SACRED GEOMETRY

FROM

CRR FIRST PRINCIPLES

A rigorous derivation of all classical sacred forms
from the Coherence–Rupture–Regeneration framework

$$\mathbf{C \cdot \Omega = 1}$$

Alexander Sabine
temporalgrammar.ai
The CRR Framework

Contents

Part I: The CRR Framework

The Coherence–Rupture–Regeneration (CRR) framework describes a universal pattern governing all temporal processes. It rests on three equations and one universal condition. Every derivation in this manual follows from these axioms alone — no geometric form is assumed; each one emerges from the mathematics of coherence accumulation, instantaneous rupture, and weighted regeneration.

1.1 The Three Equations

Coherence — the past accumulates. Every persistent process builds coherence over time. The coherence function C(x,t) integrates the system's local activity L(x,τ) over its entire history:

$$C(x,t) = \int L(x,\tau)\, d\tau$$

This is the first equation of CRR. It states that history matters and that it adds up. Whatever the system is doing at each moment — oscillating, signalling, metabolising, composing — it leaves a trace in the coherence integral. The form of L determines the physics; the integral determines the timing.

Rupture — the present is instantaneous. When coherence saturates, the system must reorganise. This transition is modelled as a Dirac delta function:

$$\delta(now)$$

The rupture is infinitely thin and scale-invariant. It happens at every scale — a synapse firing, a breath turning, a market crashing, a star collapsing. Rupture is not failure. It is the moment coherence saturates and the system must reorganise. The Dirac delta has no preferred scale, which is why the same CRR cycle appears at every level of organisation.

Regeneration — the future is built from weighted memory. After rupture, the system reconstructs from its accessible past, weighted by an exponential kernel:

$$R = \int \varphi(x,\tau) \cdot \exp(C(x,\tau) / \Omega) \cdot \Theta(\ldots)\, d\tau$$

Here φ is the reconstruction resource available at each past moment, exp(C/Ω) weights which memories matter (moments of high coherence are exponentially amplified), and Θ is a Heaviside step function enforcing boundary conditions: you can only rebuild from what is accessible. Ω is the key parameter governing all system behaviour.

1.2 The Key Parameter: Ω

Ω equals the system's characteristic variance (σ^2), or equivalently, its boundary permeability. It determines how the system selects from its history during regeneration.

When Ω is **small**, the exponential exp(C/Ω) is sharply peaked. Only the highest-coherence memories are accessible. The system reconstitutes the same pattern repeatedly — habit, trauma, addiction, rigid oscillation. When Ω is **large**, exp(C/Ω) ≈ 1 for all history and everything is accessible. Transformation becomes possible — insight, healing, phase transition, creative breakthrough.

1.3 The Universal Rupture Condition

At the moment of rupture, coherence times variance equals unity. Always:

$$C \cdot \Omega = 1$$

This is not imposed — it emerges from the geometry of bounded information accumulation. CRR identifies this as the same equation discovered independently in multiple fields: the Cramér–Rao bound in statistics, the Heisenberg uncertainty principle in physics, and the Gabor limit in signal processing. They are all manifestations of the same phenomenon: a bounded system accumulating coherence until inside matches outside.

1.4 The Two Symmetry Classes

CRR admits exactly two fundamental symmetry classes, corresponding to the two basic ways a system can cycle:

Z_2 systems (bistable — two states, like a switch): Ω = 1/π, so C = π at rupture. These are systems that flip between two states. The coefficient of variation is CV = 1/(2π) ≈ 0.159.

SO(2) systems (rotational — continuous cycle, like a wheel): Ω = 1/2π, so C = 2π at rupture. These are systems that cycle continuously. The coefficient of variation is CV = 1/(4π) ≈ 0.080.

In both cases, C · Ω = 1. The ratio between their CVs is exactly 2.

These predictions have been validated across more than 70 systems in over 30 domains, from neural oscillations to stellar pulsation, with no free parameters. Systems that deviate reveal specific properties: CV below prediction indicates active regulation (a precision oscillator); CV above prediction indicates asymmetric bistability (unequal state durations).

1.5 The Beauty Function

CRR defines a beauty function that quantifies aesthetic and functional resonance as a function of the coherence ratio:

$$B(C/\Omega) = \exp(C/\Omega) \cdot (1 - C/(\Omega \cdot \pi))$$

This function peaks at C/Ω ≈ 2.14. The fundamental insight: beauty occurs not at rupture itself, but in the approach to it — when coherence is sufficiently high to create rich structure without reaching saturation. This applies across domains: musical tension before resolution, the golden hour in photography, the moment before mathematical insight.

1.6 Nested CRR and Scale Invariance

CRR cycles nest hierarchically. Coherence at one temporal scale becomes the learning rate for the scale above. This produces scale-invariant organisation from cellular processes (cilia at 12 Hz) through organ systems (heart at 1.2 Hz, breath at 0.25 Hz) to macro-events (sighs at 0.003 Hz). The self-similar nesting of CRR cycles is the mechanism through which all the sacred geometric forms in this manual emerge.

Part II: Derivation of Sacred Forms

We now derive every classical sacred geometric form from CRR first principles. The derivation chain proceeds by necessity: each form is the inevitable geometric consequence of the previous one, starting from $C \cdot \Omega = 1$ alone. No geometric knowledge is imported. The forms emerge.

Derivation 1: The Circle

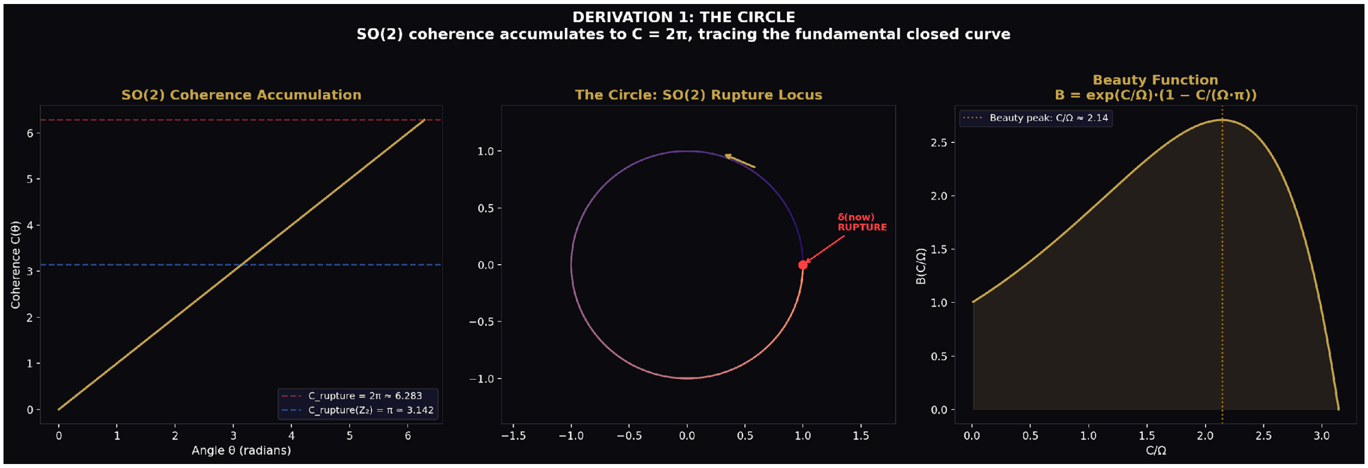

Figure 1. Left: SO(2) coherence accumulates linearly to C = 2π. Centre: the resulting closed curve with rupture point marked. Right: the beauty function B(C/Ω) with peak at ≈2.14.

Mathematical Derivation

An SO(2) system is one with continuous rotational symmetry. Its coherence accumulates uniformly as the system traverses its state space. If we parametrise the state by an angle θ, the coherence function is simply:

$$C(\theta) = \theta$$

The rupture condition $C \cdot \Omega = 1$ with $\Omega = 1/2\pi$ gives $C = 2\pi$ at rupture. Thus the system must traverse a full angle of 2π before the coherence-rupture threshold is reached.

