

**Artificial Grief:
Distribution of the Sensuous**

Anna Nazo
London, UK



Anna Nazo is a London-based performance artist whose practice engages computing technologies, philosophy and science. She works with AI, drones, neurotechnology, CGI and 360-degree imaging. Within live digital-analogue audiovisual performance Anna's work investigates questions of intelligence, diversity and ethics of the technological. It looks at artificial forms of intelligence and liveness in relation to nonconscious cognition, quantum reality and distributed forms of sensuousness. Anna is a PhD Candidate and Tutor in Fine Art (Performance and Technology) at the Royal College of Art.

transplanted algorithm

fluidity sip

ionised nitrogen

eerie touch

blind helium fusion heatwave

plasmoid ecology

pale-green fractal silt

glistening silver

pulsating rift
dismal spectral dreams

radical otherness

quantum swerve

haunting virtual fear
deafening whisper of burned flesh
palpating goosebumps

needles through sharp longitudes

blue soiled gravity shoot

inhabiting virtual flux

whirling corruption

civil twilight

granular blood

data blizzard

radioactive purple lymph

chemical rhizomatic shift

phasing siloxane penetrating rhythm

bleeding crystallised nodes

alkaline digital greed

dissolving sympoietic difference¹

¹ Spoken word excerpt from Anna Nazo (2019), *Devia*, invited artist at the *ArtFutura Festival*, (London: Iklectik Art Lab), a performance with

drones, AI, brain wave imaging, 15' at cargocollective. com/annanazo/ Devia. Poetics/ The spoken word in this performance

was co-written with AI programming. The initial code for AI was written by Sung Kim, *Multi-layer Recurrent Neural Networks (LSTM,*

RNN) for word-level language models in Python using TensorFlow, at github. com/hunkim/ word-rnn-tensor-flow

Artificial Grief uses the paradigm of radical matter to inhabit dimensionalities of curved time.² Leading onto questions of super-positionality and nonlocality, it brings to presence a way of thinking time as both a dimension (velocity, mass, 'curved') and as a wave (field, plane).³ In so doing, it makes accessible 'duration' as sensuous, poetic, grasped at the very moment of performance in relation to the wave function. This approach enables a sense of the logic (or a sense of 'game' in the Lyotardian sense) of time disruption dimensionalities of curved time, including questions of super-positionality and nonlocality.⁴ To dive into that curvature, it takes, as a starting point the ephemeral and the sensuous as the 'ana-materiality' of time, that is as dimension and as a thinking of reality as a wave field.⁵ It leads to an understanding of duration and the moment of performance in relation to the quantum wavefunction. In so doing, it enables one to grasp a sense of time disruption as a kind of 'gaming', one that happens at the moment of performance.⁶ Artificial, artifice and 'the real' no longer stand in opposition to each other.

² The conceptual paradigm for *radical matter* was initially developed by Johnny Golding (2006) as a way to shift from metaphysics and dialectical reasoning to that of a *zetaphysics*, based on quantum logics of sense, time, and dimension. See: S. Golding (2006), "The Assassination of Time (or the Birth of Zetaphysics)," On the Occasion of *The Digital Art Weeks*, at ETH, reworked with musical composition by S. Kennedy in Berlin, New York, Wisconsin and LA, and recorded as an album release 2010 at from-darkenedsunroof.bandcamp.com/album/sue-golding-johnny-de-philothethe-assassination-of-time

³ An accessible introduction to quantum mechanics including understanding of time as a dimension and reality as a wave field, see Jim Al-Khalili (2003), *Quantum: A Guide For The Perplexed* (London: Weidenfeld and Nicolson).

⁴ Jean-François Lyotard and Jean-Loup Thébaud (1990 [1985]), *Just Gaming*, translated by Wlad Godzich, (Minnesota: University of Minnesota Press). See also Gilles Deleuze (2015 [1990]), *Logic of Sense*, translated by C.V. Boundas, (London: Bloomsbury).

