Circuit
Musiques contemporaines

Inhabiting a World of Numerical Things
Habiter un monde de choses numériques

Salomé Voegelin

Volume 26, numéro 3, 2016

Musiques aux limites de l'image
Images at the Limits of Music

URI : https://id.erudit.org/iderudit/1038515ar
DOI : https://doi.org/10.7202/1038515ar

Aller au sommaire du numéro

Éditeur(s)

Les Presses de l'Université de Montréal

ISSN

1183-1693 (imprimé)
1488-9692 (numérique)

Découvrir la revue

Citer cet article

Voegelin, S. (2016). Inhabiting a World of Numerical Things. *Circuit*, *26*(3), 27–41. https://doi.org/10.7202/1038515ar

Résumé de l'article

Cet essai rapporte une visite à l'exposition inaugurale de Ryoji Ikeda à la HeK (*Haus der elektronischen Künste*) à Bâle (Suisse), en novembre 2014. Son objectif est d'insuffler une sensibilité à des oeuvres réalisées à partir de processus d'information dont le code constitue à la fois la texture matérielle et la légitimité conceptuelle. À travers la particularité de son récit, l'auteure considère d'un oeil critique sa propre expérience des oeuvres, en tant qu'environnement, concernant les idées d'Ikeda sur le sublime mathématique, et par comparaison avec le concept de sublime chez Emmanuel Kant. Elle réfléchit la pureté mathématique recherchée par l'oeuvre d'Ikeda relativement à la notion de Quentin Meillassoux d'un monde indépendant de la pensée. Plus particulièrement, elle s'intéresse au rapport entre la visualisation des données et leur composition sonore, un lien qu'elle perçoit comme une tension centrale de l'oeuvre à l'intérieur de laquelle elle place le mot-valise « égaliberté » d'Étienne Balibar, soit la réciprocité impossible entre égalité et liberté.

Inhabiting a World of Numerical Things

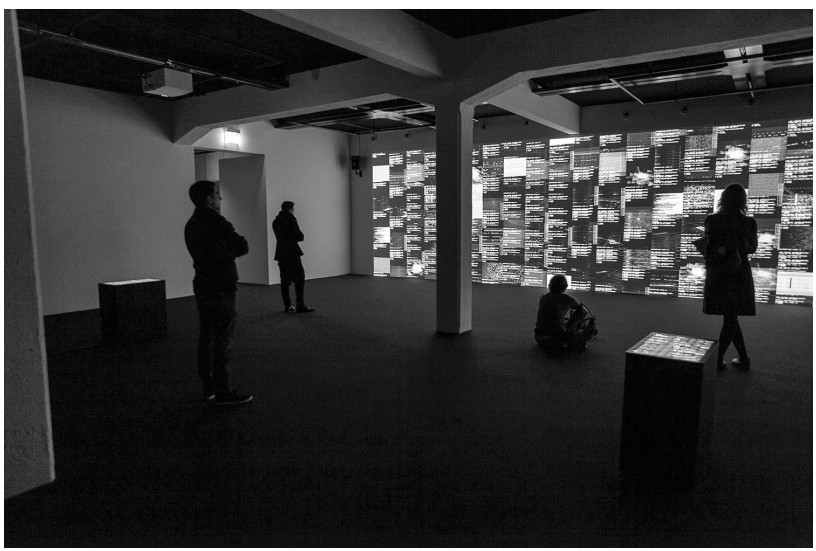
Salomé Voegelin

This essay recounts a visit to Ryoji Ikeda's installation *data.tron [3K version]*, produced for the inaugural exhibition of the HeK[1] (*Haus der elektronischen Künste*) in Basel, Switzerland in November 2014. Ikeda[2] is Japan's leading sound artist/electronic composer and visual artist, whose compositions are fashioned from immense quantities of data worked through mathematical precision into codes of light and sound. The particular work discussed here, a vast datascape, was displayed together with an older work from the *datamatics* series, *data.scan [nº 1-9]* (2009), in the main gallery of HeK's new exhibition space.

1. About HeK, see: <www.hek.ch> (accessed October 6, 2016).

2. About Ryoji Ikeda, see: <www.ryojiikeda.com> (accessed October 6, 2016).

FIGURE 1 Ryoji Ikeda, *data.tron [3K version]*, 2014, and *data.scan [nº 1-9]*, 2009. Photograph: Lukas Zitzer.