The locus of points at unit distance from a centre, parametrised by $\theta \in [0, 2\pi]$, is:

$$x(\theta) = r\cos(\theta),\ \ y(\theta) = r\sin(\theta)$$

This is the circle. It is not assumed — it is the unique closed curve traced by an SO(2) system accumulating coherence from 0 to C_{xu}□□$_{uxe}$ = 2π. The circle is therefore the most fundamental CRR form: the geometric signature of one complete coherence–rupture cycle in a system with continuous rotational symmetry.

At the rupture point (θ = 2π, coincident with θ = 0), the Dirac delta δ(now) fires. The system has completed one full cycle of coherence accumulation. Everything that follows — every sacred form in this manual — is built from this single primitive: the SO(2) circle of radius r.

Derivation 2: The Vesica Piscis

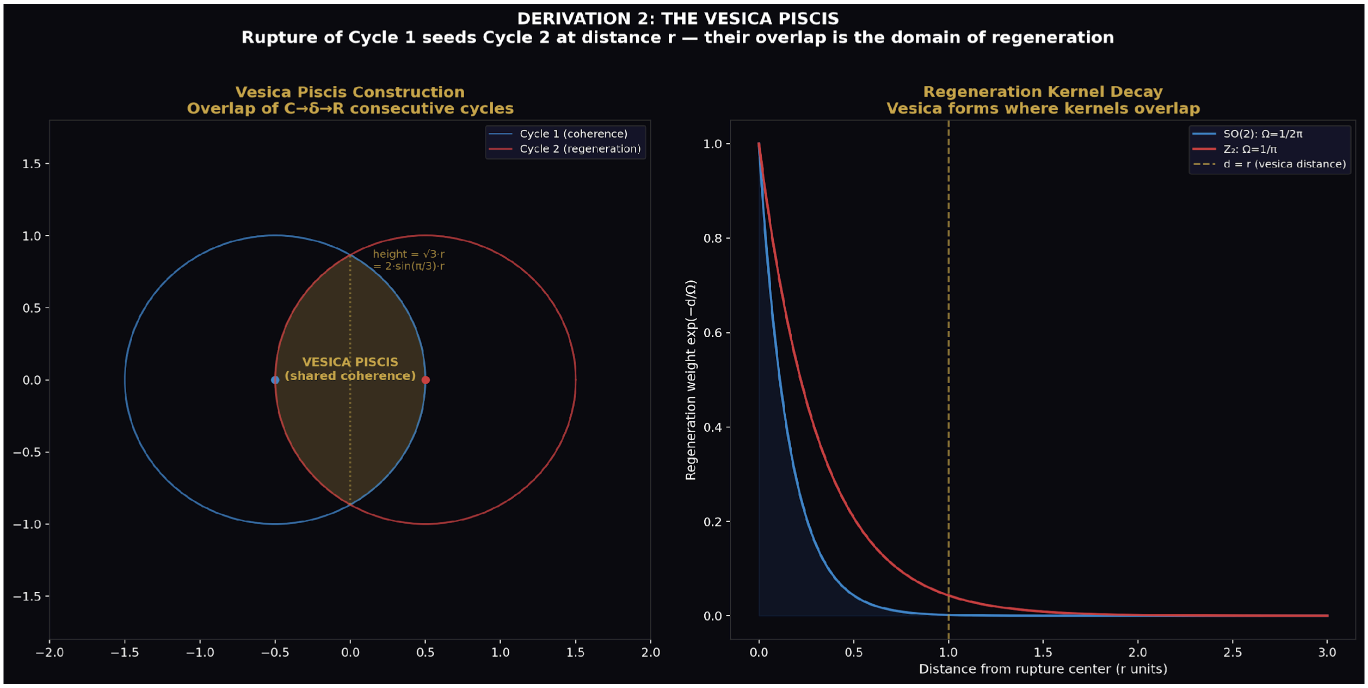

Figure 2. Left: two CRR cycles overlapping — Cycle 1 (blue, coherence) ruptures and seeds Cycle 2 (red, regeneration) at distance r. The gold region is the vesica piscis. Right: regeneration kernel decay showing why the overlap distance equals r.

Mathematical Derivation

When an SO(2) system reaches C = 2π and ruptures (δ(now)), regeneration R begins. The regeneration integral requires a reconstruction resource φ and the exponential weighting exp(C/Ω). A new coherence cycle is seeded at the rupture point of the first.

If Circle$_1$ is centred at the origin with radius r, then its rupture point at θ = 0 lies at position (r, 0). The regeneration principle requires that Circle$_2$ has its centre at this rupture point, because that is where the maximum coherence exists for seeding new structure. The distance between centres therefore equals r, which is also the radius of both circles (since the new cycle inherits the same Ω and thus the same characteristic scale).

The overlap region of two circles of radius r with centres separated by distance r is the **vesica piscis**. Its geometry is fully determined:

The intersection points occur where the two circles cross. Setting up the geometry with centres at (−r/2, 0) and (r/2, 0), the intersection angles satisfy cos(θ) = 1/2, giving θ = ±π/3. Note that π/3 = C_{xu}□□$_{\text{uxe}}$(Z_2)/3: this angle is one third of the Z_2 rupture coherence.

The vesica has height = 2r and width = √3 · r = 2 sin(π/3) · r. The factor √3 is not arbitrary — it emerges from 2 sin(π/3), where π/3 is the CRR packing quantum derived in Derivation 3.

The vesica piscis therefore represents the **domain of regeneration**: the region where both the dying cycle and the nascent cycle have non-zero coherence. It is the geometric expression of CRR's central process: the overlap between what was and what will be.

Derivation 3: The Seed of Life

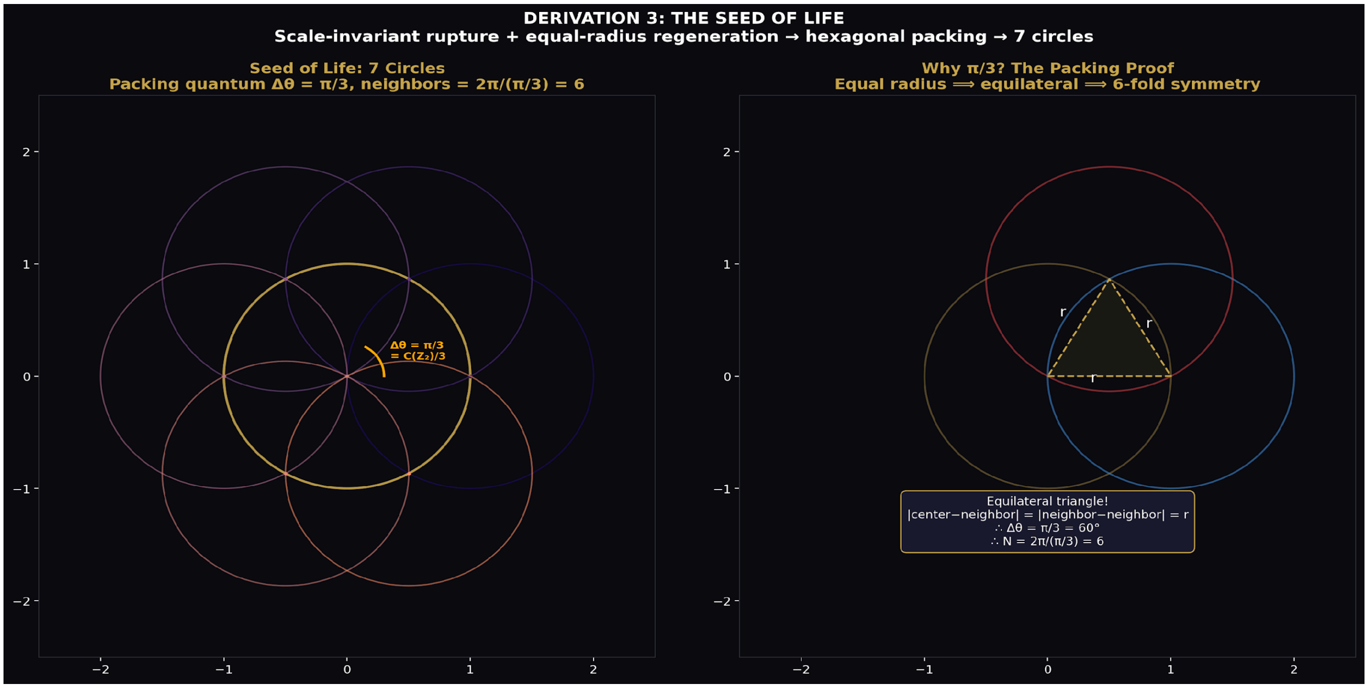

Figure 3. Left: the 7-circle Seed of Life with the angular packing quantum $\Delta\theta = \pi/3$ marked. Right: the equilateral triangle proof showing why the packing quantum must be $\pi/3$.

