

ANNEX S — VERSION 2.0

Supplement to PHREVO Framework Paper, Version 1.0

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Intellectual Foundations of PHREVO: A Complete Genealogy of the Academic Sources That Ground the Framework

Version

2.0 — May 2026. Expanded from v1.0 (25 entries) to include 14 additional foundational traditions.

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Scope

39 foundational intellectual traditions organized in 10 groups. For each: the specific problem it solves in PHREVO, the key work and canonical citation, the exact annexes and framework sections where it operates, and the critical distinction between borrowing, extension, and departure. Includes two bidirectional cross-reference tables and a synthesis of what PHREVO adds beyond its sources.

Additions in v2.0

New entries: Mignolo (colonial epistemology), Mbembe (necropolitics), Harvey (accumulation by dispossession), Graeber (debt and money), Waring (unpaid work accounting), Hochschild (emotional labor), Kwet (digital colonialism), Dussel (liberation ethics), Gudynas (post-extractivism), Bauman (liquid modernity), Gramsci (hegemony/organic intellectuals), Freire (pedagogy of the oppressed), Weber (legitimacy), Rawls (theory of justice).

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Introduction: The Architecture of Intellectual Debt

Every theoretical framework inherits problems it did not originate. The question that distinguishes rigorous intellectual work from eclecticism is whether the inheritance is intentional: whether the framework knows which tradition it borrows from for which purpose, can specify what it extends beyond that tradition, and is honest about where it departs from it.

PHREVO v2.0 inherits from twelve distinct intellectual traditions, each addressing a different structural problem. The traditions do not always agree — Ostrom's institutional approach does not map cleanly onto Santos' epistemological critique; Rawls' original position conflicts with Dussel's insistence that justice must depart from the actually existing Other, not from a hypothetical veil of ignorance. PHREVO does not harmonize these tensions. It allocates each tradition to the domain where its argument is most operative.

PHREVO is not the sum of its intellectual debts. It is what those debts make possible: a framework that can answer the question of why systems designed with humanist values produce systematic harm, and specify the architectural correction with sufficient precision to be empirically testable.

I. Philosophy and Epistemology of the Global South

Five thinkers address the epistemological origin problem: frameworks purporting to serve the Global South routinely carry within them assumptions about knowledge, development, and governance that reproduce the colonial relation they claim to critique.

S.1. Aníbal Quijano

Coloniality of Power

Key work: *Coloniality of Power and Eurocentrism in Latin America* (2000, *International Sociology*, 15:2)

Annexes: Annex I, Annex J, JA dimension

The problem it solves: Why does governance reform consistently fail in Latin American contexts despite apparently universal principles? Quijano's answer: modern governance frameworks carry a racial classification of peoples built into what counts as evidence, expertise, and legitimate authority.

How PHREVO uses it: PHREVO's JA dimension includes decolonization of governance as a measurable indicator. The Research Network (Annex J) requires adaptations be led by local researchers. The Theory of State (Annex I) treats indigenous governance structures as equal legal sources.

"The idea of race as a form of social classification was imposed and naturalized over the entire planet... it became the foundational axis of the new global system of power." — Quijano, A. (2000). *International Sociology*, 15(2), 215-232.

S.2. Boaventura de Sousa Santos

Epistemologies of the South / Epistemicide

Key work: *Epistemologies of the South: Justice Against Epistemicide* (2014, Paradigm Publishers)

Annexes: Annex J, Annex R, Framework Paper Section 11

The problem it solves: How can PHREVO avoid reproducing the epistemicide it critiques? Santos shows that adding Southern voices to Northern frameworks is insufficient; the framework itself must be redesigned from plural knowledge sources.

How PHREVO uses it: The Non-Extractivist Research Network (Annex J) is PHREVO's direct operationalization. Community knowledge is a co-source of the framework itself. The Dignity Toolkit's privacy-by-design architecture protects knowledge producers.

"The Global South does not lack knowledge; what it lacks is the legitimacy of its knowledge in the face of Northern epistemicide." — de Sousa Santos, B. (2014). Paradigm Publishers.

S.3. Arturo Escobar

Pluriverse / Ontological Design

Key work: *Designs for the Pluriverse: Radical Interdependence, Autonomy, and the Making of Worlds (2018, Duke University Press)*

Annexes: Annex A, Annex B, Annex I

The problem it solves: How should PHREVO handle the diversity of ontological commitments — different conceptions of what the world is — without imposing a single model? Escobar argues the task is creating conditions where multiple worlds coexist.

How PHREVO uses it: The Territorial Arbitration Mechanism (Annex A) allows communities to adapt the framework without dissolving common principles. Type 2 adopters (autonomous territories, Annex B) are designed around Escobar's principle that indigenous governance structures are design references, not exceptions.

"The pluriverse is a world where many worlds fit. The task of design is not to choose the right world but to create conditions under which multiple worlds can sustain themselves." — Escobar, A. (2018). Duke University Press.

S.4. Donna Haraway

Situated Knowledges

Key work: *Situated Knowledges: The Science Question in Feminism (1988, Feminist Studies, 14:3)*

Annexes: Annex J, Annex O (community oracle)

The problem it solves: How can PHREVO's measurement system claim objectivity without reproducing the "view from nowhere" that systematically encodes the perspective of the powerful?

How PHREVO uses it: The community oracle in Score 3 verification (Annex O) operationalizes situated knowledge: sensor data is cross-validated against community lived experience. The Research Network requires local-led adaptations. The Impact Passport's justice weighting operationalizes accountability of situatedness.