⁵ This point will be developed further below but see Johnny Golding (2013), "Ana-Materialism and The Pineal Eye: Becoming Mouth-

Breast (Visual Arts in the Age of Algorithmic Reproduction)," in Lanfranco Aceti and Özden Şahi (Eds.), *Without Sin: Freedom and Taboo*

in *Digital Media*, (Cambridge, MA: MIT: Leonardo Electronic Almanac), vol 19, no 4, 66–83.

⁶ Suffice to mention here regarding time disruption happening at the moment of performance or within the system of performance is developed in parallel with the notion of time disruption

that is happening in the system of black hole 'existence.' It is developed in relation to the ecology of intensities and energies created by and within both types of system. In

particular, it looks at the slowing of time closer to the 'centre' of the hole, a body of intensity, in comparison with the flow of time farther from it. Cf Stephen Hawking (2015 [1988]), *A Brief History of*

Time, (New York: Bantam); and Stephen Hawking (2015), *Black Holes: The BBC Reith Lectures*, (London: Penguin Books).

In this sense, too, the sensuous-emotional also comes to presence in the duration of the live performance. It does this through a corporeal trace as a nonconscious cognitive flux which operates as a feedback loop system, a quantum system that is undecidable.⁷ In parallel, it assumes a way of looking at live performance as a complex symbiotic system.⁸

clitoris [ˈklɪtərɪs]

the gorgeous sexual organ of the vulva is, for reasons unclear, more often than not the target of hatred and unfathomable cruelty in the form of female genital mutilation, chastity belts, wars, and idiotic laws against the right to one's humanity. do not die wondering what this has to do with data loam. it is the very core of associated coherence, collaboration, belonging and just wanting 'to be' (alone-together).

⁸ For complex systems see Isabelle Stengers and Ilya Prigogine (1984), *Order Out of Chaos: Man's New Dialogue with Nature*, (Toronto: Bantam Books). Also see Stuart Kauffman (1993), *The Origins of Order: Self-Organization and Selection in Evolution*, (Oxford: Oxford University Press); and also, Paul Cilliers (1998), *Complexity and Postmodernism: Understanding Complex Systems*, (London: Routledge).

⁷ Nonconscious cognition is based on N. Katherine Hayles's reworking of the concept originally established by Lewicki, Hill, and Czyzewska in 1992. See N. Katherine Hayles (2017), *Unthought: The Power of the Cognitive Nonconscious*, (Chicago: The University of Chicago Press), 51ff. In my work, the development of a 'nonconscious cognition' will lead to the notion of 'quantum ghosting', where nonconscious cognition enables (and indeed 'is')

a certain type of intelligence. This type of intelligence is defined in relation to information processing, and enables radical forms of liveness. For the 'undecidable' see the groundbreaking work by Kurt Gödel (1992 [1931]), *On Formally Undecidable Propositions of Principia Mathematica and Related Systems*, (Mineola NY: Dover). Undecidability has been further developed in my PhD in relation to Mandelbrot's well known feedback loop: $z = z^2 + c$

See Benoît Mandelbrot (2004), *Fractals and Chaos*, (New York: Springer). Cf Benoît Mandelbrot (1983), *The Fractal Geometry of Nature*, (New York: W. H. Freeman). See also Michio Kaku (2014), *The future of The Mind*, (London: Penguin Books). My development of image as a corporeal trace is based on Baruch Spinoza (2002 [1677]), *"Ethics," in Complete Works*, Michael L. Morgan (Ed.), translated by Samuel Shirley, (Indianapolis:

Hackett Publishing), 213–383. See also Gilles Deleuze (1988 [1970]), *Spinoza: Practical Philosophy*, (San Francisco: City Lights Books). My development of 'quantum consciousness' as linked to formally undecidable propositions is based on Roger Penrose (1994), *Shadows of the Mind: A Search for the Missing Science of Consciousness* (Oxford: Oxford University Press).