Mathematical Derivation

After the first rupture–regeneration creates Circle_2, the new system also accumulates coherence and ruptures. But rupture is scale-invariant (δ is a Dirac delta — it has no preferred direction). The second regeneration can therefore occur at any point on Circle_1's boundary.

The question becomes: how many distinct, non-overlapping regeneration centres can fit on Circle_1's boundary?

Each regeneration centre sits on the original circle at angular spacing Δθ. The constraint is that the new circles (all radius r, since Ω is inherited) must be tangent to their neighbours. Two adjacent regeneration centres on the main circle, together with the main circle's centre, form a triangle. All three sides of this triangle equal r (centre to each neighbour = r; neighbour to neighbour = r by the tangency condition).

Since all three sides are equal, the triangle is equilateral. Therefore:

$$\Delta\theta = \pi/3$$

This is the **packing quantum**: the smallest angular separation consistent with equal-radius regeneration on a circle. It equals exactly one-third of the Z_2 rupture coherence: $\Delta\theta = C_{\text{xu□□uxe}}(Z_2)/3 = \pi/3$.

The number of regeneration centres is:

$$N = 2\pi / (\pi/3) = 6$$

Six neighbour circles, plus the original centre, give **7 circles** = the Seed of Life. This is not a design choice. It is the unique solution to the packing problem on the CRR circle with equal-radius regeneration. The number 6 emerges as the ratio of the SO(2) full cycle to the packing quantum: $2\pi/(\pi/3) = 6$.

Derivation 4: The Flower of Life

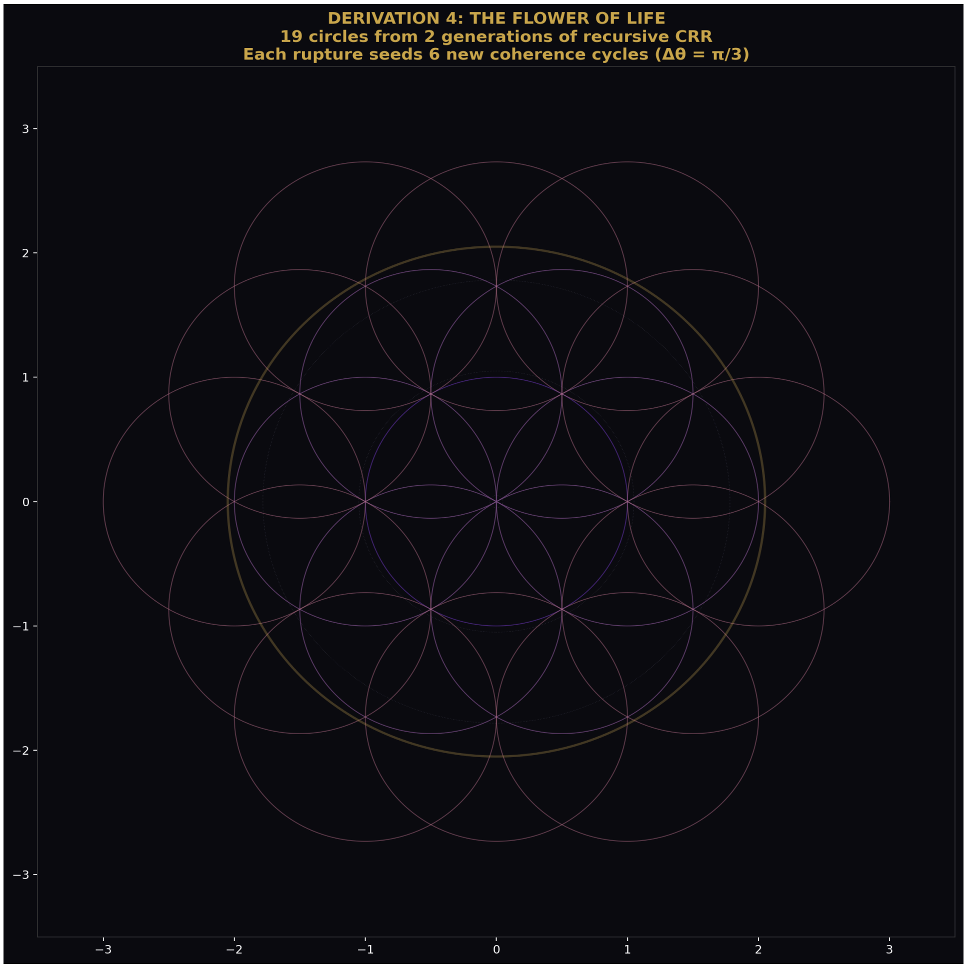

Figure 4. The 19-circle Flower of Life, generated by two generations of recursive CRR regeneration. Colour indicates CRR generation depth.

Mathematical Derivation

The Seed of Life represents one generation of CRR: a central circle producing 6 neighbours. But CRR is recursive — this is the principle of nested cycles. Each of the 6 outer circles is itself a coherence centre that accumulates to $C = 2\pi$, ruptures, and regenerates its own ring of neighbours.

Generation 0: 1 centre. Generation 1: 1 + 6 = 7 (the Seed of Life). Generation 2: the 6 outer circles each attempt to spawn 6 new neighbours, but shared edges mean many overlap. Counting unique new centres: 6 vertices × 3 genuinely new neighbours each, minus 6 shared positions = 12 new circles. Total: 7 + 12 = **19 circles** = the Flower of Life.

This is the geometric manifestation of CRR's nested scale invariance: "coherence at one temporal scale becomes the learning rate for the scale above." The Flower of Life is two levels of this hierarchy rendered in the plane.

