

KOS AS EPISTEMIC INSTRUMENTS

MAPPING THE "SOCIAL ORGANISM" THROUGH CONVERGENCE

ISKO 2026 | SÃO PAULO

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Image Generated by AI



THE CLASSIFICATION SYSTEMS A SOCIETY MAINTAINS AT SCALE **BEAR ITS PURPOSEFUL FINGERPRINT.**

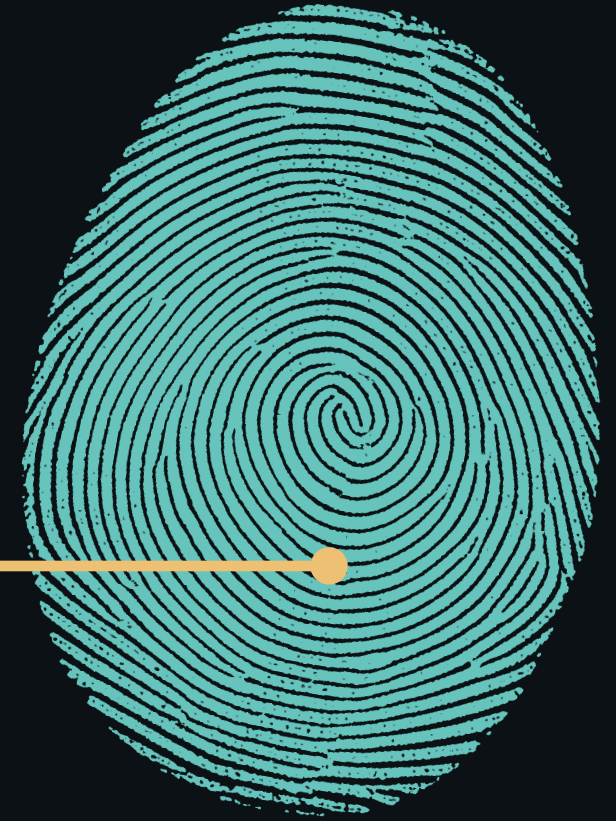
// Non-Neutral

// Purpose-Laden

// Culturally Embedded

PURPOSE-LADEN FINGERPRINTS CAN BE READ AS EVIDENCE TO DETECT DURABLE COORDINATION FUNCTIONS.

Under a Declared Orientation



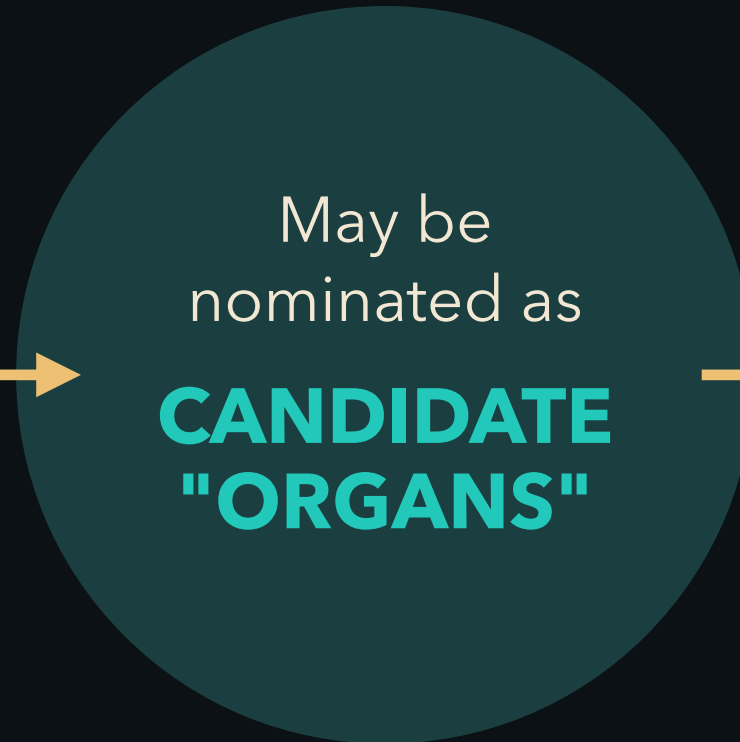
WHAT MAKES A COORDINATION FUNCTION DURABLE? A RECURRING DEMAND.