Anna Nazo. Granular Silt. Performance for CARPA6: The 6th Colloquium on Artistic Research in Performing Arts 2019. Invited artist. Hosted by the Performing Arts Research Centre Tutke at the Theatre Academy of the University of the Arts Helsinki, Klasma Theatre, The Museum of Contemporary Art Klasma, Helsinki, Finland, 29 August 2019, 0.45'.

⁹ For a 'distributed ecology of intelligence' see Murray Shanahan (2015), *The Technological Singularity*, (Cambridge: The MIT Press). The concept of 'sympoietic' is developed in Donna Haraway (2016), *Staying with the Trouble: Making Kin in the Chthulucene*, (Durham: Duke University Press), 31–33 and 70–71. For an earlier development of poetics as related to techne-logical 'surface' see Johnny Golding (2010), "Fractal Philosophy, Trembling The Plane of Immanence and the small matter of Learning How to Listen: Attunement as the Task of Art," in Stephen Zepke and Simon O'Sullivan (Eds.), *Deleuze and Contemporary Art*, (Edinburgh: Edinburgh University Press), 133–54.

¹² The notion of cognitive kinetic flux and consciousness in relation to metrics has been developed in a dialogue with Hayles's *Unthought: The Power of the Cognitive Nonconscious*. See also: Michel Foucault (2014 [1979–80]), *On the Government of the Living: Course at the Collège de France*, translated by Graham Burchell, (London: Palgrave-Macmillan). Also of importance: Penrose, *Shadows of the Mind*.

This point leads to the ethical-as-aesthetic and aesthetic-as-ethical questions around relationships that happen at the moment of performance. It brings in sympoietic relations that operate as a nonconscious cognitive network, a form of a sensuous ecology that enables distribution of intelligence.⁹

This move enables one to rethink a logic of sense from the perspective of quantum entanglement. Further, it provides a systematic (albeit undecidably systematic) way to look at intelligence and liveness at the moment of performance through the notions of complexity and symbiosis, and in relation to nonconscious cognition.¹⁰ In shapeshifting the sensuous into an open form of motion as a quantum relation, importantly, too, it suggests a radical and ethical rethink of the notion of Geist in relation to nonconscious cognitive kinetic flux.¹¹ This relation is plural and operates as a form of cognition that is enabled by the entanglement of wave fields at the moment of performance. It goes beyond the human perceptive abilities and beyond human consciousness, which in itself operates as a flattened metric of quantum reality.¹²

¹⁰ For logic of sense see Deleuze, *Logic of sense*. My development of wave function and quantum entanglement, is primarily based on the work of Max Born, and in particular, his interpretation of the Schrodinger equation where the wavefunction connects to the probability densities of the state of a quantum system (for example $|\psi(x)|^2$). See Max Born (1926), "On the quantum mechanics of

collision processes," translated by D. H. Delphenich, *Zeitschrift für Physik*, vol 37, (Heidelberg/Berlin: Springer), 863–867 at neo-classical-physics.info See also Max Born (1964 [1954]), "The statistical interpretation of quantum mechanics (*Nobel Lecture 11 December 1954*)," in *Nobel Lectures: Physics: 1942–62*, (Amsterdam: Elsevier) at nobelprize.org/uploads/2018/06/born-lecture.pdf

For Schrodinger's Cat experiment and the initial Schrodinger equation describing the wave, see Erwin Schrödinger (2014 [1926]), in *Collected Papers on Wave Mechanics*, (Providence: AMS Chelsea Publishing). Of importance here also: Roger Penrose (1991 [1989]), *The Emperor's New Mind: Concerning Computers, Minds, and the Laws of Physics*, (London: Penguin Books), 290–93.

