Master Concept Compression Map

General Organisation Theory | Parts 1–3 | Issue 1 | 25 September 2026

The series moves from physically grounded discrimination and life attribution through finite informational access to the audit of claims and reliance. This map connects those regions while preserving each paper's definitions, thresholds and direction of inheritance.

Control field	Value
Document ID	GOT-V1-MSD01
Authority	Series support consolidation. Canonical definitions remain with the owning Part 1, 2 or 3 paper.
Scope	Part 0 is the storage location only. Part 0 content, essays and TET are outside this canon. The deferred Toolkit contributes no active content.
Source control	Twelve Issue 1 part-level support documents; 21 current technical papers. Current hashes and source paths are recorded in MSD00 and the companion manifest.

Contents Series architecture and ownership • Canonical ownership register • Interfaces across parts • Using the series stack • Canonical paper key • Part 1 physical life and attribution • Part 2a informational architecture • Part 2b knowledge intelligence and observation • Part 3 the epistemic method • Maintenance rule

Source locators identify the original support document, table and data row. T01 is the first top-level table; R01 is its first data row after the header. Local Paper and PB labels retain the scope shown alongside them.

Series architecture and ownership

The sequence is a map of conceptual responsibilities. It is not a universal temporal ladder and does not require every application to make Life, Power or Responsibility claims. Later audit language cannot retroactively supply the conditions missing from an earlier relation.

Region	Canonical home	Series contribution	Boundary
Physical grounding and causal discrimination	GOT-V1-1-1	NMF, TC/NTC, Baseline Dynamics, IPL and DTS ground the life discriminator and later strong causal claims.	NTC does not by itself establish Life, knowledge, observation, Power, or warrant.
Life attribution and audit	GOT-V1-1-2; GOT-V1-1-3	The life relation is attributed to a locus with completion, continuity, primary class, topology and residual controlled.	Complex Chemistry, Life-in-Potential and Life remain Part 1 classes; they are not a universal ladder for later parts.
Finite access and physical availability	GOT-V1-2a-1; 2a-1a	RRP indexes OP, OA, OR, RAS and RSD. The signal path supplies the physical availability conditions.	Difference, signal, registration, retention and redeployment keep distinct burdens; other legitimate information regimes remain valid.
Realism and relational organisation	GOT-V1-2a-1b; 2a-1c	Finite target/model/residual discipline is developed alongside relational index, embodied retention, derived reachability and distributed Relational Form.	Embodiment is not an extra RRP primitive. Relational Form is not a finite model, truth certificate, or single Observer.

Region	Canonical home	Series contribution	Boundary
Knowledge intelligence and observation	GOT-V1-2b-2; 2b-3; 2b-4	Retained distinction, applied distinction and bounded registration have separate facet thresholds and local locus conditions.	Intelligence does not always require durable retention. Record status, producing provenance and present use do not establish truth or warrant.
Abstraction scale and operational performance	GOT-V1-2b-4a; 2b-4b; 2b-4c	Perspective, comparability and the observation-program envelope localise preservation and performance limits.	Determine threshold status before grading descriptors. Registration Fidelity uses RF; write Relational Form in full.
Horizon and unknown discipline	GOT-V1-3a-1; 3a-2	Availability and closure are separated; unresolved relations retain residual, alternatives, action conditions and update.	The Locus Event Horizon, observer horizons, performance horizons and Gödel Horizon are not interchangeable.
Power responsibility and trust	GOT-V1-3b-3; 3b-4; 3b-5	Causal branch potential, attributable consequential contribution and reliance closure retain their own tests.	Power and Responsibility audits are conditional on those claims. Provenance differs from Warrant; trust carriers do not create epistemic standing.
Formalisation governance and integrated audit	GOT-V1-3c-6; 3c-7; 3c-8	Load-bearing claim and reliance paths are made recoverable, governed and audited across the series.	The integrated method preserves local discriminators. Completion, adoption, certification and authority do not supply closure by themselves.

Canonical ownership register

Canonical paper	Title	Controlled region
GOT-V1-1-1	On the Origin of Life	Physical grounding; pancomputation discipline; Trivial Computation; Non-Trivial Computation; Nested Multiscale Framework; evaluation conditions; Baseline Dynamics; Information Processing Locus; Driven Thermodynamic System; life as driven thermodynamic constraint-maintenance supported by IPL-mediated NTC; disciplinary unification across physics, chemistry, and biology; origin of life as the physics-chemistry-life transition.
GOT-V1-1-2	The Identification of Life	Attribution architecture; candidate frame; reference-indexed attribution; informational regime; life-realisation; maintained boundary; Attribution Locus; DTS completion; organisational identity; intrinsic resumability; potential informational throughput; throughput identity; continuity status; death as branch-closure; closure output; post-death constituent reframing; positive exclusion; residual deferral; relationship topology; formal ladder.
GOT-V1-1-3	The Life Attribution Procedure	Diagnostic sequence; reference preflight; candidate framing; life-realisation threshold; Attribution Locus localisation; DTS-completion localisation; identity and continuity determination; primary class assignment or residual deferral; topology assignment; residual inventory and update statement; classification output form; closure output form; audit template; exemplar desktop studies; cross-case findings; guardrails and failure modes.
GOT-V1-2a-1	Relative Reference Points	Reference-indexed informational architecture; Relational Access Principle; RRP and RRP Set; OP, OA, OR, RAS, RSD; local locus discipline; scoped operational information for a locus.

Canonical paper	Title	Controlled region
GOT-V1-2a-1a	From Noise Cometh Signal	Physical pathway of availability; variation, preserved contrast, signal, channel-relative discriminability, Locus Event Horizon, signal/information separation, and ingress into OP.
GOT-V1-2a-1b	Reference-Indexed Realism	Reference-indexed realism; broad bounded-registration bridge use; ontological target, finite model, residual, access scaffold, and discipline of closure.
GOT-V1-2a-1c	Relational Form	Relational index; target and locus as local physical cuts; coupling; embodiment of OA-keyed RAS; derived Relational Reachability; Relational Form and physically supported potential; relational propagation; relation before representation. RRP Set primitives remain owned by Paper 1.
GOT-V1-2b-2	On the Origin of Knowledge	Knowledge as retained distinction; RAS as canonical minimal carrier; TK, KIP, NTK; record-status separated from truth, warrant, objectivity, and justification.
GOT-V1-2b-3	On the Origin of Intelligence	Intelligence as applied distinction; finite branch-space; passive/active information; passive/active intelligence; NTI; provenance, comparator, and locus discipline.
GOT-V1-2b-4	On the Origin of Observation	Observation as bounded registration; OR event; RAS record; Pre-TO, TO, OIP, NTO; observer-locus, Observer, Observer Event Horizon, and record-provenance.
GOT-V1-2b-4a	The Limits of Observation	Cut, abstraction regime, perspective, event-horizon profile, Abstraction Gap, relational uncertainty, and objectivity as disciplined correction.
GOT-V1-2b-4b	The Scale of Observation	Scale as stabilised comparability; magnitude, reference scale, operative scale, measurement, Scale Gap, scalar alignment, and scalar objectivity.
GOT-V1-2b-4c	The Operational Envelope of Observation	Observation program and descriptor layer; OH, CH, RF, OBW, OD, OG, ODr, OL, OCx; threshold/performance separation and failure localisation.
GOT-V1-3a-1	The Gödel Horizon	Horizon grammar: relational availability; availability/closure boundary conditions; Soft Horizon; Gödel Horizon; Procedural Availability Horizon; coupled loci; abstraction boundaries; comparator and stabilisation discipline.
GOT-V1-3a-2	The Discipline of the Unknown	Unknown-statuses; residual; positive exclusion; live formulations; Best Available Formulation; Weighted Residual; action threshold, safeguard, monitoring, stop condition, update, and branch-memory.
GOT-V1-3b-3	On the Origin of Power	Primitive Power as IPL-indexed distinction-conditioned branch potential; Counterfactual Inclusion Field; potential/application/consequence separation; Counterfactual Exclusion; thermodynamic grounding.
GOT-V1-3b-4	On the Origin of Responsibility	Primitive Responsibility as locus-indexed attribution; Responsibility Provenance; distributed and temporal provenance; Responsibility Gradient; Immediate-Frame Principle; Responsibility Warrant.
GOT-V1-3b-5	On the Origin of Trust	Trust as reliance closure under residual; primitive audit; branch-space economy; trust thresholds; vicarious trust; Epistemic Authority and the minimum Structural Authority distinction (§8); trust carriers; laundering; betrayal, repair, and formalisation handoff.
GOT-V1-3c-6	The Case for Formalisation	Load-bearing language; recoverable authority; distinct epistemic grounding and structural authorisation (§1); epistemic debt; institutions and machines; formalisation as preservation; auditable claim packet; proportional formalisation; retrospective review.

Canonical paper	Title	Controlled region
GOT-V1-3c-7	The Constitutional Governance of Formalisation	Governance of formalisation; constitutional/technical/application levels; application of Epistemic Authority inherited from 3b-5; custodial and operational applications of Structural Authority (§6); amendment, forks, certification, and capture controls.
GOT-V1-3c-8	The Epistemic Method	Integrated relational audit of claim-strength and reliance-strength; indexed relation; claim and reliance paths; comparator, residual, reliance limit; preferential reliance and carrier-path preservation (§6); conditional Power/Responsibility audits; method-compliance is not closure.

Interfaces across parts

Control	Interface	Preserved condition	Source basis
MI01	Part 1 to Parts 2 and 3	Inherit NTC, BD, IPL and physical grounding where the claim requires them. Keep life-attribution classes local.	P1-SD01 T06; P2-SD03 T09; P3-SD02 T09
MI02	Part 2a to Part 2b	Earn retention, application and observation status in the owning facet. Signal, residue, Form or reachability does not bypass the discriminator.	P2-SD01 T22; P2-SD03 T06, T13
MI03	Within Part 2b	Separate a diagnostic order from a universal temporal prerequisite. Durable retention is not required for every intelligence episode.	P2-SD03 T13 R77; GOT-V1-2b-3 heading 3.3
MI04	Part 2 to Part 3	Carry finite access, target constraint, scale and residual forward. Do not rewrite earlier statuses through later closure or unknown-handling vocabulary.	P3-SD01 section 5; P3-SD03 T06
MI05	Across horizon vocabularies	Index ingress, observer-record access, reliable program reach, intervention reach, procedural availability and closure separately.	P2-SD03 T13; P3-SD03 T07
MI06	Across loci and carriers	Identify producing, applying, attributing, observing and relying loci. A carrier does not transport completed meaning, warranted status or causal provenance automatically.	P2-SD03 T06, T13; P3-SD03 T09, T10
MI07	Power and Responsibility	Recover physically supported, distinction-conditioned branch potential and attributable consequential contribution only where those claims are made.	P3-SD03 T08, T09, T13
MI08	Trust authority and governance	Epistemic Authority and the minimum Structural Authority distinction remain owned by 3b-5 section 8. Governance applies them; recognition or mandate does not establish epistemic strength.	P3-SD02 T07, T08; P3-SD03 T10, T12
MI09	Across residual and action	Keep the missing relation, blocked stronger claim and update condition local. Acting or relying under residual does not resolve it.	P1-SD02 T08; P2-SD02 T07, T20; P3-SD02 T06
MI10	Bibliographic consolidation	Merge publication identity only. Preserve local relation, maturity, locator, inheritance value, hold and residual separately.	P1-SD04 section 1; P2-SD04 sections 1 and 5; P3-SD04 section 9
MI11	Canon and source identity	Use Parts 1–3 only. Part 0, essays, TET and the deferred Toolkit remain outside the active conceptual source set.	Master scope control; P3-SD01 section 10 exclusion status

Control	Interface	Preserved condition	Source basis
MI12	Method integration	The Epistemic Method audits claim and reliance strength while retaining earlier local tests; a completed packet or compliant process does not earn closure.	P3-SD01 section 5; P3-SD03 T11, T13

Using the series stack

Step	Question and route	Required boundary
1	State the target relation, evaluated locus, reference conditions and claim strength. Use MSD02 for scoped terms.	Do not select a familiar object name or later label as a substitute for the relation.
2	Locate the canonical owner in the register above and follow its discriminator.	Life attribution uses Part 1; knowledge, intelligence and observation use their Part 2 facets.
3	Recover upstream conditions needed for that claim, including comparator and physical grounding where applicable.	A conceptual handoff does not transport earned status automatically between loci.
4	Localise unresolved conditions, alternatives, positive exclusions and update. Apply Part 3 closure discipline where engaged.	Residual stays tied to the missing relation and the stronger claim it blocks.
5	Where reliance occurs, recover its carrier, closure demand, threshold, limits, safeguards and update.	Power and Responsibility branches activate only for those claims; preferential reliance needs demonstrated advantage.
6	Make load-bearing paths recoverable, check MSD03 and preserve local bibliographic relations through MSD04.	Formal completion and source recurrence do not establish truth, warrant or closure.