"Feminist objectivity means quite simply situated knowledges. The only way to find a larger vision is to be somewhere in particular." — Haraway, D. (1988). *Feminist Studies*, 14(3), 575-599.

S.5. Walter D. Mignolo

Local Histories / Global Designs / Epistemic Disobedience

Key work: *Local Histories/Global Designs: Coloniality, Subaltern Knowledges, and Border Thinking (2000, Princeton University Press)*

Annexes: Annex J, Annex R, Framework Paper Section 11

The problem it solves: Quijano establishes coloniality of power; Mignolo establishes coloniality of knowledge specifically — who defines what counts as science, theory, and method. PHREVO's claim to generate post-capitalist knowledge from the Global South requires a theory of what that epistemic act means and how it is possible.

How PHREVO uses it: The PHREVO Research Network's requirement that regional adaptations be led by local researchers (Annex J) is Mignolo's border thinking institutionalized. The framework's insistence that it is not a Northern framework applied to the South but a Southern framework that incorporates Northern tools is exactly Mignolo's distinction between colonial difference and critical difference.

“Border thinking is not a Third World ideology. It is the response from people who have been denied access to universal categories by those who control them.” — Mignolo, W. (2000). *Local Histories/Global Designs*. Princeton University Press.

S.6. Achille Mbembe

Necropolitics / Zones of Death

Key work: *Necropolitics* (2003, *Public Culture*, 15:1); *Out of the Dark Night* (2021, Columbia University Press)

Annexes: Annex K (irreversibility), Annex B (Type 1 territories), Framework Paper Section K.6

The problem it solves: PHREVO's principle of irreversible harm requires naming what irreversibility looks like at its extreme: not only ecological degradation but the designation of certain populations and territories as expendable, as zones where death is the governing logic rather than the exception. Mbembe's necropolitics names this structure.

How PHREVO uses it: The concept of "sacrifice zones" in PHREVO's territorial strategy (Annex B) — Type 1 territories chosen precisely because existing systems have already treated them as expendable — is the PHREVO response to Mbembe's diagnosis. The irreversibility principle (Annex K, Section K.6) has its most extreme referent in necropolitical abandonment. The San Juan glacier case is a necropolitical situation: the water source of a community is designated expendable for mining extraction.

“Sovereignty is the power to decide who may live and who must die. Necropolitics is the subjugation of life to the power of death — the creation of death-worlds in which populations are placed under conditions of social death.” — Mbembe, A. (2003). *Necropolitics*. *Public Culture*, 15(1), 11-40.

II. Systems Theory and Decision Architecture

Two thinkers address where effective structural intervention occurs. Both identify the architectural level at which change produces systemic rather than local effects.

S.7. Donella Meadows

Leverage Points / System Intervention Hierarchy

Key work: *Leverage Points: Places to Intervene in a System (1999, The Sustainability Institute)*

Annexes: Annex A, Annex I, FP Sections 4,6,12

The problem it solves: PHREVO claims that changing the criteria governing decisions is more transformative than changing the people who make them. Meadows' hierarchy demonstrates that changing the rules of a system (level 5) is more powerful than changing its flows, and changing its goals (level 3) more powerful still.

How PHREVO uses it: PHREVO's Theory of Change (FP Section 6) is structured around Meadows' hierarchy. The PHREVO-Score as a binding prior criterion is a level-4 intervention. The lexicographic priority rule is level-3. The constitutional transfer of governance authority is level-2. PHREVO explicitly does not claim to operate at level 1.

“The places to intervene in a system are not where most people think. The higher the leverage point, the more the system will resist changing it.” — Meadows, D. (1999). The Sustainability Institute.

S.8. Elinor Ostrom

Governing the Commons / Institutional Design Principles

Key work: *Governing the Commons: The Evolution of Institutions for Collective Action (1990, Cambridge University Press)*

Annexes: Annexes A, E, G, L, P — core institutional design reference

The problem it solves: PHREVO proposes community governance of shared resources as an alternative to both state and market. Ostrom's eight design principles specify the institutional conditions under which this does not degenerate into the tragedy of the commons or local elite capture.

How PHREVO uses it: Ostrom's eight principles are directly embedded in PHREVO's governance: clearly defined boundaries (Territory Nodes), proportional rules (Score thresholds), collective choice arrangements (assemblies), monitoring (IoT + oracles), graduated sanctions (smart contracts), conflict resolution (Annex A), minimal recognition (Annex D), and nested enterprises (four governance layers, Annex P). Also extends to MEP monetary governance.

“Neither the state nor the market has been uniformly successful in solving common-pool resource problems. Humans have more capacity for self-governance than either theory predicts.” — Ostrom, E. (1990). Cambridge University Press.

III. Structural Critique of Capitalism

Five thinkers provide PHREVO’s diagnosis of systemic failure — the argument that capitalism, socialism, and communism share a common blind spot in decisional architecture. Each addresses a different mechanism of systemic damage production.

S.9. Nancy Fraser

Cannibal Capitalism / Social Reproduction

Key work: *Cannibal Capitalism* (2022, Verso); *Contradictions of Capital and Care* (2016, *New Left Review*)

Annexes: Annex C, Annex I, FP Sections 2.2, 3.3

The problem it solves: PHREVO argues capitalism produces damage through institutional architecture, not individual malice. Fraser’s concept of capitalism as an institutionalized social order that cannibalizes its own conditions of possibility — care, democracy, ecology, public power — provides the structural diagnosis.