This recounting aims to bring an inhabited sensibility to works made from information processes whose code is at once their material texture and conceptual legitimacy. The visual element of *data.tron [3K version]*, a vast flow of data projected over the whole length of the back wall of a large and darkened room, combines with the nine incubator-like pods of upturned monitors of *data.scan [nº 1-9]* distributed equally in three straight lines of three across the floor of the gallery. Numbers racing on monitors and as projections create the visual rhythm of a mathematically possible world, a world of numbers and data, that is not unreal, a fabulation or a parallel world, but is the actual world of numerical things that becomes experientially accessible and thus possible to us through Ikeda's work. Ikeda's datascapes at once eschew and compel perceptual contingency, producing a precarious belonging in a world stabilised by streaming numbers: datastreams that are simultaneously embedding the viewer as a data-set, and yet physically excluding her through the incalculable exigency of her soul.

Following this thread from data visualisations into a simultaneously mathematical and material possible world, this particular recounting engages with the works not centrally as pieces of art but in terms of the environment they create and the philosophical ideas that this environment inspires. Therefore, in this essay, I will critically engage with my experience of the works as environment in relation to Ikeda's own ideas of a mathematical sublime put into contrast with Immanuel Kant's notion of the sublime as inherent in the perceiving subject rather than in the world; and I will discuss the mathematical purity Ikeda's work pursues in relation to Quentin Meillassoux's notion of a mind-independent world. Most particularly I will engage in the tension between the visualisation of data, the distant and inexhaustible flow of numbers streaming across the gallery wall and giving light and movement to the otherwise still black boxes of upturned monitors, and the sonic dimension of this environment, which does not represent but composes numbers into music and thus carries with it the unreliability of the body and the dependency on a fleshly mind.

I recognise the connection between the visualisation and the composition of data as a central tension of the work and place Étienne Balibar's portmanteau term *égaliberté*[3], the impossible reciprocity between equality and freedom, in its location. This allows me to insist on the conflict of data and bodies, rather than its sublimation, and I come to appreciate the tension of numbers and flesh in the lacunae between the image and sound of Ikeda's work as harbingers of mathematical and physical possibilities respectively, and understand it as the place where equality and liberty meet and I gain the

3. In his book, *Equaliberty*, Balibar talks about the relationship between freedom and equality as two "concepts or values that are felt to be equally necessary" (2014, p. 37). Referring his definitions back to the Declaration of 1789 he gives a historical and philosophical account of the development of both these terms vis-à-vis each other. It is his articulation of the tension between equality and freedom that I identify in this essay with the tension between the audio and the visual elements of Ikeda's work.

opportunity to reflect on the ambivalence of their combination, in relation to social and political possibilities, and as an articulation of what we are in a world of numerical things.

Light and Architecture

Both pieces produce from projectors and speakers, light and architecture, numbers and data an environment of actual things and of numerical things, which co-exist and describe each other, and that we inhabit increasingly without much distinction or care.

Data flows articulate and give measure to the real world of which they are a numerical thing that exists alongside the material things and events of that world, of which they are also a measure. In this work by Ikeda, the datascape and the galleryscape meet through the combination of visual and sonic material, which immerse us, as I will discuss, in the tension between numerical facts and experiential possibility.

The visual environment of the works is structured from digital data sets: DNA, astronomical records and other raw data are broken down into their smallest components and streamed across a huge screen and on nine monitors respectively. Essentially performing as light and dark, numbers and background, these visualisations animate the fabric of the site, its walls and exhibition furniture, hinting at the calculable reality of existence and things, while seemingly shining through the gallery's concrete walls and destabilising their form.

While the visual data flow invites an emotional response through the impression of objectivity, of mind-independent facts and processes, the sound calls on the notion of 'composition' and thus on the idea of a human interface and presence. Ikeda's sine-tone compositions create sonic fragments, white noise, electronic impulses and extreme frequencies, produced from the same data sets and numerical information that generate the visual works. However, his sounds create a more diffuse and poetic layer of this same datascape. The electronic composition fills the space unseen and does not afford us an overview of its calculations: a wall of numbers and code, but instead exists as invisible time, creating not a surface but a depth. Thus it lacks the reliability of interpretation and the potential for decoding, and instead propels the body of the listener into a dark unsteadiness.

Visualisations work within the trust of measure and correspondence; the sine-tone compositions generated from the same original data sets provide something else: a fragility and arbitrariness that calls us into the tension between what we are, our inadvertent 'musicality,' and what is without us, the facts of a pre-human or post-human world. The first brings us to the

particularity of our audition, the contingency of the environment that we inhabit, and allows us to generate the possibility of what we think we see so clearly. The latter provokes the awe of a human-independent nature of things as facts distilled in numbers that in their totality are too much to grasp.