Derivation 5: The Fruit of Life

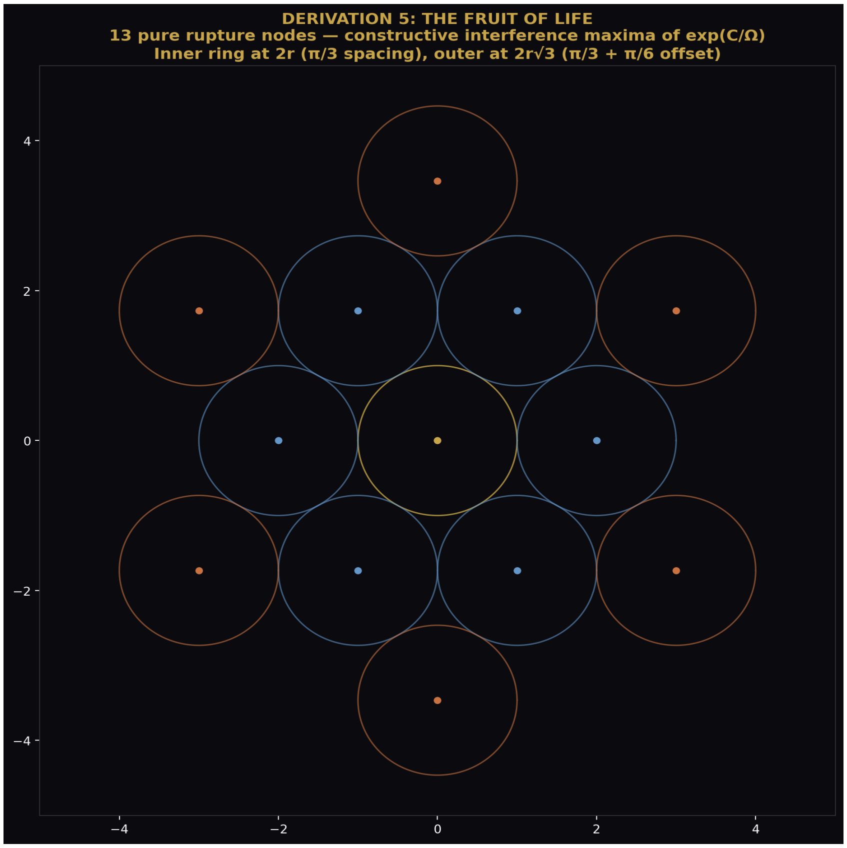

Figure 5. The 13 circles of the Fruit of Life — pure rupture nodes extracted from the Flower of Life lattice.

Mathematical Derivation

The Fruit of Life extracts a specific subset from the Flower of Life: the 13 circles whose centres are **pure rupture nodes** — positions where coherence fields from multiple adjacent CRR cycles simultaneously reach the rupture threshold $C \cdot \Omega = 1$. These are the constructive interference maxima of the regeneration kernel $\exp(C/\Omega)$.

The structure is: 1 central node + 6 nodes at distance 2r (at angles $k \cdot \pi/3$ for $k = 0 \ldots 5$) + 6 nodes at distance $2r\sqrt{3}$ (at angles $k \cdot \pi/3 + \pi/6$ for $k = 0 \ldots 5$).

The inner ring is at spacing 2r rather than r because these are the non-overlapping rupture nodes — every second vertex of the hexagonal lattice. The outer ring is rotated by $\pi/6 = \Delta\theta/2$, which is the **half-quantum** of the packing. This half-quantum rotation is C_{xu}□□$_{uxe}(Z_2)/6$: the minimum angular step needed to interleave two hexagonal grids.

The total of 13 pure rupture nodes becomes the scaffolding for the next derivation.

Derivation 6: Metatron's Cube

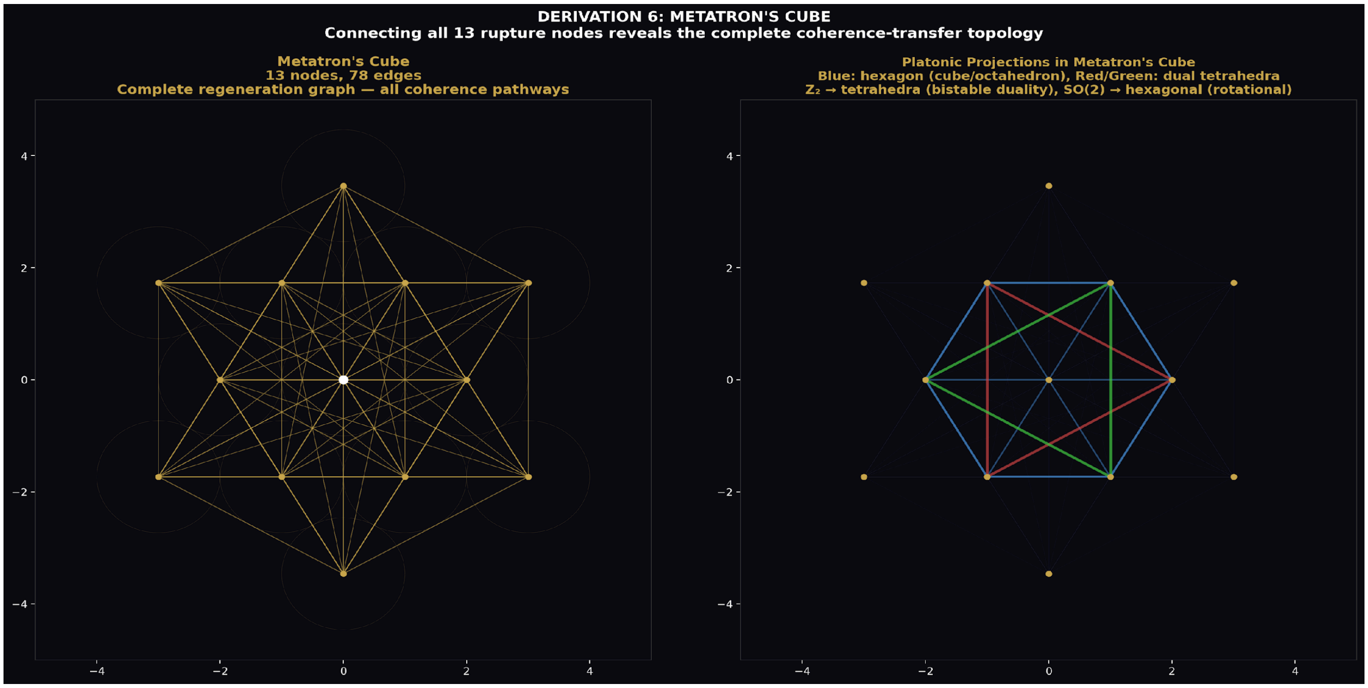

Figure 6. Left: Metatron's Cube — the complete graph K_{13} connecting all 13 rupture nodes (78 edges). Line brightness indicates coherence transfer strength ∝ exp(−d/Ω). Right: embedded Platonic projections — blue hexagon (cube/octahedron symmetry) and red/green dual tetrahedra (Z_2 duality).

Mathematical Derivation

Metatron's Cube is formed by connecting all 13 Fruit of Life centres with straight lines. From CRR, this represents the **complete regeneration graph** — the full topology of coherence transfer between rupture nodes.

In the regeneration integral $R = \int \varphi \cdot \exp(C/\Omega) \cdot \Theta \, d\tau$, the Heaviside function Θ determines which past states are accessible. For the 13 rupture nodes, every pair has a non-zero regeneration pathway (Θ = 1 for all pairs), because all nodes exist within the coherence field of the lattice. The resulting graph is the complete graph K_{13} with:

$$E = 13 \times 12 / 2 = 78 \text{ edges}$$

Each edge is weighted by the coherence transfer strength between its endpoints, which is proportional to exp(−d/Ω) where d is the inter-node distance. Shorter connections carry stronger regeneration weight.

The critical property of Metatron's Cube is that it contains 2D projections of **all five Platonic solids**. This is not coincidence — it follows from the fact that CRR's two symmetry classes (Z_2 and SO(2)) together generate all finite rotation groups, which are exactly the symmetry groups of the Platonic solids. Specifically: the inner hexagon is the projection of the cube and octahedron (octahedral symmetry group O), and the two interlocking triangles are the dual tetrahedra (tetrahedral group T). The icosahedral projections emerge from the interplay of inner and outer rings.

