# Support Document SD-01 - Concept Compression Map

*Part 1: On the Origin of Life | Architecture compression document | source-locked | Issue 1*

| Control field | Value |
|---|---|
| Document ID | OOL-P1-SD01-CONCEPT-COMPRESSION-MAP |
| Version / issue | Issue 1 |
| Date | 2026-09-22 |
| Status | Final controlled support document for Part 1 Issue 1, source-locked to the finalised three-paper set (GOT-V1-1-1 / GOT-V1-1-2 / GOT-V1-1-3) and its fixed literal primary-paper heading locators. Secondary to canonical papers. |
| Supersedes | Earlier Issue 1 source-lock and numbering-aligned working states. This final Issue 1 release locks the paper-complete Part 1 source set without changing canonical ownership or introducing new concepts. |
| Function | Compresses the current source-locked Part 1 source set into a controlled reference map for drafting, revision, comparison, indexing, support-document revision, and edge-case application. |
| Source-lock rule | Use only the three current Part 1 primary papers listed below as conceptual sources. Primary-paper internal references must use the current literal heading locator map; cited locators omit the terminal display full stop. Do not import exported full-series TEM papers, older EDT files, earlier drafts, superseded support maps, or prior generated answers as conceptual source material. |
| Canonical rule | Primary papers govern technical definitions. Paper 1 defines the life discriminator; Paper 2 defines life attribution; Paper 3 defines the attribution procedure. This support document compresses and cross-indexes but does not redefine. |
| Template rule | The prior landscape compression-map document was used for formatting, landscape layout, table pattern, visual hierarchy, and support-document discipline only. It is not a conceptual source for this issue. |

## 0. Status, function, and source discipline

This document is the controlled Concept Compression Map for Part 1: On the Origin of Life. It is not a fourth paper and not a canonical substitute for the primary sequence. Its function is to reduce the finalised three-paper source set into a stable support-reference form.

The map records how the Part moves from physical grounding, to Non-Trivial Computation, to life as driven thermodynamic constraint-maintenance, to attribution of the correct informational regime and Attribution Locus, to the formal ladder of Complex Chemistry, Life-in-Potential, and Life, to the procedure by which contested cases are audited without premature closure.

Where this document uses compressed language, the corresponding primary paper governs technical use. Support shorthand must never become a new definition.

This fresh Issue 1 removes superseded support wording and updates the map to the finalised source set. The prior support map is used only as layout template.

## 0.1 Source-lock register

| Seq. | Latest source file | Canonical paper | Canonical ownership / use |
|---|---|---|---|
| Paper 1 | GOT-V1-1-1 - On the Origin of Life - Issue 1.docx \| sha16 b46a62c660223454 | 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. |
| Paper 2 | GOT-V1-1-2 - The Identification of Life - Issue 1.docx \| sha16 0f1f564c3786f208 | 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. |
| Paper 3 | GOT-V1-1-3 - The Life Attribution Procedure - Issue 1.docx \| sha16 6c6d2b60203198e8 | 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. |

| Control ID | Template file | Permitted use |
|---|---|---|
| TEMPLATE SD-01 | Part1 - OOL - Comp Map - v1 - landscape fixed.docx \| sha16 98d836f273a8c673 | Formatting, visual hierarchy, landscape section, table structure, and support-document discipline only. No conceptual import from superseded wording. |

Excluded source class: exported full-series TEM papers and concepts, older project files, earlier EDT documents, superseded support-map wording, superseded support-document wording, and prior generated answers are not conceptual sources for this Issue 1 support set.

## 1. 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.

## 2. 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.

## 3. Exportable compression-map schema

| Section ID | Required section | Function | Issue 1 instruction |
|---|---|---|---|
| 0 | Status, function, and source discipline | States document type, source lock, supersession, and canonical rule. | Lock conceptual content to the finalised Issue 1 primary papers only. |
| 1 | Part compression in one sentence | Compresses the Part into one controlled sentence. | Use one sentence only; include threshold, attribution, procedure, residual, and update discipline. |
| 2 | Core compression | States the central architectural move of the Part. | Keep to durable claims: physical grounding, life discriminator, attribution, procedure, and physics-chemistry-life transition. |
| 3 | Exportable schema | Records reusable support-document structure. | Retain for Part 1 support-stack consistency. |
| 4 | Primary sequence and ownership map | Fixes canonical order and ownership. | Use only the three finalised source papers. |
| 5 | Concept stack | Shows the layered architecture. | Move from physical grounding to residual inventory without importing old TEM layers. |
| 6 | Dependency spine | Shows conceptual dependency order. | Distinguish definition, attribution, procedure, closure output, and residual. |
| 7 | Paper-by-paper compression | Compresses each canonical paper. | Keep canonical ownership visible and updated to final terminology. |
| 8 | Operational use sequence | Converts architecture into application sequence. | Use the Paper 3 Stage 0-8 procedure and output grammar. |
| 9 | Control interfaces | States how support documents relate. | Keep support documents secondary to the primary papers. |
| 10 | Extension protocol and release checklist | States how later applications may inherit the Part. | Prevent source drift, premature life attribution, and residual laundering. |