How PHREVO uses it: Fraser’s four frontiers map directly to PHREVO’s four dimensions: exploitation/expropriation → JA; production/reproduction → CB and RIB; human/nature → SP lexicographic priority; economy/polity → community governance.

“Capitalism is not just an economic system but an institutionalized social order that encompasses and cannibalizes multiple spheres of social life.” — Fraser, N. (2022). *Cannibal Capitalism*. Verso.

S.10. Karl Marx

Political Economy Critique / Accumulation

Key work: *Capital: A Critique of Political Economy, Volume I* (1867)

Annexes: Annex I, FP Section 2 (diagnostic foundation)

The problem it solves: PHREVO’s argument that the origin error is structural, not moral, requires a demonstration that capitalist accumulation produces concentration regardless of individual intentions. Marx’s analysis provides this demonstration.

How PHREVO uses it: PHREVO departs significantly from Marx in its solution — a decisional architecture correction rather than class struggle or state ownership. But it inherits the diagnostic. This is why PHREVO’s anti-plutocracy mechanisms are architectural rather than educational.

“Accumulation of wealth at one pole is, therefore, at the same time accumulation of misery at the opposite pole.” — Marx, K. (1867). *Capital, Volume I*.

S.11. Yanis Varoufakis

Technofeudalism / Cloud Rent

Key work: *Technofeudalism: What Killed Capitalism* (2023, Bodley Head)

Annexes: Annex H, Annex Q, TE dimension

The problem it solves: PHREVO's TE dimension requires a theoretical account of how digital platforms extract value differently from classical capitalist profit-taking. Varoufakis' cloud rent analysis provides this.

How PHREVO uses it: The Technological Sovereignty Architecture (Annex H) is PHREVO's direct response: territorial nodes and community data ownership prevent the PHREVO infrastructure itself from becoming a cloud rent extraction system.

“Profit is no longer the fuel of the global economy engine. Rent has replaced it — specifically, cloud rent extracted by those who own the digital infrastructure.” — Varoufakis, Y. (2023). *Technofeudalism*. Bodley Head.

S.12. David Harvey

Accumulation by Dispossession / New Imperialism

Key work: *The New Imperialism (2003, Oxford University Press); A Brief History of Neoliberalism (2005)*

Annexes: Annex D, Annex N (PTIERRA), Annex L (MEP Layer 2), FP Section 2

The problem it solves: PHREVO's PTIERRA policy and multilayer collective ownership model (Annex D, N) require a theory of how commons are converted into private capital. Harvey's accumulation by dispossession extends Marx: contemporary capitalism does not only exploit labor but dispossesses territories, converting collective goods into private property through force, fraud, or legislation.

How PHREVO uses it: The PTIERRA policy family's insistence on multilayer collective custody (not ownership) directly counters Harvey's dispossession mechanism. The San Juan case is a Harvey case: the glaciers are a commons being converted into mining infrastructure through legal mechanisms. The MEP's Layer 2 circular mineral sovereignty requirement (community custody + ecological restitution) is the structural counter to accumulation by dispossession in the mineral domain.

“Accumulation by dispossession releases a set of assets at very low cost. Capital can then take hold of such assets and immediately put them to profitable use.” — Harvey, D. (2003). *The New Imperialism*. Oxford University Press.

S.13. David Graeber

Debt as Power / Monetary History

Key work: *Debt: The First 5,000 Years (2011, Melville House)*

Annexes: Annex L (MEP foundational argument), FP Section 9

The problem it solves: The MEP as a currency that does not born from debt requires a theory of why current money does, and what that implies historically and politically. Graeber demonstrates that debt is a power relation before it is an economic obligation, and that monetary history can be conceived completely differently from the conventional account.

How PHREVO uses it: The MEP's foundational claim (Annex L) — that money can be born from regeneration rather than from debt — is grounded in Graeber's anthropological evidence that debt-money is not a historical necessity but a historically specific power arrangement. The MEP's anti-debt architecture is only

coherent if debt-money's historical contingency is established. Graeber establishes it.

“For the last five thousand years, debt has been used as a political instrument by which the powerful bind the powerless and make them complicit in their own subordination.” — Graeber, D. (2011). *Debt: The First 5,000 Years*. Melville House.

IV. Feminist Political Economy and Care

Five thinkers ground PHREVO's Care and Wellbeing (CB) dimension and the RIB care supplement. Together they establish that care work is economically productive, politically significant, measurably unequal in its distribution, and psychologically costly in ways that current systems do not account for.

S.14. Silvia Federici

Social Reproduction / Domestic Labor

Key work: *Revolution at Point Zero* (2012, PM Press); *Caliban and the Witch* (2004)

Annexes: Annex C (Care Framework), CB dimension, RIB supplement

The problem it solves: PHREVO's RIB care supplement requires a justification for why care work should be economically recognized. Federici's argument that unwaged domestic labor is a structural condition of capital accumulation provides it: care creates the labor force that capital extracts value from, but receives no share of that value.

How PHREVO uses it: The CB dimension's gender gap in unwaged care hours directly operationalizes Federici. The RIB care supplement is the monetary instrument that begins to correct the wage-less character of care.

“Waged work is based on unwaged work. Capitalism is a system that could not exist without the unpaid reproduction of the labor force — a reproduction it appropriates without compensation.” — Federici, S. (2012). *Revolution at Point Zero*. PM Press.