> To me, beauty is crystal: rationality, precision, simplicity, elegance, delicacy; the sublime is infinity: infinitesimal, immensity, indescribable, ineffable.
> To me, the purest beauty is the world of mathematics. Its perfect assemblage of numbers, magnitudes and forms persist, independent of us. The aesthetic experience of the sublime in mathematics is awe-inspiring. It is similar to the experience we have when we confront the vast magnitude of the universe, which always leaves us open-mouthed.[4]

4. Ikeda (artist statement about *data.tron* installation, 2007-2011), quoted in Park Avenue Armory, 2011, online.

Ikeda's notes, published in the house program for *The Transfinite*, an exhibition of his *data.tron* installation (2007-2011) at Park Avenue Armory, invites me to juxtapose the mathematical force of visualisations with the less controllable sublime of a sonic composition that does not leave me 'open-mouthed' and overwhelmed, but places me in a rhythm that by necessity responds to my body rather than affecting the astonishment of a numerical world that exists 'independent of us.'

These contemplations are afforded to me through the works being works of art placed in a particular context, discoursively as well as in terms of practice, and thus through their making visible and audible within the particular context of artistic production and proposition what ordinarily falls into the limits of purpose and application, and the intentional calculations of facts and measures of an actual world. However, I am less interested in how the works speak to art than how they speak to notions of materiality, truth, and reality and what they provoke in relation to the material world and how we inhabit it as physical subjects who stand in tension and complicity between a felt materiality and the abstraction of numbers and data, and who are drawn into the necessity to inhabit what they create together.

The nine upturned monitors of *data.scan [nº 1-9]* seem to respond to the 'mother-data' *data.tron [3K version]* with their own calculations, and together they overwhelm through their induction into a post-human or maybe a pre-human existence: pure data, a purely mathematical universe, a 'perfect assemblage of numbers, magnitudes and forms persist, independent of us'[5] and in whose light I too become but a numerical form, existing not as flesh but as chromosomes.

5. Ikeda, quoted in Park Avenue Armory, 2011, online.

The sound at once supports this rhythm but also finds it own, inviting me through its involuntary but compelling musicality to live in the texture of numbers as flesh rather than as information. I enjoy the paradox of inhabit-

ing a mathematical universe experientially. The numbers and sounds draw me into the inherent struggle between measurability and uncontrollable self-determination; between a post-humanist or pre-humanist rationality of numbers and a potentially fanatical metaphysics. And thus within the dark infrastructure of numbers I come to experience Meillassoux's *After Finitude* (2009), his desire for a mind-independent world that allows us to gain access to non-intersubjective truths via the ancestral, the pre-human, while at the same time the 'human' musicality of Ikeda's sine-tone composition throws me into the paradox of an experiential data body and the conundrum of post-human representation.

Following Meillassoux and contemplating through the audiovisual relationship of the works the tension between data and flesh, I come to appreciate Ikeda's notion of a mathematical sublime and start to see the void of a numerical world, its sublimation and ultimate domination. Consequently I begin to recognise in the post- and pre-human possibilities of a data world the mirror of a romantic ideology.

Vestibule

> The vestibule and semicircular canals of the inner ear are the balance organs. The three interconnected semicircular canals are at right angles to each other and can respond to any head movement. The vestibule, which consists of utricle and saccule, respond mainly to the position of the head relative to gravity (static equilibrium), while the semicircular canals react to speed and direction of head movement (dynamic equilibrium).[6]

6. Klenerman, 2015, p. 38.

Before I enter into the main gallery I have to pass a little antechamber, a small closed off space that calibrates me into invisible localizations through the use of a high-pitched sound. *Untitled, 2014* consists of a small empty space with an invisible but highly directional speaker that emits unseen a piercing sound which I can only hear as I pass a particular point. The sound is a 10 second Morse code that is a pre-text for looking and a pre-text for listening. These beeps do not lift me into music but into the idea of transcription and decoding: the reading of things that are not in their own form but present as the measure and code of their formation, and that in their interpretation reveal words and objects that exist but whose understanding and accounting for depends on the knowledge of the receiver. The Morse code unfolds in the vestibule of the ear and my adjustment to its piercing sound makes room in the vestibular system to engage the sonic data with the visual data I am confronted with so overwhelmingly as I step into the main gallery space.

