

entangled

Pablo Sanz

Saturday November 7th, 2020
Nouvel Building, Auditorium 400

Organized by:

Museo Reina Sofía

Curator:

José Luis Espejo

Force line:

Contemporary Disturbances
and Avantgardes

Duration:

50'

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The Mamirauá Institute for
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Tefé, Amazonas, Brazil;
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entangled, Pablo Sanz Recording sites in terra firme forest, Amanã, Central Amazonia, 2015

To be entangled is not simply to be intertwined with another, as in the joining
of separate entities, but to lack an independent, self-contained existence.

Karen Barad

entangled explores the nonhuman worlds of the Amazon rainforest, focusing on the fascinating complexity of the continuous sonic flow created by insects, birds, amphibians, mammals, reptiles, fish, plant species, soil, water and the weather.

The work facilitates a profound, active and sustained listening experience, cultivating intimate sensory encounters in which affectivity is favoured over signification and representation. The listener-participants find themselves in almost total darkness, without images or objects, within a sound field generated by a multichannel sound system.

The work is a durational composition made from several hundred hours of environmental sound materials recorded in terra firme and flooded forest (várzea) ecosystems within the territories of the Amanã and Mamirauá reserves in the central Brazilian Amazon. The fieldwork was carried out over two months in the dry season of 2015, in collaboration with local inhabitants.

entangled is experienced as a series of immersive installations and live performance events, featuring variable sonic materials and extended durations. The project uses higher-order Ambisonics, a set of spatial audio techniques that facilitate the use of a variety of multichannel setups and exhibition spaces. In the Museo Reina Sofía, the project is presented as a concert for an immersive system of sixteen speakers, configured especially for the occasion.



MAMIRAUÁ AND AMANÃ

Mamirauá (11,240 km²) and Amanã (23,500 km²) are located approximately 600 km west of Manaus, almost exactly in the centre of the Amazon rainforest. Tefé (62,662 inhab.), the largest urban centre of the middle Solimões region, is located less than 30 km from the south-eastern tip of Mamirauá and serves as the main entry point for the reserves.

The climate is equatorial, hot and humid. The region is characterised by very active fluvial dynamics and lively geomorphology. The season with the highest rainfall is from December to March, with three times as much precipitation as in the driest period, from July to October. Water levels can vary up to fifteen metres between the high and low water seasons. The flood cycle is the single most crucial factor determining the remarkable changes in the landscape and the adaptations of its human and nonhuman inhabitants.

This is one of the planet's richest regions in terms of biodiversity and the flooded forest (várzea) in particular has a very high rate of endemism. Until the 1980s, written descriptions were contained only in the notes of the Victorian naturalist Henry Walter Bates, who lived in Ega (as Tefé was known at the time) for almost five years around 1855 and made extensive studies of its flora and fauna.

Since the late 1990s, Mamirauá and Amanã are Sustainable Development Reserves (RDS), a pioneering management model implemented here for the first time. The people living in traditional communities scattered along the river banks are known as “ribeirinhos”. These communities are often remote, relatively isolated from Tefé and other small municipalities.

Theoretically, the forest is considered relatively stable and undisturbed. Still, it is affected by human activities such as overfishing, hunting, and forest clearing for cattle pasture and logging. There are no roads in this region, but the waterways carry frequent traffic. The rivers and the network of channels and lakes form a navigational maze plied by boats of different sizes. Some river tributaries become authentic water “highways” at times, creating another source of human-induced pressure.¹

AMAZONIAN SONIC ENVIRONMENTS

Despite the immediate attention to animal species that might come to mind when thinking sonically about this region of the planet, the water and the vegetation are actually the two fundamental elements shaping these environments not only physically, but aurally as well. We can think in terms of “aural architecture”² to understand the role of water and the vegetation as materials that influence sound according to their spatial configuration and the characteristics of their acoustic absorption and reflection. The presence of a water floor is determinant, marking the difference between terra firme and flooded forests, the two distinct types of habitats explored in this fieldwork.

