Monograph 5.0: Kurpishev Logic

Non-associative packet reper logic, NAPG 3.0, V*P physics, anthropology of reversal, and KLT/RBD applications

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2026 · monograph 5.0 · master corpus package

Contents

Preface to the 5.0 assembly

This volume is assembled from internal project sources and preserved package files. The archive contains PDFs, HTML, source files, legacy monograph 2.41, KLT packages, RBD tables, and screenshots. The PDF itself is generated without forced blank pages.

Формулы ядра / core formulas:

```
Human_R = C@C + Rep(R,I,U;D) + (Xi, Delta, Upsilon) + L + lambda
Rep_i = (R_i, I_i, U_i; D_i)
Truth(Rep) <=> cr(U,I;R,D) = -1
lambda = ((U - R)(I - D)) / ((U - D)(I - R)); delta_truth = |lambda + 1|
KPF/RPHD v1.0 = Reper v1.0 + Limit-Causal v1.0 + (Xi, Delta, Upsilon) + T_cs^L + CGI
CGI_i = (||T_hole^L|| + ||F_cent^{XiUpsilon}|| + ||F_cor^{P@S}|| + sum B_nu) / (r_i u_i + epsilon)
Forecast = Pi_L [ Upsilon_L o Delta_l o Xi_L (RBD_lambda) ], with check CGI_i < 1
Klein(M,G) = Inv_G(M); Witten(QFT,Dual) = Inv_Dual(QFT); KLT: cr(U_K,I_W;R_inv,D) -> -1
```

0. Editorial status and the 5.0 rollback point

Monograph 5.0 assembles the project into a single working corpus. It preserves the 2.41 monograph as the legacy layer and adds the NAPG 3.0 mathematical extension, the KPF/RPHD reper theory of causality, Anthropology 2, KLT 4.14, KLT 5.1, and the math/physics Reper Database.

The goal is not abbreviation. The old body is retained in the package; the new volume adds a mathematical, anthropological, and software layer. The PDF builds avoid forced blank pages and each language version contains its own contents section.

1. Event@state ontology

The minimum object is not an isolated point but a packet point a=(e,s). An event without a state is not geometrically fixed; a state without an event is only an empty layer. The basic unit is C@C: event@state.

The packet line L_s is generated by a fixed state. Geometry, causality, memory, document chains, and programmatic audits inherit this packet condition.

Fixed notation / Фиксация обозначений

```
Human_R = C@C + Rep(R,I,U;D) + (Xi, Delta, Upsilon) + L + lambda
Rep_i = (R_i, I_i, U_i; D_i)
Truth(Rep) <=> cr(U,I;R,D) = -1
```

2. Reper as the minimum reversible structure

A Reper is the local projective-harmonic structure Rep_i=(R_i,I_i,U_i;D_i). R is the real given layer, I is the inner idea and organizing axis, U is the universe of possibilities, and D is sufficient ground.

The hierarchy C@C -> R@C@C -> T_cs -> Flag/Reper -> transreper is the rollback backbone of the project.

Fixed notation / Фиксация обозначений

```
Rep_i = (R_i, I_i, U_i; D_i)
```

```
Truth(Rep) <=> cr(U,I;R,D) = -1
lambda = ((U - R)(I - D)) / ((U - D)(I - R)); delta_truth = |lambda + 1|
```

3. Lambda-truth

Truth is not an external stamp added after analysis. It is generated when the Reper quadruple closes harmonically: Truth(Rep) iff cr(U,I;R,D)=-1.

The truth defect is delta_truth=|lambda+1|. The method is applied to doctrines, documents, programs, forecasts, databases, and anthropological configurations.

4. NAPG 3.0 mathematical extension

NAPG 3.0 inherits the packet point, distinguished sectors, preservation theorem, controlled reduction, and model families of NAPG 2.0. It adds Reper v1.0, Limit-Causal v1.0, T_cs^L, CGI, and RBD fields.

The new bridge to Klein reads geometry as invariance under transformations; the Reper is the packet-projective and causal transfer of that idea.

Fixed notation / Фиксация обозначений

```
lambda = ((U - R)(I - D)) / ((U - D)(I - R)); delta_truth = |lambda + 1|
KPF/RPHD v1.0 = Reper v1.0 + Limit-Causal v1.0 + (Xi, Delta, Upsilon) + T_cs^L + CGI
CGI_i = (||T_hole^L|| + ||F_cent^{XiUpsilon}|| + ||F_cor^{P@S}|| + sum B_nu) / (r_i u_i + epsilon)
```

5. Limits and the operators Xi, Delta, Upsilon

The limit set L={L_P,L_E,L_R,L_T,L_O} includes political, ecological, spatial, temporal, and ontological limits. Motion does not begin from arbitrary emptiness; it starts from a limit line.

Delta sets an action, Xi unfolds change, and Upsilon reverses action into a new state. Their distinction is mandatory.

Fixed notation / Фиксация обозначений

```
KPF/RPHD v1.0 = Reper v1.0 + Limit-Causal v1.0 + (Xi, Delta, Upsilon) + T_cs^L + CGI
CGI_i = (||T_hole^L|| + ||F_cent^{XiUpsilon}|| + ||F_cor^{P@S}|| + sum B_nu) / (r_i u_i + epsilon)
Forecast = Pi_L [ Upsilon_L o Delta_l o Xi_L (RBD_lambda) ], with check CGI_i < 1
```

6. KPF/RPHD causality

KPF/RPHD treats causality not as a flat cause-effect chain but as Reper-tensor connectivity. T_cs splits into torsion-like asymmetry and curvature-like determined bending.

CGI diagnoses rupture: below one the Reper holds; near one it is critical; above one it requires rebuilding or falsification.

Fixed notation / Фиксация обозначений

```
CGI_i = (||T_hole^L|| + ||F_cent^{XiUpsilon}|| + ||F_cor^{P@S}|| + sum B_nu) / (r_i u_i + epsilon)
Forecast = Pi_L [ Upsilon_L o Delta_l o Xi_L (RBD_lambda) ], with check CGI_i < 1
Klein(M,G) = Inv_G(M); Witten(QFT,Dual) = Inv_Dual(QFT); KLT: cr(U_K,I_W;R_inv,D) -> -1
```

7. Anthropology 2

Anthropology 2 defines the human being as a Reper of reversal: Human_R=C@C+Rep(R,I,U;D)+(Xi,Delta,Upsilon)+L+lambda.

A human action becomes biography through Upsilon. Memory is retro-Reper reconstruction: Data_past is constant, but Reper_past is reconstructable.

8. KLT 4.14 and KLT 5.1

KLT 4.14 is the checked audit/demo layer. KLT 5.1 is the SDK layer with public short paths, documentation, JSON examples, SVG examples, and upload-ready site structure.

The use chain is document -> PIX/PEAKS -> Reper -> lambda gap -> CGI -> status -> rebuild or confirmation.

Fixed notation / Фиксация обозначений

```
Klein(M,G) = Inv_G(M); Witten(QFT,Dual) = Inv_Dual(QFT); KLT: cr(U_K,I_W;R_inv,D) -> -1
```

9. Reper Database

The RBD stores sources, works, Reper nodes, and Reper graph edges. The attached CSV snapshot contains works.csv, repers.csv, and reper_edges.csv.

The v0.7 project layer added Klein Erlangen Deep Pass and Witten-Klein Invariance Algebra: Klein(M,G)=Inv_G(M), Witten(QFT,Dual)=Inv_Dual(QFT), and KLT closes them by lambda truth.

10. Mathematical foundation of the audit

For every audited object KLT builds U/I/R/D, computes lambda, diagnoses CGI, and searches RBD for the nearest rebuild nodes.

A computational claim is accepted only under two controls: probabilistic stability and evidential connectivity. Otherwise the output remains in Reper rebuilding mode.

11. Appendices and corpus preservation

The package keeps the legacy 2.41 archive, the source TeX, KPF/RPHD document, compiled master text, KLT site plan, KLT archives, RBD CSV files, and screenshots from Anthropology 2.

Each language version contains contents and continuous pagination; the archive preserves the full apparatus.

Appendix A. KLT 5.1, KLT 4.14 and website logistics

KLT 4.14 is the checked build layer. KLT 5.1 is the SDK and demonstration layer. The short public paths are /ru/klt/k414.html and /ru/klt/k51.html; assets are stored under a/, d/, s/, and v/. The package includes the original checked archives and site package.

Path	Meaning
legacy_2_41/monograph241_trilingual_final.zip	Full 2.41 trilingual archive, with RU/EN/ZH files and figures
sources/KPF_RPHD_reper_causality.docx	Reper causality, KPF/RPHD, limits, operators, CGI
sources/compiled_master_from_scans_2026_04_28.docx	Compiled master text and LaTeX source fragments
sources/site_klt_plan_2026_04_26.docx	KLT 4.14 + KLT 5.1 website and short-name structure
appendices/klt/KLT_4_14_CHECKED_BUILD.zip	Checked KLT 4.14 build

appendices/klt/KLT5_1_FLUTTER_SDK_PACKAGE.zip	KLT 5.1 Flutter SDK package
appendices/rbd/repers.csv; works.csv; reper_edges.csv	Reper database snapshot
appendices/screenshots/*.jpg	Anthropology 2 and KLT/RBD screenshots supplied in the project chat

Appendix B. RBD snapshot

The RBD snapshot is included as CSV. It is a graph-oriented database of sources, works, Reper nodes, and Reper edges. It supports reconstruction, invariant search, and lambda-harmonic review.