Untitled, 2014 is thus not a work as much as a moment of tuning, the tuning of individual audience members into the demands of a complex audiovisual perception. It creates a moment of surprise and the subliminal request to go through a change of attitude and expectation, and its experience ensures that, as I pass through the double doors into the main gallery space, I come adjusted and ready to hear the numbers that pierce my eyes.

The Ancestrality of Data Worlds

The paradox between the highly individual perception of an invisible stream of directional sound and the universal appeal of its expression, Morse code, prepares for the paradox between the numerical world and the material world I am about to step into and brings into play the dilemma apparent also in Meillassoux's desire for a human-free conception of the world. In his widely discussed work *After Finitude*, Meillassoux sets out an argument for ancestrality, the measure and articulation of a world anterior to humanity, in order to achieve an understanding of the world without the 'irrationality' of human perception, and without the 'dogma' of transcendental universals. In other words he is looking for reason emancipated from the vagaries of correlationism,[7] essentially identified within phenomenological metaphysics, and the principle of humanist rationality, both of which he considers to lead to absolutes and a finite perception of the world.

In response, through the pursuit of a non-human ancestrality he seeks a logic and reason able to grasp the anterior without a present human experience.

The aim throughout his book is to reach beyond ourselves into a space exclusive of ourselves that might ultimately shed light not only on what was, but establishes an understanding of 'what is' without the spectre of human perception in a purely mathematical conception of the world.

Meillassoux's argument for an after finitude begins with a critique of the strong correlationism of phenomenology and other metaphysical philosophies, which he understands as a counter to the absolutism of transcendental idealism resulting in equally dogmatic fanaticisms. While he appears to agree with the need to critique transcendental universalisms and the dogma of the absolute, he is looking for another solution based on facticity and the contingency of facticity: on the fact that the world 'is there,' rather than on my own contingency in a world that 'is there for me.'[8] The idea that the world is simply there and that what there is cannot be thought of as a fact but is a matter of non-dogmatic speculation through mathematics elevates numbers and their organization beyond the status of a language, as a representation

7. Correlationism describes a central premise and attitude of modern philosophy since Kant. It suggests that we cannot think what we cannot experience and know through being and that we cannot know through being without thinking of it at the same time.

8. In the course of his book Meillassoux develops facticity, the pure possibility of what there is, into the notion of factuality understood as the speculative essence of facticity: the fact that what there is cannot be thought of as a fact but is a matter of non-dogmatic speculation, a speculation which he ultimately pursues via mathematics. See Meillassoux, 2009, p. 50-54.

or description of something else, and suggests that those numbers and their organization are the world that there is.

In relation to Ikeda's data streams this idea is intriguing but also rather vertiginous. The numbers streaming across the back wall and flowing in the upturned pods seem to construct a mathematical possible world that needs no observer, no intersubjectivity, and whose logic is down to numbers as the counterfactuals of its events and materials rather than to any sense of correspondence or truth. These numbers are not true—they are simply right, they are the measure of their own actuality as the only reality possible. In this light the data streams become autonomous of my experience of them, grotesque in their authority over me, as I too contract into a set of data, DNA and chromosomes of what I am as an uncontested actuality.

The conception of the data as non-dogmatic speculation of the world through a mathematics without a human interface draws the air out of the room and makes the numbers appear self-governing and exclusive. There is no gap between the numerically described and its description, there is no space into which sentiment or interpretation can slip. It is an absolute without the vagaries of experience or the rationality of universals. Its measure however still needs a reason, which is the reason Meillassoux disavows in order to escape the problems with correlationism, phenomenological intersubjectivity, and transcendental reasoning. Instead he persuades us via Galileo's discovery of the mathematical invariant of movement, speed, of the possibility of radical infinitude in numbers:

> From that point on, the world becomes *exhaustively* mathematizable—the mathematizable no longer designates an aspect of the world that is essentially immerged within the non-mathematizable (i.e. a surface or trajectory, which is merely the surface or trajectory of a moving body), it now indicates a world capable of autonomy—a world wherein bodies as well as their movements can be described independently of their sensible qualities such as flavour, smell, heat, etc.[9]

9. Meillassoux, 2009, p. 115.

And so I stand in the exhibition space, in a work that creates an exhaustively mathematizable world, where the walls and my body are data and any movements through the datascape 'can be described independently' of any sensorial impetus or impression they might make or leave.