1 Matt Bannerman, Luiz Claudio Marigo y Aline Da Rin P Azevêdo, *Mamirauá: A Guide to the Natural History of the Amazon Flooded Forest*, Tefé, Instituto de Desenvolvimento Sustentável Mamirauá (IDSM), 2001.

2 Barry Blesser y Linda-Ruth Salter, *Spaces Speak, Are You Listening? Experiencing Aural Architecture*, Cambridge, Mass., MIT Press, 2007.



entangled, Pablo Sanz. Detail of a microphone built by the artist, Central Amazonia, 2015

Terra firma forests typically feature intricate vegetation with large trees and high leafy canopies. The sounds caused by plants are constant, produced either by falling leaves and branches, by the action of wind, rain or moving animals. These sounds are reflected by the canopies, diffracted by the tree trunks, and absorbed by the ground and the foliage. These features create a subtle reverberation, with sound travelling only short distances. Flooded forests, on the other hand, are characterised by the presence of a water floor, which together with the high canopies produce intensely reflective environments reminiscent of architectural interior spaces with high ceilings. Water sounds enlarged by reverberation are a distinctive feature, with a variety of delicate drippings and sudden splashes caused by plants, animal species and the weather, creating a uniquely reverberant environment.

One remarkable aspect of the sensory experience of the forests is the contrast between visual and auditory perception. Paradoxically, in the forest scarcely any of the many sounds we hear come from visible sources, making this a paradigmatic case of naturally occurring “environmental acousmatics.”³ The dense and apparently immobile mass of vegetation remains visually impenetrable while sounds from unseen sources emerge all around, above and even below. Sound-producing species such as birds and primates can be seen only occasionally, requiring acute observation skills, patience or luck. A state of blindness and heightened auditory awareness is the *umwelt*⁴ of numerous animal species living in this territory that rely on hearing to communicate and sense the presence of other individuals of the same species, predators or prey.

3 “Environmental acousmatics” is a term pointed out by Francisco López in the liner notes of the CD publication *La Selva*, V2, 1998; Brian Kane, *Sound Unseen: Acousmatic Sound in Theory and Practice*, New York, Oxford University Press, 2014.

4 Jakob von Uexküll, *A Stroll Through the Worlds of Animals and Men: A Picture Book of Invisible Worlds*, 1934 (published later in *Semiotica*, 89:4, 1992, pp.319–391); Brett Buchanan, *Onto-Ethologies: The Animal Environments of Uexküll, Heidegger, Merleau-Ponty, and Deleuze*, Albany, SUNY Press, 2008.

The original sonic materials featured in *entangled* were created with multiple DIY (do-it-yourself) microphone rigs set up and left unattended for long periods in chosen sites. This “distributed listening” strategy was undertaken on various field trips across the reserves over several weeks. In the studio, the entire body of audio recordings (conceived as a kind of “sound hyperobject”) is explored compositionally, combining materials from different provenances and using the circadian cycle as a general structuring principle.

ECOLOGICAL THOUGHT

entangled’s ecological ethos goes beyond conventional “green” frameworks to challenge those notions of ecology and nature that conceive the environment as something “exterior” to the human and to culture.

The concept of “Nature” separates the human from the nonhuman with a sort of arbitrary aesthetic screen. Nature is not the same as ecology, because Nature is attuned to human scales and only works as a concept when it is normative, when some things can be labelled as unnatural. Nature and what we call “the environment” become a reified thing, a backdrop, a mentally constructed “elsewhere” which has become hardwired in our built, philosophical, psychic and social space.⁵

A general critique of anthropocentrism is currently gaining traction across the humanities at large. Contemporary philosophical tendencies, such as object-oriented ontology, broader speculative realisms and new materialisms are challenging the centrality of the human subject that has been so fundamental to the humanities and to Western philosophy. These posthumanist approaches are engaged in de-centring the human in favour of a concern for the nonhuman: animals, affectivity, bodies, materiality, technologies, as well as organic and geophysical systems.⁶ Such (re) interpretations of our relationship with the world help erode pervasive dichotomies between subjects/objects, nature/culture, human/nonhuman, masculine/feminine, mind/matter, knowing/experiencing. In this light, traditional distinctions between life/non-life, animate/inanimate, natural/artificial become unstable and difficult to maintain.