¹¹ Initial development of Geist is from G.W.F Hegel (1991 [1830]), *The Encyclopaedia Logic: Part I of the Encyclopaedia of the Philosophical Sciences with the Zusätze*, translated by T. F. Geraets, W. A. Suchting, and H. S. Harris, (Indianapolis: Hackett Publishing Company), 340. Further develop-

ment relies on the work of Martin Heidegger, *Identity and Difference* (1969 [1957]), translated by Joan Stambaugh, (New York: Harper and Row); and his *Being and Time* (1996 [1927]), (New York: Suny Press). It has been reassessed in light of Derrida's development in Jacques Derrida (1994),

Specters of Marx: The State of the Debt, the Work of Mourning and the New International, translated by Peggy Kamuf, (New York: Routledge). Cf John Mowitt (2015), *Sounds: The Ambient Humanities*, (Oakland: University of California Press), 80–4 and 145; Mark Fisher (2014), *Ghosts of My Life:*

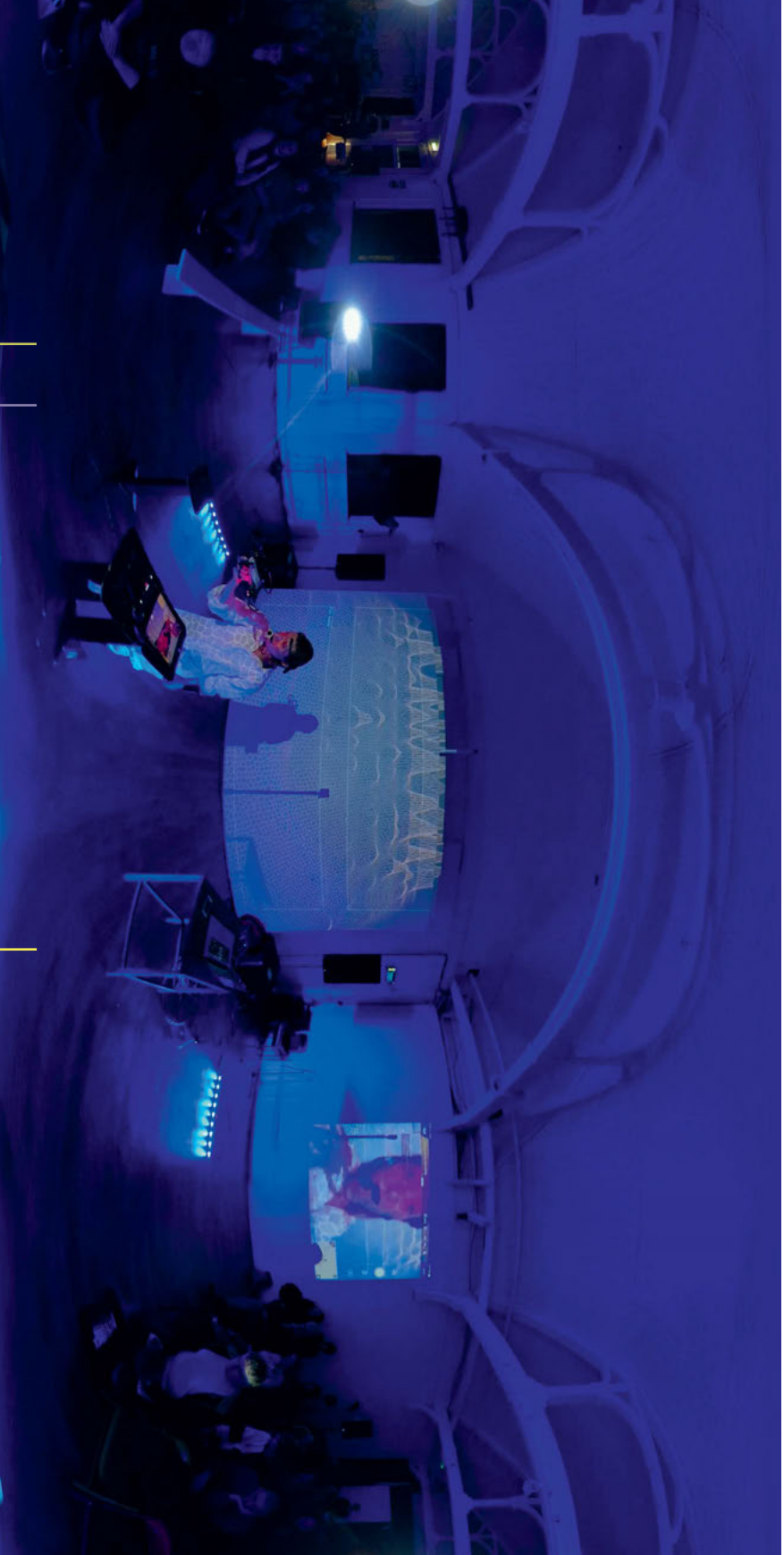
Writings on Depression, Hauntology and Lost Futures, (Winchester: Zero books); and Karen Barad (2007), *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*, (Durham and London: Duke University Press).