Human collectives must plausibly satisfy to persist across:



FROM DETECTED FUNCTION TO CANDIDATE FOR MODELING.

**Durable
Functions**
Detected in
Classification
Systems



For
Function-First
Heuristic
Modeling

A NEW VANTAGE POINT TO THE TRADITION OF THE "SOCIAL ORGANISM"

FROM

SOCIOLOGY

The functional question

Not the ontology

USING

KO

Evidence

Building Blocks

Auditable

TO

DESIGN SCIENCE

Humble Heuristic

Declared Stance

Happily Plural

No metaphysical identity // No final social anatomy

THE SOCIAL ORGANISM

SPEEDRUN

A SELECTIVE REFRESHER

(Non-exhaustive)

**PLATO**

c. 375 BCE
Tripartite City

The urge to map society's anatomy is ancient.

PLATO

c. 375 BCE • *Republic*, Book IV

“The same principles which exist in the State exist also in the individual.”

RULERS → **REASON**

AUXILIARIES → **SPIRIT**

PRODUCERS → **APPETITE**

THE TRIPARTITE CITY

PLATO

c. 375 BCE
Tripartite City

HOBBS

1651
Artificial Man

HOBBS

1651 • *Leviathan*

“For by Art is created that great LEVIATHAN ... which is but an Artificial Man.”

SOVEREIGNTY	→	SOUL	COUNSELLORS	→	MEMORY
MAGISTRATES	→	JOINTS	EQUITY & LAWS	→	REASON & WILL
REWARD & PUNISHMENT	→	NERVES	CONCORD	→	HEALTH
WEALTH & RICHES	→	STRENGTH	SEDITION	→	SICKNESS
THE PEOPLE'S SAFETY	→	BUSINESS	CIVIL WAR	→	DEATH

BY ART: THE ARTIFICIAL MAN

PLATO

c. 375 BCE
Tripartite City

HOBBS

1651
Artificial Man

HERBERT SPENCER

1860
The Social Organism

HERBERT SPENCER

1860 · "The Social Organism," *The Westminster Review*

Three organ systems, traced in detail:

SUSTAINING agriculture and industry

DISTRIBUTING transport and exchange

REGULATING government

Dozens of sub-correspondences within

The shift from analogy to criteria:

1 Grows in mass

2 Grows in structural complexity

3 Parts differentiate, and become mutually dependent

4 The whole outlives its units

Audits where his own analogy fails

THE SOCIAL ORGANISM

PLATO

c. 375 BCE
Tripartite City

HOBBS

1651
Artificial Man

HERBERT SPENCER

1860
The Social Organism



ÉMILE DURKHEIM

1893
The External Index

ÉMILE DURKHEIM

1893 • *The Division of Labor in Society*

*“We must substitute for this internal fact which escapes us an external index which symbolizes it, and study the former in the light of the latter.
This visible symbol is law.”*