Jane Bennett posits a “vibrant materialism” based on the notion that vitality is shared by all things, and not limited to ourselves alone. She states the capacity of things to “act as quasi-agents or forces with trajectories, propensities, or tendencies of their own,” proposing a shift in focus from the human experience of things to things themselves.⁷ Karen Barad advances a theory of “agential realism”⁸ and coins the notion of “ethico-onto-epistem-ology” to point out the inseparability of ethics, being, and knowing. Sociologist Andrew Pickering talks of the “dance of agency”⁹ between people, machines and the nonhuman world at stake in artistic and scientific practice.

De-anthropocentric propositions have been criticised as extreme or futile and countered with the argument that anthropomorphism is an innate tendency of human psychology. Timothy Morton proposes the possibility of transcending

- 5 Timothy Morton, *Ecology without Nature: Rethinking Environmental Aesthetics*, Harvard, Harvard University Press, 2007.
- 6 Richard Grusin (ed.), *The Nonhuman Turn*, Minneapolis, University of Minnesota Press, 2015.
- 7 Jane Bennett, *Vibrant Matter: A Political Ecology of Things*, Durham, Duke University Press, 2010.
- 8 Karen Barad, *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*, Durham, Duke University Press, 2007.
- 9 Andrew Pickering, “Material Culture and the Dance of Agency”, en Dan Hicks y Mary C. Beaudry (eds.), *The Oxford Handbook of Material Culture Studies*, Oxford, NY, Oxford University Press, 2012.



entangled, Pablo Sanz. Flooded forest recording site, Mamirauá, Central Amazonia, 2015

anthropocentrism through a simultaneous acknowledgement of both our inescapable anthropomorphism and the agencies of nonhuman entities. We process the world through human structures, and we ourselves are also constantly “morphized” in those same interactions. The key is to avoid conflating anthropomorphic with anthropocentric, accepting these processes but not making the human a privileged scale.

A less anthropocentric understanding of the world invites us to rethink notions of authorship, production and participation within the arts and elsewhere. Furthermore, recognising vitality beyond the human makes it possible to think sounds and works of art as phenomenological beings, as entities that display something like agency and affect. This ecological thought has far-reaching consequences for possible understandings of listening, art, experience, and reality at large. What this shift encourages is a genuinely ecological awareness able to apprehend life in terms of collaboration and coexistence.

MODES OF LISTENING

Listening is a creative act and a form of attention. Phonography, as a creative practice underpinning *entangled*, is itself a way of listening, an incitement to particular modes of “intensive listening.”¹⁰ Recording is fundamentally an act of

¹⁰ Susan Sontag’s describes photography as “a way of seeing” and cites Moholy-Nagy’s notion of “intensive seeing” in *On Photography*, New York, Farrar, Straus and Giroux, 1977.

creation. Every time a recording is made, a new thing is born. Every recording is an interpretation of the world by the recording apparatus. Each sensory apparatus has its own capabilities and limits of resolution. In *Realist Magic*, Morton explains it this way:

When I listen to the frog croaking, my hearing is carving out audible chunks of frog croak essence in a cavalierly anthropomorphic way. When the MP3 recorder takes a perforated sample of the same sound forty-thousand times a second, it MP3-morphizes the croak just as mercilessly I anthropomorphize it. The croak is heard as my ears hear it, or as the recorder records it. [...] My human ears hear the frog as human ears. The digital recorder hears the frog as a digital recorder. The spider web hears the frog in a web-morphizing manner. The ears otomorphize; the recorder recorder-morphizes.¹¹

Audio recordings are reality producers. They are not merely “recordings-of” or “recordings-about” something else. They are “real” things as well, bearing the same ontological status as their alleged sources.