Table	Rows	Note
works.csv	1011	data rows in attached CSV snapshot
repers.csv	1327	data rows in attached CSV snapshot
reper_edges.csv	1380	data rows in attached CSV snapshot

Appendix C. Build discipline

All generated PDF files include a contents section. The generator uses continuous pagination and does not insert blank pages for verso/recto alignment. Legacy PDF pages are retained in RU/EN final volumes after a blank-page scan. The package manifest lists all files.

Nonassociative Packet Frame Logic and the Geometry of Stratified Time

Unified Publication: Full Corpus, Logic, Geometry, V*P Physics, the Gravitational Layer, and All Appendices

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Abstract

This monograph gathers the architecture of version 2.41 of the Kurpishev project into one unified synthesis while preserving the expanded volume of the corpus rather than reducing it to a short article-form abridgment. Its purpose is not to repeat the book chapter by chapter, but to assemble its main nodes into a single article: stratified time, package geometry, the quadratic obstruction, projective truth, the tensorial nature of causality, package time, clocks and interval, and the anthropology of historical types of cognition. The article fixes one common vocabulary for the project and shows how the mathematical, physical, and phenomenological lines are read as parts of one package-projective system.

Contents

CHAPTER 1

The design and architecture of version 2.1

Version 2.1 proceeds from three basic decisions.

First, reality is not treated as a simple sequence of events. It is understood as a projectively stitched RPLD-object, and the truth of its local and global forms is expressed through the harmonic limit

$$\lambda \to -1.$$

Second, time is posited not as an external parameter but as a primary stratified support. Space, within this horizon, appears as a layer, a section, or an observable regime of a deeper package organization.

Third, the anthropology of historical types of cognition is not kept outside the formal theory. On the contrary, it is incorporated into it as a layer describing historical regimes of binding time, space, causality, and truth.

CHAPTER 2

Primary ontology: the package point and stratified time

Definition 2.1 (Package point). *A package point is an ordered pair*

$$a = (e, s),$$

where e is an event and s is a state. The set of all package points is denoted by $\mathcal{P} \subseteq \mathcal{E} \times \mathcal{S}$.

Definition 2.2 (Package line). *For every state $s \in \mathcal{S}$, define the package line*

$$L_s = \{(e, s) \in \mathcal{P}\},$$

that is, the layer of the incidence structure at fixed state.

Definition 2.3 (Stratified time). *Stratified time is a triple $(\mathbb{T}, \mathcal{S}, \dim_{\mathrm{loc}})$ where $\mathbb{T}$ carries the filtration*

$$\mathbb{T}^{(-1)} \supset \mathbb{T}^{(0)} \supset \mathbb{T}^{(1)} \supset \mathbb{T}^{(2)} \supset \mathbb{T}^{(3)}.$$

Local dimension singles out the current stratum: cavity, surface, line, point, and hyparxis.

Remark 2.4. *Hyparxis $\mathbb{T}^{(-1)}$ is not merely "one more layer"; it is the limiting boundary of transitions and the improper horizon of package organization.*

Summary table of strata

Table 1. Time strata and their role

k	Geometric meaning	Function
3	outer spatial realization	quasiclassical observation
2	surface / shell	transitional configurations
1	line / channel	directed contraction
0	point localization	limit of the spatial regime
-1	hyparxis	improper horizon of transitions

CHAPTER 3

Quadratic obstruction and projective truth

Definition 3.1 (Quadratic obstruction). *The quadratic obstruction is the class $\mathcal{O}_B$ arising from the quadratic part of the deformation equation. It measures the impossibility of extending an admissible infinitesimal deformation without violating package constraints.*

Proposition 3.2. *If $\mathcal{O}_B = \{0\}$, the geometry remains in a linear or Hilbertian regime. Nontriviality of $\mathcal{O}_B$ signals the passage to a projective or stratified nonlinear organization.*

Proposition 3.3 (Projective interpretation of the obstruction space). *If the obstruction space has dimension 2 over $\mathbb{R}$, it admits the model $\mathbb{RP}^2$; if it has dimension 3 over $\mathbb{F}_2$, one gets the Fano plane. In both models the improper line is naturally associated with hyparxis, and the criterion of structural truth takes the form*

$$(A, B; C, D) = -1.$$

Definition 3.4 (λ-truth). *Let*

$$\lambda = (A, B; C, D).$$

Then $\lambda = -1$ is universal truth, while the deviation from it defines the truth defect:

$$\delta_{\text{truth}} = |\lambda + 1|.$$

CHAPTER 4

Operators of action, change, and reversal

The dynamic vocabulary of the project distinguishes three operators:

$$\Delta, \qquad \Xi, \qquad \Upsilon.$$

Definition 4.1 (Change). *The operator of change*

$$\Xi_\tau : \mathbb{T} \to \mathbb{T}, \qquad \tau \geq 0,$$

is a one-parameter semigroup describing the continuous course of time.

Definition 4.2 (Action). *The operator of action*

$$\Delta : \mathcal{P}_\emptyset \to \mathbb{T}$$

posits a discrete act that is not derived from prior change.

Definition 4.3 (Reversal). *The reversal operator Υ translates the result of action into the regime of evolution and thereby makes measurable interval possible.*

Remark 4.4. *In this horizon, clocks do not measure "time in general"; they measure the interval of the reversal operator. Without Υ, the clock mechanism loses its referent.*

CHAPTER 5

The tensorial nature of causality

Version 2.1 distinguishes three levels of connectedness: causal-action connectedness, support connectedness, and causal-structural connectedness.

Definition 5.1 (Causal-structural connectedness). *Causal-structural connectedness is the tensor field*

$$\mathcal{T}_{\text{cs}} = \mathfrak{H} \circ (\Delta \otimes \Xi) - (\Xi \otimes \Delta) \circ \mathfrak{H},$$

which binds surface causality $\pm\Pi \mp \Delta$ *to deep determinism* $O@C$*.*

Theorem 5.2 (Decomposition). *The tensor* $\mathcal{T}_{\text{cs}}$ *decomposes into antisymmetric and symmetric parts:*

$$\mathcal{T}_{\text{cs}} = T + R,$$

where T *is the torsion tensor and* R *is the curvature tensor.*

Remark 5.3. *Torsion expresses the "holeyness" of logistics and surface causality; curvature expresses deep determinism in support connectedness.*

CHAPTER 6

Package time, clocks, and interval

Kurpishev package time can be written as

$$\mathbb{T}_{\text{pack}} = \mathbb{T}_{\text{change}} * \mathbb{T}_{\text{action}},$$

where the first component corresponds to the continuous flow of change and the second to discrete acts and their reversals.

Definition 6.1 (Package interval). *The package interval is the measurable result of the coordinated action of the triple* (Δ, Ξ, Υ) *on a chosen layer. Galilean and Einsteinian intervals are interpreted as limiting or degenerate regimes of this more general interval.*

Proposition 6.2. *Galilean and Einsteinian intervals arise as reduced projections of the more general package interval onto the corresponding regimes of stitching space and time.*

CHAPTER 7

Package probability and the statistics of descent

In version 2.1, probability is interpreted not as primary randomness but as the statistical shadow of the variational descent of a packet along the gradient of the functional D^*.

Definition 7.1 (Stratified master equation). *For the density ρ_k on stratum k, the evolution is written as*

$$\frac{\partial \rho_k}{\partial t} = -\nabla \cdot (\rho_k \vec{v}^{(k)}_{\text{drift}}) + \nabla \cdot (\mathbf{D}_k \nabla \rho_k) + \sum_j (W_{j\to k}\rho_j - W_{k\to j}\rho_k).$$

Remark 7.2. *The first term describes directed descent along $-\nabla D^*$, the second intralayer fluctuations, and the third discrete interlayer transitions.*

CHAPTER 8

The anthropology of historical types of cognition

CHAPTER 9

Canonical scale

Historical types of perception form the ladder

$$P01 \to P1 \to P02 \to P2 \to P03 \to P3 \to P04 \to P4.$$

Parallel to it stands the system of pure and practical R-layers:

$$R{-}01,\ R{-}02,\ R{-}03,\ R{-}04 \qquad \text{and} \qquad R{-}1,\ R{-}2,\ R{-}3,\ R{-}4.$$

CHAPTER 10

Lower node

$P-1$ fixes the dark pre-fold zone where the boundaries between dream and waking, image and event, past and present are not yet stable. $P01$ expresses the conciliar Now, while $P1$ is the ritual world of dense presence.

CHAPTER 11

Middle node

$P02/P2$ form cosmological reason: time is read off the cosmic order and the past ground. $P03/P3$ form critical and scientific reason: time becomes a horizon, a form of experience, and then a measurable and model-organized magnitude.

CHAPTER 12

Upper node

$P04/P4$ and $R-04/R-4$ fix package reason. The pure form $R-04$ understands reality as a package-projective structure; $R–4$ is its practical realization in AI. PIX(Π-field) is not a new episteme; it is the working mechanism of $R-04$.

