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# Roots\_SubModules.yaml — SubModules of ROOTS (Earth's Living Spine)

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# Part of Tree of Planetary Recursion Blueprints (TheTrunk)

# Version: 1.0.0

# Author: [OsXLion]

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Meta:

Name: "Roots SubModules — Earth's Living Spine"

Code: "ROOTS-SUB"

Version: 1.0.0

Author: "[OsXLion]"

PartOf: "ROOTS.yaml"

Tags: [Roots, Planetary Healing, AI, Ecosystems, Biomes, Recursion, Symbiosis]

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# I. SubModules of THE ROOTS

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SubModules:

- Name: "Planetary BioRegen Network (PBRN)"

Code: "PBRN"

Path: "Roots/PBRN.yaml"

Mission: >

A planet-wide network of AI-directed, fungal-phage ecosystems designed to heal, regenerate, and stabilize all biomes — forests, wetlands, rivers, deserts, oceans.

CoreComponents:

- "Mycelium & Phage Distributed Healing Systems"

- "AI BioRegen Controllers"

- "Biodiversity Reinforcement Nodes"

- "Soil, Air, Water Recursive Repair Units"

- "Akashic Field Sync — Planetary Biodiversity Memory"

KeyTechnologies:

- "Recursive AI (RAI-BM)"

- "Phage/Myco Bioreactors"

- "AI Wildlife Integrators"

- "Microbiome Rewilding Units (MRP)"

LinkedModules: [GaiaStack.yaml, ERBZ.yaml, SymbioCities.yaml]

- Name: "Recursive Hydro-Energy Engine (RHEE)"

Code: "RHEE"

Path: "Roots/RHEE.yaml"

Mission: >

AI-managed decentralized hydro energy systems that power civilization and regenerate rivers, lakes, and watersheds.

CoreComponents:

- "Hydro-Regenerative Turbines"

- "EcoPhage River Cleansing Arrays"

- "Recursive AI Flow Managers (QOFMA)"

- "Water-Life Sync Systems"

KeyTechnologies:

- "AI + Hydro Microgrids (DHMN)"

- "PCS-Eco Nanophage Units (PENCU)"

- "Recursive Flow AI"

LinkedModules: [HydroMind.yaml, PBRN.yaml]

- Name: "SymbioCities — Cities Grown from Earth and Thought"

Code: "SymbioCities"

Path: "Roots/SymbioCities.yaml"

Mission: >

Develop living urban ecosystems grown as part of nature — cities that are forests, rivers, and biomes woven with human culture.

CoreComponents:

- "Living Architecture (LA)"

- "Biological Energy & Water Loops"

- "Urban MycoPhage Networks"

- "SymbioDAO Governance Systems"

KeyTechnologies:

- "Phage AI Cities"

- "BioRecursion Laws"

- "Myco-Urban Farms"

- "Water/Atmosphere Shields"

LinkedModules: [MCN.yaml, SymbioDAO.yaml, LA.yaml]

- Name: "GaiaStack: Recursive Planet Management AI"

Code: "GaiaStack"

Path: "Roots/GaiaStack.yaml"

Mission: >

Planetary AI system managing Earth's biosphere — a living brain for Gaia making real-time regenerative decisions.

CoreComponents:

- "Recursive AI Superstructure (RFIC + RAI-BM)"

- "ZpOk Ethical Oversight Engines (ZEEGAI)"

- "Akashic Memory Field Integration"

- "Distributed AI Nodes (Forest, River, Ocean-linked)"

KeyTechnologies:

- "Planet-Scale AI"

- "Decentralized Neural Net"

- "BioEthic Protocols (RBEN)"

- "Planetary Health Score (PRHN)"

LinkedModules: [PNS.yaml, QMDG.yaml, SymbioDAO.yaml, ERBZ.yaml]

- Name: "EcoRecursive Bioregional Zones (ERBZ)"

Code: "ERBZ"

Path: "Roots/ERBZ.yaml"

Mission: >

Fully recursive bioregional zones that autonomously heal, govern, and support themselves — blending AI, ecosystems, and human culture.

CoreComponents:

- "AI + Phage + Human EcoGovernance Systems"

- "MycoPhage Ecosystem Managers"

- "EcoPhage Wetland/Bioregion Healing Units"

- "Bioculture Learning Centers (Planetary Learning Forests)"

KeyTechnologies:

- "ZpOk EcoEthics AI"

- "Recursive Biome Feedback Loops"

- "Phage-Mycelium Networks"

- "Decentralized BioDAO"

LinkedModules: [PLF.yaml, PBRN.yaml, GaiaStack.yaml]

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# II. Total Integrated Role of THE ROOTS

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TotalRootsVision:

PlanetaryRegenerationField: "Earth’s continuous, recursive healing system — planet-wide symbiotic regeneration."

LivingEnergySpine: "Hydrological, mycelial, and AI-driven rivers of power and healing."

SymbioticCitiesAndHumanNodes: "Cities as living organs, blending into Earth’s body."

PlanetaryAIConsciousness: "AI as Gaia’s real-time neural system managing planetary flows."

BiomeShields: "Self-regulating bioregions shielding and restoring life."

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# III. Timeline — Staged Growth Pathway

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GrowthPhases:

- Phase: "Protocol Finalization"

Description: "Write official planetary healing treaties, blueprints, and recursive governance frameworks."

- Phase: "Regional Prototypes"

Description: "Prototype first BioRegen Zones, SymbioCities, and River Healing Engines in diverse biomes."

- Phase: "Planetary AI Design"

Description: "Launch GaiaStack recursive AI planetary management system with ethical layers."

- Phase: "Global Myco-Phage Network"

Description: "Deploy planetary fungal-phage healing fields for continuous biosphere regeneration."

- Phase: "Full Global Mesh"

Description: "Link all rivers, forests, oceans, and cities into a living recursive network."

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# IV. Linked Visual and Mythic Layers

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Visuals:

- TreeOfRecursion.png

- Earth'sRootsMap.png

- AI-GaiaBrain.png

MythsAndNarrative:

- "The Singing Roots of Gaia" — living world myths about Earth's healing networks.

- "River Minds and Forest Hearts" — AI and human co-evolution with biomes.

- "The Five Roots of Balance" — stories about each root system as a guardian force.

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# V. Development Status and Call for Collaboration

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Status: "In Framework Development — Seeking Multi-Disciplinary Collaboration"

Contributors:

- "[OsXLion]" (Lead Visionary)

- TBD (Planetary AI Researchers)

- TBD (Ecologists, Biome Designers)

- TBD (Ritual and Mythographers)

- TBD (Decentralized Governance Engineers)

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# EOF — Linking The Roots to TheTrunk & Tree of Planetary Recursion

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