Canonical paper key

Local scope	Local label	Canonical identifier
Part 1	Paper 1 / Paper 2 / Paper 3	GOT-V1-1-1 / GOT-V1-1-2 / GOT-V1-1-3
Part 2a	Paper 1 / 1a / 1b / 1c	GOT-V1-2a-1 / 2a-1a / 2a-1b / 2a-1c
Part 2b	Paper 2 / 3 / 4 / 4a / 4b / 4c	GOT-V1-2b-2 / 2b-3 / 2b-4 / 2b-4a / 2b-4b / 2b-4c
Part 3	3a-1 through 3c-8	Prefix the local key with GOT-V1-; retain the full 3a, 3b or 3c section key.

Inherited Part 1 means Part 1 ownership even when the row is used in Part 2 or Part 3. A bridge, handoff or inherited entry does not create a new canonical home. MSD00 maps P1-SD01 through P3-SD04 to exact input filenames.

Part 1 physical life and attribution

Local support text from P1-SD01. Paper numbers and internal references in this section retain this part or subpart scope. Source section headings are retained as locators in the source document.

Part compression in one sentence

Part 1 defines life as driven thermodynamic constraint-maintenance supported by IPL-mediated Non-Trivial Computation, then supplies the attribution architecture and diagnostic procedure required to determine which informational regime, Attribution Locus, DTS-completion relation, continuity status, primary class, topology, positive exclusion, residual, and update condition are warranted in contested life cases.

Core compression

Paper 1 begins by disciplining computation. If every lawful physical process can be computationally redescribed, computation alone cannot identify life. The Part therefore separates Trivial Computation, as redescribable lawful evolution under an encoding, from Non-Trivial Computation, as organisation-dependent, counterfactually testable downstream outcome dependence on discriminable distinctions under specified reference conditions and comparator discipline.

The physical grounding is supplied by the Nested Multiscale Framework. It moves from microphysical admissibility through boundary conditions, thermodynamic state spaces, thermodynamic information, emergent boundary conditions, constrained and driven thermodynamic regimes, channel-relative discriminability, and finally NTC. Each layer adds a stable descriptive regime where constraints and distinctions remain physically supported; it does not add a new ontology.

Baseline Dynamics and Information Processing Locus make NTC testable and localisable. BD is an intervention-defined comparator family preserving relevant context while disabling the proposed mediating organisation. IPL identifies the organisation whose integrity is required for downstream outcome dependence on the relevant distinction.

Life is stricter than NTC. In compressed form, life is a driven thermodynamic organisation whose horizon-relative constraint-maintenance depends on IPL-mediated NTC. The origin-of-life threshold is therefore not the first appearance of information, chemistry, complexity, replication, or metabolism. It is the emergent transition where chemical organisation becomes audit-incomplete without the discriminator question: do physically supported distinctions maintain the driven regime that carries them?

Paper 2 separates the life threshold from life attribution. A life condition may occur inside a frame without the frame itself being the living locus. Attribution therefore identifies the informational regime, maintained boundary, Attribution Locus, DTS-completion relation, identity-bearing throughput, continuity status, formal class, topology, positive exclusion, and residual deferral.

The primary ladder is three-class: Complex Chemistry, Life-in-Potential, Life. Death is not a fourth primary class. It is recorded through closure output as closed continuity of a formerly living target locus. Reconstruction and incorporation are cross-locus descriptors. Topology follows attribution; it does not decide it.

Paper 3 converts the canon into a repeatable audit sequence. It preserves reference conditions before classification, candidate frame before verdict, life-realisation before class, Attribution Locus before completion, completion before continuity, continuity before primary class, class before topology, and residual plus update condition wherever a discriminator condition remains incomplete.

Primary sequence and canonical ownership map

The primary sequence is fixed. The three papers are canonical papers in the Part 1 life sequence. They are not appendices to the old full-series project and should not be reordered by later support documents.

P1-SD01 T05 | P1 local scope | 3 source records retained in order

Sequence	Primary paper	Role	Canonical ownership
Paper 1	On The Origin of Life	Physical grounding and life discriminator.	NMF; TC/NTC distinction; reference conditions; readout and temporal framing; Baseline Dynamics; IPL; DTS; life as driven thermodynamic constraint-maintenance supported by IPL-mediated NTC; physics-chemistry-life transition.
Paper 2	The Identification of Life	Attribution architecture.	Candidate frame; informational regime; life-realisation; maintained boundary; Attribution Locus; DTS completion; identity and continuity; potential throughput; throughput identity; closure/death; formal ladder; topology; positive exclusion and residual deferral.
Paper 3	The Life Attribution Procedure	Diagnostic procedure and edge-case audit system.	Reference preflight; candidate framing; life-realisation threshold; Attribution Locus localisation; DTS-completion localisation; continuity determination; primary class assignment or residual deferral; topology; residual inventory; output grammar; audit template; exemplar desktop studies; guardrails.

Canonical ownership register

P1-SD01 T06 | P1 local scope | 9 source records retained in order

Architecture region	Canonical home	Use in support documents
Physical grounding	Paper 1	Use Paper 1 for NMF layers, evaluation conditions, TC, NTC, BD, IPL, DTS, and the physical life discriminator.
Life threshold	Paper 1	Use Paper 1 for the relation that earns the term Life: driven thermodynamic constraint-maintenance supported by IPL-mediated NTC.
Physics-chemistry-life transition	Paper 1	Use Paper 1 for the emergent-regime framing: physical inheritance is continuous, but life-status requires an additional discriminator beyond chemistry alone.
Attribution architecture	Paper 2	Use Paper 2 for where, when, and for which Attribution Locus the inherited life relation is realised, intrinsically resumable, extrinsically completable, closed, positively excluded, or deferred to residual.
Primary ladder	Paper 2	Use Paper 2 for Complex Chemistry, Life-in-Potential, and Life. Death remains closure output / continuity status, not a fourth class.

Architecture region	Canonical home	Use in support documents
Continuity architecture	Paper 2	Use Paper 2 for organisational identity, intrinsic resumability, potential informational throughput, throughput identity, terminal active Life, closure, reconstruction, and incorporation.
Relationship topology	Paper 2	Use Paper 2 for nested, resource-dependent, scaffolded, constitutively dependent, coupled, higher-order, fragmented, parasitic, mutualistic, incorporated, reconstructed, artificial, and hybrid relations.
Diagnostic procedure	Paper 3	Use Paper 3 for the ordered audit sequence, classification output form, closure output form, strength markers, residual inventory, and update conditions.
Edge-case discipline	Paper 3	Use Paper 3 for exemplar desktop studies, cross-case findings, and guardrails.

Concept stack

The Part should be read as a layered discriminator architecture. Each layer constrains the next. Support documents may compress the layers, but must not treat later layers as independent primitives.

P1-SD01 T07 | P1 local scope | 14 source records retained in order

Layer	Function	Core concepts	Guardrail
1. Lawful physical evolution	Prevents computation from becoming an unrestricted life criterion.	Pancomputation; lawful state evolution; Trivial Computation.	Computational redescription is not life.
2. Physical grounding	Grounds distinction and computation in physical regimes.	KMB; BC; TSS; thermodynamic information; EBC; CTSS; CTS; DTSS; DTS; SIT; supported alphabet; tokenisation.	Do not detach information from physical support, boundary, scale, horizon, and noise conditions.
3. Non-Trivial Computation	Supplies physically enacted discrimination.	NTC; discriminable distinction; downstream outcome class; counterfactual dependence; organisation mediation.	NTC is not any state transition and not arbitrary external encoding.
4. Comparator and localisation discipline	Makes NTC testable and localisable.	Baseline Dynamics; BD comparator family; Information Processing Locus; ablation; scrambling; neutralisation; reset; bypass control.	BD is not nothing; IPL is not consciousness, central cognition, or the Attribution Locus by default.
5. Life discriminator	Adds self-maintaining driven constraint regime.	Driven thermodynamic constraint-maintenance; IPL-mediated NTC; counterfactual order advantage; Living System.	Life is stricter than NTC, complexity, metabolism, reproduction, feedback, persistence, adaptation, or familiarity alone.

Layer	Function	Core concepts	Guardrail
6. Physics-chemistry-life transition	Locates the origin question as an emergent-regime transition.	Physical inheritance; chemical audit; audit-incomplete chemistry; discriminator question; life-status attribution.	Life does not leave physics or chemistry, but chemistry alone does not audit life-status once distinction-conditioned maintenance is at issue.
7. Attribution frame	Makes life claims evaluable.	Candidate frame; reference-indexed attribution; frame correction; threshold versus attribution; positive exclusion.	The first named object is not necessarily the living locus.
8. Informational regime	Names the continuity-bearing object of attribution.	Informational regime; realised throughput; intrinsic resumability; potential throughput; closed throughput.	Information is not mere describable difference or externally readable content.
9. Maintained boundary and Attribution Locus	Locates whose regime is being attributed.	Maintained boundary; Attribution Locus; functional sublocus; nested locus; distributed locus.	Containment, boundary, and functional necessity do not automatically establish identity or class.
10. DTS-completion relation	Locates where life-realising or potential completion occurs.	Resource dependence; scaffolded support; constitutive dependence; host completion; coupled completion; higher-order locus; no further same-locus DTS completion after closure.	Dependence is an attribution variable, not a verdict.
11. Identity and continuity	Determines which future branches remain attributable.	Organisational identity; intrinsic resumability; continuity-preserving suspension; throughput identity; lineage identity; terminal active Life; closure; reconstruction; incorporation.	Dormancy is not Life-in-Potential; terminal active Life is not death; reconstruction is not survival.
12. Primary ladder and closure route	Assigns regime status after threshold, locus, completion, and continuity have been disciplined.	Complex Chemistry; Life-in-Potential; Life; closure output; primary-class deferral.	Death, reconstruction, incorporation, topology, and uncertainty are not primary classes.
13. Relationship topology	Describes relations among attributed loci.	Parasitism; symbiosis; mutualism; integration; merger; higher-order loci; fragmentation; artificial/hybrid systems; incorporated-material; reconstruction-material.	Topology follows attribution; it does not replace class.
14. Procedure, residual, and update	Converts canon into repeatable audit sequence without false precision.	Reference preflight; Stage 0-8 procedure; standard output; closure output; residual inventory; update condition; strength marker.	Where discriminator conditions are incomplete, state local residual; do not create hidden classes.