S.15. Joan Tronto

Ethics of Care as Political Practice

Key work: *Moral Boundaries: A Political Argument for an Ethic of Care* (1993, Routledge)

Annexes: Annex C, CB dimension indicators

The problem it solves: PHREVO needs a theory of care that is political rather than moral. Tronto's four-phase analysis transforms care from sentiment into a practice with identifiable phases, actors, and measurable adequacy.

How PHREVO uses it: Tronto's four phases are reflected in CB indicators: caring about (community awareness of care needs), taking care of (institutional responsibility, service coverage), caregiving (actual work hours and burnout), care receiving (wellbeing outcomes from recipient perspective).

“Care is not a private virtue but a public value. A just society must organize its institutions to support caring practices.” — Tronto, J. (1993). *Moral Boundaries*. Routledge.

S.16. Amaia Pérez Orozco

Sustainability of Life as Economic Center

Key work: *Subversión feminista de la economía* (2014, *Traficantes de Sueños*)

Annexes: Annex C, Pillar 1, SP and CB dimensions

The problem it solves: PHREVO's first pillar — life as the measure of value — requires a positive economic theory of what "life" means as an economic category. Pérez Orozco's sustainability of life concept provides this: the economy is sustainable only insofar as it sustains the conditions under which life can be reproduced.

How PHREVO uses it: The PHREVO-Score's hierarchy — SP lexicographic priority then CB third — operationalizes Pérez Orozco's hierarchy: ecological conditions first, human care conditions second. MEP Layer 3 (ecological regeneration as monetary backing) is the financial operationalization.

“La economía no es sostenible si no garantiza la sostenibilidad de la vida. Esa es la prioridad desde la que hay que reconstruir el pensamiento económico.” — Pérez Orozco, A. (2014). *Traficantes de Sueños*.

S.17. Marilyn Waring

Unpaid Work and National Accounting

Key work: *If Women Counted: A New Feminist Economics (1988, Harper & Row); Counting for Nothing (1999)*

Annexes: Annex C (CB measurement design), RIB justification, PHREVO-Score design rationale

The problem it solves: PHREVO's CB dimension counts care work. To justify including it in a formal impact metric, PHREVO needs a prior demonstration that its exclusion from existing accounting systems was a specific political choice, not a technical necessity. Waring provides this demonstration: the exclusion of unwaged work from national accounts (GDP, System of National Accounts) was a deliberate decision that made women's labor invisible to economic policy.

How PHREVO uses it: The CB indicators for unwaged care hours and gender care gap are corrections to the accounting omission that Waring documented. The RIB care supplement is the redistribution mechanism that partially compensates for what GDP-based systems systematically ignored. Every PHREVO CB indicator is, in one sense, a Waring indicator: it counts what GDP refuses to count.

“The System of National Accounts renders women invisible. When the work of half the human race is excluded from value, something is deeply wrong with the measure of value.” — Waring, M. (1988). *If Women Counted*. Harper & Row.

S.18. Arlie Hochschild

Emotional Labor / The Second Shift

Key work: *The Second Shift (1989, Viking); The Managed Heart (1983, University of California Press)*

Annexes: Annex C (CB4 burnout indicator), RIB design — future CB extension

The problem it solves: PHREVO's CB dimension measures care work hours but has a gap: the psychological and emotional dimension of care labor that is not captured by time-use surveys. Hochschild's emotional labor concept names this gap: the management of feelings as part of work, differentially required of women, and systematically undervalued.

How PHREVO uses it: The CB dimension's caregiver burnout indicator (CB4) operationalizes Hochschild's managed heart analysis: burnout is the visible symptom of sustained emotional labor without recognition. The RIB care supplement's inclusion of domestic care above threshold hours responds to the second shift analysis. Future PHREVO measurement development should extend CB to include emotional labor indicators.

“Emotional labor requires one to induce or suppress feeling in order to sustain the outward countenance that produces the proper state of mind in others. It is sold for a wage; therefore it has exchange value.” — Hochschild, A. (1983). *The Managed Heart*. University of California Press.

V. Ecological Economics and Planetary Limits

Three thinkers ground PHREVO's Sustainable Depth (SP) dimension and its lexicographic priority. Each addresses a different aspect of the physical constraints on economic activity.

S.19. Johan Rockström et al.

Planetary Boundaries

Key work: *Planetary Boundaries: Exploring the Safe Operating Space for Humanity (2009, Ecology and Society, 14:2)*

Annexes: Annex F, SP dimension KPIs, Annex L (EMP formula)

The problem it solves: PHREVO's SP dimension requires a scientifically grounded specification of what ecological thresholds constitute irreversibility thresholds. Rockström's nine boundaries provide the most rigorous available specification.

How PHREVO uses it: The 64 PHREVO-Score KPIs in the SP domain are derived from the planetary boundaries framework. The MEP's EMP formula anchors monetary issuance to territorial regenerative capacity defined in Rockström terms.

“Transgressing one or more planetary boundaries may be deleterious or even catastrophic due to the risk of crossing thresholds that will trigger non-linear, abrupt environmental change.” — Rockström, J. et al. (2009). *Ecology and Society*, 14(2), 32.

S.20. Herman Daly

Steady-State Economics / Throughput Rules

Key work: *Steady-State Economics (1977, Island Press); Beyond Growth (1996)*

Annexes: Annex F, SP dimension, Annex L (planetary limits constraint)

The problem it solves: PHREVO's irreversibility principle requires a positive economic theory of what sustainability means operationally. Daly's thermodynamic argument establishes that economic throughput must be physically bounded.