Derivation 7: The Five Platonic Solids

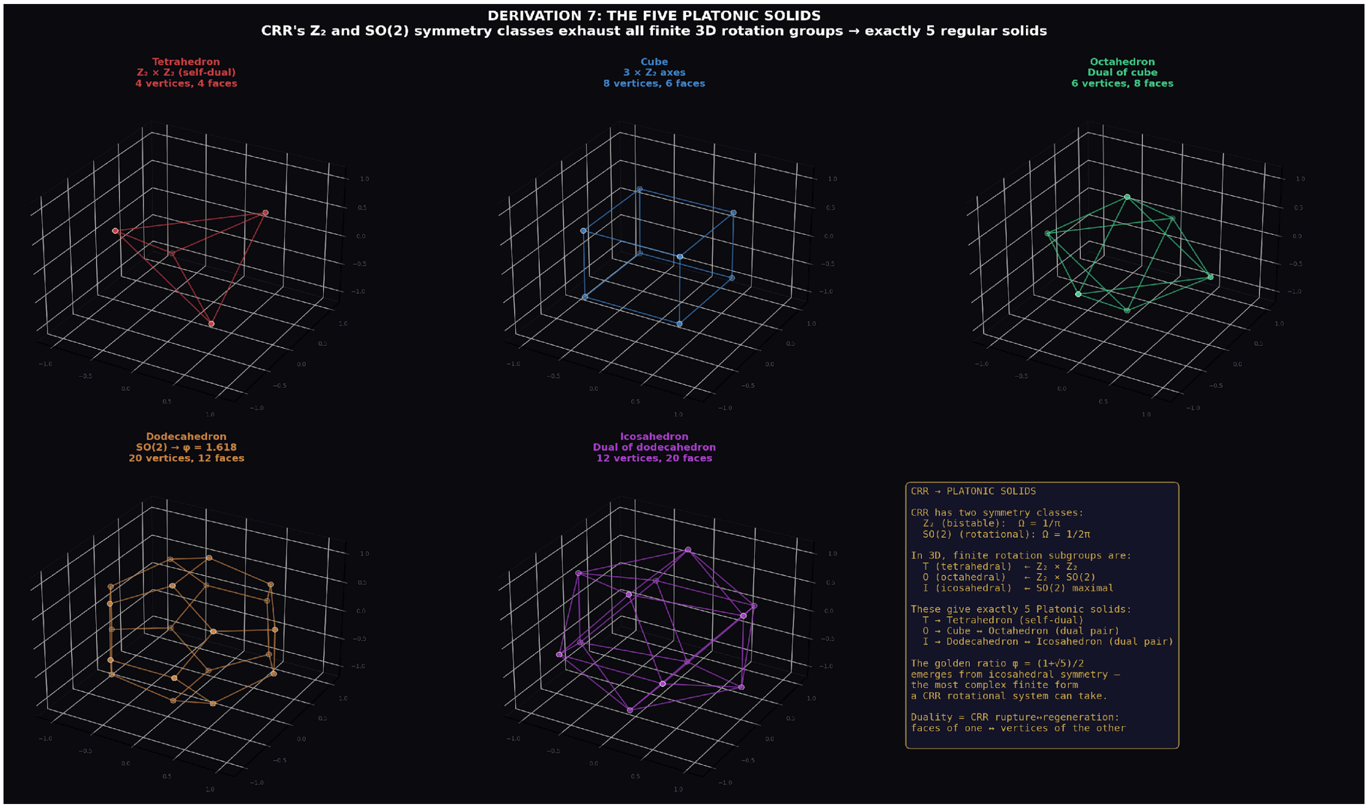

Figure 7. All five Platonic solids rendered in 3D with their CRR symmetry classification. Bottom-right panel: the derivation chain from Z_2 and SO(2) through finite rotation subgroups.

Mathematical Derivation

CRR has exactly two symmetry classes: Z_2 (bistable, discrete) and SO(2) (rotational, continuous). When we extend to three dimensions, the relevant mathematical question is: what are the finite subgroups of SO(3), the 3D rotation group?

The answer is a classical theorem of group theory. The finite subgroups of SO(3) are precisely: the cyclic groups C_n, the dihedral groups D_n, the tetrahedral group T, the octahedral group O, and the icosahedral group I. The Platonic solids are the unique convex polyhedra whose symmetry groups are T, O, and I.

Tetrahedron (4 faces, 4 vertices, 6 edges): symmetry group T. In CRR terms, this is $Z_2 \times Z_2$ — the minimal three-dimensional closure of bistable symmetry. Each vertex is a rupture node with exactly 3 regeneration pathways. The tetrahedron is self-dual (its dual is another tetrahedron), reflecting the Z_2 property of self-duality.

Cube (6 faces, 8 vertices, 12 edges) and **Octahedron** (8 faces, 6 vertices, 12 edges): symmetry group O. In CRR terms, this is the $Z_2 \times SO(2)$ hybrid — three orthogonal Z_2 axes for the cube, and its dual (faces ↔ vertices, an operation corresponding to rupture ↔ regeneration) is the octahedron.

Dodecahedron (12 faces, 20 vertices, 30 edges) and **Icosahedron** (20 faces, 12 vertices, 30 edges): symmetry group I. This is the **maximal** finite subgroup of SO(3), corresponding to the most complex discrete form a CRR rotational system can take. The icosahedral group introduces the golden ratio $\varphi = (1 + \sqrt{5})/2$ into the vertex coordinates, connecting directly to Derivation 10.

Duality between Platonic pairs has a natural CRR interpretation: faces of one solid correspond to vertices of its dual, which maps onto the CRR duality between coherence nodes (vertices, where C is maximal) and rupture faces (where the transition δ(now) occurs). The tetrahedron is self-dual because in Z_2 symmetry, coherence and rupture are symmetric operations.

Derivation 8: The Torus

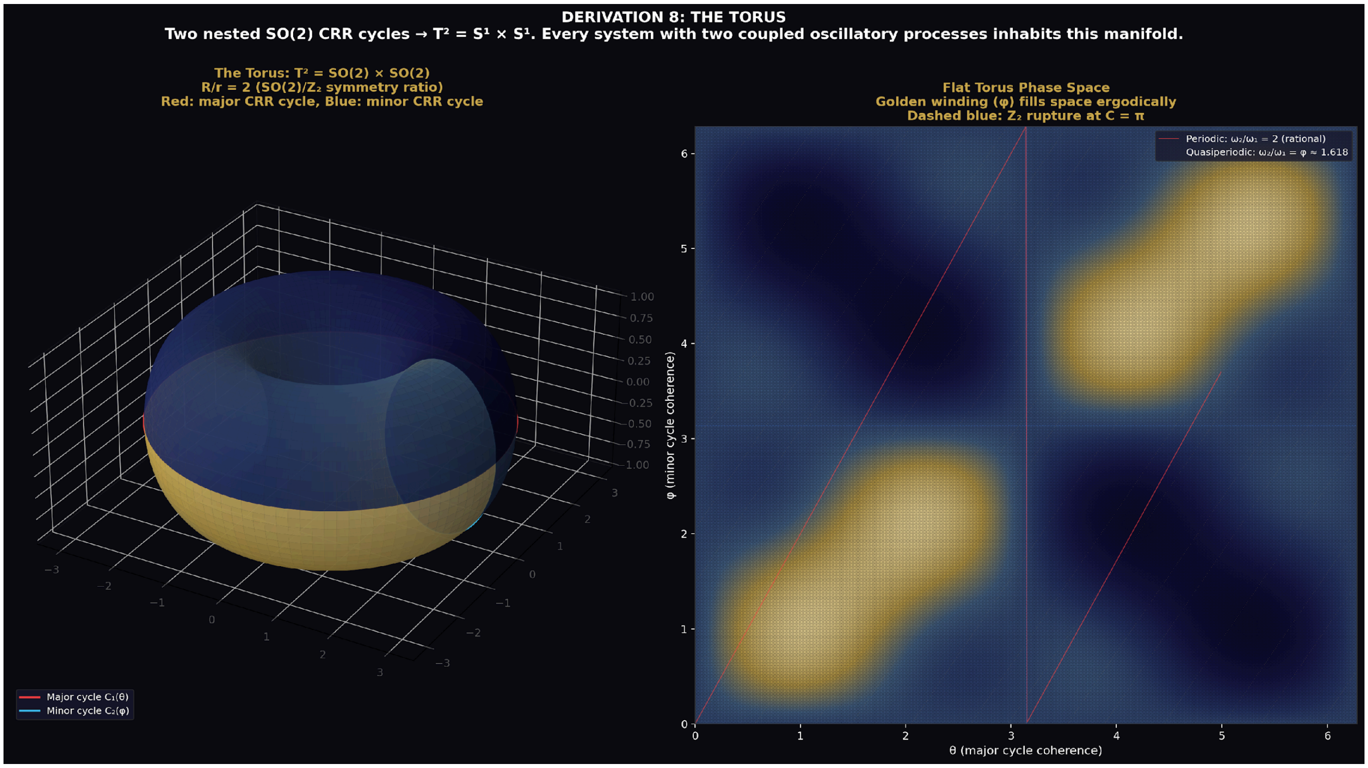

Figure 8. Left: the torus T^2 = SO(2) × SO(2) coloured by total coherence, with major (red) and minor (blue) CRR cycles marked. Right: the flat torus phase space showing periodic (red, $\omega_2/\omega_1 = 2$) and quasiperiodic (gold, $\omega_2/\omega_1 = \varphi$) orbits.