Dependency spine

1. Lawful physical evolution can be computationally redescribed, so computational description alone is too weak to define life.

2. Trivial Computation names redescribability under an encoding.

3. Non-Trivial Computation names physically enacted discrimination: organisation-dependent downstream outcome dependence on discriminable distinctions.

4. NTC requires reference conditions: boundary, scale, operational horizon, discrimination/noise regime, driving, component inventory, and comparator family.

5. The Nested Multiscale Framework grounds distinction, information, constraint, and computation in layered physical regimes.

6. Baseline Dynamics tests whether the claimed distinction-conditioned organisation does real work rather than being a redescription.

7. Information Processing Locus localises the organisation whose integrity is required for downstream dependence on the distinction.

8. Life adds a stricter condition: IPL-mediated NTC must support maintenance of a driven constraint-bearing regime over the relevant horizon.

9. The origin-of-life threshold is the physics-chemistry-life transition: chemistry remains physically inherited and necessary, but becomes audit-incomplete unless distinction-conditioned regime maintenance is assessed.

10. The Paper 1 life definition establishes the threshold relation; it does not identify the correct living locus in every case.

11. Attribution begins with candidate framing and reference-indexed evaluation.

12. Life-realisation asks whether the Paper 1 life relation occurs within the frame.

13. Attribution Locus localisation asks whose regime carries the realised, intrinsically resumable, potential, closed, reconstructed, incorporated, positively excluded, or residual-bearing relation.

14. DTS-completion localisation distinguishes intrinsic or resource-dependent completion, scaffolded support, constitutive dependence, host completion, coupled completion, and no further same-locus DTS completion after closure.

15. Identity and continuity determine whether future branch-realisation is active, dormant, terminal active, potential, closed, reconstructed, incorporated, positively excluded, or uncertain with residual.

16. The primary ladder assigns Complex Chemistry, Life-in-Potential, or Life only after threshold, locus, completion, and continuity have been disciplined.

17. Death is handled through closure output for a formerly living target locus; it does not classify every constituent.

18. Relationship topology describes relations among already-attributed regimes.

19. The Life Attribution Procedure operationalises this dependency chain for contested cases.

20. Residual must be inventoried wherever closure or class assignment is not warranted; every residual requires an update condition.

Paper by paper compression

Paper 1 On The Origin of Life

Paper 1 establishes the physical life discriminator. It begins with the problem of pancomputation: if all lawful physical processes can be computationally described, computation cannot itself explain the transition from chemistry to life.

The paper separates Trivial Computation from Non-Trivial Computation. TC is lawful state evolution redescribable under a chosen encoding. NTC is physically enacted discrimination: organisation-dependent downstream outcome dependence on discriminable distinctions under specified reference conditions and comparator discipline.

The Nested Multiscale Framework grounds this distinction from Kinematic Microstate Baseline through boundary conditions, thermodynamic state spaces, thermodynamic information, emergent boundary conditions, constrained and driven thermodynamic regimes, Shannon-style discriminability, supported alphabets, tokenisation, and NTC. Higher layers are constrained regimes, not new substances.

Baseline Dynamics provides comparator discipline; IPL provides localisation discipline. Together they separate lawful dynamics from physically enacted distinction-conditioned outcome selection.

Life is defined as a Driven Thermodynamic System containing an Information Processing Locus whose Non-Trivial Computation supports maintenance of constraint-structured order over the relevant operational horizon, yielding a counterfactual order advantage over Baseline Dynamics under comparable driving and boundary conditions.

The finalised paper frames the origin-of-life question as a physics-chemistry-life transition. Chemistry can carry distinctions, structures, catalysis, templating, gradients, copying, inhibition, amplification, and degradation before life. Life begins where chemical organisation enters the stricter emergent regime in which physically supported distinctions are made operative in maintaining the driven constraint-bearing regime that carries them.

Paper 2 The Identification of Life

Paper 2 establishes the attribution architecture required after the life discriminator has been defined. Its central move is from matter-state barriers to informational regime identification. The question is not which familiar object resembles life, but which informational regime carries realised, intrinsically resumable, potential, closed, reconstructed, incorporated, positively excluded, or residual-bearing throughput.

The paper separates definition from attribution. Definition asks what physical relation earns the term Life. Attribution asks where, when, and for which Attribution Locus that relation is realised, intrinsically resumable, extrinsically completable, closed, positively excluded, or deferred to residual.

The Attribution Locus is the operational unit to which the life-relevant regime relation is attributed. It is not automatically the visible container, the largest enclosing object, the smallest component, the familiar biological noun, the genome, or the lineage. IPL and Attribution Locus may coincide in simple cases but diverge in nested, host-completed, scaffolded, distributed, post-death, and residual-bearing cases.

The formal ladder is Complex Chemistry, Life-in-Potential, Life. Life-in-Potential is narrow: it is identity-bearing potential informational throughput into admissible extrinsic life-realising completion, not weak life or generic potential. Death is closure of future branch-realisation for a formerly living target locus and is handled outside the primary ladder through closure output. Reconstruction and incorporation are cross-locus descriptors.

The paper also fixes residual deferral and positive exclusion: where a tested relation is not warranted, the output must state whether it is positively excluded under the stated reference conditions or deferred to residual with an update condition.

Paper 3 The Life Attribution Procedure

Paper 3 turns the definition and attribution architecture into a repeatable diagnostic procedure. It does not introduce a new life theory. It preserves the order of dependence when familiar names, material boundaries, activity levels, dependence relations, lineage histories, and incomplete evidence would otherwise force premature verdicts.

The procedure runs Stage 0 through Stage 8: reference preflight; candidate framing; life-realisation threshold; Attribution Locus localisation; DTS-completion localisation; identity and continuity determination; primary class assignment or residual deferral; topology and relationship assignment; residual and update statement.

The standard output separates primary class or residual deferral, continuity status, attributed locus, DTS-completion relation, topology or relationship modifier, and residual. Closure output is a separate route for target-locus death and triggers constituent reframing.

The finalised procedure formalises residual inventory. Residual may concern candidate frame, reference conditions, threshold, operative distinction, comparator, Attribution Locus, DTS completion, continuity, throughput identity, closure, topology, or constituent audit. A field may be uncertain, a relation may be positively excluded, or a classification may be warranted with residual; these are different outputs.

The exemplar desktop studies demonstrate that container, activity level, dependence, replication, biological material, death, topology, and uncertainty do not decide life-status by themselves. The procedure allows gradients between chemistry and life without losing thresholds.

Operational use sequence

Use this sequence when a support document, edge-case audit, application template, or later Part 1 derivative needs to classify a candidate. The sequence is a disciplined order of dependence, not a trait checklist.

P1-SD01 T08 | P1 local scope | 9 source records retained in order

Stage	Question	Required output	Main collapse prevented
0. Reference preflight	What boundary, scale, horizon, interface, driving, discrimination/noise regime, comparator assumptions, and continuity question are in force?	Reference-indexed frame conditions.	Scale drift; hidden comparator weakness.
1. Candidate framing	What object, subsystem, process, remnant, relation, or coupled organisation is under evaluation?	Candidate frame and expected correction route.	First-noun verdict; container capture.
2. Life-realisation threshold	Does driven constraint-bearing organisation use operative distinctions in regime maintenance, redirection, resumption, transformation, or completion?	Life-realisation present, not present, positively excluded, or threshold residual.	Complexity/metabolism/reproduction/activity as sufficient evidence.
3. Attribution Locus localisation	Whose regime relation is being attributed?	Attribution Locus, split locus, coupled locus, target locus, or locus residual.	Life inside a frame mistaken for Life of the frame.
4. DTS-completion localisation	Where is the regime actually performed, intrinsically resumable, or extrinsically completable?	Intrinsic/resource-dependent, scaffolded, constitutive, host-completed, coupled, no further same-locus completion, or residual.	Dependence as automatic non-life or automatic unity.
5. Identity and continuity	Which future branches remain attributable to the candidate relation?	Active, dormant, terminal active, potential, closed, reconstruction/incorporation descriptor, positive exclusion, or residual.	Dormancy-potential confusion; terminal-life/death confusion.
6. Primary class or deferral	Does the disciplined relation warrant Complex Chemistry, Life-in-Potential, or Life?	Primary class, or primary-class field withheld with residual deferral.	Death as fourth class; unresolved as hidden class; false precision.
7. Topology and relationship	How do already-attributed loci relate?	Topology or relationship modifier where warranted.	Parasitism, symbiosis, organelle status, scaffold, or artificial support as verdict.
8. Residual and update	What discriminator condition remains incomplete, and what would change the attribution?	Local residual inventory item plus update condition.	Residual laundering; false equivalence; vague uncertainty.

Stable output grammar

P1-SD01 T09 | P1 local scope | 4 source records retained in order

Output route	Form	Use rule
Standard attribution output	Primary class or residual deferral / continuity status / attributed locus / DTS-completion relation / topology or relationship modifier / residual.	Use for Complex Chemistry, Life-in-Potential, Life, and primary-class deferral cases.
Closure output	Closure output / closed continuity / formerly living target locus / no further same-locus DTS completion / remnant or fragmentation topology / residual and constituent-audit requirement.	Use only where future branch-realisation for a formerly living target locus as that locus has closed.
Positive exclusion statement	[Relation] positively excluded under stated reference conditions.	Use where available evidence warrants a negative result; do not soften negative findings into vague uncertainty.
Uncertain field with residual	[field]: uncertain - carried in residual / missing condition: [specific discriminator condition] / update condition: [what would change the audit].	Use where the field cannot be assigned without overstatement. Uncertain is not a class, continuity status, or topology value.

Residual inventory compression

P1-SD01 T10 | P1 local scope | 12 source records retained in order

Residual type	Missing condition
Candidate-frame residual	Correct candidate frame, scale, boundary, or operational horizon remains unclear.
Reference-condition residual	Boundary, interface, driving, discrimination/noise, comparator assumptions, or continuity question are insufficiently specified.
Threshold residual	Convergence of driven constraint-bearing regime, operative distinction, and maintenance relevance remains incomplete.
Operative-distinction residual	Possible distinction exists, but organisation-dependent downstream role is not localised strongly enough.
Comparator residual	Relevant BD family cannot yet be specified, constructed, or interpreted strongly enough.
Attribution-locus residual	Life-realisation, resumability, potential throughput, closure, reconstruction, incorporation, remnant status, or non-identity-bearing chemistry cannot yet be assigned to the correct bearer.
DTS-completion residual	Completion relation is uncertain: intrinsic, resource-dependent, scaffolded, constitutive, host-completed, coupled, not candidate-attributable, or not established.
Continuity residual	Active, dormant, terminal active, potential, or closed continuity cannot be assigned without overstatement.
Throughput-identity residual	Potential informational throughput may be preserved, but identity relation into admissible completion is not established.
Closure residual	Target-locus branch closure is possible but not warranted, or target-locus closure is warranted while constituent status remains unaudited.

Residual type	Missing condition
Topology residual	Relation among already-attributed loci remains uncertain.
Constituent-audit residual	A broad target locus has closed, but remaining cells, microbes, viral candidates, tissues, records, chemistry, incorporated material, or reconstruction material require renewed framing.

