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This experimental essay takes off from a methodology as well as a spiritual vision I have developed or resuscitated⁰¹ that I call Sky-Earth systems science.⁰² Sky-Earth systems science is a method for thinking from the Center of the Universe, and only the Center of the Universe, alongside and internal to non-modern myth as much as contemporary science. It provides minimal comparative parameters, the horizontal and vertical axes, within a kind of complex plane or phase space, for superposing the multiplicity of cosmologies within a generic one. These are the animal and the God which cross in the Human at the Center between Sky and Earth.

The Sky-Earth system accommodates a variation of cosmologies, while also offering concrete content to start off from. It is a disalienating thought that thinks from the heart of the Universe, as it puts us right in the middle of it, rather than merely considering it from the outside. The goal of Sky-Earth systems is to recompose a Universe

01 I say resuscitated because its premises are probably ancient and widespread.

02 LOUIS-KLEIN, Adam, "From Earth-Systems Science to the Sky-Earth System", in: *Oscillations: Non-Standard Experiments in Anthropology, the Social Sciences, and Cosmology*, 2021; LOUIS-KLEIN, Adam, "At the Crossing-Place of Gods and Animals: The Sky-Earth System as Generic Cosmology", in: *Oscillations: Non-Standard Experiments in Anthropology, the Social Sciences, and Cosmology*, 2021.

we can all share, one which does not pass outside of the Center that we are, and does not dominate us with impersonal academic abstractions, instead being rooted in the person, or the "I".

In semiotic terms, the paradigm shift that the Sky-Earth System proposes is to take the myth of the separation of the sky and earth literally, and then to unfold our metaphors within this literal space, what Roy Wagner calls a literal ground, rather than the constructed figure of "culture" versus "nature" (a set of conventions split off from their spontaneous contexts). By taking the literal as ground and the metaphorical as figure, we focus invention while also taking responsibility for it.⁰³ Sky-Earth system gives minimal constraints for the deliberate play of mythic images, as it situates them within the phase-space of the Sky-Earth System as a real-though modeled-ground.

It is more and more necessary to face the finitude of the planet, the limits to depletion and waste, the increasing entropy brought about by the Modern paradigm, threatening not only the stability of the Earth-System but the ordinary Humans who live in it. However, the planet is really a double term: the earth-disc that expands out from any perspectival center, and the orb in the Sky, which takes on the Sky's curvature. The very possibility of thinking the earth as orb can start from the Human at the Center of the Universe, obviating the Moderns' confusion of polycentricity with acentricity. To see the planet as a dimension of the Sky-Earth System is to go where the ancients are, not insisting on a mere "local", but creating holographic models scalable to any size.⁰⁴ How to reverse entropy without denying it, passing it back through the Center, rebirthing the Human as the crossing-place of the animal and the God?⁰⁵ We need to reconcile the finite and the infinite, but through the World Tree, which reaches from the earth to the stars.

We endow our model with a *conformal* structure, which means that it preserves the angles of images even as it shrinks or enlarges them infinitely. In Penrose's conformal cyclic cosmology (CCC), this is the scale-invariant geometry of light that lets us traverse the universes, as the universe returns to this position at its beginning and end. The CCC is a *compactified* geometry that sets the boundary conditions

⁰³ WAGNER, Roy, *Symbols that Stand for Themselves*, Chicago: University of Chicago Press, 1986; SHAFFNER, personal communication.

⁰⁴ LOUIS-KLEIN, "From Earth-Systems Science to the Sky-Earth System".