Following Meillassoux we are invited to look at Ikeda's work as a world that 'is there,' that is as data a thing that is nothing other, that neither needs nor offers scope for further interpretation but is as the raw form of the infinitude of things.

The contingency of Ikeda's facticity is not chance, the visualisations of the data cannot be counted as chance operations. Instead they are the

mathematical form of their truth as the only truth that escapes fanaticisms and absolutes.

Standing within the numerical reality of Ikeda's datascape, surrounded by upturned and pod-like monitors and confronted with a big screen of flowing numbers, I enter the rhythm of this non-absolute absolute, the absolute of a contingent facticity, and see the infinite, the time before and after me, and I contract into the insignificance of my own here, whose sensorial capacity is replaced by numbers: my own data sets, my chromosomes, my DNA, what I am as a mind-independent fact vis-à-vis the mathematical world that is there.

There is something compelling in this stance. An abandonment of responsibility: the sheer awe of numbers that exclude and diminish my own sense of myself to calculations and render my agency almost blissfully irrelevant.

I am standing in front of the massive screen, the panorama of a datascape, transfixed by the visual measurement of my surroundings, I feel confronted by something bigger than myself, something greater than my phenomenological experience provides or my rational sense of the world can account for, something that might sustain and survive the contingency of my experience but that also contracts the very same and makes me insignificant. Maybe this is the absolute of an infinite world of numerical things, a mathematical universe that goes beyond the scope of human comprehension but makes me sense its unthinkable reach. It is the 'might and magnitude' of a mathematical autonomy that reframes a romantic anxiety of nature's infinity in the shape of numerical things.

Data Sublime

Seeing other people's silhouettes against the massive screen of numbers, their back to me, staring into the abyss of calculations flowing in front of them, I cannot help but be reminded of Caspar David Friedrich's *Wanderer above the Sea of Fog* (1818), the quintessential romantic painting of a man, his back to us, standing astride a rock above the fog, staring into the unseen sea down below, staring into the void between man and nature, contemplating the overwhelming terror of the outside world in its infinite expanse. Unable to grasp the magnitude and might of nature, Friedrich's Wanderer represents the romantic subject who experiences the universal anxiety before nature's infinity into which he vanishes.

For Immanuel Kant the failure to comprehend the magnitude or might of an object or event marks the sublime. It is man's reason and rationality, his cognitive power that counteracts this failure and leads from frustration and displeasure to the joy and satisfaction of having overcome it. It is man's

"supersensibility" that triumphs over the infinite magnitude of the sublime. Thus, the sublime is never in nature, in the thing, but is in the mind of man as a sense of self vis-à-vis the frightening and awesome infinity of an external world that he is at a distance from and has to conquer to stand tall in the world. "Sublime is what even to be able to think proves that the mind has a power surpassing any standard of sense."[10]

10. Kant, 1987, p. 106.

Kant's sublime and his transcendental reasoning proposes experience as a universal totality that is subject-dependent, even if his subject too is universal and ideal rather than intersubjective, and represents the very rationality that Meillassoux seeks to critique and replace through the conception of a mathematizable world. And yet, considered through the work of Ikeda, the mathematical too provides a totality, the infinite totality of numbers that generates awe and the desire to overcome the displeasure felt in the face of its numerical vastness and our reduced and fragile existence vis-à-vis its confident and inestimable calculations.

The visual component of Ikeda's datascape is haunting and beautiful. It invites a seemingly endless stare into the void of a data-world, into which our own visuality vanishes and against which we become insignificant and sublimated. Maybe it is through the reconstitution of ourselves as data-sets, as numerical things, as chromosomes and DNA, the measure of our bodies rather than our soul, that we might, following Kant, overcome this displeasure of subjugation and that a mathematical "supersensibility" might triumph over the infinite magnitude of a data sublime. However, even in this triumph we are ignoring the underlying problem of frustration and fear, which ultimately motivates the will to domination, aesthetically and politically, and thus we confirm, through the post- and pre-human possibilities of a mathematical world, the dialectic of a romantic ideology.

The notion of a vast and ungraspable exteriority, the landscape or its technological counterpart the datascape, and the 'beautiful horror' we experience before its magnitude, represents a contemporary rendition of the romantic consciousness of man's separatedness from the world. It reveals a consciousness that does not recognise itself as an equal part, modest but responsible in the world of material and numerical things, and drives the consequent need to negotiate this separation through domination: inadvertently revealing a belief in man's superiority or potential and will to superiority from the outset, and confirming an anthropocentric world view.