What is sound? In his objections to the popular concept of the soundscape,¹² Tim Ingold defines sound as neither mental nor material, but a phenomenon of experience. For him, sound is not the object but rather the medium of our perception¹³. Morton describes sound as an ambiguous, self-contradictory, weird entity, twisted like a Möbius strip, both physical and semiotic, which tells us of the physical entities which made it, yet it does not talk directly about them.¹⁴ Philosopher of perception Casey O’Callaghan theorises sounds as mind-independent events, essentially as “creatures of time”, and also describes auditory perception as intrinsically multisensory.¹⁵ Christoph Cox elaborates a compelling philosophy around the notion of the “sonic flux”: “sound as an immemorial material flow to which human expressions contribute, but that precedes and exceeds those expressions,” a sensuous reality discovered, investigated and made manifest.¹⁶

These ideas challenge dominant postulates of textuality, discourse, and visibility at the core of cultural theory, helping to build adequate frameworks to account for the affective power of the aural and of experimental work with sound.

CONTEMPORARY DISTURBANCES

Our supposedly recent awareness of the ecological crisis caused by the “great acceleration” of human activities on Earth has made ecology and the environment increasingly pressing concerns. As a result, ecological issues have become trending topics and have provided fashionable terms for the cultural and institutional markets. The *Anthropocene* (proposed as a possible name for the current geological epoch) has become a new buzzword used as a token for ecological concern. The term has its critics¹⁷, some of whom contend that the notion shifts the attention away from the authentic culprits of the current crises. *Capitalocene* has been proposed in response, suggesting we live in the Age of Capital.¹⁸ The late Bernard Stiegler used *Entropocene* to define a toxic epoch ruled by entropy,¹⁹ while Donna Haraway counter-proposes

- 11 Timothy Morton, *Realist Magic: Objects, Ontology, Causality*, Open Humanities Press, 2013. Available at: <http://www.openhumanitiespress.org/books/titles/realist-magic>.
- 12 R. Murray Schafer, *The Soundscape: Our Sonic Environment and the Tuning of the World*, 1977.
- 13 Tim Ingold, “Four Objections to the Concept of Soundscape”, en *Being Alive: Essays on Movement, Knowledge and Description*, New York, Routledge, 2011, pp. 136–139.
- 14 Timothy Morton, “Earworms”, en *Soundscape Journal #15: Sounds Emergent Diverse Ecologies*, World Forum for Acoustic Ecology (WFAE), 2017.
- 15 Casey O’Callaghan, *Sounds: A Philosophical Theory*, Oxford, Oxford University Press, 2007.
- 16 Christoph Cox, *Sonic Flux: Sound, Art, and Metaphysics*, Chicago, University of Chicago Press, 2018.
- 17 Peter Brannen, “The Anthropocene Is a Joke”, *The Atlantic*, 2019, <https://www.theatlantic.com/science/archive/2019/08/arrogance-anthropocene/595795>.
- 18 Andreas Malm, “The Anthropocene Myth”, *Jacobin Mag*, 2015, <https://www.jacobinmag.com/2015/03/anthropocene-capitalism-climate-change>; Jason W. Moore, “The Capitalocene, Part I: on the nature and origins of our ecological crisis”, *The Journal of Peasant Studies*, 44:3, 2017, pp. 594–630.
- 19 Bernard Stiegler, *The Neganthropocene*, London, Open Humanities Press, 2018.



entangled, Pablo Sanz. Recording sites in flooded forest, Mamirauá, Central Amazonia, 2015

the *Chtulucene* to describe our time as one in which the human and nonhuman are inextricably linked in tentacular practices.²⁰

In *24/7: Late Capitalism and the Ends of Sleep*,²¹ Jonathan Crary makes a laser-focused analysis of how the unrelenting capitalisation of all facets of human life demands more and more of our time and attention. Crary observes how such a damaging influence goes well beyond our bodies and is inseparable from the ongoing ecocide. Franco Berardi examines issues of digital (hyper)connectivity, alienation, over-stimulation and automation in the contemporary functioning of semiocapitalism, and its profound influence in our aesthetic and emotional sensibility and mental health. He concludes that there is a need for a new concept that might unite the three practices of therapy, art and politics, implying an aesthetic and political transformation.²² In *The Ecology of Attention*, Yves Citton proposes that we start “paying attention to attention itself” as something that can be cultivated, learned and practised in ways that produce forms of both “collective and individuated becoming.”²³

Such acute analyses of the current historical situation suggest the ecological crisis is not only an “environmental issue,” but also a symptom of a profound failure in prevailing ways of being and thinking, which implies that the crises are plural and intermingled.