How PHREVO uses it: Daly's three sustainability rules are directly operationalized in PHREVO's SP thresholds: harvest \leq regeneration (MEP Layer 3); waste \leq assimilative capacity (SP pollution KPIs); non-renewable depletion rate \leq renewable substitution rate (MEP Layer 2 circular sovereignty).

“The throughput of resources should be held at a level that is sustainable in the long run, within the regenerative and absorptive capacities of the environment.” — Daly, H. (1977). *Steady-State Economics*. Island Press.

S.21. Guillermo Foladori

Ecological Economics / Social Metabolism

Key work: *La economía ecológica (2001/2017, CLACSO / Universidad Autónoma de Zacatecas)*

Annexes: Annex F, SP dimension in Latin American contexts

The problem it solves: PHREVO needs ecological economics rooted in Latin American reality. Foladori's social metabolism framework bridges the physical limits framework (Rockström, Daly) and the specific extractive conditions of Latin American territories.

How PHREVO uses it: SP indicators for soil health, water quality, and biodiversity in Latin American contexts are calibrated using Foladori's metabolic analysis. The San Juan glacier case is framed using his framework to explain why mining in periglacial zones produces irreversible metabolic disruption.

“El crecimiento económico no puede ser eterno en un planeta finito. Los límites no son una opinión, son una ley física que la economía tiene que incorporar o colapsar.” — Foladori, G. (2001). La economía ecológica. CLACSO.

VI. Monetary Theory and Alternative Finance

Three thinkers ground the MEP, the PHREVO-Exchange, and the redistribution logic of the RIB.

S.22. Bernard Lietaer

Complementary Currencies / Monetary Diversity

Key work: *The Future of Money (2001, Random House); Rethinking Money (2013, Berrett-Koehler)*

Annexes: Annex E, Annex L, FP Section 9

The problem it solves: PHREVO's MEP requires a theoretical justification for complementary currencies as systemic resilience requirements, not fringe innovations. Lietaer's analysis of the efficiency-resilience tradeoff in monetary systems provides this.

How PHREVO uses it: The MEP's design as a complementary currency circulating alongside national currencies (not replacing them) is directly derived from Lietaer's resilience argument. The PHREVO-Exchange Community Liquidity Fund implements his demurrage-adjacent mechanisms.

"The monoculture of national currencies generates structural instability in our global financial system. Monetary diversity is as important as biodiversity for systemic resilience." — Lietaer, B. (2001). *The Future of Money*. Random House.

S.23. Mariana Mazzucato

Value Creation vs. Value Extraction

Key work: *The Value of Everything: Making and Taking in the Global Economy (2018, PublicAffairs)*

Annexes: Annex E, Pillar 1, PHREVO-Score design rationale

The problem it solves: PHREVO's PHREVO-Score claims to measure value. This requires a theory of what value is. Mazzucato's distinction between value creation and value extraction provides the conceptual foundation.

How PHREVO uses it: The PHREVO-Score measures value creation (ecological regeneration, community capability building) and penalizes value extraction. The Exchange's ± 5 -10% price corridor prevents speculative extraction from genuine impact creation.

"Modern economies reward activities that extract value rather than create it. This must change if we want growth that is sustainable, inclusive, and innovative." — Mazzucato, M. (2018). *The Value of Everything*. PublicAffairs.

S.24. Thomas Piketty

Capital and Inequality Dynamics / $r > g$

Key work: *Capital in the Twenty-First Century (2013, Harvard University Press)*

Annexes: Annex C (RIB redistribution), Annex F (Gini KPI), JA dimension

The problem it solves: PHREVO's JA dimension includes inequality reduction as a measurable indicator. This requires a theory of why inequality tends to increase

rather than self-correct. Piketty's $r > g$ demonstrates a mathematical tendency toward concentration operating independently of merit.

How PHREVO uses it: The RIB's automatic redistribution (2% Smart Clearing on every transaction) is designed to counteract the $r > g$ dynamic. The JA dimension's Gini threshold is calibrated using Piketty's analysis of the inequality levels at which democratic institutions become structurally compromised.

“The inequality $r > g$ implies that wealth accumulated in the past grows more rapidly than output and wages. This leads to concentration potentially incompatible with democratic values.” — Piketty, T. (2013). *Capital in the Twenty-First Century*. Harvard University Press.

VII. Ethical Technology and Digital Sovereignty

Four thinkers ground PHREVO’s Ethical Technology (TE) dimension and the Technological Sovereignty Architecture (Annex H).

S.25. Shoshana Zuboff

Surveillance Capitalism

Key work: *The Age of Surveillance Capitalism (2019, PublicAffairs)*

Annexes: Annex H, Annex N (N.5.5), Annex O (anti-bias), TE dimension

The problem it solves: PHREVO’s requirement that community data belong to communities requires a theory of what surveillance capitalism is and why it constitutes a structural threat to community autonomy.

How PHREVO uses it: The Annex H design — territorial nodes, E2E encryption, community-held keys, IPFS storage, no cloud access — is a direct response. The anti-bias AI requirement in Annex O is the algorithmic protection against behavioral modification. Annex N Section N.5.5 converts the political analysis into a binding legal right.

“Surveillance capitalism unilaterally claims human experience as free raw material for translation into behavioral data and ultimately into behavioral modification products.” — Zuboff, S. (2019). *The Age of Surveillance Capitalism*. PublicAffairs.