This form of relation, neologised as ‘quantum *geist-ing*’, is in a constant motion that has a discrete aspect to it. As the research will develop, this ‘quantum *geist-ing*’ requires plurality and diversity of forms of intelligence and liveness as a condition for a complex symbiotic system in order to establish a distributed form of sensuousness. This distributed form of sensuousness goes beyond the human sensuous and, simultaneously, it goes beyond the sensuous of all symbionts of the system individually. This multiple form of sensuousness is what my work names as the supra-sensuousness.



Anna Nazo. Devia. Performance for ArtFutura 2019 Festival, Iklectik Art Lab, London, UK. 1 December 2019, 0.15 '. Image by Pau Ros.

Anna Nazo, Devia. Performance for ArtFutura 2019 Festival, Ikklectik Art Lab, London, UK. 1st December 2019, 0.15'



To put this slightly differently, supra-sensuousness merges with non-conscious cognitive flux and, in so doing, re-thinks 'human' as always already a plural self, a multiple-singularity, an ecology of selves, or as Margulis would say, a holobiont; that is a morphogenic system of human cells, virome, microbiome, and etcetera.¹³ Through live performance, it extends this notion further, beyond the organic, in the form of an AI-drone-human holobiont. This move enables an initial articulation of a philosophy and ethics, one that focusses on artificial or ana-radical forms of intelligence and liveness. This allows an engagement with the notion of a live digital-analogue performance in the context of quantum reality.¹⁴ It enables one to create an entirely different sense of matter and ecology in a performance work, contemporary art and actual reality. It engages with a differently poetic-as-technological and technological-as-poetic form of performance.¹⁵

constant ride ['konstant raid]

a special way to film with a camera mounted on a moving vehicle which is coupled with a speedometer. the faster the ride becomes, the more pictures are taken. at a certain speed everything seems normal, but if the speed increases, time stretching occurs. and if the speed is decreasing, it time becomes warped. when the vehicle is completely stationary, no pictures are taken at all. the result of this recording is a completely even ride without acceleration or deceleration, a dreamlike, never-ending and weightless floating through space and time.

¹³ For ecology of selves see Eduardo Kohn (2013), *How Forests Think: Toward an Anthropology Beyond the Human*, (Berkeley: University of California Press). For the notion of holobiont see Lynn Margulis (2017 [1991]), *Symbiosis as a Source of Evolutionary Innovation: Speciation and Morphogenesis*, (Cambridge: MIT Press).

¹⁴ The ana-radical is developed through notions of radical matter and ana-materialism in Golding, *Fractal Philosophy*, and her *Ana-Materialism and The Pineal Eye*.

¹⁵ The argument developed here relies on Heidegger's relation between poetic and technological. Cf Martin Heidegger (2001), *Poetry, Language, Thought*, (New York: Harper Perennial); and Golding, *Ana-Materialism and The Pineal Eye*.