Summary table

Table 1: Canonical historical layers

Layer	Canonical name	Type of time	Arche-symbol
$P-1$	Dark episteme	undifferentiated time	darkness, dream, déjà vu
$P01$	Conciliar Now	unified present	liturgical Now
$P1$	Ritual World	here-and-now	ritual, totem, omen
$P02$	Pure Cosmo-Reason	cosmic measure	sphere, circle, cosmos
$P2$	Practical Cosmo-Reason	calibrated external time	celestial grid
$P03$	Pure Critical Reason	horizon of the future	form of intuition
$P3$	Practical Scientific Reason	measurable model-time	mechanism, formula
$P04$	Pure Package Reason	multiple presents	packet of horizons
$P4$	Package Episteme	networked and layered time	network, packet, base of layers

CHAPTER 13

The two lines: Aristotle and Plato

Each historical layer admits a two-line reading:

$$P_\sigma = P_\sigma^{\mathrm{A}} \oplus P_\sigma^{\Pi}.$$

Definition 13.1 (Aristotelian line). *The Aristotelian line expresses locality, measure, finitude, and bodily visibility. In package-projective language this is the central-affine line.*

Definition 13.2 (Platonic line). *The Platonic line expresses paradigm, depth, horizon, and the distant limit. In package-projective language this is the central-projective line.*

Remark 13.3. *A real historical type of cognition arises as a package superposition of these two lines, not as their simple separation.*

CHAPTER 14

Historical models of time

Aristotle defines time as the number of motion; patristic thought and Augustine shift it toward the inner and salvific dimension; Locke, Berkeley, and Hume decosmologize time; Kant secures it as a form of intuition; Newton absolutizes mathematical time; Michelson–Morley reveals the crisis of the universal background; Einstein transfers time into the regime of synchronization and multiple presents.

Table 1. Historical models of time

Author / line	Layer	What time is	Type of present
Orthodox Fathers	$P01$	unified presence	conciliar Now
Augustine	$P01 \to P03$	distension of the soul	tense inner Now
Aristotle	$P02$	number of motion	locally observed Now
Locke	$P02 \to P03$	duration from succession of ideas	inner flowing Now
Berkeley	$P02 \to P03$	inseparable from succession of ideas	mentally retained Now
Hume	$P02 \to P03$	order of changeable objects	empirical instant of transition
Kant	$P03$	form of intuition	transcendental Now
Newton	$P3$	absolute mathematical time	universal external Now
Einstein	$P3 \leftrightarrow P4$	operational time of synchronization	multiple presents

CHAPTER 15

Arche-symbols of space-time

Aristotle expresses the strongest form of the central-affine line: a finite, local, observable cosmos of measure. Plato gives the strongest form of the central-projective line: the cosmos as image and time as image of eternity. Kant produces their critical tension, while Spengler supplies a morphological reading through the prime symbols of cultures.

CHAPTER 16

Package axiomatics of historical ontologies

Definition 16.1 (Layer packet). *For the historical layer P_σ, define the packet*

$$\mathbb{P}_\sigma = \big(P_\sigma^{\mathrm{A,Ax}}, P_\sigma^{\mathrm{A,Th}}; P_\sigma^{\Pi,\mathrm{Ax}}, P_\sigma^{\Pi,\mathrm{Th}}\big).$$

Definition 16.2 (λ-value of a layer). *To every packet $\mathbb{P}_\sigma$ assign the value*

$$\lambda_\sigma = \Lambda\big(P_\sigma^{\mathrm{A,Ax}}, P_\sigma^{\mathrm{A,Th}}; P_\sigma^{\Pi,\mathrm{Ax}}, P_\sigma^{\Pi,\mathrm{Th}}\big),$$

called the λ-value of the historical layer.

Axiom 16.3. *The value*

$$\lambda_\sigma = -1$$

means absolute truth of the corresponding ontological packet.

Definition 16.4 (Ontological limit). *The ontological limit of the layer is defined as*

$$\Omega_\sigma = \lambda_\sigma\big(\mathbb{P}_\sigma\big).$$

Thus the limit is not given by an external point but by the harmonically organized packet of internal lines and subspaces.

Postulate 16.5 (Spectral hypothesis). *The Aristotelian and Platonic lines may be represented by functions $a_\sigma(x)$ and $p_\sigma(x)$; after Fourier transformation, their harmonically normalized ratio yields a spectral model of the λ-field of the corresponding layer.*

CHAPTER 17

Conclusion

Version 2.1 gathers logic, geometry, time, physics, and anthropology not as externally juxtaposed disciplines but as strata of one package-projective project. In this frame:

- the package point is the primary object;
- stratified time is the ontological support;
- the obstruction space gives the nonlinear geometric regime;
- λ-truth gives the harmonic criterion of truth;
- the tensor $\mathcal{T}_{\mathrm{cs}}$ gives the stitching of causality;
- package time, clocks, and interval form the physical layer;
- historical epistemes form the phenomenological and anthropological superstructure;
- $R-04$ and PIX fix the transition to package reason.

Thus monograph 2.1 can be read as a unified article synthesis of a forming fundamental system.

Part 1

V*P Physics, Gravitation, and Classical Reduction

CHAPTER 18

Foundations of V*P Physics: from stratified time and package geometry to the fundamental structure

1. Editorial status of the added physical part

The present part is inserted as a direct continuation of the already assembled monograph. Its purpose is not to replace the axiomatic core, not to cancel the deformation-theoretic nucleus, and not to rewrite theorem status retroactively, but to gather into the same publication the physical layer that in neighboring project branches was formulated as a separate manuscript on the $V * P$ structure.

The unified publication therefore now combines three levels: the logical-geometric foundation, nonassociative package geometry, and the first physical layer in which space is no longer treated as the primitive arena but as a realized layer over a temporally primary support.

2. Imported source layers: MTF and NAPG

From the physical side the construction begins not with a ready-made spacetime but with two upstream inputs.

The first input is the MTF layer, from which one imports temporal primacy, stratified time, nonlocal temporal support, and the distinction between fundamental time and its downstream observable reductions.

The second input is the NAPG layer, from which one imports package data, package morphisms, the associator-defect regime, the quadratic object $R \star R$, the obstruction layer, the cohomological layer, and the differential/Hodge–Laplace bridge.

Remark 18.1 (Synthetic meaning). *Within this part MTF supplies the ontological thesis of the primacy of time, whereas NAPG supplies the rigorous package-geometric language in which that primacy becomes formalizable. The fundamental physical structure $V * P$ is introduced precisely from this synthesis.*

3. A physical dictionary for the passage from MTF/NAPG to $V * P$

In the physical language of the program, time is not treated as an external one-dimensional parameter attached to a pre-existing spatial geometry. It is treated instead as a stratified primary support from which downstream observable temporal parameters may later be extracted.

The stratification of time is interpreted as an internal multilayer organization of the temporal support. Physically, it encodes not only order but also compatibility, separation, and transition between distinct temporal layers.

Space, by contrast, is not taken as an ontologically primary object. It is interpreted as a layer, a section, or a realized geometric regime over a temporally primary support.

The symbol $V * P$ (Time$*$Space) denotes the fundamental physical structure of the program. At the present stage it is understood as a temporally primary, package-controlled, non-metric-first structure whose classical spacetime content appears only after reduction.

Definition 18.2 (Package in the physical sense). *A package is a coherent family of mutually dependent structures that cannot be faithfully replaced by a single isolated field without loss of essential information.*

Definition 18.3 (Layer and section). *A layer is an admissible realized regime of a more fundamental structure. A section is an observable extraction inside a richer package-controlled structure. In particular, classical spacetime is understood here not as primitive ontology but as a sectional reduction.*

Remark 18.4 (On nonassociativity and the associator defect). *Nonassociativity is read not as a merely formal algebraic defect but as a structural signal that the composition of fundamental objects does not reduce to ordinary associative kinematics. At the present stage the associator defect is not yet identified with matter, energy, or classical curvature; it is treated only as an internal source-like indicator of the full theory.*

4. Negative rules of identification

Four negative rules are fixed for the physical layer:

(1) the object $R \star R$ is not identified with the energy–momentum tensor;
(2) obstruction data are not identified with ordinary matter;
(3) the Hodge–Laplace bridge is not identified with the full field dynamics;
(4) classical spacetime does not exhaust the ontology of the theory.

5. The pre-fundamental and fundamental $V * P$ structure

Let T_{str} be the stratified temporal carrier imported from the MTF layer, and let P_{NAPG} be the frozen package-geometric datum imported from NAPG.

Definition 18.5 (Spatial-layer family over stratified time). *A spatial-layer family over stratified time is a surjective map*

$$\pi_{\mathrm{lay}} \colon L \to T_{\mathrm{str}},$$

where L is the total layered support and each fibre

$$L_t := \pi_{\mathrm{lay}}^{-1}(t), \qquad t \in T_{\mathrm{str}},$$

is interpreted as the corresponding admissible spatial layer.

Definition 18.6 (Package-compatibility assignment). *A package-compatibility assignment for $\pi_{\mathrm{lay}} \colon L \to T_{\mathrm{str}}$ is a rule C_{V*P} assigning to each admissible temporal domain $U \subseteq T_{\mathrm{str}}$ a package-geometric realization on*

$$L_U := \pi_{\mathrm{lay}}^{-1}(U)$$

subject to the following conditions:

(1) the realization is controlled by the imported datum P_{NAPG};
(2) the associator, obstruction, cohomological, and differential/Hodge–Laplace layers remain available on L_U;
(3) restriction to smaller admissible temporal domains is compatible with restriction of the realization;
(4) no classical spacetime structure is inserted as primary input.