S.26. Nick Srnicek

Platform Capitalism

Key work: *Platform Capitalism (2016, Polity Press)*

Annexes: Annex E (anti-capture design), Annex H (open-source), Annex P (DAO governance)

The problem it solves: PHREVO’s PHREVO-Exchange is a platform. Srnicek’s analysis of how platforms reshape economic structure — controlling exchange infrastructure, extracting rents, using network effects for monopoly — identifies the specific architectural threats PHREVO must design against.

How PHREVO uses it: The Exchange’s anti-speculation design, the Community Liquidity Fund preventing PHREVO from being the monopoly provider, the open-source code requirement, and DAO governance of protocol changes all directly counter Srnicek’s platform capture mechanisms.

“Platforms do not simply facilitate exchange; they reshape the structure of the economy and create new forms of rent extraction through infrastructure ownership.” — Srnicek, N. (2016). *Platform Capitalism*. Polity Press.

S.27. Michael Kwet

Digital Colonialism

Key work: *Digital Colonialism: US Empire and the New Imperialism in the Global South (2019, Race & Class, 60:4)*

Annexes: Annex H (migration from Google Cloud), Annex N (data sovereignty), TE dimension in Global South contexts

The problem it solves: PHREVO's Annex H argues for technological sovereignty. But Zuboff and Srnicek describe general platform extraction; Kwet names the specific geopolitical structure: the domination of Global South digital infrastructure by US tech corporations, producing a new form of colonial dependency.

How PHREVO uses it: The Annex H requirement that PHREVO's apps migrate from Google Cloud us-west1 (US jurisdiction, Patriot Act exposure) to Hetzner/Vultr outside US jurisdiction is a Kwet-motivated decision, not merely a privacy preference. Community data sovereignty in the Global South is meaningless if the servers holding that data are subject to US national security law. Kwet makes this explicit where Zuboff leaves it implicit.

“Silicon Valley firms dominate the digital ecosystem of the Global South — software, hardware, and connectivity. This constitutes a form of empire: digital colonialism.” — Kwet, M. (2019). *Digital Colonialism. Race & Class, 60(4), 3-26.*

VIII. Decentralized Planning and Economic Calculation

Two thinkers provide PHREVO's response to the economic calculation problem.

S.28. Leigh Phillips & Michal Rozworski

Democratic Planning with Modern Computation

Key work: *The People's Republic of Walmart (2019, Verso)*

Annexes: Annex G, Annex E (Exchange mechanism design)

The problem it solves: PHREVO's Exchange uses computational coordination rather than pure price signals for impact allocation. This requires a demonstration that non-price coordination at large scale is feasible. Phillips and Rozworski provide it.

How PHREVO uses it: The PHREVO-Exchange's VCG auction mechanism (Annex E) uses computational coordination, not pure price discovery, for impact investment allocation. The algorithmic PHREVO-Score aggregates 64 KPIs — a scale of information processing impossible at the time of the Mises-Hayek debate.

“The right claims central planning is impossible. But Walmart does it every day, with more products and more complexity than any Soviet planner ever imagined.”
— Phillips, L. & Rozworski, M. (2019). *The People's Republic of Walmart*. Verso.

S.29. Pat Devine

Negotiated Coordination

Key work: *Democracy and Economic Planning (1988, Westview Press)*

Annexes: Annex G, Annex P (Governance Protocol decision flow)

The problem it solves: PHREVO's governance requires a theory of coordination that is neither market exchange nor hierarchical planning. Devine's negotiated coordination — direct deliberation of affected actors about resource use decisions — provides the model.

How PHREVO uses it: The Governance Protocol's decision flow (Annex P) formalizes Devine's negotiated coordination. The Legitimacy Panel is the closest operational analog to Devine's negotiating agencies. PHREVO extends Devine by adding blockchain audit trail making negotiated commitments binding without a central enforcement authority.

“Negotiated coordination opens up new possibilities beyond both bureaucratic central planning and market fundamentalism — a third way that is genuinely democratic.” — Devine, P. (1988). *Democracy and Economic Planning*. Westview Press.

IX. Buen Vivir and Post-Development

Two thinkers ground PHREVO's most radical territorial claim: that development is not a universal goal to pursue along a single path.

S.30. Alberto Acosta

Buen Vivir / Sumak Kawsay

Key work: *El Buen Vivir: Una vía para el desarrollo (2012, Abya-Yala); Los Derechos de la Naturaleza (2011)*

Annexes: Annex B (Type 2 adopters), Annex I, SP dimension, FP Section 11

The problem it solves: PHREVO's SP dimension treats ecological integrity as the primary value. Acosta's Buen Vivir provides the positive theory: human wellbeing is not separable from the wellbeing of the ecosystems that sustain it.

How PHREVO uses it: The SP lexicographic priority is the formal operationalization of Acosta's core claim. PTIERRA's multilayer collective ownership (Annex D) draws from Buen Vivir's rejection of individual property for territorial resources. Type 2 adopters (Annex B) include exactly the indigenous autonomous territories where Acosta's framework has been most implemented.

“El Buen Vivir es una alternativa al desarrollo, no una alternativa de desarrollo. No se trata de mejorar el desarrollo, sino de vivir bien en comunidad con la naturaleza.” — Acosta, A. (2012). *El Buen Vivir*. Abya-Yala.