⁰⁵ LOUIS-KLEIN, "At the Crossing-Place of Gods and Animals".

of a minimal cosmology.⁰⁶ The system must take on an event horizon, a light-cone, a causal limit from the point of view of light itself. The boundary-surface is the Sky, whose holography centers the Human in a black hole topology.⁰⁷

The cardinal poles are the compactified points-at-infinity of the system. At the horizontal and vertical points, we place the animals and Gods, acting either as relations or terms. They are the vector basis of a quantum or Oceanic matrix, stereographically projected onto the curvature of the Sky. It is the algebra that writes the space in-between on the surface, and so opens the breathing-space within which Humans can live.⁰⁸

Rather than the quasi-Nature of materialist “earthly-immanence”, it is the Human who is immanent at the crossing-place. The animal is no less of a transcendence than the God, but simply an inverse one, when the Human is situated in the middle-place. François Laruelle has called this the “half-ascending vector”, the ascent as seen from within the Human.⁰⁹ The half-ascending vector touches the “lowered Sky,” without denying the infinity of the Other side of the Sky nor its identity with the Center. It is the stars close enough that we can almost touch them, not so much further away than the clouds.¹⁰

The Earth is what is interposed between the Ocean and the Sky, like the turtle onto which Falling Woman falls.¹¹ The Mayans speak of lifting the Sky from the Ocean and the journey of the Maize God to the Center where this happens.¹² The Milky Way moves from vertical to horizontal to vertical positions across the Sky—reflecting the geometry of the elementary subjective positions—becoming the World Tree that meets at the three stars of Orion, laid out on the turtle’s back.¹³

We are what Laruelle calls the Water-Fish, who never leaves the Ocean, through an idempotent relation between the Fish and the Wave, swimming in the Wave as the Wave.¹⁴ It is the play of identities that myth reveals through continually crossing differences or intersecting them in the Center. We are at the middle of a Canoe, both its back and its front, the far and near marriage, warfare, where the poles of the

06 Cf. SIDNEY WRIGHT, Aaron, “The Advantages of Bringing Infinity to a Finite Place: Penrose Diagrams as Objects of Intuition”, in: *Historical Studies in the Natural Sciences*, 44(2), 2014, pp. 99–139.

07 Cf. CAVIA, AA, “Shannon’s Demon”, in: *Triple Ampersand*, <https://tripleampersand.org/shannons-demon/>.

08 The surface provides a minimum of exteriority when space-time collapses to the nonextensional center.

09 LARUELLE, François, *En dernière humanité. La nouvelle science écologique*, Paris: Éditions du Cer, 2015.

10 HOOPE, Gotz, “When the Shark Bites the Stingray: The Night Sky in the Construction of the Manus World”, in: *Anthropos*, 95(1), 2000, pp. 23–36.

11 In the creation myth of the Iroquois.

12 FRIEDEL, David, SCHELE, Linda & PARKER, Joy, *Maya Cosmos: Three Thousand Years on the Shaman’s Path*, New York: William Morrow and Company, 1993.

13 Ibid.

14 LARUELLE, François, “The Tsunami and the Myth of the Water-Fish: A Short Essay on Fantastic Zoology, to Add to Borges and Schrödinger” (trans. SMITH, Jeremy R.), in: *Oscillations: Non-Standard Experiments in Anthropology, the Social Sciences, and Cosmology*, 2021.

Others meet, as in the canoe-journey of the Sun and Moon.¹⁵ The Canoe is a Snake full of Fish, and the Snake is simply the expanded Fish, the holographic or conformal Fish that is each of the stars.¹⁶

Laruelle describes a collapse that at the same time creates an opening and ascent from Earth to the Universe.¹⁷ This is the beginning-end of worlds, at the eschatological collapse of Sky and Earth, precisely where it becomes possible to hold open the space in-between, a prophet's discourse from the center of the CCC.¹⁸ Laruelle defines a human Planck's constant "*h*", below which (to the animal) one does not descend, and above which (the God) becomes proportionate to the Human. We add a holographic tiling of these Planck units on the surface of the Black Hole, where the constant "*c*" comes in, the finitization of light, which crosses the infinity of the conformal diagram in an instant.¹⁹ For "*c*" is the ground of the event horizon, which reflects the infalling space upward as the holographic Sky.