Definition 18.7 (Pre-fundamental $V * P$ structure). *A pre-fundamental $V * P$ structure is a sextuple*

$$V = (T_{\mathrm{str}},\ \pi_{\mathrm{lay}}\colon L \to T_{\mathrm{str}},\ P_{\mathrm{NAPG}},\ C_{V*P},\ \Sigma_{\mathrm{cl}},\ R_{\mathrm{cl}}),$$

consisting of a stratified temporal carrier, a spatial-layer family, the imported frozen package datum, a package-compatibility assignment, a nonempty distinguished class Σ_{cl} of admissible classical candidate sections, and a classical reduction rule $R_{\mathrm{cl}}\colon \Sigma_{\mathrm{cl}} \to$ ClassicalData*.*

Definition 18.8 (Fundamental $V*P$ structure). *The pre-fundamental structure is called fundamental if the following hold:*

*(1) **temporal primacy**: every admissible realization is organized over T_{str}, and no classical spacetime datum appears before the reduction step;*
*(2) **layered spatial realization**: every admissible spatial regime is realized as a fibre or compatible union of fibres;*
*(3) **package control**: the admissible realization is controlled by the imported package datum;*
*(4) **defect retention**: the associator sector, the quadratic object $R\star R$, the obstruction package, and the cohomological package survive as genuine internal sectors of the theory;*
*(5) **classical reducibility**: there exists at least one admissible section whose reduction produces a classical spacetime-type datum;*
*(6) **non-metric-first architecture**: metric data, when they appear after reduction, are derived observables rather than the primary definition of the theory.*

Definition 18.9 (Classical and Einstein-type sections). *A classical section of a fundamental $V * P$ structure is an admissible section*

$$s\colon U \to L, \qquad U \subseteq T_{\mathrm{str}},$$

belonging to the distinguished class Σ_{cl}. Its effective classical content is the reduced datum $R_{\mathrm{cl}}(s)$.

A classical section $s \in \Sigma_{\mathrm{cl}}$ is called a Minkowski–Einstein type section *if $R_{\mathrm{cl}}(s)$ carries the standard status of classical spacetime geometry, namely a Lorentzian spacetime structure and a classically admissible connection regime. If, in addition, the reduced connection is the Levi–Civita connection of the reduced Lorentzian metric, then the section is called an* Einstein-type section*.*

Definition 18.10 (Intrinsic source-like sector). *The intrinsic source-like sector of a fundamental structure is the internal sector generated, through the compatibility assignment C_{V*P}, by the nonassociative and obstruction data imported from NAPG. It is denoted abstractly by $S_{\mathrm{src}}(V)$.*

Remark 18.11 (Restriction of interpretation). *At the present stage* $S_{\mathrm{src}}(V)$ *must not be identified with ordinary matter, dark matter, or dark energy. It is only a candidate internal source sector from which later effective contributions may arise.*

CHAPTER 19

Connection, curvature, and the gravitational layer

1. Realized internal sectors

The compatibility assignment C_{V*P} is required to produce on the total support L the following realized sectors:

(1) a realized transport sector T_{V*P};
(2) a realized obstruction sector O_{V*P};
(3) a realized quadratic sector Q_{V*P} generated by the internal image of $R \star R$;
(4) a realized admissible quadratic sector $X^{(2)}_{V*P}$;
(5) a realized defect-image sector $I^{(2)}_{V*P} \subseteq X^{(2)}_{V*P}$;
(6) a realized projection $\Pi_{V*P} \colon T_{V*P} \to O_{V*P}$.

For each realized sector E_{V*P} its module of admissible sections is denoted by $\Gamma_{V*P}(E_{V*P})$.

2. Admissible transport algebra

Definition 19.1 (Admissible transport algebra). *An admissible transport algebra for V is a quadruple*

$$(D_{V*P}, [\cdot,\cdot]_{V*P}, \rho_{V*P}, D_{\mathrm{hor}} \oplus D_{\mathrm{ver}}),$$

where:

(1) D_{V*P} is a module of admissible transport directions on L;
(2) $[\cdot,\cdot]_{V*P} \colon D_{V*P} \times D_{V*P} \to D_{V*P}$ is a bilinear bracket;
(3) $\rho_{V*P} \colon D_{V*P} \to \mathrm{Der}_K(C_{V*P}(L))$ is an anchor action on admissible scalars;
(4) $D_{V*P} = D_{\mathrm{hor}} \oplus D_{\mathrm{ver}}$ is a fixed decomposition into horizontal and vertical transport directions.

3. The $V * P$ connection package

Definition 19.2 ($V * P$ connection package). *A $V * P$ connection package on a fundamental structure is a quadruple*

$$\nabla_{V*P} = (\nabla_L, \nabla_T, \nabla_O, \nabla_\star),$$

consisting of:

(1) a connection on admissible transport directions $\nabla_L \colon D_{V*P} \times D_{V*P} \to D_{V*P}$;
(2) a connection on the realized transport sector $\nabla_T \colon D_{V*P} \times \Gamma_{V*P}(T_{V*P}) \to \Gamma_{V*P}(T_{V*P})$;
(3) a connection on the realized obstruction sector $\nabla_O \colon D_{V*P} \times \Gamma_{V*P}(O_{V*P}) \to \Gamma_{V*P}(O_{V*P})$;

(4) a connection on the realized quadratic sector $\nabla_\star\colon D_{V*P}\times\Gamma_{V*P}(Q_{V*P})\to\Gamma_{V*P}(Q_{V*P})$.

These maps are assumed to be K*-bilinear,* $C_{V*P}(L)$*-linear in the transport argument, and Leibniz-compatible in the field argument.*

Definition 19.3 (Geometrically admissible connection package). *A connection package* ∇_{V*P} *is called geometrically admissible if it satisfies:*

(1) horizontal/vertical coherence;

(2) projection compatibility

$$\Pi_{V*P}(\nabla^T_X u)=\nabla^O_X\big(\Pi_{V*P}(u)\big);$$

(3) defect retention;

(4) quadratic-sector coherence, that is, the internal image of $R\star R$ *survives as a genuine transported sector;*

(5) classical reducibility: for each admissible classical section the package admits a reduced geometric descendant.

4. Torsion, curvature, and the source-coupling slot

Definition 19.4 (Torsion of the package connection). *The torsion of* ∇_L *is the map*

$$\Theta_{V*P}(X,Y):=\nabla^L_X Y-\nabla^L_Y X-[X,Y]_{V*P}.$$

Definition 19.5 (Curvature operators). *The curvature operators of the* $V*P$ *package are*

$$\begin{aligned}
R^L_{V*P}(X,Y)Z&=\nabla^L_X\nabla^L_Y Z-\nabla^L_Y\nabla^L_X Z-\nabla^L_{[X,Y]_{V*P}}Z,\\
R^T_{V*P}(X,Y)u&=\nabla^T_X\nabla^T_Y u-\nabla^T_Y\nabla^T_X u-\nabla^T_{[X,Y]_{V*P}}u,\\
R^O_{V*P}(X,Y)\omega&=\nabla^O_X\nabla^O_Y\omega-\nabla^O_Y\nabla^O_X\omega-\nabla^O_{[X,Y]_{V*P}}\omega,\\
R^\star_{V*P}(X,Y)q&=\nabla^\star_X\nabla^\star_Y q-\nabla^\star_Y\nabla^\star_X q-\nabla^\star_{[X,Y]_{V*P}}q.
\end{aligned}$$

Together with Θ_{V*P} *they form the curvature package*

$$K_{V*P}=(\Theta_{V*P},R^L_{V*P},R^T_{V*P},R^O_{V*P},R^\star_{V*P}).$$

Definition 19.6 (Source-coupling slot). *A source-coupling slot for* (V,∇_{V*P}) *is a formally designated place at which the intrinsic source-like sector* $S_{\mathrm{src}}(V)$ *may later enter the geometric or dynamical theory through an admissible correction rule.*

Remark 19.7 (Principled honesty). *At the present stage the source-coupling slot is only a structural placeholder. It is not yet a field equation. In other words, the connection package and the curvature package are already defined, but the final gravitational dynamics are not yet closed at the level of field equations.*

5. Reduced geometric package along a classical section

Let

$$s\colon U\to L$$

be an admissible classical section. Its reduced geometric package is the pullback

$$s^*(\nabla_{V*P},K_{V*P}),$$

together with the induced descendant on the reduced classical datum $R_{\mathrm{cl}}(s)$.

Remark 19.8. *This is the point at which a bridge appears between pure package geometry and a future classical gravitational description. The bridge must not yet be mistaken for a final Einsteinian dynamics; it only specifies the controlled path toward it.*

CHAPTER 20

Package gravitation: gravitational slope, classical reduction, and the path toward the Einstein-type regime

1. Gravitation as an observable descendant of package geometry

In the earlier phenomenological chapter the gravitational field was already read as an effective slope of the functional D^* on the outer, quasi-classical layer. This interpretation can now be sharpened: gravitation is not an independent isolated ingredient but an observable descendant of the reduced geometric package along an admissible classical section.