SOCIAL SOLIDARITY



LAW

Internal

External

Moral

Visible

Not Directly Observable

Classifiable

Read the inside through the outside

THE EXTERNAL INDEX

PLATO

c. 375 BCE
Tripartite City

HOBBS

1651
Artificial Man

HERBERT SPENCER

1860
The Social Organism

ÉMILE DURKHEIM

1893
The External Index

TALCOTT PARSONS

1951, 1953
Structural Functionalism

TALCOTT PARSONS

1951 • *The Social System* | 1953 • *Agil Schema*

Drops the body entirely; asks what any system must do to survive

A ADAPTATION secure resources

G GOAL ATTAINMENT pursue collective ends

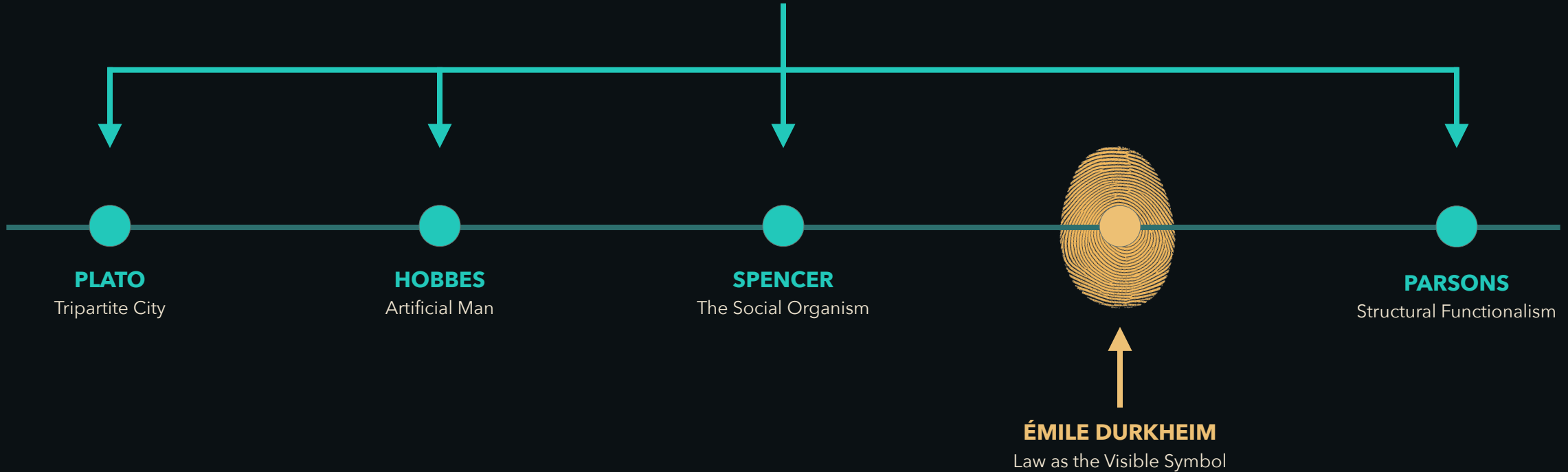
I INTEGRATION coordinate the parts

L LATENT PATTERN MAINTENANCE sustain motivations and cultural patterns

Not organs; functions

STRUCTURAL FUNCTIONALISM

TOP DOWN FROM THE ARMCHAIR



BOTTOM UP THE EXTERNAL EVIDENCE

THE TOP-DOWN ANALOGY BECAME A TRAP.

Who is the Brain?

Who are the Hands?

What counts as Dysfunction?

**Who decides what the
Whole needs?**

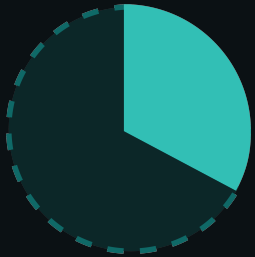
**Can one "Organ" be
sacrificed for another?**

**How would we know the
Map is complete?**

TOTALIZING // NORMATIVELY LOADED // DIFFICULT TO FALSIFY

WHERE IS THE SOCIAL ORGANISM IDEA NOW?

ALIVE AND WELL, BUT FRAGMENTED ACROSS DISCIPLINES.



BIOLOGY

Superorganisms &
Collective Behavior

Evolution & Cooperation

Eusociality

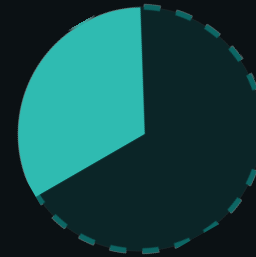


SYSTEMS SCIENCE

Dynamics & Interdependence

Feedback, Networks, Emergence

Models of Selected Processes



SOCIOLOGY + ANTHROPOLOGY

Institutions & Social Functions

Political Organization
& Social Complexity

Critiques of Totalizing Wholes



A METHOD FOR BUILDING SOCIETAL FUNCTION MAPS FROM CLASSIFICATION EVIDENCE

// Read as External Indices

// Multiple Independent Regimes

Knowledge • **Labor** • **Law**

// Range-Level Anchors & Boundaries

// Coverage & Residual Analysis

// Provisional, Under Declared Orientations

NOT ONE BODY.