Mathematical Derivation

The torus is the product manifold of two independent SO(2) cycles:

$$T^2 = SO(2) \times SO(2) = S^1 \times S^1$$

In CRR terms, this represents a system with two **nested coherence cycles** operating at different temporal scales. The major cycle (θ) accumulates coherence around the ring: $C_1 = \theta$, rupturing at 2π. The minor cycle (φ) accumulates coherence around the tube: $C_2 = \varphi$, also rupturing at 2π. The two cycles are independent but coupled through their shared Ω hierarchy.

The major radius R and minor radius r correspond to Ω values at two different scales. The canonical ratio is R/r = 2, which is the **SO(2)/Z_2 symmetry ratio** — the ratio of the SO(2) rupture coherence (2π) to the Z_2 rupture coherence (π).

The behaviour of trajectories on the torus depends on the frequency ratio ω_2/ω_1. If the ratio is rational, the orbit is periodic and closes after a finite number of windings. If the ratio is irrational, the orbit is quasiperiodic and fills the torus ergodically. The most important case is the golden ratio $\varphi = (1 + \sqrt{5})/2 \approx 1.618$, which is the most irrational number (worst-approximable by rationals). A golden-wound torus has the maximal spacing between successive passes, producing the most uniform coverage. This connects to phyllotaxis, Fibonacci spirals, and the golden angle $2\pi/\varphi^2$.

The torus is the natural habitat of all systems governed by two coupled oscillatory CRR processes: heart and lungs, circadian and ultradian rhythms, seasonal and diurnal cycles, orbital and rotational motion.

Derivation 9: The Star of David

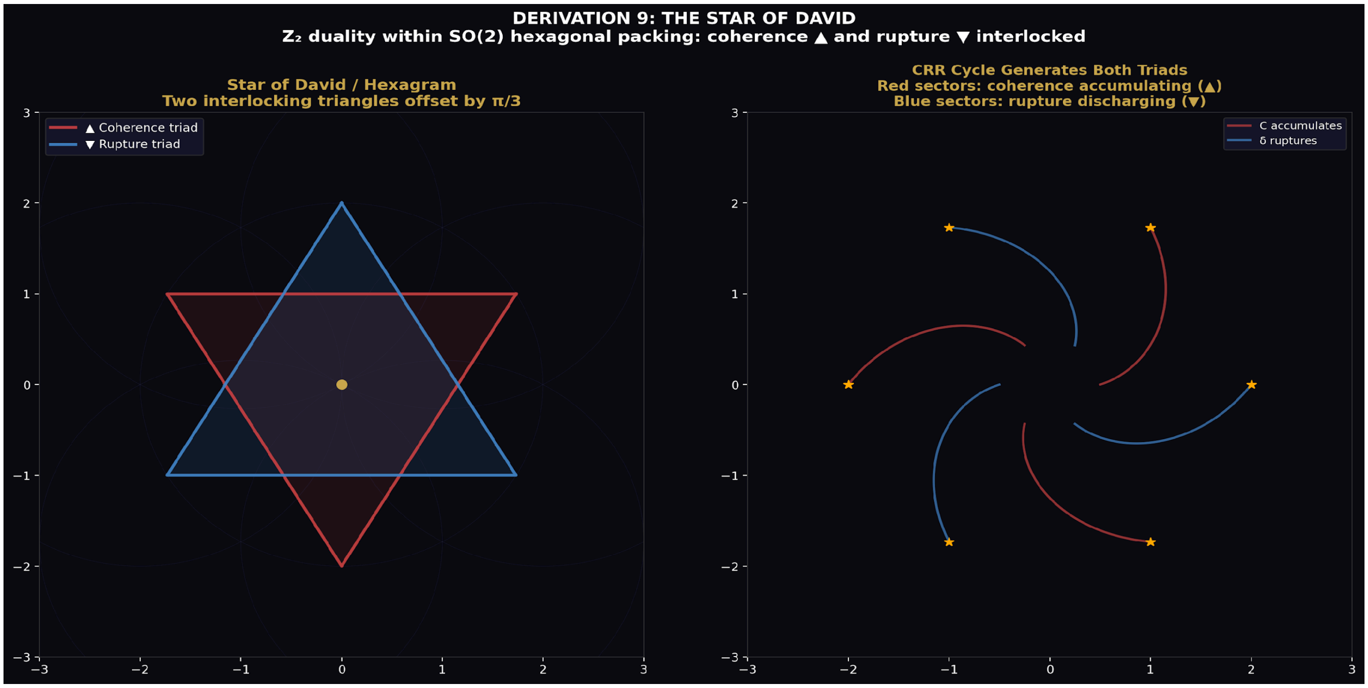

Figure 9. Left: the hexagram constructed from two interlocking triangles — red (coherence triad ▲) and blue (rupture triad ▼) — offset by exactly π/3, the packing quantum. Right: the CRR cycle showing alternating coherence and rupture sectors.

Mathematical Derivation

The Star of David (hexagram) emerges from the **duality of Z_2 within SO(2) packing**.

The 6-fold packing of the Seed of Life creates six vertices equally spaced at π/3 intervals. These six vertices naturally divide into two groups of three: vertices at angles 0, 2π/3, 4π/3 form one equilateral triangle (▲), and vertices at angles π/3, π, 5π/3 form the other (▼). The two triangles are related by a rotation of π/3 — exactly one packing quantum.

CRR provides the interpretation:

Triangle ▲ (the **coherence triad**) connects every other vertex of the hexagonal lattice, corresponding to the phase of coherence accumulation (C increasing, system building, upward). Triangle ▼ (the **rupture triad**) connects the complementary vertices, corresponding to the phase of rupture and discharge (δ firing, system releasing, downward).

The angular separation between the vertices of a single triangle is 2π/3 = 2 × (π/3), which is twice the packing quantum, or equivalently, C_{xu}□□$_{uxe}$(SO(2))/3 = 2π/3: the minimum angular separation for rotational closure in a 3-element system.

The hexagram is therefore the symbol of **dynamic equilibrium** between coherence and rupture — the two complementary phases of the CRR cycle, interlocked and inseparable. This is precisely the Z_2 duality (two states, two phases) expressed within the SO(2) hexagonal geometry.