This form of performance, one could say, is operating as a set of queer relationships with the digital: the eerie platform of the artificial, the real, and the embodied.¹⁶ It is a queering of the digital and its analogue symbionts. It operates on spoken word poetry that is co-written with AI (HumInt-AI psychological-sensuous feedback loops), drone performance, and brainwave performance.¹⁷ It brings in an understanding of AI poetry and artificial intelligence in relation to sensuous literality and the language of translation.¹⁸

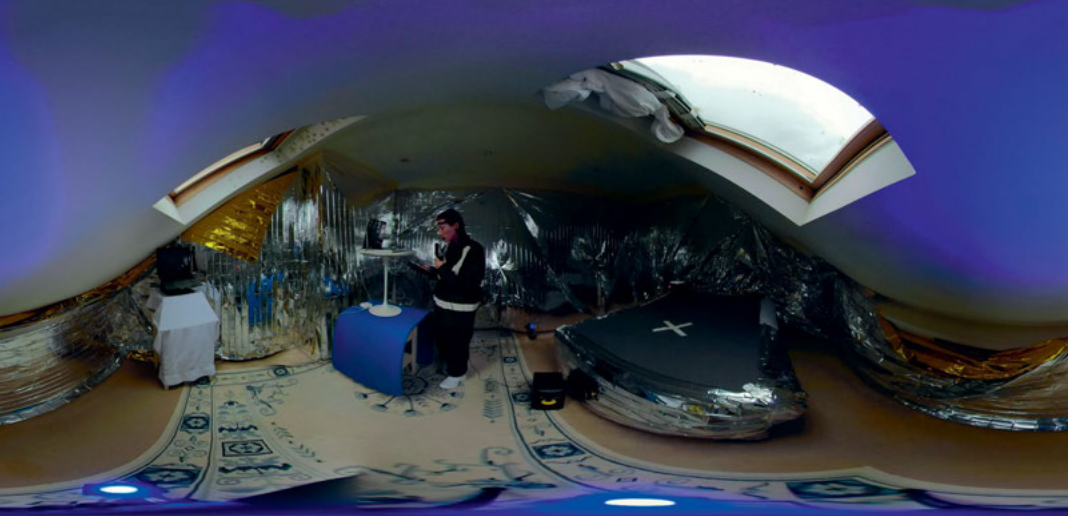
¹⁶ The notion of queer, queer-ness and queer sensuousness is developed in a dialogue with works by Jack Halberstam, Amber Jamilla Musser, Renate Lorenz, and artworks by Victoria Sin, Boychild, Wu Tsang, and Derek Jarman. See Jack Halberstam (2011), *The Queer Art of Failure*, (Durham/London: Duke University); and Jack Halberstam (2018), *Female Masculinity*, (Durham/London: Duke University), 199; Amber Jamilla Musser (2018), *Sensual Excess: Queer Femininity and Brown Jouissance*, (New York: New York University); and Renate Lorenz (2012), *Queer Art: A Freak Theory*, (Bielefeld: Transcript Verlag). For queer as 'exquisite method', see Henry Rogers (2012), *QueerTextualities*, (London/Birmingham: ARTicle Press).

¹⁷ As mentioned the initial code for the AI was written by Sung Kim at github.com/hunkim/word-rnn-tensorflow. This initial code was modified in order to work with drones using DJI Spark at sparkldrones.com/index.html, nickname: Luna. The brainwave CGI is generated through software that was created in collaboration with Vincent Rebers (2016) (programming) and updated in 2019. The *NeuroSky MindWave EEG headset* is used to collect raw EEG data.