"Social Organism" Here Means:

**FAMILIES OF FORMS,
NOT ONE ANIMAL**

**With wildly different outlines and
recurring coordination functions**

DECLARED ORIENTATION:

Collective Viability and Social Health

*Health means persistence and coordination capacity
under constraints.*



FRAMING STANCE

IF

human collectives
exhibit organism-like
coordination to any
measurable degree

THEN

large-scale KOS should
bear recoverable traces
of those durable
coordination functions

CFE

CONVERGENT FUNCTIONAL EXTRACTION

An auditable design-science method for constructing
and testing function-first heuristic overlays...

USING STRUCTURALLY DISTINCT CLASSIFICATION REGIMES AS EVIDENCE.

PROVISIONAL FUNCTION STATEMENT

ANCHORED CROSS-REGIME FOOTPRINT

AUDIT TRAIL

THREE MACRO-INSTITUTIONAL CLASSIFICATION REGIMES

SOCIETY-WIDE, STRUCTURALLY DISTINCT & INSTITUTIONALLY MAINTAINED



REGULATORY REGIME

LAW

What Society Regulates



OCCUPATIONAL REGIME

LABOR

What Society Does



BIBLIOGRAPHIC REGIME

KNOWLEDGE

What Society Knows



CANDIDATE FUNCTION

U.S. CODE



REGULATORY REGIME
LAW

What Society Regulates

ISCO-08



OCCUPATIONAL REGIME
LABOR

What Society Does

DDC



BIBLIOGRAPHIC REGIME
KNOWLEDGE

What Society Knows



A provisional demonstration set, open to substitution and cross-cultural testing

CFE IN PRACTICE: CANDIDATE-LEVEL TESTING



One candidate through five stages:

BUILDER
CONSTRUCT AND MAINTAIN HABITAT

(a deliberately overdetermined example)

1
HYPOTHESIS

CANDIDATE HYPOTHESIS FORMULATION

FORM THE HYPOTHESIS BEFORE TESTING THE CLASSIFICATION

// HYPOTHESIZE

Division-of-labor literature

Historical and cultural recurrence

Viability constraints

Heuristic frameworks

// FORMALIZE

Function: verb-object

Purpose

Scope and boundaries

Expected traces

// FILTER

Recurrence: recurs across time, place, and culture

Distinctness: merely a function and not everything the society does

1

HYPOTHESIS

CANDIDATE HYPOTHESIS FORMULATION

"BUILDER" HYPOTHESIS

Construct and maintain habitat

// HYPOTHESIZE

Common division of labor and reference

Present in Maslow's Hierarchy of Needs

Shelter is a recurring viability demand

// FORMALIZE

Function: Construct and maintain habitat

Scope: (IN) habitat structures, building systems, construction, maintenance, site-related design. (OUT) connective and distributive works (roads, bridges, utility networks). (ADJACENT) allocation, ownership, financing

// FILTER

Recurs across:

TIME: mud-brick towns to steel-framed towers

PLACE: permafrosts to floodplains

CULTURE: owner-built to guilds to licensed trades

Distinctness: One core function, not everything society does

// EXPECTED TRACES

Knowledge • Labor • Regulation

Recurrence: PASS

Distinctness: PASS

Advance to Stage 2 →

STRUCTURAL DETECTION IN DDC

DOES THE “BUILDER” CANDIDATE LEAVE A STABLE, NON-TRIVIAL BIBLIOGRAPHIC FOOTPRINT?

// ANCHOR

Select one or more DDC ranges expressing the core activity

// FOOTPRINT

Record nearby ranges, boundaries, and exclusions

// STRENGTH

Strong, fragmented, weak or ambiguous

STRUCTURAL DETECTION IN DDC

A STRONG FOOTPRINT CAN BE
FRAGMENTED AND STILL COUNT

// ANCHOR

Select one or more DDC ranges
expressing the core activity

// FOOTPRINT

Record nearby ranges, boundaries,
and exclusions

// STRENGTH

Strong, fragmented, weak or ambiguous

// DDC FOOTPRINT

690-698

buildings and construction

710-729

area planning, landscape
architecture, and architecture

699 *unassigned · excluded*

// DECLARED HEURISTIC BOUNDARY

The first-pass footprint follows DDC's native disciplinary blocks.
620-629 broader engineering remains adjacent and revisable.