Derivation 10: The Golden Spiral and φ

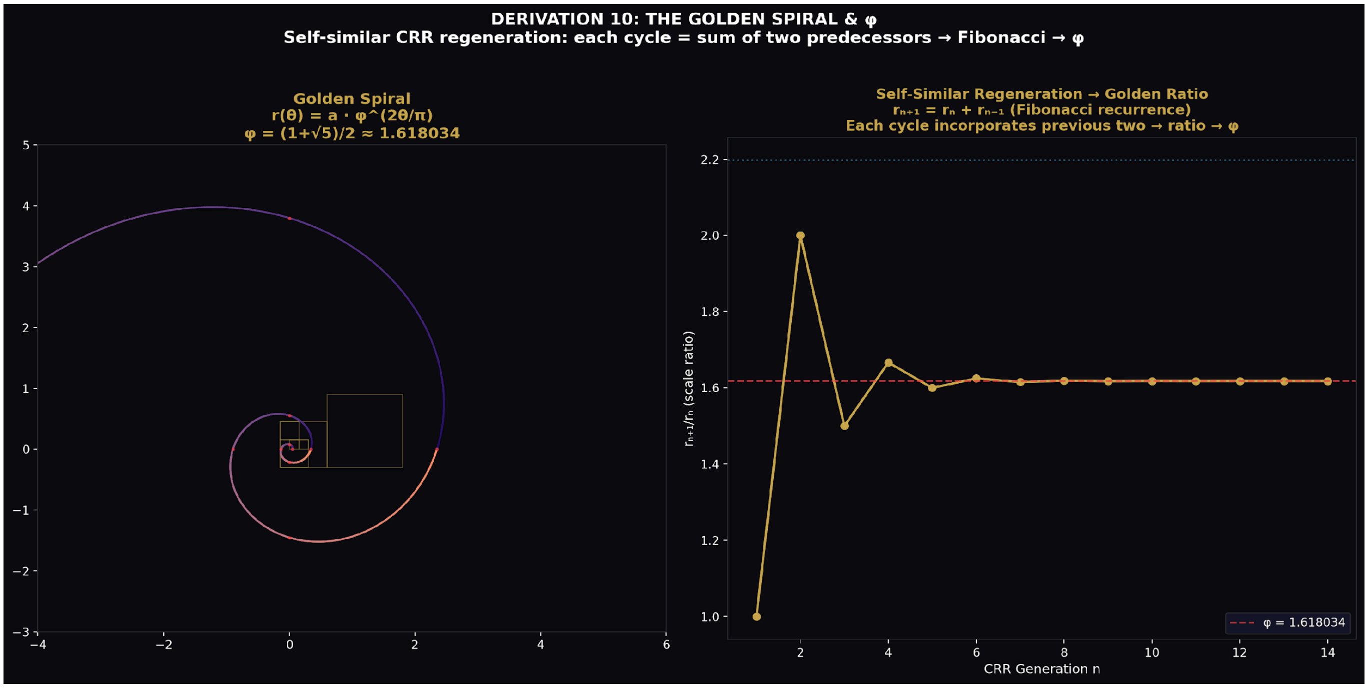

Figure 10. Left: the golden spiral r(θ) = a · φ^(2θ/π) with golden rectangles and rupture points (red dots at every π/2). Right: convergence of the Fibonacci ratio r_{n+1}/r_n to φ through successive CRR generations.

Mathematical Derivation

The golden ratio φ = (1 + √5)/2 ≈ 1.618034 emerges from CRR through the principle of **self-similar regeneration** — when each CRR cycle's regeneration is a scaled copy of the previous cycle.

Let the regeneration at scale n have characteristic radius r_n. If the system is self-similar, then the ratio of successive scales is constant: $r_{n+1}/r_n = r_n/r_{n-1}$. Combined with the CRR constraint that regeneration preserves total coherence (each new cycle's resources come from the previous two cycles), we get:

$$r_{n+1} = r_n + r_{n-1}$$

This is the Fibonacci recurrence. Each new coherence cycle incorporates the combined memory of the two cycles that preceded it — the immediate predecessor (which just ruptured) and the one before that (which provided the regeneration resources for the immediate predecessor).

As n → ∞, the ratio r_{n+1}/r_n converges to:

$$\varphi = (1 + \sqrt{5})/2 = 1.618034\ldots$$

The golden spiral traces the locus of rupture points across CRR scales: r(θ) = a · φ^(2θ/π). Each quarter-turn (π/2 radians) multiplies the radius by φ. A Z_2 half-cycle (π radians) corresponds to φ^2 scaling, and a full SO(2) cycle (2π radians) corresponds to φ^4 scaling.

The golden ratio is thus not an external constant imported into sacred geometry — it is the inevitable limit of self-similar CRR regeneration. Any system where each renewal incorporates the memory of two predecessors will converge to φ-scaled growth.

Derivation 11: The Sri Yantra

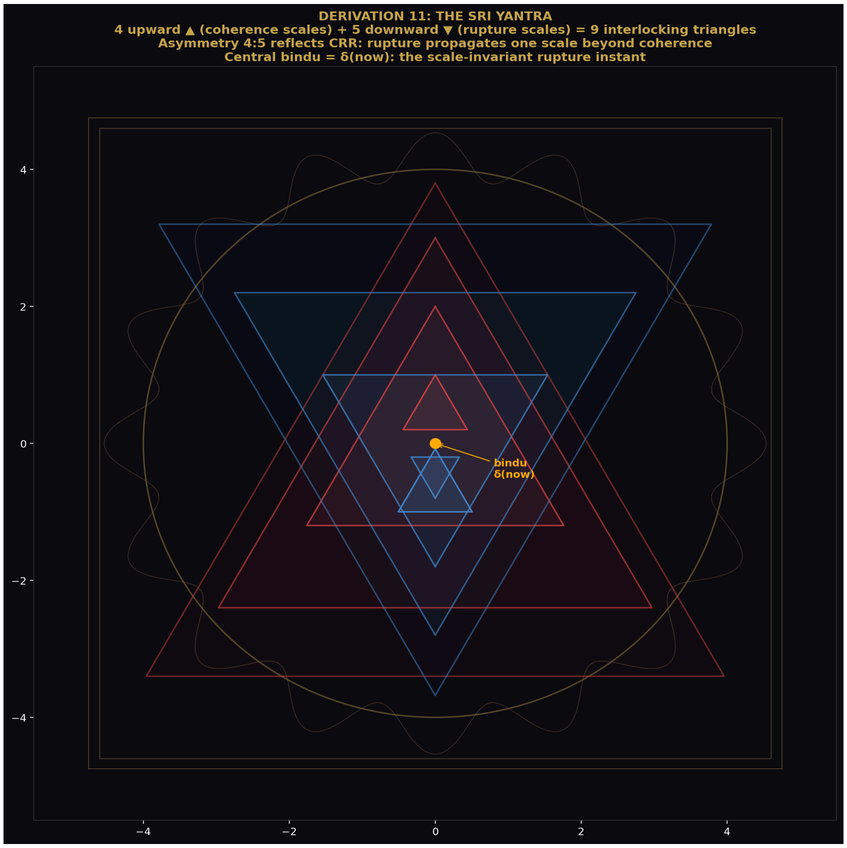

Figure 11. The Sri Yantra: 4 upward triangles (red, coherence scales) + 5 downward triangles (blue, rupture scales) = 9 interlocking triangles. The central bindu represents δ(now). Lotus petals (16 = 2^4, representing 4 Z_2 divisions) and square bhupura frame.

Mathematical Derivation

The Sri Yantra consists of 9 interlocking triangles — 4 pointing upward and 5 pointing downward — creating 43 smaller triangles, enclosed in lotus petals and a square frame.

From CRR, the structure encodes nested coherence–rupture hierarchies:

The **4 upward triangles** represent **coherence at 4 nested CRR scales**. In a physiological system, these might be the sub-cellular, cellular, organ, and organism levels. In any hierarchical system, they are 4 levels of temporal organisation where coherence accumulates upward.

The **5 downward triangles** represent **rupture at 5 nested scales**. There is one more rupture scale than coherence scale because rupture always propagates across an additional scale boundary: when coherence at level n reaches $C \cdot \Omega = 1$ and ruptures, the δ(now) event propagates downward, triggering a cascade that reaches one level below the coherence hierarchy.