While Ikeda's work invites us into an awe of numbers without the explicit demand to overcome its infinite expanse, the material nevertheless carries this possibility in the tension between beauty and horror. The beauty

invoked by his datastreams is a beauty of conflict between numbers and self. Kant's humanist idealism calls to overcome the conflict between the external nature/data and the internal human/flesh through the triumph of the mind, a cerebral, informational grasp and domination of the (data-) universe by man. And thus implicitly at least Ikeda's work fulfils the dialectic of the romantic as a contemporary drive impelled by a numerical exteriority.

And while Meillassoux's notion of ancestrality aims to critique the very rationality of Kant's humanism, his desire for a pre-human or post-human appreciation of the world via its mathematizable nature is not free from the absolutes of transcendental reason, from the desire of an ideal realisation of the self and the world through anthropocentric givens, either. In fact, while Meillassoux's philosophy might promote the mathematical calculation of a pre-human world, paradoxically the very inaccessibility of an infinite ancestrality, the pre-given, also confirms our anxiety of its existence as exteriority and outlines a hyper-anthropocentric sense of its materiality as strictly calculable—what appeared inaccessible becomes controllable through calculation.

Listening to Numbers

To live in the texture of numbers as flesh rather than as calculations I need to listen to the works' sound whose data operations reveal the indeterminacy and arbitrary nature of the human body as the agent of its construction. Through the notion of composition the work admits to the mind dependency of their

FIGURE 2 Ryoji Ikeda, *data.tron [3K version]*, 2014. Photograph: Lukas Zitzer.

organisation; it admits to the human flesh of the composer and the fragility of its truth.

Staring at the screen, immersed in its sound, I enjoy the paradox of inhabiting a mathematical universe experientially. The visual numbers and invisible sine-tones draw me into the inherent struggle between measurability and uncontrollable self-determination; between a post-humanist or pre-humanist rationality of numbers and a potentially fanatical metaphysics of the material world.

Ikeda's imagery can be seen to restate the romantic anxiety in dataform, revelling in a numerical nostalgia, but his sound denies us this romantic stance and offers a different position. The work's audio component, a sine-tone composition, is created from the same data sets that produce the visual datascape. While the flow of numbers is running before our eyes this soundtrack seems to support its calculations. However, the screens stop intermittently. This is no doubt a technical necessity rather than a conceptual intent. However, the visual gaps that open to illuminate a dark and empty space allow me to catch my breath and to hear myself and others in the room not as data but as flesh, and enable me to concentrate my perception on the sound of the body and the sound of the sine-tone composition that carries the inadvertent musicality of its composer beyond the threshold of numbers.

The gaps between visualisations are moments where the suspension of disbelief in the reality of a numerical world is broken and the material world reveals itself. They allow me to slip into the sound of the numerical things, to add my breath to its pulse, and see the materiality of its things.

The sine-tone composition invites me to inhabit the material possibilities of the work, which is not a musical possibility in the sense of a pure and abstract language of music as calculations, harmonies and codes, but is the inadvertent musicality, the sensibility rather than the discipline of music. This is a musicality not delineated by genius, perfection, and the right interpretation of a piece of work, which protects a specialism from outside influence and interference, and neither is it a 'Ur-music,' an ancestral music that predates our playing. Rather, it is a sensibility that invites everybody to practice the imperfections of the body on the inexhaustible flow of sound. This inexhaustible flow is not the infinity of a mathematical world. It is not a flow of numbers but a flow of breaths and bodies and sounds that defies and problematizes the surface of numerical things and brings them into the tension between bodies dancing and a calculating mind.

Sound denies us the indulgence in a mathematico-romantic sublime and spares us its anxiety. In sound we do not plunge into the absence of the

image, the abyss of nature's magnitude or mathematics' infinity, but into the presence of its inexhaustible materiality. We cannot vanish into sound; instead, through our listening as a reciprocal and generative proximity, we make appear different forms and formless shapes out of which a contingent world emerges rather than disappears into. And thus this world created with us and from us is not alien and threatening and does not need to be ordered and apprehended through the human mind, or through mathematical data sets. Instead it is a formless correspondence between people and things as numbers and material, as calculation and flesh, that meet in the world that there is: encompassing numerical and material things equally.