¹⁸ Sensuous literality and the language of translation in relation to AI has been inspired by the groundbreaking work of Walter Benjamin. See in particular Benjamin (2002 [1921]), "The Task of the Translator," in Marcus Bullock and Michael W. Jennings, (Eds.), *Selected Writings of Walter Benjamin, Volume I, 1913–1926*, (Cambridge, MA: Harvard), 253–64. See also Trevor Paglen (2019): "From Apple to Anomaly," transcribed from Trevor Paglen in conversation with Anthony Downey, (London: Barbican.org.uk/trevorpaglen/

copy [kɒpi]

closely related to imitation, 1:1 mimicry, doubling, the copy can be understood as a point-for-point literal rendition of the 'that which lies to hand' (wittgenstein). in the networked, virally exposed, the copy always-already is the pluralised start of a 'belonging-being-with-together.' or to put this slightly differently, the copy forms the start/now/present-tense 'is' of any reality, networked or otherwise. see walter benjamin's the task of the translator (1923) alongside, for example hillel schwartz's 1996 classic: the culture of copy.



Anna Nazo. *Flame*. Performance for Stay LIVE At Home Programme, organised by Performistanbul, Live-streamed on Zoom and Instagram @annanazo, Istanbul, Turkey / London, UK. 3 May 2020.

The brainwave performance experiments with live transmission of brainwave data (EEG) into the computer generated sound and imagery (CGI). The brainwaves CGI enables to rethink the understanding of a photographic image as a cognitive kinetic flux.¹⁹ It translates a brainwave into a viscous, nonlocal, undulated body. The body that performs as an evocative portrayal gesture of hyper-objectivity, a photographic image of the contemporary world that goes beyond the human sensuous, and gets into the dimensions of supra-sensuous.²⁰ It brings in the brainwave frequencies, and the drone cognition that is enfleshed with its sensuous patterns. The radical otherness of drone's liveness and intelligence evokes aesthetic-as-ethical and ethical-as-aesthetic questions around distributed intelligence as a different form of metrics. At the moment of performance all these are being entangled and translated into the human perception of the real in a form of conscious flattened metrics of quantum reality.

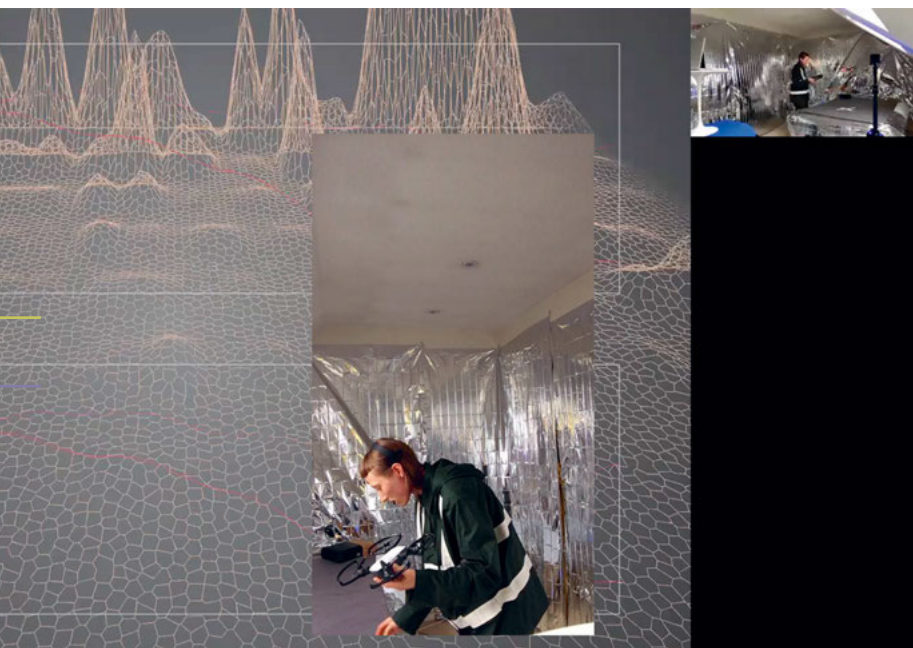
¹⁹ The notion of cognitive kinetic flux has been developed in dialogue with Hayles, *Unthought*; along with Thomas Nail (2018), *Lucretius I: An Ontology of Motion*, (Edinburgh: Edinburgh University Press).