## 4. 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.

| 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. |

## 4.1 Canonical ownership register

| 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. |

| Architecture region | Canonical home | Use in support documents |
|---|---|---|
| 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. |
| 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. |

## 5. 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.

| 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. |

| Layer | Function | Core concepts | Guardrail |
|---|---|---|---|
| 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. |
| 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. |

| Layer | Function | Core concepts | Guardrail |
|---|---|---|---|
| 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. |

## 6. 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.

# 7. Paper-by-paper compression

## 7.1 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.

## 7.2 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.

## 7.3 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.

## 8. 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.

| 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. |

| Stage | Question | Required output | Main collapse prevented |
|---|---|---|---|
| 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. |

## 8.1 Stable output grammar

| 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. |

## 8.2 Residual inventory compression

| 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. |

| Residual type | Missing condition |
|---|---|
| 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. |
| 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. |

## 9. Control interfaces

| 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. |

## 10. Extension protocol and release checklist

Later support documents and applications may inherit this map only under source-lock discipline. They may compress Part 1 for use, but they must preserve canonical ownership and must not silently move definitions away from the primary papers.

| Protocol item | Requirement |
|---|---|
| Source lock | Name the current primary papers and exclude older drafts, exported full-series material, superseded support documents, and prior generated answers as conceptual sources. |
| Canonical ownership | Keep Paper 1 threshold terms, Paper 2 attribution terms, and Paper 3 procedure terms separate. |
| Terminology | Use Attribution Locus, Life-in-Potential, primary-class deferral, closure output, positive exclusion, residual, and update condition consistently. |
| Reference discipline | State boundary, scale, horizon, interface, driving, discrimination/noise regime, comparator assumptions, and continuity question when the case is contested. |
| Comparator discipline | For NTC and life-realisation claims, state what would collapse, degrade, change, or remain invariant under an adequate BD-family comparator. |
| Attribution discipline | Do not assign life-status to containers, familiar nouns, lineages, dependence relations, activity, replication, or topology without localising the Attribution Locus and completion relation. |
| Continuity discipline | Distinguish active, dormant, terminal active, potential, and closed continuity; treat reconstruction and incorporation as cross-locus descriptors. |
| Class discipline | Use only Complex Chemistry, Life-in-Potential, and Life as primary classes. Use closure output for death. Withhold class where residual deferral is required. |
| Residual discipline | Inventory the missing discriminator condition and state the update condition. Do not use unresolvedness as a hidden field value. |
| Release test | Confirm the support document compresses without redefining, importing, overclaiming, or laundering uncertainty. |

### 10.1 Change log

| Issue | Date | Change | Authority |
|---|---|---|---|
| Issue 1 | 2026-09-22 | Final Issue 1 source-lock release aligned to the fixed literal heading locators and recorded final filenames and hashes for GOT-V1-1-1, GOT-V1-1-2, and GOT-V1-1-3. Conceptual architecture and canonical ownership remain unchanged. | Finalised source-locked Part 1 primary paper set, Issue 1. |

## 10.2 Release checklist

- Does the map cite only the current finalised primary papers as conceptual sources?
- Does it keep the prior compression map as template only?
- Does Paper 1 remain the canonical home of NMF, TC/NTC, BD, IPL, DTS, and the life discriminator?
- Does Paper 1 also control the physics-chemistry-life transition framing?
- Does Paper 2 remain the canonical home of attribution, Attribution Locus, formal ladder, continuity, closure/death, topology, positive exclusion, and residual deferral?
- Does Paper 3 remain the canonical home of procedure, output form, closure output form, residual inventory, audit template, and guardrails?
- Does the map use Life-in-Potential as a narrow formal class rather than generic potential life?
- Does it prevent death, reconstruction, incorporation, topology, unresolvedness, and uncertainty from entering the primary ladder?
- Does it distinguish positive exclusion from uncertainty carried in residual?
- Does every residual require a missing discriminator condition and update condition?