Sound and musicality bring the correlation back to Meillassoux's mathematical ancestrality, his desire for a mind-independent de-correlated world. However it does so not in the form of weighted correlations between humans and things, determined from a human point of view, re-confirming a humanist value and scale, but as the equal correlation between physical bodies and things and their calculation as numerical bodies and things. Ikeda's sine-tone compositions produce the environment of the gallery as a post-humanist place, whose shape is not anthropocentric or ideal but formless; and which we inhabit in listening, equal and reciprocal with the sound of its things, whose correlation is not absolute: a world for me; and neither is it ideal: totalized by the mind or as calculation. Rather, it exists as constant and reciprocal re-calculation and re-consideration of references, connections and processes.

I do not believe these connections are, as Meillassoux might fear, the fanatical and solipsistic imaginings of a correlationist in search of a de-absolutized world.[11]

Rather, listening as an attitude to the world practices the ambivalence between measure and experience. It brings the numerical thing together with the material thing and creates the consciousness of a 'trans-materiality' and a 'trans-subjectivity' that opens rather than closes the world to its possibilities as it removes the borders and lines between what might be experienced as an external magnitude and authority, nature: the landscape or the datascape, and the sublimation of the inhabitant, the material/fleshly thing or the data thing/subject, into its might. Instead it supports a more equal environment, where numbers and things co-exist and describe each other, and which we inhabit increasingly without much distinction between a data thing or a material thing and how we might relate to them and to each others' data and flesh.

The tension between the mathematical non-absolute absolute of the datascape and the sine-tone composition facilitates the re-imagination of the relationships and processes between materials/subjects and datascapes/data

11. Meillassoux explains the paradox of how strong correlationism in its quest against absolutes and dogmas becomes prone to fanaticism and reinforces religious obscurantism. He suggests that "[i]t is thanks to the critical power of corrrelationism that dogmatism was effectively vanquished in philosophy, and it is because of correlationism that philosophy finds itself incapable of fundamentally distinguishing itself from fanaticism. The victorious critique of ideologies has been transformed into a renewed argument for blind faith" (Meillassoux, 2009, p. 49). He then goes on to suggest that this blind faith of correlationism is solipsistic since "[t]his community only has dealings with itself, and with the world with which it is contemporaneous" (*ibid.*, p. 50). His solution to this solipsistic fanaticism is the mathematics of the ancestral. I believe however that it is also, or that it is rather the invisible experience of sound and listening, performed between codes and flesh, that enables an understanding of the world not just as a world for me, or as a world that is 'wholly other,' but that enables the imagination of the plurality of the world, with and without me.

things. It makes appreciable other possibilities of how things might be and how things might relate, and serves to consider positions and positionings of materials, subjects and objects in a different and more mobile light. The audiovisual relationship of Ikeda's datascape works reveals a tension between data and flesh that is not resolved or resolvable, that is not essentialist or fixed, but that is the tension of our inhabiting an audiovisual work and an audiovisual world and it seems useful to explore what this tension holds beyond the aesthetic, as a political space of practice.

Conclusion: The Politics of Numbers and Bodies

Meillassoux, in his wish to overcome the 'fanaticism' of what he terms the 'fideist' or 'religious obscurantism'[12] of metaphysics by promoting de-correlation through data and numbers, also de-correlates the relationship between humans and the world to a degree that the world loses its material form and the subject its perceptual field, and where ultimately the triumph over the data sublime erases the critique of a post-anthropocentric impetus, unless the quest for an after finitude is taken as an artistic or political proposition and possibility rather than as a mathematical absolute.

12. Meillassoux, 2009, p. 47.

The inherent struggle and reciprocity between numbers, the exhaustively mathematizable world, and the material of the finite experienced world represents the possibility of artistic activity in Ikeda's work and mirrors also the tension between liberty and equality which are the cornerstones of Balibar's possibility of political activity.

Balibar's portmanteau word equaliberty ("*égaliberté*") designates the pull between freedom and equality, which is a seat of conflict and reciprocity, that enables and calls for participation, which thus represents the political as the possibility of politics: where rupture happens and transformation can occur, where the excluded can find a voice and make themselves count, and thus inclusion becomes pluralised.

Discussing the use of both terms particularly with reference to their definition in the Declaration of 1789, Balibar outlines a state of impossibility where equality, normally associated with financial parity, and freedom, often defined exactly against those institutions and mechanisms that guarantee financial parity, are placed as equally important for the success of the revolution and the attainment of universal human rights.