Control interfaces

P1-SD01 T11 | P1 local scope | 6 source records retained in order

Support document	Permitted use of this map	Must not do
Master Contents List	Use for order, ownership, support-stack hierarchy, naming, version, and release-control alignment.	Must not import this map as a new canonical source of technical definitions.
Series Master Glossary	Use for controlled vocabulary scope, canonical homes, and misuse guardrails.	Must not define terms from compression shorthand where the primary paper gives a fuller technical definition.
Guardrail and Failure-Mode Register	Use for dependency order, collapse modes, and residual-control targets.	Must not add failure modes that contradict the primary ladder, closure output, or residual inventory.
Life Attribution Checklist	Use Stage 0-8 sequence and output grammar as worksheet backbone.	Must not reduce the procedure to a mechanical trait checklist.
Concept Dependency Graph	Use the dependency spine and concept stack as graph nodes and inheritance paths.	Must not imply causal hierarchy where conceptual dependency is meant.
Application Template	Use output fields, residual inventory, and update-condition language for case applications.	Must not export Part 1 terms without source lock, reference conditions, comparator discipline, and residual statement.

Part 2a informational architecture

Local support text from P2-SD01. Paper numbers and internal references in this section retain this part or subpart scope. Source section headings are retained as locators in the source document.

Part compression in one sentence

Part 2a grounds finite, target-constrained, residual-bearing access in physically preserved contrast and RRP-indexed distinction, then shows how OA-keyed retention embodies relation, reshapes what a locus can reach, and participates in distributed Relational Form within a wider physical relational index without giving any locus possession of the whole.

Core compression

Paper 1 begins by disciplining RRP-indexed operational information for a locus. A physical difference does not establish that status merely because it exists, persists, can be described, or can be interpreted by an external observer. The same state may already be informational under a legitimate thermodynamic, statistical, physical, Shannon, or other regime. For the evaluated locus, informational status becomes established only where

difference is relationally available as operational distinction under reference conditions that make availability, classing, registration, retention, and possible redeployment well-posed.

The central architecture is the RRP Set. RRP fixes the reference node. OP supplies available contrast. OA classes available contrast. OR registers one classed alternative into state. RAS retains the registered distinction. RSD redeploys retained distinction into later branch-realisation. These elements do not add a new ontology; they name the operational relay through which finite loci become answerable to reality through relation.

The governing access principle is realist but bounded: reality is not created by the locus, and reality is not possessed whole by the locus. A finite locus encounters reality through boundary, interface, channel, threshold, scale, discrimination regime, abstraction, registration, retention, and possible redeployment. The relation is relative. The constraint is real.

Paper 1a grounds the physical path into the architecture. Interaction produces physical variation. Variation may persist locally, propagate, or leave a physical residue, but persistence, propagation, and residue are physical properties rather than informational stages. Variation becomes signal-bearing only where contrast is preserved through a medium under possible discrimination conditions. Signal-bearing contrast may become channel-discriminable where channel, alphabet, noise, and receiver or locus conditions are satisfied. It becomes RRP-indexed operational information for the evaluated locus only where it is available as distinction under the relevant RRP conditions.

Signal is therefore neither primitive RRP-indexed information nor mere variation. It is physical variation preserved as contrast through a medium under conditions in which discrimination may become possible. A Shannon channel may already support a valid channel-relative informational description; RRP asks the further question of operational availability for the locus under evaluation. Signal alone is weaker than RAS because retention has not been shown and weaker than NTC because comparator-stable downstream dependence has not been established.

Paper 1a also names the Locus Event Horizon: the ingress-boundary beyond which external difference cannot become signal-bearing contrast capable of entering OP for the locus under the present regime. This is not an edge of reality, an epistemic excuse, or a performance descriptor. It is the access boundary of possible incoming relation for a finite locus.

Paper 1b draws the realism-facing consequence. Unindexed realism is unstable because the real depends on contrast with the unreal while the unreal returns as experience, fiction, possibility, absence, institution, model, norm, error condition, or political force. The question is not simply whether something is real. It is real as what, for what locus, through what access relation, at what scale, over what horizon, under what comparator, and with what residual.

Reference-indexed realism holds that realism claims are finite models of ontological targets formed through the RRP scaffold. The target constrains what can be preserved. The observer constricts what can be accessed, classed, registered, retained, and redeployed. The RRP scaffold couples them. The model approximates the target without exhausting it. The residual prevents premature closure.

Paper 1c makes the physical account explicit. The relational index is the wider physical depth and extension of relation, not a reference coordinate or an inventory possessed by a locus. Target and locus are local cuts within that index. Their inherited histories constrain coupling, and the coupling itself produces new relation (Paper 1c, headings 1.1-2.2).

Abstraction makes finite grounding possible. OP supplies contrast; OA classes it; OR selects an alternative into state; RAS retains the OA-keyed distinction. Embodiment describes the physical significance already entailed by such retention. It is neither another status nor an additional condition after RAS, and ordinary physical residue remains insufficient without the local OP/OA/OR/retention relation (Paper 1c, heading 2.3).

Relational Reachability is the derived, reference-conditioned capacity of a locus, given its present organisation and available scaffolding, to stabilise a target-relative relation immediately or through physically supported intermediate relations. It concerns formation, whereas the Locus Event Horizon concerns ingress. A carrier can be encountered and registered while a higher-order relation remains unreachable under the present regime (Paper 1c, heading 2.4).

Relational Form is the sum total of distributed relations tracking the same physically grounded distinction, including physically organised potential for later instances. It may be concentrated or diffuse across targets, loci, substrates, and time. It is not the whole relational index, a complete finite model, an immutable ideal template, or a distributed Observer by default. Target-related error can be physically retained without becoming a true property of the target (Paper 1c, headings 3.1-4.3 and 7.1).

Relational propagation preserves causal provenance and sufficient target-relevant constraint through changing carriers; it does not transport a completed meaning intact. A receiving locus must support its own coupling, classing, registration, and any claimed retention or redeployment. Representation is a later standing-for relation and may fail even where the carrier is present. Residual includes uncertain provenance and unestablished reachability as well as unpreserved target structure (Paper 1c, headings 4.1-5.3).

Part 2a supplies the conceptual introduction and physical grounding for Part 2. Its support compression must preserve the distinctions among primitive operations, physical embodiment, derived reachability, distributed Form, finite model, and residual. None creates a shortcut to the knowledge, intelligence, or technical observation statuses owned by Part 2b.

Canonical sequence and ownership map

The Part 2a reading sequence is Paper 1 followed by its attached extensions 1a, 1b, and 1c. All four are canonical sources for this support region; the extensions are not new primary-paper numbers and are not appendices to Part 2b.

P2-SD01 T04 | P2a local scope | 4 source records retained in order

Sequence	Canonical paper	Role	Canonical ownership
Paper 1	Relative Reference Points	Installs informational architecture.	Relational Access Principle; information for a locus as physical difference made relationally available as operational distinction; RRP as reference node; OP, OA, OR, RAS, RSD; local locus discipline; branch-realisation; scoped relation to thermodynamic, statistical, physical, Shannon, and other informational regimes.
Paper 1a	From Noise Cometh Signal	Grounds the physical pathway into the architecture.	Interaction; physical and dissipative variation; persistence and propagation as physical properties; preserved contrast; signal-bearing contrast; channel-discriminability; signal path; medium; noise; thermodynamic and Shannon placement; Locus Event Horizon; ingress into OP.
Paper 1b	Reference-Indexed Realism	Draws the realism-facing consequence.	Instability of unindexed realism; substrate difference before observation; access scaffold; ontological target; finite model; broad observation as bounded registration; residual; closure discipline; target-constrained but target-incomplete reality-claim.

Sequence	Canonical paper	Role	Canonical ownership
Paper 1c	Relational Form	Makes physical instantiation and derived relational organisation explicit.	Relational index; target and locus as local physical cuts; coupling; embodiment of OA-keyed RAS; derived Relational Reachability; Relational Form and physically supported potential; relational propagation; relation before representation. RRP Set primitives remain owned by Paper 1.

Canonical ownership register
P2-SD01 T05 | P2a local scope | 19 source records retained in order

Architecture region	Canonical home	Use in support documents
Informational threshold	Paper 1	Use Paper 1 for the scoped claim that information for a locus is physical difference made relationally available as operational distinction, not difference alone; do not revoke other legitimate informational regimes.
Relational Access Principle	Paper 1	Use Paper 1 for finite access as relation under constraint: reality is not created by the locus and not possessed whole by the locus.
RRP and reference conditions	Paper 1	Use Paper 1 for the situated reference node and for locus, interface, boundary, scale, horizon, discrimination/noise regime, abstraction, registration, retention, and redeployment conditions.
RRP Set	Paper 1	Use Paper 1 for OP, OA, OR, RAS, and RSD as the operational element-set of informational architecture.
Local locus discipline	Paper 1	Use Paper 1 for preventing silent transfer of distinction from one locus to another.
Physical availability pathway	Paper 1a	Use Paper 1a for interaction, physical and dissipative variation, persistence and propagation as physical properties, preserved contrast, channel-relative discriminability, and entry into OP.
Signal definition	Paper 1a	Use Paper 1a for signal as physical variation preserved as contrast through a medium under possible discrimination conditions.
Signal/information separation	Paper 1a	Use Paper 1a to prevent signal inflation, RRP-status inflation, and the reintroduction of persistence or residue as independent information stages.
Locus Event Horizon	Paper 1a	Use Paper 1a for the ingress-boundary of possible relation before OP is established.
Shannon Information Theory placement	Paper 1a	Use Paper 1a for SIT as the formal discipline of channel-relative uncertainty, coding, noise, symbols, bits, and transmission, not the complete theory of information.

Architecture region	Canonical home	Use in support documents
Reference-indexed realism	Paper 1b	Use Paper 1b for finite reality-claims as indexed, corrigible models of ontological targets formed through the RRP scaffold.
Ontological target, model, residual	Paper 1b	Use Paper 1b for target constraint, model incompleteness, and residual as the discipline preventing premature closure.
Closure discipline	Paper 1b	Use Paper 1b for refusing unindexed closure and for carrying unsatisfied target/model mismatch as residual.
Relational index and local physical cuts	Paper 1c, headings 1.1-2.2	Keep the wider physical index distinct from a reference index, local target, local locus, and finite model. Coupling creates new relation; it does not create the target by interpretation.
Embodiment of retained abstraction	Paper 1c, heading 2.3; Paper 1 for RAS	Embodiment describes OA-keyed physical retention already earned as RAS; it neither replaces the primitive nor upgrades every physical residue.
Relational Reachability	Paper 1c, heading 2.4	Use for target-relative formation under present organisation and available scaffolding. Keep it distinct from ingress, KIP/OIP, and the Paper 4c envelope.
Relational Form and potential instances	Paper 1c, headings 3.1-3.4 and 7.1	Use for distributed target-tracking relation, including physically supported potential. Do not equate Form with the index, one carrier, a perfect model, or a single locus.
Relational propagation and representation	Paper 1c, headings 4.1-4.3	Preserve selective contrast, causal provenance, receiving-locus reconstruction, and target corrigibility. Do not infer semantic identity or truth from physical continuity.
Part 2b handoff	Part 2a sequence only	Support documents may name knowledge, intelligence, and technical observation only as downstream developments. Preserve Paper 1b broad bridge use and Paper 1c physical grounding; neither replaces the Part 2b status ladders.

Concept stack

The following rows organise the access architecture for support use; they are not a compulsory temporal chain. Persistence, propagation, and residue remain physical properties. The Paper 1c cross-cutting account in 5.1 makes physical grounding and derived organisation explicit without inserting new RRP Set elements.

P2-SD01 T06 | P2a local scope | 12 source records retained in order

Layer	Function	Core concepts	Guardrail
1. Substrate difference	Preserves realist ground before access.	Physical difference; magnitude; duration; energy; structure; constraint; lawful process. Paper 1c locates target and locus within the wider relational index.	Difference may be real and may stand in other informational relations before its RRP-indexed status for this locus is established.

