACHAMAMA · A FOREST REFLECTION

Naked as Mother *Earth Intended*



Hoh Rain Forest, Olympic National Park. NPS/C. Bubar. Public domain.

Pachamama, often translated as Mother Earth, has a place in Andean traditions. The cover imagines a contemporary forest dance as a gesture of gratitude to the living Earth.

“Nature loves courage.”

Terence McKenna, Unfolding the Stone

McKenna imagined being “naked singing in the rain forest stoned and exhausted” in a talk about feeling estranged from nature.

Global Perspectives and Psychedelic Poetics

7.83 HZ · AN ARTISTIC REFERENCE

Earth’s lowest Schumann mode varies around 7.8 Hz. It is an electromagnetic resonance of the Earth–ionosphere cavity. The cymatic rings are an artistic response to that idea.

What Would Connect the Scales?

The felt image of a cosmic mandala can become a set of questions about experience, measurement and mechanism.

01 Experience and Brain Signals

Collect time-stamped reports of geometric imagery alongside repeated MEG or fMRI recordings. Decide in advance which signal feature and which report will be compared.

02 DNA and Electromagnetic Response

Specify a frequency band and response to measure. Compare DNA samples with matched controls under calibrated exposure and sham conditions, and check whether sample geometry changes the result.

03 Structure Across the Sky

Repeat the counts-in-spheres analysis across different tracers and redshift ranges. Report how the inferred transition changes with survey masks and modelling assumptions.

THE CHAPTER QUESTION

When a pattern feels familiar across scales, which features are actually shared and what observation could tell us why?

READING ROOM

Sources & Credits

Follow the linked sources to the measurements, proposals and cultural context behind each section.

BRAIN ACTIVITY

Varley et al. (2020) · fMRI network fractal dimension
Subramani et al. (2026) · LSD, MEG and temporal fractal dimension

COSMIC STRUCTURE

Umehata et al. (2019) · gas filaments around SSA22
Scrimgeour et al. (2012) · WiggleZ and large-scale homogeneity
Howlett et al. (2026) · DESI DR1 preprint

MANDALA AND CYMATICS

The Metropolitan Museum of Art · Mandala of Jnanadakini, 1987.16
84000 · Tantra of Ca□□amahāro□a□a, ch. 2
Science Museum Group · Chladni collection search

DNA AND THE ANTENNA IDEA

Blank & Goodman (2011) · electromagnetic response review
Shuster & Goldstein (2024) · conference presentation revision
Harroun et al. (2022) · fluorescent protein sensor
Goldstein (2024/2025) · Russian essay and author comment

SOMATIC CYMATICS AND THE FOREST

Cameron et al. (2022) · live concert movement experiment
Kantor et al. (2022) · human vibroacoustic therapy scoping review
NASA technical report · Schumann resonances and the ionosphere
Smithsonian NMAI · Quechua offering to Pachamama
NPS / C. Bubar · Hoh Rain Forest photograph

Fractal Scaling research addendum · The Traveller's Regeneration and Source Atlas notes · The Science of Mysticism

Cover: AI-generated editorial illustration. Cosmic schematic, helix and nodal figure: original illustrations. McKenna excerpts are linked on page 8. Mandala painting courtesy of The Metropolitan Museum of Art. Purchase, Lita Annenberg Hazen Charitable Trust Gift, 1987. Public domain.