> Here is the extraordinary novelty and at the same time the root of all the difficulties, the nub of the contradiction. If one really wants to read it literally, the *Declaration* in fact says that equality is identical to freedom, is equal to freedom, and vice versa. Each is the exact measure of the other.[13]

13. Balibar, 2014, p. 46.

He calls this interdependence impossible and yet possible, and sees it as the core of political activity, possibility and participation and suggests that it is the revolution as a proposition and as ideological space that makes it thinkable.

I believe the term equaliberty combines between freedom and equality, similar contradictions and tensions as are present in Ikedas' work between data and experience. Both construct a contradiction and tension that is only thinkable within the revolution or within art. Within the context of the revolution, the impetus is to resolve the contradiction, which is in many ways the engine of war and battle, the conflict that drives politics as an activity. In the context of art, where the tension can stand unresolved, it creates a place to think about the politics of the work as a political possibility of the world, and invites us to consider how we live in that tension, beyond the work, as political subjectivities.

Balibar criticises contemporary politics for their desire to ignore and neutralize the contradiction and thus head for a politics of consensus, which in many senses is not a politics at all since it lacks its own possibility for activity.

He describes, for example, how capitalist neoliberalism neutralises this tension and renders the conflict insignificant, banal in the light of an undifferentiated flow of things and people reduced to the purpose of economic utility and worth. In its sphere, things—goods, people, borders, and identities—become moveable. However they are not fluid in themselves. They have no power to transform and be transformative. They are not things 'thinging' as conceptual and actual sonic things that make a sound of their own, to be heard and contribute to the plural composition of actuality. Instead they are reduced to the articulation of a harmonised flow to which they are not even an audible discord.

Thus they are not subjects with agency and self-determination, but identities defined by the measure of their utility, they are in the (data) flow but rigid themselves. The result is a negative individuality and a negative community, or what Balibar terms 'the dark face of ethics,' where solidarity and social security are dismantled and the subjects are disaffiliated from the community to live as entrepreneurs of their own circumstance. I understand this as a negative fluidity, a fluidity bound up in the dichotomy between fixed, coerced belonging, and desperate flight. As such, it has no agency but represents a passive mobility.

The tension between a mathematical, pre-human and post-human world, understood as a world of fluid numerical things, and the experiential world of fixed material things can be critically thought between the image and sound in Ikeda's work. The audiovisual relationship presents an opportunity to expe-

rience both those positions, the numerical and the material, and imagine a political subjectivity that is not bound to romantic notions of authority and subjugation, and that is not defined either by an anthropocentric or by a pure mathematical position, but that understands and lives in the contradictions of both as its own political possibility.

The fluidity of numbers, of data flows streaming in front of me, without me, endlessly, inexhaustibly, designing a world of fluid things whose materiality as numbers is utterly divorced from the necessity of their belonging, the origin and context of the data—their materiality and form—represents one extreme of neoliberal fluidity that is brought into conflict at once by human 'inadvertentness' presented as musicality: the human interface of the sine-tone composition that arrests the persuasion of the data flow and makes me feel the incalculable exigency of my soul.

I do not aim to take sides, not with Meillassoux on the side of numbers nor with correlationism on the side of bodies. There is no right or wrong. Rather it is the tension, the conflict between the two that creates the revolutionary proposition in which their contradiction becomes not impossible but activates the possibility of a politics of numbers and bodies, things and materials that transgress mathematical schemata and material experiences, and open politics to the possibility of its practice.

In this way the revolutionary proposition of art, its transformative agency and imaginary potential, can contribute to the critique of the precarity of the neoliberal flow and its concomitant internal and external exclusions. Investigating the capitalist flow through the conflict of material and numbers can grant us access to the coercive dynamic of its forced homogeneity and entice us to interrupt the monochord of neoliberalism and make it sound as polyphony: 'composed of differences, themselves formed by crossing visible and invisible borders.'[14]

14. Balibar, 2014, p. 32.

BIBLIOGRAPHY

Balibar, Étienne (2014), *Equaliberty*, translated by James Ingram, Durham and London, Duke University Press.

Kant, Immanuel (1987), *Critique of Judgment*, translated by Werner S. Pluhar, Indianapolis, Hackett Publishing.

Klenerman, Leslie (2015), *Human Anatomy: A Very Short Introduction*, Oxford, uk, Oxford University Press.

Meillassoux, Quentin (2009), *After Finitude*, New York, Continuum.

Park Avenue Armory (2011), *Ryoji Ikeda: The Transfinite, May 20-June 11*, house program, Park Avenue Armory, New York, <www.armoryonpark.org/downloads/Ryoji_Ikeda_House_Program.pdf> (accessed October 6, 2016).