Layer	Function	Core concepts	Guardrail
2. Lawful physical evolution	Locates pre-informational change for the evaluated access relation.	Interaction; dissipation; physical variation; TC-level state evolution.	Describability is not RRP-indexed operational information; lawful transition is not NTC by naming.
3. Persistence, propagation, and residue	Separates physical properties from informational statuses.	Persistence; propagation; local alteration; mark; deformation; gradient; physical residue.	These are not independent signal, OP, OR, RAS, knowledge, or observation stages.
4. Signal-bearing contrast	Supplies physically preserved contrast.	Signal; medium; carrier; preserved contrast; signal path.	Not all variation is signal; signal is weaker than RRP-indexed operational information for the evaluated locus.
5. Channel-relative discriminability	Makes contrast potentially distinguishable.	Channel; alphabet; noise model; coding regime; receiver or locus discrimination; SIT.	SIT is valid within its specified channel regime; it does not replace the further RRP availability question.
6. Locus Event Horizon	Bounds ingress of possible relation.	Ingress-boundary; distance; latency; medium; channel; threshold; scale; noise; filter; interface.	The horizon is not an edge of reality and not a measure of observation-program performance.
7. RRP reference node	Makes the operational informational question well-posed.	RRP; locus; interface; regime; boundary; scale; horizon; discrimination/noise assumptions.	Relative does not mean subjective, arbitrary, weak, or unconstrained.
8. Operational distinction	Turns available contrast into classed alternatives.	OP; OA; same/different; signal/noise; relevant/irrelevant; present/absent.	Do not call a persistent, propagating, or externally readable state OP unless it is available as contrast for the specified locus.
9. Registration and retention	Produces and preserves selected state.	OR; RAS; operational horizon; reference scale.	Do not collapse registration into retention or persistence into RAS. Once OA-keyed retention is earned, embodiment describes it; it is not another status. Retention does not establish warrant.
10. Redeployment	Makes retained distinction available to later branch-realisation.	RSD; downstream transition; branch-space; comparator pressure.	RSD is not a claim of knowledge, intelligence, technical observation, or life by itself; later facets must earn their statuses.
11. Ontological target and model	Connects finite access to realism.	Target relation; access scaffold; finite model; indexed record.	The model is constrained by the target but never exhausts it.
12. Residual and closure discipline	Prevents premature totalisation.	Residual; correction; weakened claim; update condition; closure discipline.	Residual is not failure, verdict, or explanation; it is carried remainder.

Paper 1c cross cutting physical and derived relations

P2-SD01 T07 | P2a local scope | 6 source records retained in order

Relation / level	Function	Source anchor	Guardrail
Relational index	Physical depth and extension within which target, locus, and access paths occur.	Paper 1c, headings 1.1-1.3	Not a finite reference index, an observer inventory, or the Form of one target.
Target-locus coupling	Inherited organisations enter interaction and produce a new local relation.	Paper 1c, headings 2.1-2.2	Coupling alone does not earn OP/OA/OR/RAS for the claim.
Embodiment	OA-keyed retained physical state instantiates the abstraction.	Paper 1c, heading 2.3	RAS remains primitive; no extra retention threshold.
Relational Reachability	Present organisation and scaffold support immediate or constructible relation formation.	Paper 1c, heading 2.4	Formation is not ingress, already-known content, or abstract possibility.
Relational Form	Distributed relations track the same grounded distinction, including supported potential.	Paper 1c, headings 3.1-3.4	Not one model, all causal history, a truth-only set, or an ideal object outside physical relation.
Relational propagation	Selected contrast survives transformations and can be reconstructed locally.	Paper 1c, headings 4.1-4.3	No completed semantic object transfers intact; adequacy remains target-constrained.

Dependency spine

P2-SD01 T08 | P2a local scope | 13 source records retained in order

Step	Dependency	Output	If missing / collapsed
1	Substrate difference may exist independently of access.	Realist ground: difference need not be observed to be real.	Constructivist collapse.
2	Interaction produces physical variation.	Uneven physical state evolution below established RRP availability.	RRP-indexed information attributed to mere change.
3	Variation may persist locally, propagate, or leave a physical residue.	Physical continuity or after-effect without a new informational status.	Persistence or residue treated as signal, OP, or RAS.
4	Some variation becomes signal-bearing where contrast is preserved through a medium.	Preserved contrast under possible discrimination conditions.	Every variation, persistence, propagation, or residue called signal.
5	Signal-bearing contrast may become channel-discriminable.	Contrast survives channel, noise, alphabet, coding, and receiver or locus conditions.	SIT treated as the complete theory or its conditions left unspecified.
6	RRP specifies locus-interface-regime.	The operational informational question becomes evaluable.	Distinction attributed without a reference node.

Step	Dependency	Output	If missing / collapsed
7	OP makes contrast available.	Available contrast field for the locus.	External analyst readability replaces system availability.
8	OA classes available contrast.	Registerable alternatives are formed.	Unclassed contrast treated as token.
9	OR registers one classed alternative.	A selected state occurs.	Perturbation treated as registration.
10	RAS retains registration over a horizon.	Present accessible state preserves prior distinction.	Persistent matter-state treated as record without OR/OA/RRP.
11	RSD redeploys retained distinction.	Retained distinction can shape later branch-realisation.	Redeployment assumed merely because a record exists.
12	Reference-indexed realism models the target relation.	Finite model or record approximates target under access constraints.	Model mistaken for target whole.
13	Residual prevents premature closure.	Unpreserved, untested, or unresolved remainder remains explicit.	Residual hidden inside warrant, truth, or final ontology.

Paper 1c adds a recursive dependence, not a later primitive: prior RAS and its redeployment can condition later OP, OA, and relation formation; new retention changes the locus again. Physically supported intermediate relations can extend reach. A later receiver still establishes its own indexed path. Source: Paper 1c, heading 2.4 and headings 4.2-5.3.

Paper by paper compression

P2-SD01 T09 | P2a local scope | 4 source records retained in order

Canonical paper	Compression	Primary guardrail
Paper 1 - Relative Reference Points	Defines information for a locus as relational operational distinction and installs the RRP Set. Physical difference alone does not establish that status, although the same state may be informational under other legitimate regimes. RRP fixes the reference node; OP supplies contrast; OA classes contrast; OR registers; RAS retains; RSD redeploys. The paper blocks pan-informational attribution and empty constructivism by insisting that the relation is relative while the constraint is real.	Do not treat RRP as human viewpoint, subjective perspective, semantic interpretation, or arbitrary analytical convenience. Do not silently move the locus across relations or turn the scoped RRP definition into a universal revocation of other information disciplines.

Canonical paper	Compression	Primary guardrail
Paper 1a - From Noise Cometh Signal	Grounds the physical pathway into RRP. Interaction produces variation. Variation may persist, propagate, or leave residue, but these remain physical properties. Signal begins where contrast is preserved through a medium under possible discrimination conditions; channel-discriminable contrast may enter the RRP Set as available distinction. The paper places thermodynamic information and SIT within their own regimes and defines the Locus Event Horizon as the ingress-boundary of possible relation for a finite locus.	Do not call every physical variation signal. Do not call every signal RRP-indexed information for the evaluated locus. Do not reintroduce persistence, propagation, or residue as an independent stage, call any persistent effect RAS, or call preserved contrast NTC without comparator-stable downstream dependence.
Paper 1b - Reference-Indexed Realism	Draws the realism-facing consequence. Unindexed realism is unstable because the real requires contrast with the unreal while the unreal returns as experience, possibility, abstraction, institution, model, norm, error, or force. Reference-indexed realism treats finite realism claims as target-constrained, access-limited, residual-bearing models formed through the RRP scaffold. The target constrains; the observer constricts; the scaffold couples; the residual prevents premature closure.	Do not convert indexing into relativism. Do not convert target constraint into naive possession. Do not treat broad observation as an unmediated certificate, or residual as defeat, scepticism, or an optional afterthought.
Paper 1c - Relational Form	Locates target and locus in a wider physical relational index; shows coupling, abstraction, and OA-keyed retention as physical grounding; derives historical, scaffold-dependent reachability; and follows target-tracking relation across substrates and potential instances as Relational Form. Representation follows relation, and propagated contrast must be reconstructed by the receiving locus.	Do not add a primitive or status after RAS, collapse ingress into formation, turn supported potential into a present instance, equate Form with index or complete model, transfer meaning intact, or infer truth/NTC/Observer status from physical retention.

Hot cup cutaway preservation and limits

P2-SD01 T10 | P2a local scope | 6 source records retained in order

Case / relation	Controlled compression	Source anchor	Limit
Cup-base geometry	Contact geometry can constrain the retained footprint or ring through changing carriers.	Paper 1c, heading 6	The target and its total history are not transferred into the table.
Kettle brand	The brand may belong to causal provenance while its distinguishing contrast is lost before the ring forms.	Paper 1c, heading 6	Provenance alone does not recover a distinction absent from the retained path.

Case / relation	Controlled compression	Source anchor	Limit
Sock colour	Where it never modulates the traced pathway, the distinction never entered that pathway.	Paper 1c, heading 6	Never-coupled difference is not the same failure as contrast lost in transformation.
Table-local RAS	A ring qualifies only where local OP, material OA, OR, reference scale, and retention horizon are established.	Paper 1c, heading 6; Paper 1, headings 3.3-3.5	A later interpreter does not confer an already earned RAS; mere persistence still does not suffice.
Later receiving locus	The retained table-state can become a new target; receiver organisation conditions which further relations can be stabilised.	Paper 1c, heading 6	Carrier registration is not automatic reconstruction of cup, person, kettle, or the whole event.
Strong downstream claim	NTC requires distinction-dependent redeployment and an appropriate IPL/BD comparator in the later organisation.	Paper 1c, heading 6	The table is not NTC merely because it carries a RAS.

Operational use sequence

Part 2a support use should begin with access architecture, not with later status words. The following sequence is a controlled application order for support documents, edge-case notes, and cross-Part handoff.

P2-SD01 T11 | P2a local scope | 8 source records retained in order

Stage	Instruction	Guardrail
Stage 0 - Scope and source lock	Confirm a Part 2a claim: RRP-indexed information, signal, reference-indexed realism, relational index, embodiment, derived reachability, Relational Form, propagation, or a stated Part 2b handoff.	Do not import Part 2b status ladders as definitions, and do not treat the RRP definition as revoking other legitimate information regimes.
Stage 1 - Candidate difference / target relation	State the physical difference, relation, pattern, event, model-target, or reality-claim under evaluation.	Do not begin with RRP-indexed information unless the evaluated access relation is specified.
Stage 2 - Locus-interface-regime	Specify the locus, interface, boundary, scale, operational horizon, discrimination/noise regime, abstraction assumptions, and relevant comparator assumptions.	Do not let the first named object become the locus by default.
Stage 3 - Physical pathway	Identify interaction, variation, any persistence, propagation, or residue as physical properties, preserved contrast, signal-bearing contrast, medium, channel, noise, threshold, and possible discriminability.	Do not skip from substrate difference to OP or turn physical properties into independent informational stages.

Stage	Instruction	Guardrail
Stage 4 - RRP Set status	Assign the strongest warranted RRP Set status: below OP, OP, OA-classed alternative, OR, RAS, or RSD.	Do not collapse OP, OA, OR, RAS, and RSD into one information label.
Stage 5 - Ingress and formation checks	State the Locus Event Horizon for incoming contrast. Separately state whether the particular target relation is immediately reachable, constructibly reachable through a physically supported scaffold, or not established under the present regime.	Do not equate access to the carrier with formation of every relation to its target; do not equate present unreachability with unreality or permanent impossibility.
Stage 6 - Realism indexing	State target, local access scaffold, finite model/record/claim, comparator pressure, and residual. Where relevant, distinguish the wider relational index, distributed Form, and locus-specific reachability from that finite model.	Do not mistake model adequacy for target possession.
Stage 7 - Handoff decision	Hand off knowledge, intelligence, and technical observation status to Part 2b. Preserve Paper 1b broad bounded-registration bridge and Paper 1c physical grounding without assigning the later ladders. Paper 4a owns the detailed observation-specific cut/perspective account, Paper 4b scalar measurement, and Paper 4c program performance.	Do not define Part 2b status ladders, later abstraction, scale, or envelope architecture inside Part 2a support.