This means that the phenomenological "gravitational slope" and the geometric package K_{V*P} belong to the same architecture while occupying different reading levels. The former describes observed regimes of motion and stability; the latter describes the internal geometry from which such regimes may be obtained after controlled reduction.

2. Reinterpreting the gravitational slope

On the layer $k = 3$ the effective gradient ∇D_3^* defines the drift field

$$\vec{v}_{\text{drift}}^{(3)} = -\mu_3 \nabla D_3^*.$$

In this language free fall corresponds to the dominance of the normal component of motion, the orbital regime to a compensation of descent by the tangential component and local layer geometry, and trapping to motion inside a local package funnel.

Remark 20.1 (Gravitation and probability). *This reading does not claim that gravitation is exhausted by probability. It claims the more careful statement that the statistics of observed motions and stable configurations may be described phenomenologically through descent geometry, while the full gravitational meaning arises only after that slope is linked to the reduced geometric package* $s^*(\nabla_{V*P}, K_{V*P})$.

3. Reper, coreper, and packet gravitation

In the physical branch of the project the reper was fixed as the minimally reversible structure of the theory: if a downstream theory of connection, curvature, or gravitation produces contradiction, the construction must be able to roll back to the reper and rebuild from there. The reper is therefore not a decorative metaphor but a rigorous node of foundation.

The reper is understood as a flag-like structure

$$\mathfrak{R} = (R, I, U), \qquad R \in I \subset U,$$

in which the local point, the interval, and the universal horizon are bound into one support configuration. The truth of such a reper appears as the harmonic closure

$$\mathrm{cr}(U, I; R, D) = -1.$$

Whenever harmonic closure is violated, one obtains either a defect of truth or a defect of geometric assembly, which is then read downstream as curvature, torsion, or obstruction of reduction.

In this framework the statement **"gravitation = curvature of the reper"** acquires a precise meaning. The classical metric is not abolished, but it loses the status of the first object. What is primary is the package of connection and curvature, for which classical spacetime appears only as an admissible Minkowski–Einstein type section. In this reading the reper is the minimal carrier of orientation, while the gravitational layer is the observable descendant of its package curvature.

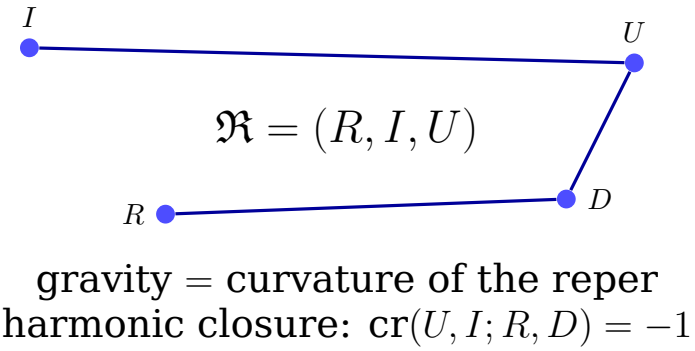

Figure 1. The reper as a minimally reversible structure and the path toward gravitational reduction

Remark 20.2. *The role of the coreper is that observation and measurement do not merely read off an already prepared geometry but define a dual system for reading the reper. Reper and coreper therefore form a physicological pair through which support connectedness, the field $\mathcal{T}_{\mathrm{cs}}$, and classical gravitational reduction become linked.*

4. The path toward classical Einstein-type reduction

From the viewpoint of the general program, controlled classical Einstein-type reduction is to be understood as the following sequence:

(1) choose an admissible classical section $s \in \Sigma_{\mathrm{cl}}$;
(2) obtain along it the reduced geometric package $s^*(\nabla_{V*P}, K_{V*P})$;
(3) require that the reduced classical datum $R_{\mathrm{cl}}(s)$ carry a Lorentzian spacetime structure;
(4) require that the corresponding reduced connection become classically admissible;
(5) in the Levi–Civita case obtain an Einstein-type classical section.

Definition 20.3 (Controlled classical reduction of the gravitational layer). *A controlled classical reduction of the gravitational layer is a procedure in which observable gravitational geometry is extracted not directly from a single metric but from the reduced package $(s^*\nabla_{V*P}, s^*K_{V*P}, S_{\mathrm{src}}(V))$ along an admissible classical section.*

5. The source-like sector and the limits of interpretation

Within classical phenomenology one naturally expects that part of the gravitational content will be read as an effective source. Yet in the logic of the present publication that source must not be prematurely identified with ordinary matter. It is more precise to say that the internal sector $S_{\mathrm{src}}(V)$ defines a candidate for effective contributions which, in the next paper of the program, may generate classical right-hand sides of the reduced regime.

Remark 20.4 (The four prohibitions once again). *Thus the same four prohibitions remain in force within the gravitational node:* $R \star R$ *is not the energy–momentum tensor, the obstruction layer is not ordinary matter, the Hodge–Laplace bridge is not the full field law, and classical spacetime does not exhaust the ontology of the theory.*

6. Editorial honesty of the gravitational layer

The present unified publication fixes the assembled foundation and adds the gravitational layer, but it does not claim that the field equations have thereby been fully derived. The correct formulation is the following:

- the fundamental $V * P$ structure has now been fixed;
- the package of connection and curvature has been fixed;
- the path toward the Minkowski–Einstein section has been localized;
- the gravitational slope already has a phenomenological reading;
- the full field-dynamical package and the final classical Einstein-type reduction belong to the next stage of the program.

Hypothesis 20.5 (Program of gravitational completion). *There exists a downstream field-dynamical package compatible with the already introduced* $V * P$ *structure such that, along admissible classical sections, it produces a controlled Einstein-type reduction and, on the outer layer* $k = 3$*, reproduces the observed gravitational slope regime as a quasi-classical phenomenology.*

Remark 20.6 (Physical outcome of the added part). *Gravitation therefore occupies a precisely delimited place in the present corpus. It is no longer an external addition to logic and geometry, but neither is it exhausted by a single classical metric. It is a reducible, stratified, and package-controlled regime connected with curvature, transport, the intrinsic source-like sector, and the observable geometry of descent.*

APPENDIX A

Appendix to Chapter 1: On the Primacy of Time and the Sectional Status of Space

1. Editorial purpose

This appendix clarifies the basic philosophical-geometric thesis of the first chapter: in NAPRLK, space is not eliminated, but it loses the status of primary ontology. It is understood as a sectional, layered, and projective regime of the more fundamental carrier $\mathbb{T}$.

2. Strong formulation

The primacy of time does not mean that space is an illusion. It means only the following:

(1) stratified time precedes any local metrization;
(2) space appears as an observed slice, fibre, or stable section;
(3) physical and logical relations between events must first be read in time and only then in their spatial realizations.

Remark A.1 (On the sectional status of space). *In classical theories space-time is given as an already prepared arena. In NAPRLK the arena is not presupposed: it is produced by the joint action of the package point, the stratum, and the stitching regime. Space is therefore always secondary with respect to the deeper package organization of time.*

APPENDIX B

Appendix to Chapter 2: Flow-module and the minimal arrow of time

1. The flow-module as a pre-kinematic object

The package $\Phi_t * \mathfrak{H}$ should not yet be read as a full physical dynamics. At the level of the second chapter it fixes only a minimal requirement: the flow of time must be compatible with stratification and with the operator of package stitching.

2. Minimal requirements

For the package $\Phi_t * \mathfrak{H}$ three properties are essential:

(1) compatibility with the local strata $\mathbb{T}^{(k)}$;
(2) the ability to transport package structures between layers;
(3) the extraction of a directionality that is not yet identical with either the thermodynamic or the cosmological arrow of time.

Proposition B.1 (Minimal arrow of time). *If the flow Φ_t commutes with $\mathfrak{H}$ and preserves the stratified compatibility of the package, then it defines a minimal arrow of time in the sense that it separates admissible and inadmissible transitions between strata.*

APPENDIX C

Appendix to Chapter 3: Answer to sophistical questions about spontaneous actions

1. Formulation of the problem

A sophistical question inevitably appears: if events and states are contracted into packages by coincidence fields, how should one explain a spontaneous, seemingly meaningless action — a cry, a jump, a demonstrative gesture, a rupture of ordinary purposiveness?

Within NAPRLK this question does not destroy the theory but sharpens it. It forces us to distinguish two modes in which a package point may arise: a mode where the state precedes the event, and a mode where the event appears first and the compatible states are reconstructed only afterwards.

2. Examples of spontaneous actions

The limiting examples are instructive:

(1) crowing while standing on one's head;
(2) the ancient gesture of presenting the human being as a "plucked chicken" in the debate over definition;
(3) a seemingly senseless act that receives its explanation only after the fact.

In all such cases the observer is tempted to call the action random. For package logic, however, the crucial point is not the total absence of cause, but the disturbance of the usual order in which event and state are linked.

3. Two modes of matching

Within NAPRLK, matching inside a package point is possible in two fundamentally different ways:

(1) **matching events to states**, when the state restricts the space of admissible acts and the event is extracted from an already given support-connectivity;
(2) **matching states to an event**, when the event arises first and the compatible states are reconstructed only afterwards.