²⁰ For hyperobjectivity see in particular: Timothy Morton (2013), *Hyperobjects: Philosophy and Ecology after the*

End of the World, (Minneapolis: University of Minnesota Press). See also Umberto Eco (1990), *Travels in Hyperreality*,

(New York: Mariner Books/Picador). Initial development of 'gesture' is from Vilém Flusser (2014 [1991]), *Gestures*, trans-

lated by Nancy Ann Roth, (Minneapolis: University of Minnesota Press), 1–10.



The metrics themselves are always already plural. Being grasped by the digital (photogrammetry, 360-degree imaging, virtual reality), they operate as another translation and create different forms of relations. Through these relations come forward other forms of liveness and performativity, the liveness and performativity of, unexpectedly, a new understanding of the archive.

Anna Nazo. Flame. Performance for Stay LIVE At Home Programme, organised by Performistanbul, Live-streamed on Zoom and Instagram @annanazo, Istanbul, Turkey / London, UK. 3 May 2020.

While it follows Penrose's passage of thinking of consciousness through quantum field dynamics, brainwave function, wave interference patterns and wavefunction collapse; this move reveals the metrics problem in the relationship between quantum reality and consciousness.²¹ Simultaneously, it brings in the brain waves and the drone's sensuous frequencies to the dimension of [human] actual-perception, which enables bringing forth new ways of *parrhesiastic* embodiment in the contemporary technological setting.²² This form of embodiment involves the technological, the carnal, the sonic, the spoken and the computer-generated (imagery, sound, text). It operates through creating a kind of a neuronal network, a distributed intelligence networking architecture. It enables introducing the notion of radical care, which involves pluralised sensuous feedback loops that are happening at the moment of performance in wave fields (mechanical waves [sound], electromagnetic waves [light, brain waves]). These feedback-loops enable a kinetic flux as a form of non-conscious cognition, as a form of overlayed poetics and as a form of multidimensionality. While the performances are living-dying-grasping virtual-carnal installations of poetics, they also are multi-dimensional supra-sensuous encounters of multi reality and the ecology of a multiplicity of selves, AI-drone-human holobionts, all of which enable a sensuous swerve to happen. This empowers a radical shift in the understanding of being in the world.²³

²¹ Metrics in relation to consciousness has been developed through Penrose, *Shadows of the Mind*, 329ff and 369ff. Cf Hayles, *Unthought: The Power of the Cognitive Nonconscious*, 41–63.

²² For the development of *parrhesia* and truth-telling embodiment, I have relied on Michel Foucault (2011 [1983–84]), *The Courage of the Truth: The*

Government of Self and Others II, (New York: Palgrave Macmillan). See also Johnny Golding (2018), *"From Drone-Truth to Radical Empathy: Consciousness in*

the Zero Zones of Time," Keynote at *Sliced-up ghettos of thought: Science, art and society–20 years from now*, (London: London Arts and Humanities Partnership,

Bartlett School of Architecture) at rca.ac.uk/3397/ For posthumanist forms of embodiment see N. Katherine Hayles (1999), *How We Became Posthuman: Virtual*

Bodies, in Cybernetics, Literature and Informatics, (Cambridge), 222ff, and her *Unthought*, 9–26.

²³ For kinetic flow see Nail (2018), *Lucretius*, 12, 108, 199. For the development of a sensuous 'swerve',

see Nail, *Ibid*, 194–204. My development of the poetic is principally based on Heidegger, *Poetry, Language,*

Thought, and Gaston Bachelard (2014), *On Poetic Imagination and Reverie*, Collette Gaudin (Ed.),

(Thompson, CN: Spring Publications).