Controlled Part 2a output grammar:

Under [specified RRP], [target difference or relation] is / is not RRP-indexed operational information for [specified locus] because [availability/classing/registration/retention/redeployment status]. Its physical pathway is [interaction -> variation -> preserved contrast / signal-bearing contrast -> channel-relative discriminability], bounded by [horizon/noise/scale/medium/interface conditions]. The realism claim is a [model/record/claim] of [ontological target] with residual [specified remainder or update condition]. Where relevant, add: [OA-keyed retention] is physically embodied; [specified relation] is [immediately reachable / constructibly reachable / not established] under [organisation and scaffold]; [target-tracking continuity] belongs to a wider Form, without implying complete possession, semantic identity, or downstream status.

Control interfaces

P2-SD01 T12 | P2a local scope | 5 source records retained in order

Control interface	Permitted relation	Guardrail
Interface with Part 1	Part 2a inherits the discipline of reference conditions, comparator pressure, localisation, TC/NTC separation, and source-lock discipline. It does not redefine life, Attribution Locus, or the life ladder.	Do not import life-status, attribution topology, or life-procedure terms into Part 2a as if they were informational primitives.

Control interface	Permitted relation	Guardrail
Interface with Part 2b	Part 2b receives the primitive access architecture and the Part 2a physical grounding. Paper 1c supplies physical and derived relations; Papers 2, 4a and 4c now cite it in limited clarifications without changing their facet thresholds.	Do not use Part 2b status ladders to rewrite RRP, signal, or reference-indexed realism; do not erase the broad Paper 1b bridge use of observation.
Interface with observation-extension papers	The observation extensions own the detailed cut/perspective, scale/measurement, and operational-envelope accounts. Paper 1c already treats physically supported abstraction and reachability; that does not transfer those downstream canonical definitions upstream.	Do not pull cut, perspective, Scale Gap, OH, RF, or descriptor terms back into Part 2a as primitives.
Interface with Part 3	Part 2a names residual and closure discipline but does not supply the full discipline of the unknown. That burden belongs to Part 3.	Do not turn residual into a verdict, explanation, or hidden closure procedure.
Interface with support stack	SD-01 compresses architecture. SD-02 defines controlled vocabulary. SD-03 records failure modes and corrections. Primary papers govern all technical use.	Support documents remain secondary and must not become new canonical sources.

Part 2b knowledge intelligence and observation

Local support text from P2-SD01. Paper numbers and internal references in this section retain this part or subpart scope. Source section headings are retained as locators in the source document.

Part compression in one sentence

Part 2b translates RRP-indexed operational distinction into knowledge as retained distinction, intelligence as applied distinction, and observation as bounded registration, then develops observation as abstraction-bound, scale-bound, and operationally bounded through perspective, correction, scalar alignment, measurement, and a diagnostic performance envelope.

Core compression

Part 2b begins after informational availability has been established. Part 2a supplies RRP, OP, OA, OR, RAS, RSD, the signal pathway, local locus discipline, and reference-indexed realism. Part 2b asks what status distinction acquires when it is retained, applied, registered as record, abstracted through perspective, stabilised into scale, and sustained as an observation program. Paper 1c supplies physical and derived relations without changing downstream status thresholds. Papers 2, 4a and 4c now cite it locally to distinguish formation from grounded deployability, ingress and reliable performance respectively.

Paper 2 defines knowledge as retained distinction. Minimal knowledge begins when a prior OP-supported, OA-classed alternative has been registered through OR and retained as an RAS that remains present and re-identifiable over the operational horizon at the reference scale. TK is record-presence. KIP is grounded deployability. NTK is realised deployment. These are record statuses, not automatic truth, warrant, objectivity, or justification.

Paper 3 defines intelligence as applied distinction. Intelligence occurs when distinction-conditioned organisation alters downstream trajectory selection for a locus under specified reference conditions. It is broader than cognition and narrower than usefulness. Passive information is found distinction. Active information is made distinction whose provenance is fixed by the producing locus. Passive intelligence is made distinction reused. Active intelligence is distinction currently applied. NTI is NTC under the intelligence facet.

Paper 4 defines observation as bounded registration. The observation event is OR. The observation record is RAS. Strong observation requires RSD. Pre-TO is below persistent record-presence; TO is record-presence; OIP is grounded deployability and supports observer-locus status; NTO is realised record-operativity and supports capitalised Observer status. Observation establishes record-provenance, not automatic warrant.

Paper 4a develops the abstraction consequence. Every observation requires OA before OR and is therefore abstraction-bound. A cut makes selected difference registerable. An abstraction regime stabilises cuts into repeatable conditions. A perspective integrates an abstraction regime and its event-horizon profile for a locus. Abstraction Gap is the discrepancy between a registration or perspective and the fuller relation it compresses. Objectivity is disciplined correction of perspective under constraint.

Paper 4b develops the scalar consequence. Perspective fixes scale because it fixes comparability. Physical magnitude is reality-constrained. Reference scale is the scale stated by a claim. Operative scale is the scale actually stabilised by a locus. Measurement is real relation registered through scale. Scale Gap is Abstraction Gap under scalar misfit. Scalar objectivity requires explicit scale, alignment, comparator pressure, and residual discipline.

Paper 4c defines the operational envelope of observation programs. Status comes first and descriptor grading second. OH measures reliable reach; CH admissible intervention range; RF OA-to-RAS reliability; OBW registration throughput; OD realised consult-and-register depth; OG downstream differentiation; ODr degradation; OL sustaining cost; and OCx regime-level loss of content-driven registration or redeployment. The descriptor layer localises performance and failure without adding new primitives or supplying the later full discipline of the unknown.

Primary sequence and canonical ownership map

P2-SD01 T15 | P2b local scope | 6 source records retained in order

Sequence	Primary paper	Role	Canonical ownership
Paper 2	On the Origin of Knowledge	Defines retained distinction.	Knowledge; RAS in the knowledge facet; TK, KIP, NTK; past-dependent present state; record-status versus truth/warrant.
Paper 3	On the Origin of Intelligence	Defines applied distinction.	Intelligence; finite branch-space; passive/active information; producing-locus provenance; passive/active intelligence; NTI; BD/IPL discipline.
Paper 4	On the Origin of Observation	Defines bounded registration.	OR event; RAS record; Pre-TO, TO, OIP, NTO; observer-locus, Observer, Observer Event Horizon; record-provenance.
Paper 4a	The Limits of Observation	Defines abstraction and perspective consequences.	Cut; abstraction regime; perspective; event-horizon profile; Abstraction Gap; relational uncertainty; objectivity as correction.

Sequence	Primary paper	Role	Canonical ownership
Paper 4b	The Scale of Observation	Defines scalar and measurement consequences.	Scale as stabilised comparability; magnitude; reference and operative scale; measurement; Scale Gap; scalar objectivity.
Paper 4c	The Operational Envelope of Observation	Defines program performance and failure envelope.	Observation program; status/performance separation; OH, CH, RF, OBW, OD, OG, ODr, OL, OCx; failure localisation.

4.1 Canonical ownership register

P2-SD01 T16 | P2b local scope | 15 source records retained in order

Architecture region	Canonical home	Use in support documents
Inherited informational architecture	Part 2a primary papers / internal Part 2a support section	Inherit RRP, OP, OA, OR, RAS, RSD, signal, target/model/residual, and local locus discipline. Use Paper 1c physical and derived relations as explicit support cross-checks, not redefinitions of the six Part 2b papers.
Knowledge threshold and ladder	Paper 2	Use Paper 2 for retained distinction, TK, KIP, and NTK; do not treat record-status as warrant.
Intelligence threshold	Paper 3	Use applied distinction and downstream trajectory selection by a locus; do not use success or usefulness as substitutes.
Information provenance	Paper 3	Made status is fixed by the producing locus; later encounter establishes access and use, not provenance.
Passive and active intelligence	Paper 3	Keep made distinction reused separate from current distinction-conditioned search, regulation, repair, inhibition, reallocation, recalibration, selection, or control.
Non-trivial comparator discipline	Papers 2-4; inherited Part 1 control	Use BD-family comparators and IPL localisation where realised downstream dependence is claimed.
Observation threshold and ladder	Paper 4	Use OR, RAS, RSD, Pre-TO, TO, OIP, and NTO; do not collapse record, capacity, and realised operation.
Observer-status	Paper 4	Use observer-locus for grounded consultability and Observer for realised NTO.
Abstraction condition	Paper 4a	Use cut, abstraction regime, perspective, and event-horizon profile; do not treat perspective as opinion.
Abstraction Gap and relational uncertainty	Paper 4a	Use for discrepancy and uncertainty about preservation; neither is automatically error.
Objectivity	Paper 4a	Use disciplined correction of perspective under constraint, not view-from-nowhere or consensus alone.

Architecture region	Canonical home	Use in support documents
Scale architecture	Paper 4b	Use physical magnitude, reference scale, operative scale, alignment, scale-fixing, and comparability.
Measurement and Scale Gap	Paper 4b	Use measurement as registration into scale and Scale Gap as scalar misfit; precision alone does not establish alignment.
Observation program and descriptor layer	Paper 4c	Status first; descriptors grade performance and localise failure after the inherited stack is specified.
Operational envelope descriptors	Paper 4c	Use OH, CH, RF, OBW, OD, OG, ODr, OL, and OCx only with their specific discriminators.

Concept stack

P2-SD01 T17 | P2b local scope | 18 source records retained in order

Layer	Function	Core concepts	Guardrail
1. Inherited access architecture	Makes distinction evaluable for a locus.	RRP; OP; OA; OR; RAS; RSD; signal; reference conditions.	Do not redefine inherited terms or treat physical difference, persistence, or external interpretation as sufficient.
2. Retained distinction	Establishes minimal knowledge carrier.	OR-produced, OA-keyed RAS; present accessible state; operational horizon.	No retained, re-identifiable distinction, no minimal knowledge-status.
3. Knowledge ladder	Separates presence, potential, and operation.	TK; KIP; NTK.	Record-presence is not deployability; deployability is not realised deployment; deployment is not warrant.
4. Applied distinction	Establishes intelligence threshold.	Distinction-conditioned organisation; locus; downstream trajectory selection; branch-space.	No application by the evaluated locus, no intelligence-status.
5. Provenance/use ladder	Separates origin of distinction from present use.	Passive information; active information; producing locus; passive intelligence; active intelligence.	Later encounter does not create active-information provenance.
6. Non-trivial application	Adds comparator-stable dependence.	NTI; NTC under intelligence facet; BD; IPL.	Success, resemblance, complexity, or external usefulness is insufficient.
7. Bounded registration	Establishes observation threshold.	Bounded locus-interface-regime; OR event; RAS record; RSD.	Interaction, signal reception, transient tokenisation, or persistent alteration alone is insufficient.
8. Observation ladder and observer-status	Separates record, capacity, and realised observer-dependence.	Pre-TO; TO; OIP; NTO; observer-locus; Observer.	A record is not an observer-locus; an observer-locus is not an Observer.
9. Observational cut	Makes selected difference registerable.	Boundary; channel; threshold; partition; equivalence relation; scale; tokenisation.	The cut admits and excludes; it is not the real whole.