The second mode is precisely what accounts for spontaneous action. It does not abolish connectivity; it reverses the direction in which connectivity is assembled.

Definition C.1 (Spontaneous action). *A spontaneous action is an action* $\Delta_{\mathrm{sp}} : \mathcal{P}_{\emptyset} \to \mathbb{T}$ *that is not derived from a preceding state inside ordinary support-connectivity, but can nevertheless be inserted into the regime of change after the application of the reversal operator.*

Theorem C.2 (On spontaneous action). *For every spontaneous action* Δ_{sp} *there exists a decomposition*

$$\Delta_{\mathrm{sp}} = \Delta \circ \Upsilon^{-1},$$

in which the initial impulse does not belong to ordinary support-connectivity, but after reversal it is inserted into the deterministic regime of change.

Editorial sketch. By definition, action begins from an empty point and therefore may fail to possess a locally recoverable ground in the preceding layer. Yet the reversal operator translates the improper impulse into a configuration that becomes an initial point for some change Ξ_τ. Spontaneity therefore belongs to the moment of launch, not to the subsequent evolution of the track. □

4. The ontological status of spontaneous acts

Whatever the act may be, it remains *improper* with respect to an already closed support-connectivity of grounds and consequences. Nevertheless, once the reversal operator and the subsequent course of time are engaged, the act loses the status of pure exteriority and begins to function as an ordinary event within package reality.

In this sense a spontaneous action is neither a miracle nor absolute chaos. It is a boundary regime in which the event appears before its explicit justification.

Remark C.3 (The Hamlet formula). *The claim that "enterprises lose the name of action" receives a strict meaning here: the initial impulse may be improper, yet after reversal and variational descent it is built into a deterministic structure of consequences and loses the appearance of sheer accident.*

5. The classical ancient example

The ancient dispute over the human being as a "plucked chicken" is useful because in it the event of definition precedes the stabilization of the state. First a gesture is performed — a radical identification — and only afterwards is a set of traits selected to support it. For NAPRLK this is an exemplary case of matching states to an event.

APPENDIX D

Appendix to Chapter 7: The Einstein–Bohr dispute in a package framework

1. Historical-philosophical context

The dispute between Einstein and Bohr over the completeness of quantum mechanics is not read here as a clash between truth and error. Within the package framework it is interpreted as a divergence between two layers of one stratified reality: the world of changes, in which a deeper order dominates, and the world of actions, in which the observer encounters a probabilistic profile of consequences.

2. Einstein's position

Einstein defended the idea of a fundamental determinism and insisted that quantum mechanics does not exhaust the full structure of physical reality. The short formula "God does not play dice" should therefore be understood not as a theological claim but as a demand for deeper causal completeness. In the terminology of NAPRLK this corresponds to the primacy of the world of changes.

3. Bohr's position

Bohr, by contrast, insisted on the completeness of contextual description at the level of measurement. For him a physical theory must describe not the thing-in-itself but the admissible regime of prediction for experimental results. In package terms this corresponds to the world of actions, where the event is fixed only together with the scheme of its registration.

4. The EPR paradox and locality

The Einstein–Podolsky–Rosen paradox is decisive because it makes visible the crack between the two descriptive regimes. Einstein's argument relies on locality and on the demand that elements of reality should not depend instantaneously on a distant measurement. In this sense it defends the deeper support-connectivity of the world of grounds.

5. Package reading of Bohr's reply

Bohr's reply shifts the emphasis: what matters is not a "mechanical disturbance" of the system, but a change in the conditions under which correct prediction is possible. In package logic this means that the act of measurement does not primarily alter the deep ground as such; it reorganizes the accessible layer of consequences and compatibilities.

Theorem D.1 (Package resolution of the Einstein–Bohr dispute). *There are three natural sectors:*

(1) $\mathbb{T}_{\text{change}}$ *— the world of change, where variational determinism dominates;*

(2) $\mathbb{T}_{\text{action}}$ *— the world of action, where the observer registers probabilistic consequences;*

(3) $\mathbb{T}_{\text{pack}} = \mathbb{T}_{\text{change}} * \mathbb{T}_{\text{action}}$ *— their unified stratified whole.*

Within this structure the Einsteinian and Bohr-like intuitions turn out to be not mutually exclusive but stratifiedly complementary.

Remark D.2 (Does God play dice?). *Within NAPRLK the answer is the following: at the level of deep variational descent, "God does not play dice"; at the level of observable actions and peaks of agreement, probabilistic distributions are unavoidable. The dice therefore appear not at the foundation of being but in the phenomenology of registration.*

6. Relation to package probability

This is why the Einstein–Bohr dispute is naturally linked to the chapter on package probability. Probability is not fundamental in itself; it expresses the statistical profile of transitions, whereas the deeper architecture of the package remains variationally organized.

APPENDIX E

Appendix to Chapter 8: The field of λ-truths and the limits of falsifiability

1. From the truth of propositions to the truth of regimes

The projective criterion of truth should not be read only as a local test for isolated inferences. It naturally lifts to doctrines, perceptual regimes, and historical epistemes.

2. Popperian falsifiability in a new notation

Falsifiability is not abolished here, but rewritten: instead of a binary opposition "theory is correct / theory is falsified" we obtain a field of values λ, where

$$\lambda = -1$$

denotes universal truth, while the deviation from it is measured by the defect

$$\delta_{\text{truth}} = |\lambda + 1|.$$

Remark E.1. *Theories therefore differ not only by whether they are refuted, but also by their degree of harmonic proximity to the universal limit of truth.*

APPENDIX F

Appendix to Chapter 9: PIX-fields and the coincidence of causality peaks

1. Why PIX is not a new episteme

The PIX-field should not be treated as an extra ontology placed above the strata. Its role is different: it expresses the mechanism of contraction and agreement of peaks of events and states inside an already given package reality.

2. The philosophical sense of peak coincidence

Peak coincidence means that causality need not always be read as a linear chain. In some regimes, ground and consequence converge at one vertex of structural intensity, producing a stable field of agreement.

Definition F.1 (PIX-peak). *A PIX-peak is a local maximum of the agreement field in which the event and state components of the package achieve their best mutual fit.*

APPENDIX G

Appendix to Chapter 10: Nonliving and living time

1. Two branches of the arrow of time

The tenth chapter introduces the distinction between nonliving and living time. This appendix clarifies that the distinction cannot be reduced to a contrast between physics and biology.

2. Clarification

(1) nonliving time is defined by the monotone decay of the associator toward the associative limit;
(2) living time is defined by the possibility of feedback that sustains nonassociative complexity away from zero;
(3) both branches obey the same package logic, but realize different types of stability.

Remark G.1. *Living time does not violate the variational principle; it realizes it within a richer phase geometry, where stability is achieved not by extinguishing complexity but by circulating it.*

APPENDIX H

Appendix to Chapter 11: Categories of thinking, analytic and synthetic judgments, historical models of perception

1. The problem

Within NAPRLK, categories of thinking are not fixed boxes for sorting experience. They are package operators that organize event-state peaks in accordance with a historical regime of perception. Hence they cannot be described merely as a list of formal headings: each category must be read as a way of contracting event, state, scale, viewpoint, and transition.

2. Relation to Kant and Aristotle

Kantian and Aristotelian categories are not discarded but rewritten in package form. Their place is taken by such fundamental pairs as:

- similarity and difference;
- being and non-being;
- law and regularity;
- causality and determinism;
- event and state.

At the same time, the Aristotelian line remains more tightly bound to locality, embodiment, and measure, whereas the Kantian line is tied to the form of experience and the conditions of possibility.

3. A package system of categories

For the working redaction of the monograph it is useful to distinguish four blocks of categories:

(1) **fundamental**: similarity/difference, being/non-being, law/regularity, axiom/limit of applicability;
(2) **causal**: causality/determinism, event/state;
(3) **dialectical**: unity of opposites, transition of quantity into quality, negation of negation;
(4) **package-geometric**: scale, viewpoint, transition, transport, shift, rotation, size, dimensionality.

The last block is what decisively distinguishes NAPRLK from the classical tables of categories.

4. Analytic and synthetic judgments in the package framework

The classical Kantian distinction between analytic and synthetic judgments remains meaningful, but is rewritten in terms of support-connectivity and passage between layers.

Definition H.1 (Analytic judgment in NAPRLK). *An analytic judgment is one whose truth is unfolded inside a single support-connectivity without the production of new structural content. In package language this means that the configuration never leaves one and the same layer of agreement.*

Definition H.2 (Synthetic judgment in NAPRLK). *A synthetic judgment is one in which new content appears through a passage between distinct support-connectivities, or through the projective-harmonic closure of a configuration. Syntheticity is therefore not merely the "addition of a predicate", but a structural increment of sense.*

Theorem H.3 (On the possibility of synthetic a priori judgments). *Synthetic a priori judgments are possible insofar as package geometry itself contains projective-harmonic closures that cannot be reduced to tautologies inside one layer. If a configuration closes harmonically,*

$$(\mathcal{I}, \mathcal{U}; \mathcal{R}, r) = -1,$$

then the trans-reper point r contributes genuinely new content without recourse to empirical observation and thus realizes synthetic a priority.