// ASSESSMENT

Fragmented across technology and the arts, but strong

Builder Anchors refined in post-submission audit // Convergence results remain unchanged

PASS: Advance to Stage 3 →

CROSS-REGIME CONVERGENCE

DOES THE SAME FUNCTION RECUR AS
SUBSTANTIAL TERRITORY ACROSS
STRUCTURALLY DISTINCT REGIMES?

// DDC

Two large bibliographic blocks

690-698

710-729

// ISCO-08

// U.S. CODE

CROSS-REGIME CONVERGENCE

SUBSTANTIAL TERRITORY RECURS
ACROSS ALL THREE REGIMES

// DDC

Two large bibliographic blocks

690-698
710-729

// ISCO-08

One complete 2-digit sub-major group

71
Building and Related Trades Workers

3 minor groups, 16 unit groups

// U.S. CODE

Two complete construction-focused chapters

40 U.S.C. Ch. 33
public buildings

42 U.S.C. Ch. 70
manufactured homes

// ASSESSMENT

Each regime contains substantial territory centered on the same function

CONVERGENCE JUDGMENT

BUILDER CONVERGES ACROSS THE REPORTED TEST

// REPORTED TEST

DDC + ISCO-08 + U.S. CODE

Structural Presence

PASS

Functional Coherence

PASS

Non-Triviality

PASS

// POST-SUBMISSION SCOPE EXTENSION

U.S. CODE → STATE OF GEORGIA → UNINCORPORATED COBB COUNTY

The Builder trace persists and deepens across legal scale.

The submitted test specified the U.S. Code. A more complete legal test follows a declared jurisdictional stack.

PASS: Advance to Stage 4 →

4
RESIDUALS

RESIDUAL AND COVERAGE DIAGNOSTIC

RESIDUALS REVEAL HIDDEN STRUCTURES

RESIDUALS = Total Regime Space - All Mapped Footprints

(recalculated as each candidate is added)

// RESIDUAL CATEGORIES

Missing-function indicator?

Boundary case?

Transient or culture-bound?

// RESIDUALS LOGGED

Infrastructure/Network

Unmapped clusters: Civil Engineering, Public Works.
The U.S. Code already separates them in Titles 23 & 49.

New Stage 1 Candidate →

Finance/Ownership

Shapes habitat, does not build it

Retain as Adjacent →

LOGGED: Advance to Stage 5 →

MINIMAL VIABILITY STRESS TEST

In good faith...

COULD A SOCIETY PERSIST DURABLY WITHOUT THIS FUNCTION?

Sustained absence
of coordinated
habitat construction
and maintenance
plausibly yields:



FAIL

BORDERLINE

PASS

CANDIDATE RESULT

BUILDER

HABITAT CONSTRUCTION AND MAINTENANCE

NOMINATED

Provisional, Auditable, Contestable

- | | |
|------------------|---|
| 1 // HYPOTHESIS | Formalized and filtered |
| 2 // DETECTION | DDC footprint fragmented but strong |
| 3 // CONVERGENCE | Cross-regime test convergent |
| 4 // RESIDUALS | Boundaries refined, cumulative residual log updated |
| 5 // VIABILITY | Minimal viability PASS |