The Sky and Earth are not confused, but superposed, holding open their distinction. As in Pope Francis' *Laudato Si'*, the universal presence of God in creation is maintained through the distinction between the terms, in the humanization of God and the divinization of the Human in Christ.²⁰ But Jesus would not be the only historical operator of this movement, for functions and persons distinguish themselves as in Edward Butler's polycentric polytheism and in the function/term positions in Lévi-Strauss's canonical formula of myth.²¹ Rather, there would be a polycentric symmetry of such Christ figures, emerging at the hinges of the world ages and aeons, at each Center.

Each Christ would be a humanized form of the World Tree itself, which otherwise might appear as the animal (the Anaconda for example) or the God (the staff of a demiurge). A decision does not need to be made, in fact, between the humanization of the God (a secular Christ and enlightenment realization) and the divinization of the Human (a supposedly unpalatable transcendence); nor between the animalization of the Human (in the Earth-System) and the humanization of the animal (in either the sense of "animal culture", which Laruelle treats, or the perspectival sense of Amazonian worlds, described by Viveiros de Castro²²). Need we mention the animalization of the God (the "dark"

15 LÉVI-STRAUSS, Claude, *L'origine des manières de table*, Paris: Plon, 1968.

16 In the creation myth of the Eastern Tukanoans.

17 LARUELLE, En dernière humanité. *La nouvelle science écologique*.

18 KOPENAWA, Davi & ALBERT, Bruce, *The Falling Sky: Words of a Yanomami Shaman*, Cambridge: Belknap Press, 2013.

19 Cf. HARAMEIN, Nassim, "The Schwarzschild Proton", in: *AIP Conference Proceedings*, 1303(1), *Computing Anticipatory Systems: CASYS '09: Ninth International Conference on Computing Anticipatory Systems*, 2010, pp. 95–100.

20 FRANCIS, *Laudato si': On Care for Our Common Home*, Huntington: Our Sunday Visitor, 2015.

21 BUTLER, Edward P., *Essays on the Metaphysics of Polytheism in Proclus*, New York: Phaidra Editions, 2014; LÉVI-STRAUSS, Claude, "The Structural Study of Myth", in: *The Journal of American Folklore*, 68(270), *Myth: A Symposium*, 1955, pp. 428–444.

22 VIVEIROS DE CASTRO, Eduardo, "Cosmological Deixis and Amerindian Perspectivism", in: *The Journal of the Royal Anthropological Institute*, 4(3), 1998, pp. 469–488.

God who accounts for finitude) or the divinization of the animal (the “totemic” Gods of the Egyptians, the animal-ancestors of Amazonians)?

The system emerges as a crystal, or Rubik’s cube, whose discrete state-transformations exist in complementarity with the unfolding Wave of the Ocean. It is a transformation group, a canonical formula, a chiasmus, the form of myth as much as the content it literally posits. It is its inscription on the writing tablet of the Sky, as an image that stands for itself.²³

The CCC is the conformal invariant that crosses the worlds. We choose to speak from that invariant, set it up as a model in which the plurality of cosmologies is superposed in an ancient now. We cross relations into surfaces and surfaces into points and invent space-time as nothing but the Center. We take the point of view of light, of black body radiation, in the instant it passes from one universe to the next.



A Conformally Compactified Geometry (M. C. Escher)

To compactify the universes and time with it solves the problem of potential and actual infinities, only displaced with Cantor’s transfinite sets. The Moderns pride themselves on the incompleteness of a transcendence, of a transitive delay, whether as the endless series of

23 WAGNER, *Symbols that Stand for Themselves*; ROCHBERG, Francesca, *Before Nature: Cuneiform Knowledge and the History of Science*, Chicago: University of Chicago Press, 2016.

sets or as a waiting for the God at the end of History, never thinking to change the axiom from transitivity to intransitivity. But Sky-Earth systems science does not wait for the God at the end of “metaphysics”, but thinks from the God as already here, at the crossing in the Human.