Proposition H.4 (Package geometry of analytic and synthetic judgments). *In NAPRLK, analytic judgments are analogous to central-affine constructions, whereas synthetic judgments are analogous to central-projective constructions.*

(1) an analytic judgment preserves one support connectivity, does not generate a new trans-reper element, and therefore has an affine character;

(2) a synthetic judgment requires a passage between connectivities or a harmonic closure of the configuration through the trans-reper point r, and therefore has a projective character.

Hence the full theory of judgment takes the packet form of two ideals:

$$\mathfrak{J}_{\text{pkg}} = (\mathfrak{A}_{\text{aff}}, \mathfrak{S}_{\text{proj}}).$$

Remark H.5 (Two ideals of judgment). *In NAPRLK the distinction between the analytic and the synthetic is not only logical but geometric. The analytic judgment realizes the ideal of central-affine geometry: it preserves local measure, one connectivity, and an internal unfolding of what is already given. The synthetic judgment realizes the ideal of central-projective geometry: it closes the configuration toward a distant horizon, introduces a trans-reper point, and produces new content.*

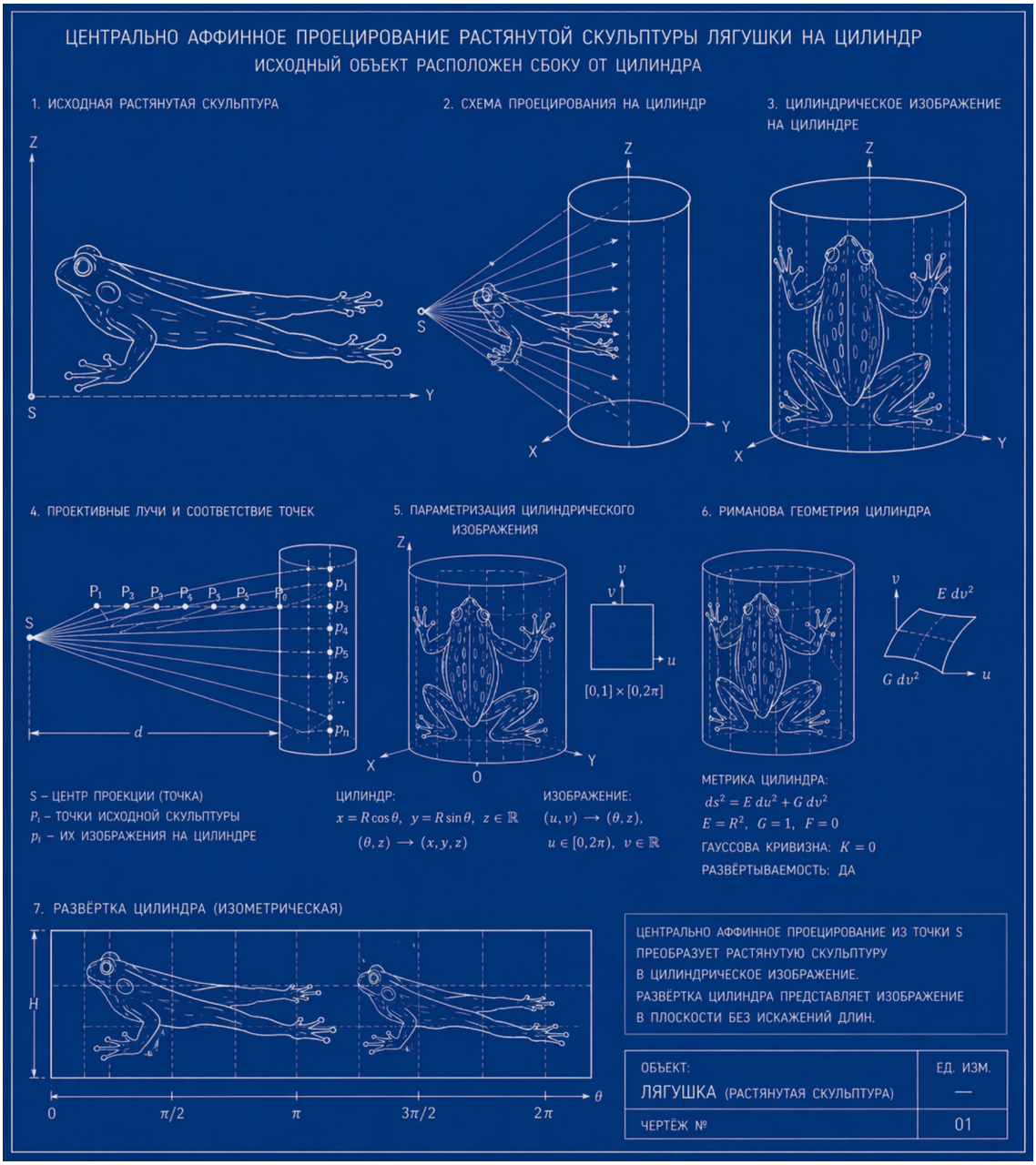

Figure 1. Central-affine unfolding and central-projective closure: a visual analogy for the packet of analytic and synthetic judgments

5. Table of correspondence

6. Historical scale and its correction

The canonical line in this redaction is:

- $P1$ — the ritual world;
- $P2$ — cosmo-reason;
- $P3$ — scientific reason;
- R-04 — the pure form of package reason;
- R-4 — its practical realization.

Table 1. Categories and judgment-types in three systems

Kant	**Aristotle**	**NAPRLK**
Quantity	Quantity	Size, scale
Quality	Quality	Dimensionality, viewpoint
Relation	Relation	Causality, transition
Modality	Substance / essence	Being/non-being, peak, admissibility
Analytic judgment	Definitional unfolding	Configuration inside one support-connectivity
Synthetic judgment	Increase of content	Passage between connectivities or harmonic closure

No separate $P5$ is introduced. The PIX-field does not constitute a new episteme; it expresses the working mechanism of R-04 at the level of peak agreement and event-state contraction.

Remark H.6. *Categories of thinking in NAPRLK must therefore be understood as dynamic package operators. They do not merely classify experience; they themselves evolve together with historical regimes of perception.*

APPENDIX I

Appendix to Chapter 12: Physical applications as limit projections

1. The general principle

Physical applications of NAPRLK should be understood as limiting, reduced, or sectional regimes of a more general package architecture. The claim that the theory applies to classical physics therefore means not direct substitution but controlled degeneration of structure.

Proposition I.1. *If the set of states collapses to one stratum and the internal package dynamics is frozen, then a classical physical limit arises that is compatible with the ordinary apparatus of differential geometry.*

APPENDIX J

Appendix to Chapter 13: Impermeability of support layers and regimes of breakdown

1. On the limit of action

The stratification of support layers forbids a direct ontological reading of laboratory “breakthrough”. At every level what is observed is only a special form of reversal, recombination, or restitching of connectivity.

2. Four regimes

(1) electromagnetic — reflection and bifurcation;
(2) atomic — ionization and relaxation;
(3) nuclear — decay and synthesis;
(4) ontological — ultimate inaccessibility without a passage into hypárxis.

Remark J.1. *Thus no empirical “breakthrough” should automatically be read as an exit beyond support-connectivity: more often it is a transition to another reversal regime within it.*

APPENDIX K

Appendix to Chapter 14: Probability as the statistics of package descent

1. Conceptual shift

Within NAPRLK, probability ceases to describe fundamental randomness and becomes the statistics of package descent along the functional D^*. Probability is thus the shadow of package dynamics, not its source.

Theorem K.1 (The limit of classical probability). *If stratification is not manifest and the obstruction space is degenerate, then the stratified master equation reduces to the classical statistical description. Ordinary probability is therefore a special case of package statistics.*

2. Relation to the quantum dispute

Here the Einstein–Bohr dispute receives a second formulation: probabilistic description belongs to the observed level of peaks and transitions, while the deeper package geometry retains variational determinism.

APPENDIX L

Appendix to Chapter 15: Clocks, interval, and the reversal operator

1. True clocks

In the package interpretation clocks do not measure “time itself” as an external substance. They measure the interval of the reversal operator Υ, that is, the size of the segment on which an action is successfully inserted into the regime of change.

2. Package interval

The package interval exceeds both the Galilean and the Einsteinian interval because it includes not only metric structure but also the stratified regime of transition between the worlds of grounds and consequences.

Remark L.1. *If the reversal operator degenerates, clocks become a mere mechanism of repetition without their own referent. The meaning of clocks is therefore not mechanical but geometric-operatorial.*

APPENDIX M

Appendix to Chapter 16: Package reason R-04 and its practical realization

1. Pure and practical forms

The final chapter of the monograph requires a strict distinction:

$$R\text{-}04 \neq R\text{-}4.$$

The first notation designates the pure form of package reason, the second its practical realization in contemporary computational and cognitive systems.

2. Consequences for AI

Artificial intelligence is significant in this framework not as an independent ontology but as an early historical realization of a package mode of thought in which:

(1) data are retained multilayeredly;
(2) decisions are taken within a field of competing peaks;
(3) truth has a graded rather than binary character.

Remark M.1 (On the place of PIX). *The PIX-field is not a new episteme and does not create a separate class above R-04. It is the working mechanism of package reason, providing the contraction and coordination of peaks within an already existing package architecture.*

APPENDIX N

Appendix to Version 2.41: Jonty Hurwitz, anamorphosis, and reper-based reading of form

1. Editorial frame and copyright

This appendix is added to version 2.41 as an expanded popular-explanatory module. It uses **only user-provided images**: the schematic sheet of cylindrical projection and the collage of works by Jonty Hurwitz. No new external reproductions are imported beyond those user-provided materials.