READY FOR RELATIONAL MODELING, AFTER ADDITIONAL CANDIDATES ARE MAPPED



SECOND CANDIDATE

FARMER
FOOD PROVISIONING

Repeats the same five-stage audit

// AUDIT CARD OVERVIEW

FULL MAPPING LOG RETAINED

FIGURE 1 | Farmer: Food Provisioning

STAGE 1 Candidate	FUNCTION	Provision food and raw biological inputs
	PURPOSE	Secure metabolic/material inputs (food, fiber) from ecological systems to support collective persistence
	SCOPE	<i>Includes</i> cultivation, animal husbandry, harvesting, basic conservation; <i>excludes</i> downstream processing/manufacturing, culinary preparation, market distribution
	SOURCE/ EXPECTATIONS (logged)	Seeded from survival constraints and division-of-labor heuristics (hypothesis); expected traces include a strong DDC agriculture footprint, ISCO farming task families, and a U.S.C. regulatory footprint centered on agricultural
	FILTERS	Timelessness: Pass ; Distinctness: Pass
STAGE 2 DDC Structural Detection	ANCHOR/ FOOTPRINT	630–639: Agriculture & related technologies forms a large contiguous block spanning <i>general methods</i> (631), <i>plant crops</i> (633–635), and <i>animal husbandry</i> (636), with nearby contextual framing in <i>human ecology</i> (304.2)
	CLUSTER STRENGTH	Strong ; sustained allocation provides literary warrant for ecological-input provisioning as a stabilized domain
STAGE 3 Cross-Regime Convergence	ANCHORS	DDC 630–639; <i>ISCO-08</i> Major Group 6 (Skilled Agricultural, Forestry and Fishery Workers, with market-oriented and subsistence tasks centered on soil preparation, planting, tending, harvesting); <i>U.S.C.</i> Title 7 (Agriculture, offering regulatory warrant for commodity exchanges, crop insurance, and resource conservation)
	CONVERGENCE CRITERIA	Structural presence: Pass Functional coherence: Pass Non-triviality via exclusions: Pass
	RESULT	Convergent ; retain candidate
STAGE 4 Residual Notes		Boundary tensions emerge adjacent to provisioning, where DDC shifts toward household preparation or food technology. These motivate separating provisioning from downstream transformation in iterations. Large unmapped blocks (e.g., health, defense) signal potential missing functions, not defects.
STAGE 5 Minimal Viability Stress Test		A society cannot persist without coordinated food provisioning, though forms vary (foraging to industrial agriculture). Sustained absence plausibly yields collapse or instability.
	DECISION	Strong Pass ; retain as durable coordination function

FARMER
CFE record

FUNCTION
Food Provisioning

SCOPE
In: Cultivation, husbandry, harvest, conservation
Out: Processing, cooking, distribution

DDC:
630-639 (+304.2 ctx)

ISCO:
MG6

U.S.C.:
Title 7

Stage 3: **PASS**

Boundary:
Processing/Hosting

Stage 5: **PASS**

Figure Design: Sarah Potter

LIMITS AND CONSTRAINTS

PROCEDURAL WARRANT, NOT PROOF

// BIAS NOT ELIMINATED

CFE reads bias-bearing artifacts; It does not neutralize them

// HEURISTIC, NOT ONTOLOGY

No final social anatomy or metaphysical organism claim

// BOUNDED PROVENANCE

These regimes share Western institutional histories;
non-Western regimes must test cross-cultural durability

// BEST-CASE EVIDENCE

Builder and Farmer were deliberately overdetermined;
borderline cases and inter-rater validation remain open

// UTILITY NOT YET DEMONSTRATED

Residuals are diagnostic; navigation, pedagogy, and routing
still require design-and-test cycles

IMPLICATIONS & FUTURE WORK

FUNCTION-FIRST OVERLAYS
COULD CONNECT SUBJECT SILOS

// INTERDISCIPLINARY
NAVIGATION + PEDAGOGY

Use map as a heuristic checklist for interdisciplinary connections and blind spots

// CYBERNETIC + POLICY HEURISTICS

Trace policy dependencies, feedback, and possible collateral effects onto unaccounted populations.