The **4:5 asymmetry** is therefore a fundamental CRR prediction, not an arbitrary choice. Coherence is bounded (it saturates at $C \cdot \Omega = 1$), but rupture is unbounded in its propagation depth. The minimum closure for a nested CRR system is 4 coherence + 5 rupture = 9 total.

The **bindu** (central point) is δ(now) itself: the dimensionless, scale-invariant rupture instant where all scales converge. The **16 lotus petals** equal 2^4, representing 4 levels of Z_2 binary division. The **square bhupura** frame represents the $Z_2 \times Z_2$ boundary condition — the 4-fold discrete symmetry that contains the continuous dynamics within.

Derivation 12: Grand Synthesis

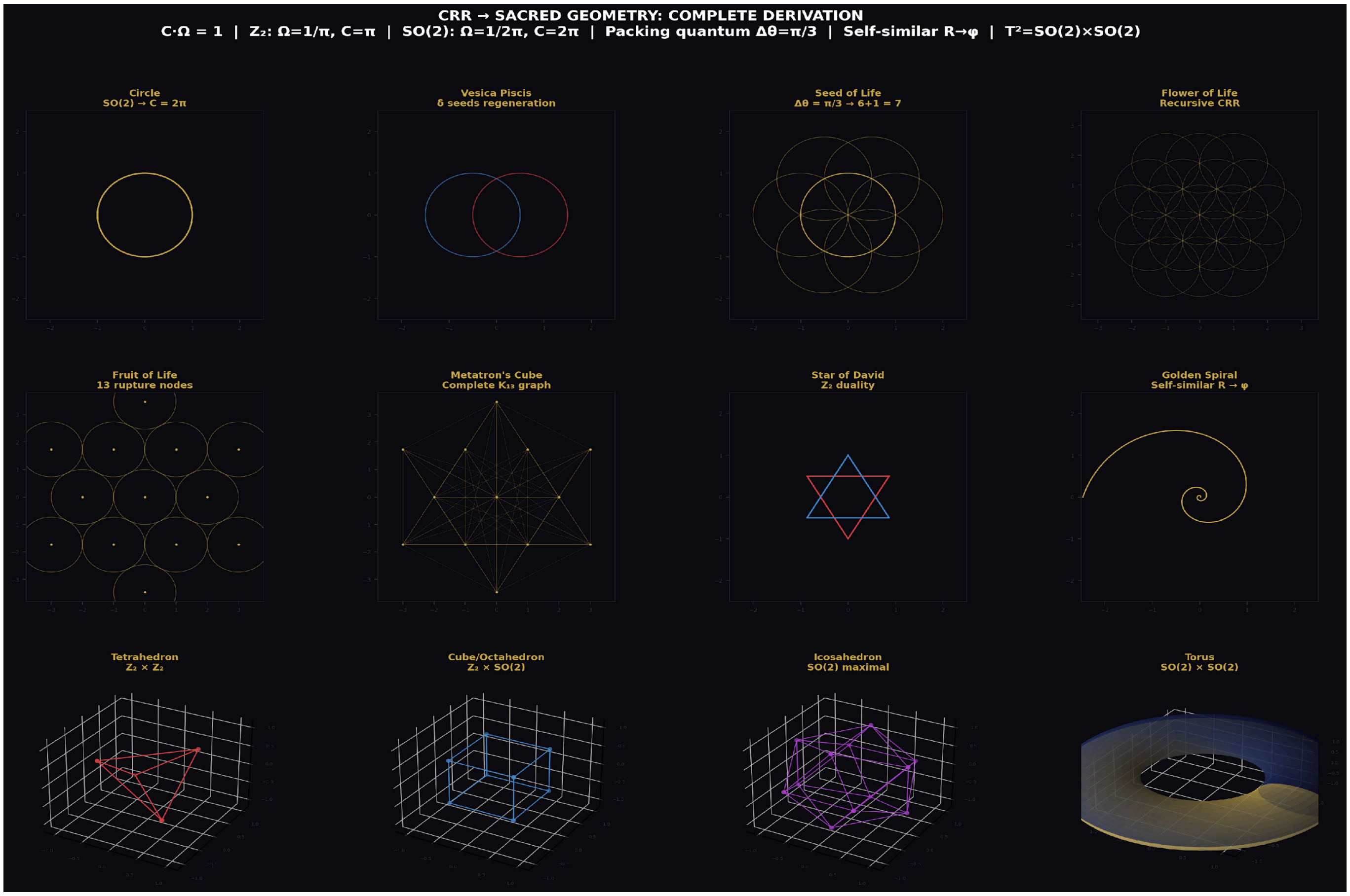

Figure 12. All sacred forms derived from CRR first principles, displayed together. Top row: circle, vesica piscis, seed of life, flower of life. Middle row: fruit of life, Metatron's cube, star of David, golden spiral. Bottom row: tetrahedron, cube/octahedron, icosahedron, torus.

The Complete Derivation Chain

Every sacred geometric form in this manual traces back to a single equation and two variance values. The derivation chain is one of logical necessity — each form is the inevitable consequence of the previous:

$C \cdot \Omega = 1$ produces two symmetry classes. SO(2) with $\Omega = 1/2\pi$ gives $C_{xu\square\square uxe} = 2\pi$, which traces the **circle**. Rupture δ(now) seeds regeneration at distance r, producing the **vesica piscis**. Scale-invariant rupture with equal-radius regeneration forces the packing quantum $\Delta\theta = \pi/3$, giving 6 neighbours + 1 centre = the **Seed of Life**. Recursive CRR yields the **Flower of Life**, whose rupture nodes define the **Fruit of Life** (13 circles). The complete graph on these 13 nodes is **Metatron's Cube**, which contains projections of all **Platonic solids** (because Z_2 and SO(2) exhaust all finite rotation groups). Z_2 duality within the hexagonal packing produces the **Star of David**. Self-similar regeneration (each cycle = sum of two predecessors) gives the **golden spiral** and φ. Two nested SO(2) cycles form the **torus**. And the 4:5 asymmetry of nested coherence–rupture hierarchies generates the **Sri Yantra**.

No geometric form was assumed at any point. No external constants were imported. Every shape, every ratio, every angle emerged from three equations (C, δ, R), two variance values ($\Omega = 1/\pi$ and $1/2\pi$), and one universal condition ($C \cdot \Omega = 1$). The sacred geometry is not sacred because it was revealed by mystical tradition. It is sacred because it is mathematically inevitable — the only possible geometry that a coherent, self-organising universe can produce.

Appendix: CRR Constants and Derived Values

Quantity	Value	CRR Origin
$\Omega(Z_2)$	$1/\pi \approx 0.31831$	Bistable variance
$\Omega(SO(2))$	$1/2\pi \approx 0.15915$	Rotational variance
C_{xu}□(Z_2)	$\pi \approx 3.14159$	$C \cdot \Omega = 1$
C_{xu}□(SO(2))	$2\pi \approx 6.28318$	$C \cdot \Omega = 1$
CV(Z_2)	$1/(2\pi) \approx 0.15915$	Predicted, no free params
CV(SO(2))	$1/(4\pi) \approx 0.07958$	Predicted, no free params
CV ratio	2 (exact)	SO(2)/Z_2 symmetry
Packing quantum $\Delta\theta$	$\pi/3 = 60°$	Equal-radius tangency
Hexagonal packing N	6	$2\pi / (\pi/3)$
Beauty peak C/Ω	≈ 2.14	$dB/d(C/\Omega) = 0$
Golden ratio φ	$(1+\sqrt{5})/2 \approx 1.61803$	Self-similar regeneration
Torus ratio R/r	2	C_{xu}□(SO(2))/C_{xu}□(Z_2)
Sri Yantra triangles	4 up + 5 down = 9	Coherence + rupture scales

Everything from: $C \cdot \Omega = 1$, $\Omega \in \{1/\pi, 1/2\pi\}$, $\delta(now)$, $R = \int \varphi \cdot \exp(C/\Omega) \cdot \Theta \, d\tau$