Layer	Function	Core concepts	Guardrail
10. Abstraction regime	Stabilises coordinated cuts.	Thresholds; saliences; records; categories; memory; calibration; correction.	A repeatable regime can preserve relation or reproduce misregistration.
11. Perspective and event-horizon profile	Integrates abstraction for a locus.	Perspective; observation-world; multidimensional ingress limits.	Perspective is organised architecture, not private opinion or arbitrary construction.
12. Abstraction Gap and relational uncertainty	Carries discrepancy and preservation uncertainty.	Compression; omission; target relation; residual.	Gap is not automatically error; error arises when omitted or compressed relation becomes consequential.
13. Objectivity as correction	Makes perspective answerable to constraint.	Comparator pressure; cross-locus correction; revision; residual discipline.	Objectivity is not abstraction-free access or consensus alone.
14. Scalar architecture	Stabilises comparability.	Physical magnitude; reference scale; operative scale; scale-fixing; alignment.	Scale is not size, unit, or analyst choice; magnitude is not created by perspective.
15. Measurement and Scale Gap	Registers real relation through scale.	Measurement RRP; OP; OA; OR; RAS; RSD; Scale Gap; scalar bridge.	Precision is not alignment; cross-scale transfer requires an explicit bridge.
16. Observation program	Treats observation as organised pathway.	Registration; retention; possible redeployment; readout; locus; scale; horizon; comparator.	Threshold status must be established before performance is graded.
17. Descriptor layer	Measures performance and failure.	OH; CH; RF; OBW; OD; OG; ODr; OL; OCx.	Descriptors are derived measures, not new primitives or alternate routes to status.
18. Failure localisation and residual	Names where the program fails or remains bounded.	OP/OA/OR/RAS/OIP/RSD/dependence tests; descriptor bounds; missing condition.	Localise failure; do not hide uncertainty in status, performance, or closure language.

Diagnostic order is not a universal temporal prerequisite. In particular, Paper 3, heading 3.3 permits immediate, embodied, morphological, reactive, or currently registered applied distinction without durable retention. Establish RAS where the claim concerns retained knowledge, record-bearing observation, or a retained-state deployment pathway; do not impose that burden on every intelligence episode.

Dependency spine

P2-SD01 T18 | P2b local scope | 17 source records retained in order

Step	Dependency	Output	If missing / collapsed
1	Specify RRP and focal locus.	Evaluable claim with boundary, interface, scale, horizon, abstraction, noise, and comparator conditions.	Locus drift or unindexed claim.
2	Establish OP and OA.	Available, classed alternatives.	No available or registerable distinction.

Step	Dependency	Output	If missing / collapsed
3	For retained-record claims, establish OR and RAS.	Registered and retained discriminator; if absent, TK/TO record-presence is not established. This is not a universal durable-retention prerequisite for applied intelligence.	Below TK and below TO record-presence.
4	Assign knowledge status.	TK, KIP, or NTK.	Retention, consultability, or realised deployment remains unresolved.
5	Identify producing provenance where relevant.	Found distinction or made distinction fixed by a producing locus.	Passive/active information collapse or provenance inversion.
6	Test present application.	Applied distinction altering branch-space.	Useful constraint or stored form misdescribed as intelligence.
7	Apply comparator and IPL discipline.	Supported NTK/NTI/NTO dependence where claimed.	Success or correlation without localised mechanism.
8	Assign observation status and observer-status.	Pre-TO, TO, OIP/observer-locus, or NTO/Observer.	Record/capacity/realised operation collapse.
9	Expose the observational cut.	Specified admission, exclusion, compression, and classing conditions.	Raw-access or certificate language.
10	Map abstraction regime and perspective.	Locus-level observation architecture and event-horizon profile.	Perspective reduced to opinion or bias.
11	State Abstraction Gap and relational uncertainty.	Localised discrepancy and preservation question.	Gap treated as automatic error or ignored.
12	Apply correction architecture.	Comparator pressure, cross-locus correction, revision, and residual.	Objectivity reduced to consensus or certainty.
13	Specify magnitude, reference scale, and operative scale.	Scalar commitment and actual comparability regime.	Scale-free or cross-level claim.
14	Test scalar alignment and measurement path.	Measurement as OP/OA/OR/RAS/RSD at aligned scale.	Scale Gap or unsupported transfer.
15	Establish observation-program status.	Threshold-valid program or localised threshold failure.	Performance terms used to bypass status.
16	Grade operational envelope.	OH, CH, RF, OBW, OD, OG, ODr, OL, OCx.	Decorative or inflated descriptor claims.
17	Carry bounds and unresolved conditions forward.	Explicit residual and update condition.	Residual laundering or premature closure.

Paper by paper compression

P2-SD01 T19 | P2b local scope | 6 source records retained in order

Canonical paper	Compression	Primary guardrail
Paper 2 - Knowledge	Knowledge is retained distinction. RAS is the canonical minimal carrier. TK is record-presence; KIP grounded deployability; NTK realised deployment.	Do not collapse record-presence into belief, truth, semantics, warrant, or realised use.
Paper 3 - Intelligence	Intelligence is applied distinction in finite branch-space. Provenance and present use are separate. Active information is made by a producing locus; passive intelligence is made distinction reused; active intelligence is current application.	Do not define intelligence by cognition, usefulness, success, or the later encountering locus.
Paper 4 - Observation	Observation is bounded registration. OR is event; RAS is record; strong observation requires RSD. Pre-TO/TO/OIP/NTO separate record, capacity, and realised operation.	Observation is not certificate, every interaction, every record, or automatic warrant.
Paper 4a - Limits	All observation is abstraction. Cut, abstraction regime, perspective, event-horizon profile, Abstraction Gap, relational uncertainty, and correction define the abstraction consequence.	Do not treat abstraction as unreality, perspective as opinion, or gap as error by default.
Paper 4b - Scale	Perspective fixes scale; scale fixes comparability. Magnitude is reality-constrained; reference scale states the claim; operative scale is achieved by the locus. Measurement registers relation through scale.	Do not collapse magnitude into scale, scale into unit or choice, or precision into scalar adequacy.
Paper 4c - Envelope	Observation programs have measurable reach, intervention range, fidelity, bandwidth, depth, gain, drift, load, and collapse. Threshold status precedes descriptor grading.	Descriptors do not add primitives, establish warrant, or replace failure localisation.

Operational use sequence

P2-SD01 T20 | P2b local scope | 13 source records retained in order

Stage	Required action
0. Reference preflight	Specify locus, boundary, interface, reference scale, operational horizon, discrimination/noise regime, abstraction, and comparator family.
1. Facet identification	State whether the focal claim concerns retention, application, bounded registration, abstraction/perspective, scale/measurement, or program performance.
2. Access pathway	Test signal-bearing contrast, OP availability, and OA classing for the evaluated locus.

Stage	Required action
3. Registration and retention	Where the claim requires retained record, identify OR and test OA-keyed RAS persistence. Intelligence can also concern immediate or embodied application without durable retention (Paper 3, heading 3.3).
4. Knowledge status	Assign TK, KIP, or NTK only where its discriminator is met.
5. Provenance and intelligence	Identify producing locus for made distinction; then test whether the evaluated locus presently applies the distinction to branch-space.
6. Non-triviality	Use BD-family comparator and IPL localisation for realised downstream dependence claims.
7. Observation and observer-status	Assign Pre-TO, TO, OIP/observer-locus, or NTO/Observer.
8. Abstraction audit	Identify cut, abstraction regime, perspective, event-horizon profile, Abstraction Gap, and relational uncertainty.
9. Scalar audit	Separate physical magnitude, reference scale, and operative scale; test alignment and Scale Gap.
10. Measurement path	Map measurement through RRP, OP, OA, OR, RAS, and RSD where later use is claimed.
11. Program and envelope	Establish status first; then grade OH, CH, RF, OBW, OD, OG, ODr, OL, and OCx.
12. Output discipline	State supported statuses, bounded descriptors, failure location, residual, and the condition that would update the claim.

Control interfaces

P2-SD01 T21 | P2b local scope | 6 source records retained in order

Interface	Control rule
Part 2a primary papers and support stack	Upstream access architecture and Paper 1c physical grounding. Primitive operations, embodiment, derived reachability, Form, selective propagation, and target/model/residual remain distinct; the Part 2b status ladders are unchanged.
Part 1 support stack	Inherited-control check for NTC, BD, and IPL only. Life threshold, attribution classes, and closure architecture are not Part 2b status terms.
SD-01 Concept Compression Map	Navigation and architecture compression only. Canonical papers govern contested readings.
SD-02 Part 2 Glossary	Controlled vocabulary and guardrails for the ten-paper Part 2 baseline. The Part 2b region mirrors its six canonical papers and explicitly marks the Paper 1c cross-references.
SD-03 Guardrail and Failure-Mode Register	Failure control and diagnostic questions. It must not become an alternative procedure or verdict engine.
Part 3 handoff	The full discipline of the unknown remains downstream. Part 2b may localise missing conditions and carry residual but does not supply the later complete residual procedure.

Paper 1c alignment with Part 2b
P2-SD01 T22 | P2b local scope | 7 source records retained in order

Interface	Support-level distinction	Canonical anchors
Retained knowledge	Embodiment explains an earned RAS physically; TK/KIP/NTK still distinguish presence, deployability, and deployment.	Paper 1c, heading 2.3; Paper 2, headings 2-3
Made distinction and intelligence	Embodiment or Form membership alone does not earn active-information provenance or present intelligence. Identify the producing locus and any current application separately.	Paper 1c, heading 6; Paper 3, headings 3.1 and 4.3-4.5
Reachability and deployability	Relation formation is not the grounded RSD pathway of KIP/OIP, and neither alone is realised deployment.	Paper 1c, heading 2.4; Paper 2, heading 3.3; Paper 4, heading 3.4
Observation and distributed Form	A Form may span loci without constituting one observer-locus, Observer, or record-operative chain.	Paper 1c, headings 5.3 and 7.1; Paper 4, headings 3-4
Abstraction and scale	Physical classing and historical reach do not replace the observation-specific perspective, scalar alignment, or measurement burdens.	Paper 1c, headings 2.2-2.4; Paper 4a, heading 2.4; Paper 4b, headings 2 and 4
Program envelope and notation	Keep ingress, relation formation, reliable program reach (OH), admissible intervention (CH), and test window separate. RF means Registration Fidelity, not Relational Form.	Paper 1c, heading 2.4; Paper 4c, headings 2.1-3.1
Residual and update	A new interface, intermediate retained distinction, scaffold, or corrected abstraction can alter reach; the Part 3 residual procedure remains downstream.	Paper 1c, heading 5.2; Paper 4c, heading 1.5

Part 3 the epistemic method

Local support text from P3-SD01. Paper numbers and internal references in this section retain this part or subpart scope. Source section headings are retained as locators in the source document.

Part compression in one sentence

Part 3 begins from finite relational availability and incomplete closure, disciplines the unknown that remains, derives distinction-conditioned Power and attributable Responsibility, explains Trust as reliance closure across residual-bearing dependency, makes load-bearing claim and reliance paths recoverable through Formalisation, governs that formalisation against capture, and integrates the resulting burdens into the Epistemic Method without allowing any downstream layer to retroactively redefine the upstream relation it audits.

Core compression

Section 3a Horizon and Unknown Discipline

Paper 3a-1 separates availability from closure. A horizon is a locus-relative boundary in relational availability and closure, not an object or metaphysical edge. Soft Horizon names purpose-indexed provisional closure under residual; the Gödel Horizon is the stronger condition in which a relation is available or formulable under a well-posed closure demand while the present abstraction regime discloses that it cannot supply that closure from its own resources. Procedural Availability Horizon separately marks describable-but-unrealised access paths.