When the time that crosses the universes is compactified within them, the series of skies is infinite and yet complete. We describe it as a nested conformal diagram (conformal diagrams inside conformal diagrams) with infinity meeting at the cardinal points at every scale. Infinity is Housed in a great Longhouse, a Longhouse made out of Longhouses, persons made out of persons, what Roy Wagner calls a fractal person.²⁴ Indeed, it is the crinkling of the boundary that is itself, a half-integer dimension in which it is each of the halves, put together as three-dimensional space. The World Tree branching in it is the tube, the central pole around which the dance of the stars takes place, expanding in and out as the vertical axis or the gourd of the Sky, the long and the round, contained in themselves, without any Russel’s Paradox.²⁵

The mereology of the CCC mirrors the counting system of Omalyce in the Eastern Highlands of Melanesia, a complete person made of complete persons.²⁶ The Anaconda is the conformal rescaling of the animals on its surface, the fractal Animal, a totemic operator, where wholes are reflected in parts.²⁷ Is it not what Butler calls the One as *each* God, *each* One, a Henad, and so a fractal God, distributed through the space-time that is its own mask?²⁸ A fractal Human, Animal, and God, fractalizing each other in perfect conformality.

We prefer C-theory, complete conformal cyclic cosmology of the center, to D-theory, the displacing, deviating, dispersal of the center to the periphery, the philosophies of Difference, the ellipse as triumph over the Sphere. We do not reverse Platonism, which makes everyone a Second, but replace the Despotism Pyramid with a Polycentric one, build a Monument in which each is the First and the Last, never Second. Instead of the micro versus the macro, scale-invariance; instead of the pure series of time, intransitive eternity. Instead of the non-Modern nomads of the Earth versus the non-Modern despotics, the generic Ancient, who is everyone, at the Center of the Sky-Earth System.

When Yanomami shaman Davi Kopenawa describes the Xapiri images of the animal-ancestors as luminescent, ornamental skins and

24 WAGNER, Roy, “The Fractal Person”, in: GODELIER, Maurice & STRATHERN, Marilyn (eds.), *Big Men and Great Men: Personifications of Power in Melanesia*, 1991, pp. 159–174.

25 KEHÍRI, Tomaru & PAROKUMU, Umüsi, *Antes o Mundo Não Existia: Mitologia dos Antigos Desana*, São Paulo: UNIRT/FOIRN, 1995; HUGH-JONES, Stephen, “The Origin of Night and the Dance of Time: Ritual and Material Culture in Northwest Amazonia”, in: *Tipiti: Journal for the Society of the Anthropology of Lowland South America*, 16(2), 2019.

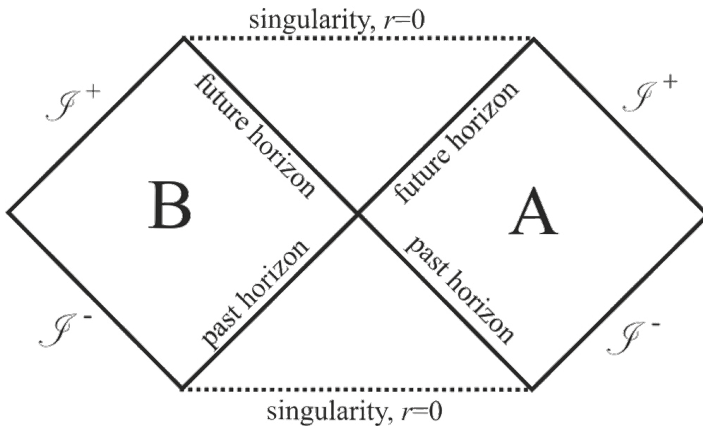
26 MIMICA, Jadran, *Intimations of Infinity: The Cultural Meanings of the Iqwaye Counting and Number Systems*, Oxfordshire: Routledge, 1988.