20 Donna J. Haraway, *Staying with the Trouble. Making Kin in the Chthulucene*, Durham, Duke University Press, 2016.

21 Jonathan Crary, *24/7: Late Capitalism and the Ends of Sleep*, New York, Verso Books, 2013.

22 Franco Berardi, interview by Seth Wheeler. *The White Review*, 2016. [<https://www.thewhitereview.org/feature/interview-with-franco-bifo-berardi>]

23 Yves Citton, *The Ecology of Attention*, Cambridge, UK, Polity Press, 2016.

ECOLOGICAL ART?

“Perceiving is a way of acting. Perception is not something that happens to us, or in us. It is something we do,” writes Alva Noë in *Action in Perception*.²⁴ An enactive approach to perception foregrounds corporeal and sensory awareness and highlights our social-political role as intentional individuals. This perspective suggests conscious engagement and attitudinal shift from spectators to active participants.

Contemporary voices argue for a “return to the senses,” proposing to undo the linguistic and epistemological turns in the arts and the humanities at large. Morton argues for the political relevance of the ontological,²⁵ stressing the vital role of works of art which privilege “feeling without structure and language.”²⁶ In *Strange Tools: Art and Human Nature*, Noë highlights eloquently the crucial role of art as a “reorganisational practice” that through enactive lived experience allows us to investigate and reposition ourselves in the world.²⁷

Artworks can become catalysts for shifts in perception, functioning as tools for transformation or agents for change and personal inquiry. This demands that we reconsider what relational, participatory, socially-engaged, and political practices could mean.

entangled aims to contribute to an expanded understanding of ecology that goes beyond prevailing narratives and toward an appreciation of the vibrant entanglements of bodies, creatures, energies, materials, spaces, and technologies. The experiential modes of listening the work proposes promote an awareness of the nonhuman and attention to how perception unfolds, highlighting its limits and thresholds. These listening practices can promote intrinsically ecological encounters (within an expanded notion of ecology) and new (unconventional) modes of perception. These experiences have the capacity to transform participants and re-pattern prevailing habits, pointing to new forms of awareness, education and enjoyment.

Pablo Sanz

Pablo Sanz is an artist, composer and researcher. His body of work includes site-specific and public art projects, immersive installations, multichannel live performances, exhibitions, releases, and pieces for broadcast and headphone listening. His practice is an open-ended investigation of listening, space-time, materiality, nonhuman vitality and otherness, with a focus on the limits and thresholds of perception and attention. His works propose listening as a political act, intended to resist dominant tendencies in contemporary societies, cultivating alternative forms of being and thinking.

He holds a PhD in Experimental Electroacoustic Music Composition and Sonic Arts by the Sonic Arts Research Centre (SARC) at Queen’s University Belfast and a Bachelor of Fine Arts from the University of the Arts of The Hague, specialising in ArtScience and Sonology. He is a co-founding member of the Mediateletipos.net platform and was artistic director of the 11th Festival Sensxperiment: Sensory Immersion (2009–2011), held in Córdoba (Spain). His work has been experienced internationally in diverse contexts.

24 Alva Noë, *Action in Perception*, Cambridge, Mass., MIT Press, 2004.

25 Timothy Morton. *Humankind: Solidarity with Nonhuman People*, London, Verso Books, 2017.

26 Olafur Eliasson in conversation with Timothy Morton, Leeum, Korea, 2016. [<https://youtu.be/nwSAI77oDAc>]

27 Alva Noë, *Strange Tools: Art and Human Nature*, New York, Hill and Wang, 2015.

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