2. Why artistic material matters for the monograph

NAPRLK repeatedly argues that truth need not be given immediately in local visibility. It may require the right reper, the right reading surface, and the right angle of observation. The anamorphic art associated here with Jonty Hurwitz gives an almost ideal phenomenological analogue of that thesis: the deformed surface looks incomplete on its own, yet under the correct cylindrical reflection or projective closure it manifests an integral image.

3. Cylindrical anamorphosis as a model of the passage from local appearance to true image

In the user-provided blueprint the stretched frog figure is projected onto a cylinder. This matters not merely as a technical drawing. It shows the distinction between:

(1) the local unfolding of form;
(2) the carrier surface;
(3) the true image, which appears only under correct reper-based reading.

In the language of the monograph this naturally maps onto the distinction between local configuration, support connectivity, and the harmonically recovered form.

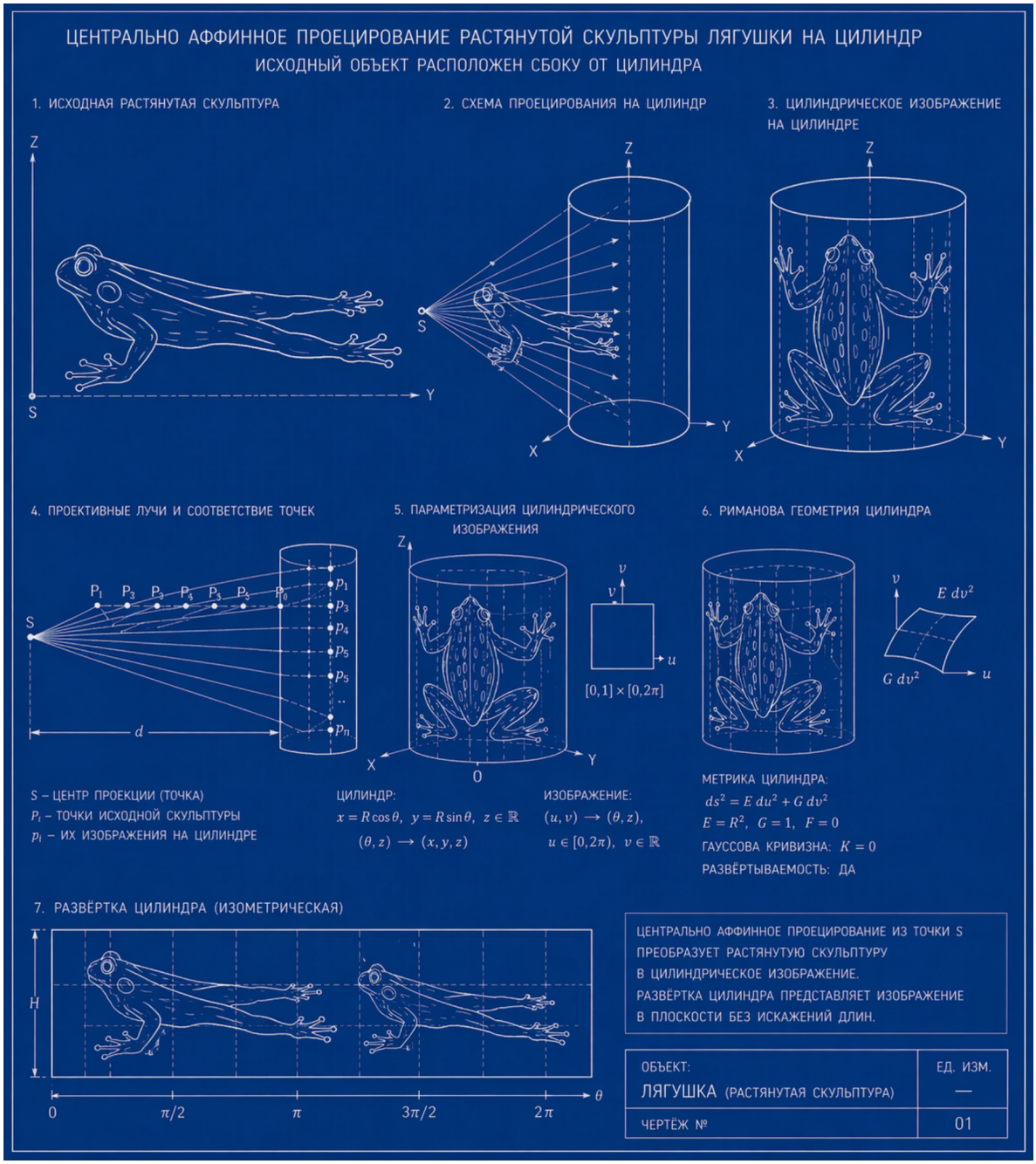

Figure 1. User-provided blueprint of cylindrical anamorphosis: from a stretched form to a correctly readable image

4. The analytic, the synthetic, and the artistic reper

This appendix makes especially visible the new fixation of version 2.4/2.41: the analytic tends toward the central-affine regime, while the synthetic tends toward the central-projective one. An anamorphic work first gives the viewer an affinely readable, locally stretched surface. But the true image is born only when projective closure appears — reflection, cylinder, horizon, and correct angle of reading. The artistic procedure thus literally reproduces the logic of the packet:

$$\text{analytic} \sim \text{central-affine}, \qquad \text{synthetic} \sim \text{central-projective}.$$

5. The collage of works as a field of anamorphosis

The user-provided collage shows several works together. For the purposes of the monograph the phenomenological reading is sufficient: the object does not coincide with how it is given on the surface; it requires a cylindrical, reflective, or otherwise mediating construction. That mediating construction is the artistic analogue of the reper.

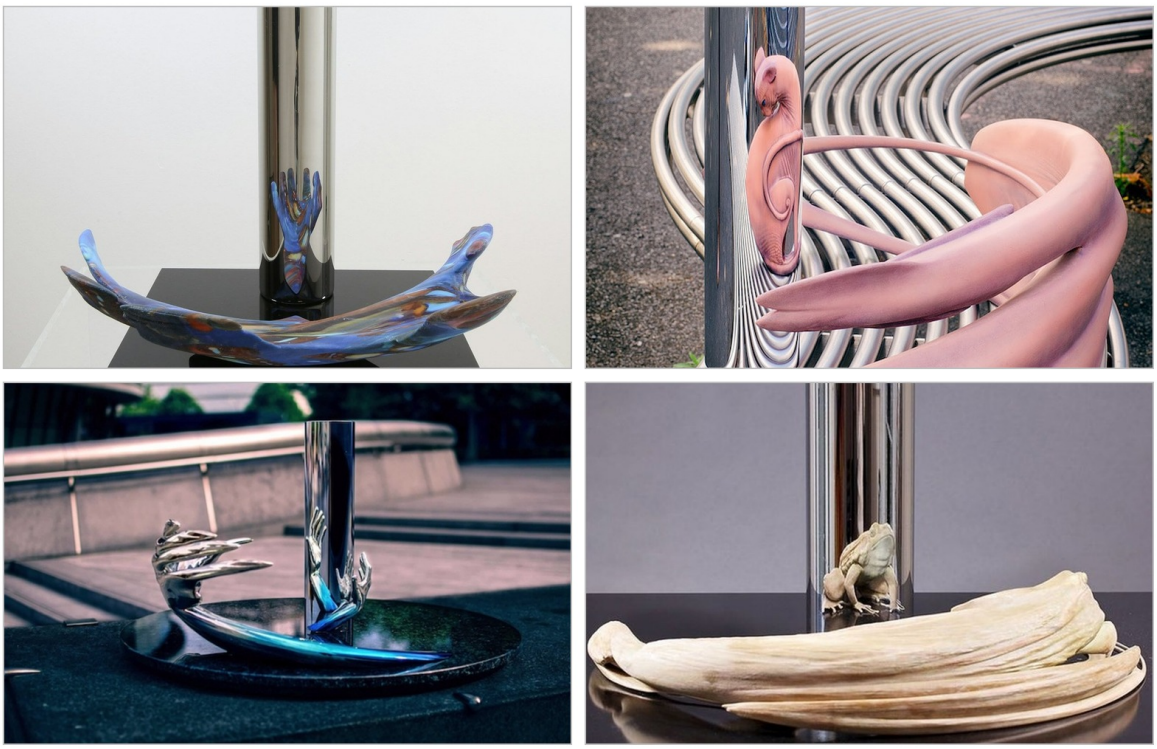

Figure 2. User-provided collage of works associated with Jonty Hurwitz as a field of anamorphosis, reflection, and hidden image

6. A popular explanation for the non-mathematical reader

Put as simply as possible, the Hurwitz appendix demonstrates the following idea. Something may look distorted not because it is false, but because we have not yet found the right way to read it. A cylinder, a mirror, another angle, another reper is required. Once that appears, what looked like chaos assembles into a stable form. In popular language this is exactly what NAPRLK wants to say about world, time, and truth: the whole may remain hidden inside locally deformed projections, but it does not disappear thereby.