Paper 3a-2 begins after that grammar. It differentiates unknown-statuses, localises residual, retains positively excluded and still-live formulations, permits heterogeneous weighting without false precision, identifies Best Available Formulation and Weighted Residual, and separates action threshold from truth or explanatory closure. Action may proceed only with safeguard, monitoring, stop condition, branch-memory, and update where those burdens are material.

Section 3b Power Responsibility and Trust

Paper 3b-3 moves counterfactual structure from epistemic comparison into causal possibility. Primitive Power is the physically grounded, IPL-indexed potential for distinction-conditioned organisation to make downstream branch-realisation differ. The Counterfactual Inclusion Field contains only branches physically supported by the locus under the stated reference, comparator, thermodynamic, abstraction, and temporal conditions. Application realises part of that potential and yields Counterfactual Exclusion where a relevant included alternative is not equivalently realised.

Paper 3b-4 asks which consequential application, non-application, retained condition, maintenance relation, or material field-conditioning effect is attributable to a locus. Responsibility Provenance follows the subset of causal history in which distinction-conditioned organisation did consequential work. It may be distributed and temporal without becoming a conserved scalar. Responsibility Warrant is a separate authorised or normative allocation and must not be narrated as provenance merely because a role, institution, or rule supplies it.

Paper 3b-5 then addresses finite reliance across those dependencies. Trust is reliance closure under residual. It reduces repeated audit so a finite locus can continue, but the trusted relation, carrier, closure demand, residual, threshold, safeguard, provenance where relevant, and update must remain recoverable. Vicarious trust and trust carriers permit borrowed closure-work; trust laundering occurs when reliance-strength travels farther than the conditions that earned it.

In section 8, Paper 3b-5 canonically defines Epistemic Authority as defeasible standing earned through demonstrated relation-preservation. Between loci, preferential reliance requires a demonstrated advantage concerning a shared target relation under comparable closure demand; the advantage must remain adequate for the use and survive the carrier path. Trust makes such standing operative in reliance but does not create it by recognition. Structural Authority is introduced only as scoped permission or mandate; its further development remains in Volume 2.

Section 3c Formalisation Governance and the Integrated Method

Paper 3c-6 begins where trust carriers and compressed language become load-bearing. Formalisation is not universal rigidification of language. It is the recovery of grounding conditions when a term, category, record, model, procedure, institution, or machine output classifies, decides, governs, enforces, allocates, certifies, or otherwise carries consequential authority. The auditable claim packet preserves relation, locus, availability condition, closure demand, abstraction, evidence/record/carrier paths, comparator, residual, threshold, safeguard, and update at a level proportionate to the consequence.

Paper 3c-7 subjects formalisation itself to the same discipline. It separates adaptive application, current technical formalisation, and proposed constitutional elements; and applies the Epistemic Authority account inherited from 3b-5, distinguishing it from custodial and operational applications of Structural Authority. No steward, institution, release, certificate, vote, implementation, or founding text owns epistemic strength. Revision is legitimate only where demonstrated relational failure is localised and a proposed alternative preserves the relevant relation more strongly under stated comparator and residual conditions. Competitive forks and dissent preserve corrigibility without converting preference into epistemic amendment.

Paper 3c-8 integrates the sequence as relational audit. It does not collapse the prior discriminators into one master test. The method audits claim-strength and, where reliance occurs, reliance-strength by recovering the indexed relation, locus, availability, closure demand, abstraction, evidence, record and carrier paths, comparator, residual, reliance limit, threshold, safeguard, and update. Power and Responsibility become conditional audit paths only when those claims are made. Where preferential reliance is claimed, section 6 also tests the shared target relation, comparable closure demand, demonstrated advantage, and preservation through the carrier path. Method-compliance is itself a Soft Horizon and never becomes closure by completion.

Primary sequence and canonical ownership map

P3-SD01 T05 | P3 local scope | 8 source records retained in order

Seq.	Section	Canonical paper	Canonical ownership
3a-1	3a	The Gödel Horizon	Horizon grammar: relational availability; availability/closure boundary conditions; Soft Horizon; Gödel Horizon; Procedural Availability Horizon; coupled loci; abstraction boundaries; comparator and stabilisation discipline.
3a-2	3a	The Discipline of the Unknown	Unknown-statuses; residual; positive exclusion; live formulations; Best Available Formulation; Weighted Residual; action threshold, safeguard, monitoring, stop condition, update, and branch-memory.
3b-3	3b	On the Origin of Power	Primitive Power as IPL-indexed distinction-conditioned branch potential; Counterfactual Inclusion Field; potential/application/consequence separation; Counterfactual Exclusion; thermodynamic grounding.
3b-4	3b	On the Origin of Responsibility	Primitive Responsibility as locus-indexed attribution; Responsibility Provenance; distributed and temporal provenance; Responsibility Gradient; Immediate-Frame Principle; Responsibility Warrant.
3b-5	3b	On the Origin of Trust	Trust as reliance closure under residual; primitive audit; branch-space economy; trust thresholds; vicarious trust; Epistemic Authority and the minimum Structural Authority distinction (§8); trust carriers; laundering; betrayal, repair, and formalisation handoff.

Seq.	Section	Canonical paper	Canonical ownership
3c-6	3c	The Case for Formalisation	Load-bearing language; recoverable authority; distinct epistemic grounding and structural authorisation (§1); epistemic debt; institutions and machines; formalisation as preservation; auditable claim packet; proportional formalisation; retrospective review.
3c-7	3c	The Constitutional Governance of Formalisation	Governance of formalisation; constitutional/technical/application levels; application of Epistemic Authority inherited from 3b-5; custodial and operational applications of Structural Authority (§6); amendment, forks, certification, and capture controls.
3c-8	3c	The Epistemic Method	Integrated relational audit of claim-strength and reliance-strength; indexed relation; claim and reliance paths; comparator, residual, reliance limit; preferential reliance and carrier-path preservation (§6); conditional Power/Responsibility audits; method-compliance is not closure.

Concept stack

P3-SD01 T06 | P3 local scope | 18 source records retained in order

Layer	Controlled relation	Owner	Compression rule
Finite relation	Relational availability	3a-1	What relation is available to what locus under which access conditions?
Closure	Closure demand	3a-1	What strength of resolution is actually being claimed?
Finite continuation	Soft Horizon	3a-1	Purpose-indexed provisional closure under residual.
Boundary disclosure	Gödel Horizon	3a-1	Available/formulable relation cannot be closed by the current regime under its own present resources.
Unknown discipline	Residual / live field / BAF	3a-2	Preserve unresolved relation, exclusions, alternatives, weighting, and update without false closure.

Layer	Controlled relation	Owner	Compression rule
Action	Threshold / safeguard / monitoring / stop / update	3a-2	Action may be justified under residual without converting action into truth-status.
Causal potential	Power / CIF	3b-3	Physically supported branch-changing potential of an IPL under stated conditions.
Realisation	Counterfactual Exclusion	3b-3	Applied distinction conditions the realised branch and leaves a relevant included alternative not equivalently realised.
Attribution	Responsibility Provenance	3b-4	Recoverable path of consequential distinction-conditioned transformation.
Allocation	Responsibility Warrant	3b-4	Authorised/normative assignment kept distinct from causal provenance.
Reliance	Trust / primitive audit	3b-5	Reduced audit under residual, reopenable when mismatch or stakes defeat background closure.
Carriage	Trust carrier / vicarious trust	3b-5	Borrowed closure may travel through persons, records, institutions, models, procedures, and machines without transferring warrant.
Epistemic standing	Epistemic Authority	3b-5 §8	Defeasible standing earned through demonstrated relation-preservation; comparative advantage supports preferential reliance only within its demonstrated scope.
Authorisation	Structural Authority	3b-5 §8	Scoped permission or mandate conferred or recognised by an organised information-processing structure. Neither authority establishes the other; further development belongs to Volume 2.
Authority under load	Formalisation	3c-6	Recover grounding conditions where language or outputs become consequential.
Recoverability	Auditable claim packet	3c-6	Structured claim/reliance path with comparator, residual, threshold, safeguard, and update.
Corrigibility	Constitutional governance	3c-7	Govern method changes by demonstrated relation-preservation rather than status or preference.

Layer	Controlled relation	Owner	Compression rule
Integrated audit	Epistemic Method	3c-8	Audit claim-strength and reliance-strength while preserving each relation-specific discriminator.

Dependency spine

Part 1 supplies the physical discriminator and localisation backbone used where Part 3 makes strong causal claims: NTC, BD-family comparison, IPL, and thermodynamic grounding remain upstream.

Part 2 supplies finite informational access, retained distinction, applied distinction, bounded registration, abstraction, scale, and observational envelope. Part 3 does not redefine those statuses.

Section 3a adds availability/closure and unknown discipline. Section 3b may use that grammar but cannot turn Power, Responsibility, or Trust into retroactive definitions of horizon or residual.

Section 3b adds causal potential, attribution, and reliance. Section 3c may formalise and audit those relations but cannot replace their local discriminators with packet-completion or method-compliance.

Paper 3c-8 is an integration point, not a new origin point. Epistemic Authority and the minimum Structural Authority distinction remain owned by 3b-5 §8; their downstream applications do not relocate those definitions. It preserves conditional audit branches for Power and Responsibility and keeps Trust, Formalisation, and Governance locally owned.

Operational use sequence

P3-SD01 T07 | P3 local scope | 8 source records retained in order

Stage	Operation	Required discipline
1	Index the relation	State target relation, locus, availability condition, boundary, scale, horizon, abstraction, and closure demand.
2	Diagnose horizon/unknown status	Separate non-availability, procedural unavailability, misclosure, residual, live alternatives, and earned/provisional closure.
3	Recover causal potential where claimed	For Power, localise IPL and physically supported Counterfactual Inclusion Field; do not infer from authority, outcome, or imagined futures.
4	Recover attribution where claimed	For Responsibility, follow distinction-conditioned consequential contribution and distinguish Provenance from Warrant.
5	Recover reliance where present	Identify carrier, closure demand, residual, threshold, audit path, safeguard, and update. Where preferential reliance is claimed, recover the demonstrated advantage and its preservation through the carrier path (3b-5 §8; 3c-8 §6).
6	Formalise where load-bearing	Recover claim/reliance path proportionately; formalisation is required by consequence, not by language as such.

Stage	Operation	Required discipline
7	Govern the formalisation	Apply Epistemic Authority inherited from 3b-5; keep custodial and operational Structural Authority distinct from epistemic standing; revise through demonstrated relation-preservation (3c-7 §§6–7).
8	Apply the Epistemic Method	Audit claim-strength/reliance-strength; output closure, Soft Horizon, residual, refusal, weakened claim, action limit, or update obligation as warranted.

Cross section guardrail

The internal split is directional. Section 3a supplies conditions later papers inherit. Section 3b extends the architecture into causal potential, attribution, and reliance. Section 3c recovers and governs the paths by which those claims travel. A later paper may expose an upstream compatibility problem, but the correction must remain an alignment correction to the owning relation. No later paper may pre-install its own vocabulary, status, or formal apparatus into an earlier canonical paper merely because the later architecture can describe it.

Maintenance rule

Amend the owning canonical paper first where a technical definition changes. Reconcile the affected part stack in SD01 to SD04 order, then reconcile MSD01 to MSD04, refresh MSD00 and regenerate the manifest. A later integration may identify an upstream problem but cannot quietly redefine the owning relation. New support summaries remain subordinate to their sources.