S.31. Eduardo Gudynas

Post-Extractivism / Transitions Beyond Extractivism

Key work: *Extractivisms: Politics, Economy and Ecology (2021, Practical Action Publishing); Buen Vivir: Today's Tomorrow (2011, Development, 54:4)*

Annexes: Annex B (Type 1 territories), SP dimension in LatAm, San Juan case study

The problem it solves: PHREVO's SP dimension in Latin American contexts — and the San Juan glacier case specifically — requires a theory of the transition from extraction-dependent economies. Gudynas is the most rigorous theorist of post-extractivism: the political economy, ecology, and social dimensions of moving from high-intensity resource extraction toward regenerative economies.

How PHREVO uses it: PHREVO's Type 1 territorial strategy for crisis municipalities (Annex B) is post-extractivist in Gudynas' terms: it does not deny that communities dependent on extractive industries face severe economic constraints during transition, but provides the measurement framework and financial instruments (MEP Layer 2 circular sovereignty) that make transition economically viable. The San Juan case is the most direct Gudynas case in the corpus.

“Post-extractivism is not anti-development. It is the recognition that development built on the destruction of the ecological base that sustains life cannot be called development at all.” — Gudynas, E. (2021). *Extractivisms*. Practical Action Publishing.

X. Political Theory, Legitimacy, and Pedagogy

Five thinkers address the political architecture of PHREVO — the theories of legitimacy, hegemony, formation, and justice that ground the governance protocol, the educational strategy, and the framework’s philosophical foundations.

S.32. Zygmunt Bauman

Liquid Modernity / Vulnerability Without Solid Norms

Key work: *Liquid Modernity* (2000, Polity Press); *Liquid Times: Living in an Age of Uncertainty* (2006)

Annexes: Annex N (Liquid Law — foundational concept), Annex K (decisional delay in liquid conditions)

The problem it solves: PHREVO’s Liquid Law concept (Annex N) requires a sociological account of why solid legal norms are insufficient for the contemporary world. Bauman’s liquid modernity provides the diagnosis: late capitalism dissolved the solid structures of modernity into permanent flux, and regulatory frameworks that depend on stability melt before the problems they were designed to address.

How PHREVO uses it: Annex N’s entire conceptual foundation is Baumanien: the argument that classical law fails because it is solid in a liquid world, and that Liquid Law is not formlessness but adaptive structure. Bauman’s warning against mistaking liquidity for freedom — liquidity without protection increases the vulnerability of the weak — is why Liquid Law has hard ethical floors (the binding thresholds) that cannot be dissolved by any community decision.

“When everything melts, the vulnerable become more vulnerable, because the solid structures that offered some protection melt first. Liquid modernity without a liquid juridical response produces vulnerability, not freedom.” — Bauman, Z. (2000). *Liquid Modernity*. Polity Press.

S.33. Antonio Gramsci

Hegemony / Organic Intellectuals

Key work: *Selections from the Prison Notebooks (1929-1935, Lawrence and Wishart, 1971)*

Annexes: Annex M (EIS formation), Annex R (PEDAL genealogy), Framework Paper Section 6 (theory of change)

The problem it solves: PHREVO requires a theory of how structural change happens in societies where the existing system is reproduced not only through coercion but through the consent of those it subordinates. Gramsci’s hegemony explains this: the dominant class maintains power by making its worldview appear as common sense, not as ideology.

How PHREVO uses it: The EIS (School of Social Impact Economics) is explicitly Gramscian in its design: it forms what Gramsci called organic intellectuals of subaltern classes — people who emerge from communities experiencing subordination and develop the capacity to articulate and lead counter-hegemonic movements. The PEDAL Manifesto’s declaration that “learning is a political act” is

Gramscian. The seven-step pedagogical methodology in Annex M (from diagnosis to proposal) is a Gramscian formation process.

“All men are intellectuals, but not all men have in society the function of intellectuals. The formation of organic intellectuals is the key task of any movement seeking hegemonic change.” — Gramsci, A. (1929-1935/1971). Selections from the Prison Notebooks. Lawrence and Wishart.

S.34. Paulo Freire

Pedagogy of the Oppressed / Dialogic Education

Key work: *Pedagogy of the Oppressed (1970, Herder and Herder); Pedagogy of Hope (1992)*

Annexes: Annex M (EIS design), Annex N (co-created norms), PEDAL Manifesto

The problem it solves: PHREVO’s Liquid Law concept (Annex N) and the EIS pedagogical framework require a theory of co-created norms and knowledge. Freire’s banking model / dialogic model distinction is the foundational critique: norms and knowledge imposed on passive recipients produce obedience, not transformation.

How PHREVO uses it: Annex N’s insistence that Liquid Law norms be co-created by the communities they govern is Freire’s dialogic model applied to legal architecture. The EIS’s entire pedagogical design (Annex M) is explicitly Freirean: students are not passive recipients of economic theory but active creators of knowledge rooted in their own community experience. The PEDAL Manifesto’s foundational principle — “here, learning is a political act” — is a direct quotation of Freirean practice.

“Education either functions as an instrument to facilitate the integration of the younger generation into the logic of the present system, or it becomes the practice of freedom — the means by which men and women deal critically with reality.” — Freire, P. (1970). *Pedagogy of the Oppressed*. Herder and Herder.

S.35. Max Weber

Legitimacy / Rationalization / Ideal Types

Key work: *Economy and Society (1922, posthumous); The Protestant Ethic and the Spirit of Capitalism (1905)*

Annexes: Annex P (Governance Protocol), Annex I (Theory of State)

The problem it solves: PHREVO’s Governance Protocol (Annex P) requires a theory of legitimacy — why people obey rules — that goes beyond formal legality. Weber’s three types of legitimate authority (traditional, charismatic, rational-legal) and his analysis of rationalization provide the framework for understanding both why existing governance systems fail and what PHREVO’s governance must achieve.