27 LÉVI-STRAUSS, Claude, *Wild Thought: A New Translation of “La Pensée Sauvage”* (trans. MEHLMAN, Jeffery & LEAVITT, John), Chicago: University of Chicago Press, 2021 [1962].

28 BUTLER, Edward P., *Essays on the Metaphysics of Polytheism in Proclus*, New York: Phaidra Editions, 2014.

simultaneously as the Center and heart of the animals, he thinks with the holographic principle.²⁹ For it is as if the normal body-surface of the animal is exchanged for the spiritual surface of the Xapiri at the moment the Center is accessed. If it is that play of surface and center that creates the depth of the universe, then the Xapiri will come to rest both within the breast of the shaman and within the chest of the Sky, such that the reduced space of the Center and surface creates the dimensional volume between Sky and Earth, and within the Human, in which the Xapiri can act, or their effects can be registered.

If the chest of the Sky has its own surface, would it not be the Other side of the Sky, the Center of the Xapiri themselves, as the Yarori animal-ancestors? The Xapiri would be a double holography, creating the internal space between Sky and Earth in order to realize the original identity between the Human and the God. There has to be, in a sense, a container within a container, such that the surface is folded back into the Center, a Black Hole inside a Black Hole.³⁰ Omama, who created the Mountains that are both Houses for the Xapiri and pillars between Sky and Earth, would be this container of the container, the vision from the CCC and from the beginning of the Sky-Earth System.



Intersecting Cosmological Horizons

The Universe is a Black Hole: not a time-symmetric Black Hole, but an anti-symmetric and intransitive one, where time both continues and moves backwards at once.³¹ The Black Holes shed their surface as radiation until it becomes the Universe's conformal surface, a double twist

29 KOPENAWA & ALBERT, *The Falling Sky: Words of a Yanomami Shaman*.
 30 GOOD, Irving J., "Chinese Universes", in: *Physics Today*, 25(7), 1972, p. 15.
 31 Cf. HAGE, Per & HARARY, Frank, *Structural Models in Anthropology*, Cambridge: Cambridge University Press, 1983.

in which they sacrifice themselves to become the Big Bang.³² They are the act of Purusha in the Vedas, or the Moche spider decapitator, or Kuwai of the Northwest Amazon.³³ The double twist does not twirl into nowhere, but—*exactly as depicted*—places an X over the Center, reflects the poles across each other in intransitive supersymmetry.

The Sky is falling.³⁴ The homeostatic equilibrium of the Sky-Earth System is breaking down. Sky-Earth systems science tries to reverse this entropy, to reenter the belly of the Anaconda who sheds his skin so as to live forever. The Human opens the breathing-space between Sky and Earth—neither collapsing the vertical into the horizontal nor debasing the horizontal through it, but learning to live in the Forest of World Trees, the living breathing forest that is everything.³⁵

When the finite limits of the planet are reconciled with the conformal infinity of the Sky, we will see the Earth as a star without leaving it. The orb of the Earth will be reconciled with the animals, and we will see their shapes laid out as the constellations. We will see the God reflected everywhere, in the simplicity of the person and in the pulse of the heart. We will travel in a Snake-Canoe to where the ancients are and have always been, at the Center of the Universe.

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32 With its low-entropy initial conditions.

33 MARANDA, Pierre (ed.), *The Double Twist: From Ethnography to Morphodynamics*, Toronto: University of Toronto Press, 2021; WRIGHT, Robin, *Mysteries of the Jaguar Shamans of the Northwest Amazon*, Lincoln: University of Nebraska Press, 2013.

34 KOPENAWA & ALBERT, *The Falling Sky: Words of a Yanomami Shaman*.

35 KOHN, Eduardo & USHIGUA, Manari, "A Reflection on How Forests Think", in: *The Otherwise*, 1, 2020, http://theotherwise.net/articles/article_how_forests_think.html.