// AI SEMANTIC ROUTING

Use maps as an MoE routing layer, activating the domain lenses most relevant to each query

VALIDATION MUST COME FIRST

- // More candidates and regimes
- // Inter-rater boundary studies
- // Residual iteration

POST-PAPER WORK IN PROGRESS

PRIME VOCATION MODEL

One illustrative, purpose-conditioned variation

// DDC-ONLY CROSSWALK

NOT A VALIDATED CFE OUTPUT

JUDGE

POLITICS // JUSTICE // LAW



- 320-329 Political Science, Study of Governments, Politics & People
- 340-354 Law, Legal Systems, Legislation, Public Administration
- 360-369 Social Problems & Services, Associations, Penal & Related Institutions, Community Support & Organizations

KNOWLEDGE KEEPER

ARCHIVES // HISTORY // GEOGRAPHY



- 000-049 Generalities, Knowledge Systems, Encyclopedias
- 060 Museum Science
- 080-099 General Collections, Documents
- 120-129 Ontology, Epistemology
- 300-319 Sociology, Statistics
- 900-999 Geography, History, Genealogy, Biographies

STORYTELLER

ARTS // THEATER // LITERATURE



- 700-709 General Arts, Fine Arts, Galleries
- 730-746 Sculpture, Drawing, Textiles
- 750-792 Painting, Photography, Music, Stage Presentations, Theater, Performing Arts
- 800-899 Literature, Rhetoric & Criticisms, Drama, Fiction, Poetry (all languages)

HEALER

MEDICAL SCIENCE // HEALTH



- 150-159 Psychology
- 362.1 Social Welfare Programs, Community Health Services
- 610-619 Medicine and Health, Anatomy & Physiology, Wellness, Prevention, Pharmacology, Pathology, Surgery, Obstetrics & Gynecology, Pediatrics

MESSENGER

COMMUNICATION // LANGUAGE // MEDIA



- 050-059 Periodicals, Journalism & Publishing, Media, Communication
- 061-079
- 370-379 Education
- 383-384 Telecommunications
- 390-399 Customs, Etiquette, Folklore, Costumes & Appearance
- 400-499 Language, Linguistics, Writing
- 659 Advertising, Public Relations

HOST

RECREATION // ENTERTAINMENT



- 640-649 Food & Drink, Home & Family Management, Domestic Science, Restaurants, Hotels
- 793 Indoor Games & Amusements, Recreational Arts
- 795 Games of Chance, Gambling, Betting

TOOL MAKER

SCIENCE // TECHNOLOGY // ENGINEERING



- 500-599 Natural Sciences, Math
- 600-609 Technology, Applied Sciences, General Technological Principles, Inventions & Patents
- 620-629 Engineering & Allied Operations, Practical Applications
- 660-669 Chemical Engineering, Industrials, Food Technology, Chemical Processes

BUILDER

ARCHITECTURE // CONSTRUCTION



- 690-699 Buildings & Materials, Construction, HVAC, Trades
- 710-729 Architecture & Design, Building Design & Decoration, Civic Planning & Landscaping, Commercial & Residential Structures
- 747-749 Interior Decoration, Furniture & Accessories

MERCHANT

BUSINESS // ECONOMICS



- 330-339 Economics, Production
- 380-382 Commerce Infrastructure, Transport
- 385-389
- 650-658 Business Management, Auxiliary Services, Business Operations, Accounting
- 670-689 Manufacturing, Production, Fabrication

GUARDIAN

MILITARY // PUBLIC SAFETY // ATHLETICS



- 355-359 Military Science & Defense (Land, Air & Sea)
- 363.1-363.37 Public Safety, EMS, Fire
- 794 Indoor Skill-Based Athletic Sports & Games
- 796-799 Outdoor Skill-Based Athletic Sports & Games

MEANING MAKER

THEOLOGY // PHILOSOPHY // ETHICS



- 100-119 Philosophy, Metaphysics
- 130-149 Parapsychology, Various Philosophies
- 160-299 Logic, Syllogisms, Fallacies, Ethics, Axiology, Various Philosophies, Religion, Theology, Religious Ethics

EARTH KEEPER

AGRICULTURE // ECOLOGY // FARMING



- 304.2 Human Ecology, Sustainability, Ecological Balance, Environmentalism
- 630-639 Agriculture & Related Technologies, Techniques, Equipment & Materials, Plant Pathologies, Crops, Forestry, Animal Husbandry, Processing, Hunting, Fishing, Conservation

PURPOSIVE KOS BEAR SOCIETY'S FINGERPRINT. CFE MAKES IT INSPECTABLE.

What function, regime, or boundary
should be tested next?



ZAC POTTER

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