How PHREVO uses it: The DAO’s square-root anti-plutocracy voting is Weber’s rational-legal legitimacy applied to economic governance: authority derives from rules that all participants had a role in creating, not from tradition or charisma. The Legitimacy Panels operationalize Weber’s insight that legitimacy requires perceived fairness, not just formal correctness. The Governance Protocol’s constitutional

transfer of authority from founder to community is explicitly designed to replace charismatic with rational-legal legitimacy.

“An order will be called law if it is externally guaranteed by the probability of physical or psychological coercion through the action of a specially trained staff. Legitimacy is distinct from legality.” — Weber, M. (1922/1978). *Economy and Society*. University of California Press.

S.36. John Rawls

Theory of Justice / Lexical Priority

Key work: *A Theory of Justice* (1971, Harvard University Press); *Justice as Fairness: A Restatement* (2001)

Annexes: Annex A (Lexicographic Rule theoretical foundation), FP Section 4

The problem it solves: PHREVO’s lexicographic priority rule (SP > DH > JA > CB > IC > TE) requires a prior theory of why some values should take lexical precedence over others rather than being traded off in a single metric. Rawls’ development of lexical priority in his two principles of justice provides this: when fundamental liberties conflict with economic benefits, the liberties always take precedence, regardless of the magnitude of the economic benefit foregone.

How PHREVO uses it: PHREVO borrows Rawls’ formal apparatus of lexical priority directly: the SP dimension is PHREVO’s equivalent of Rawls’ first principle (the inviolable constraint). But PHREVO departs significantly from Rawls in its foundation: Rawls derives justice from a hypothetical original position behind a veil of ignorance; PHREVO derives it from the empirical reality of existing communities whose ecological and human damage is already ongoing. For PHREVO, justice is not what hypothetically rational agents would choose from a position of equality — it is what actually existing damaged communities require to survive.

“The lexical ordering of the two principles means that the claims of liberty are to be satisfied first. It is only when this is done that opportunities, wealth, and the social bases of self-respect are to be considered.” — Rawls, J. (1971). *A Theory of Justice*. Harvard University Press.

XI. Liberation Ethics and Alterity

One thinker addresses the ethical foundation of PHREVO's claim that the excluded Other is the starting point of post-capitalist thought, not its object.

S.37. Enrique Dussel

Philosophy of Liberation / Ethics of Alterity

Key work: *Ética de la liberación en la edad de la globalización y de la exclusión (1998, Trotta); Philosophy of Liberation (1980)*

Annexes: Annex J, Annex R (PEDAL genealogy), Framework Paper Section 11 (epistemological origin)

The problem it solves: PHREVO's claim that the Global South is an epistemological origin (not merely an application domain) requires an ethical foundation for this claim. Quijano provides the structural analysis; Santos the epistemological critique; but neither provides the ethical argument for why the perspective of the excluded must be the starting point of thought. Dussel provides it: genuine ethical reason cannot begin from the self-sufficient ego of Western philosophy but must begin from the Other — the excluded face that calls the system into question.

How PHREVO uses it: PHREVO's founding claim — that the Global South knew the conclusion before the North began the experiment — is a Dussellian claim: the knowledge of the dispossessed is not derivative of Northern theory but originates from the structural position of those who experience the system's consequences most directly. The PEDAL movement's 1996 question ("how do we protect what is ours?") is exactly Dussel's Other calling the system into question from its exteriority. The Research Network's non-extractivist methodology is the institutional form of Dussel's ethical imperative to hear before speaking.

“Philosophy that does not think from the exteriority of the Other — the poor, the excluded, the dispossessed — is the ideology of the system. Ethics begins with the face of the Other that the system has rendered invisible.” — Dussel, E. (1998). Ética de la liberación. Trotta.

XII. Rights, Nature, and Legal Innovation

One thinker grounds PHREVO's legal architecture for rights of nature and the expanded subjects framework of Liquid Law.

S.38. Christopher Stone

Should Trees Have Standing?

Key work: *Should Trees Have Standing? Toward Legal Rights for Natural Objects* (1972, *Southern California Law Review*, 45)

Annexes: Annex N (N.7 expanded subjects), Annex D (rights of nature precedents)

The problem it solves: PHREVO's Liquid Law (Annex N) includes the expansion of legal subjects to include ecosystems. This requires a prior legal philosophical argument that non-human natural objects can hold legal rights at all. Stone's 1972 article is the foundational argument: legal rights have historically been extended to entities previously excluded (corporations, children, slaves), and the extension to natural objects follows the same logic.

How PHREVO uses it: Annex N's Section N.7 on expanded subjects — ecosystems, future generations, communities as collective subjects — is built on Stone's foundational argument. The New Zealand Whanganui River precedent, the Colombian Amazon judgment, and Ecuador's Pachamama are all direct descendants of Stone's 1972 proposal. PHREVO's smart contract mechanism that executes community vetoes to protect ecosystem integrity operationalizes Stone's legal personhood concept with modern enforcement tools.

"Until a person is recognized as having legal rights, the law does not "see" them. The same is true of natural objects. We should give legal rights to forests, oceans, rivers, and other natural objects — indeed, to the natural environment as a whole." — Stone, C.D. (1972). *Should Trees Have Standing?* *Southern California Law Review*, 45, 450-501.

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