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Bioart, Aesthetic and Ineffable Existence

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“Discussions on beauty reveal how man grasps the epistemological and ontological nature of reality.” (Lähdesmäki 2015b, 4.)

The web pages of artist Kira O'Reilly mention that she “collaborates with humans of various types and technologies and non-humans of numerous divergences including mosses, spiders, the sun, pigs, cell cultures, horses, micro-organisms, bicycles, rivers, landscapes, tundras, rocks, trees, shoes, food, books, air, moon and ravens”¹. Many of us might be used to thinking that combining human and non-human elements in art inevitably means a hierarchical relation; an artist organises material into a certain form, s/he has an (aesthetic) intention, and a message s/he wants to represent. Nevertheless, especially if an artist *collaborates* with various beings or objects, there is always something else, a surplus emanating from the work. Something we cannot quite grasp.

In art, knowledge is often thought to be found from representational content, in the subject matter of the work of art, or in a message it seems to communicate. In turn, the form of the artwork is thought to be outside of the realm of rational knowledge, in aesthetics. However, it seems that in many examples of bioart the classical beauty of form has given way to an embodied, spectacular, and sublime type of experience which generates a sort of intellectual uncertainty. Still the question of aesthetics, especially searching for beauty, haunts bioart as well. Perhaps due to the many contemporary transdisciplinary activities, such as bioart which combines modern technology, science and artistic thinking, there have emerged new discussions about the aesthetics and beauty of science as well.²

Many scientific processes, especially of biotechnology, might not be very beautiful although they are appropriate, practical and adequate. Their results however, might be very ordered and elegant. Scientific knowledge is embedded in the results of science. When adequacy and appropriateness are

¹ See <http://www.kiraoreilly.com/statement> (Accessed 21.10.2019.)

² An example of this discussion is the book *Why Science needs Art* (2018) by R. Roche, F. Farina and S. Commins. Writers maintain that art and science both seek to reduce something infinitely complex to something simpler. I do not agree.

removed from scientific processes and the scientific modus operandi and technologies developed for science are used for making art, the results can contain much ugliness, repulsiveness, disfigurement, deformation and grotesque, disorderly, and unruly elements. Stelarc's *Ear on Arm* (2008) is an example of this. This disorder is not unusual in contemporary art, where knowledge is not so much contained in the subject matter but rather in the process.

In general, there is a tendency to see contemporary art as a discursive phenomenon. In the realm of bioart there are discussions about cognition, ethics, ecology, and biopolitics. However, in this article I maintain that especially in bioart, and sometimes in art closely related to it³, there are more representations of the ineffable, such as Federico Campagna it describes in his book *Technic and Magic: The Reconstruction of Reality* (2018). Bioart is sometimes uncommunicable, combining unrelated and uncanny elements, and also creates an (aesthetic) effect often indescribable by language.

For a start: two epistemes

In her article on the intersection of reality, truth and beauty, Tuuli Lähdesmäki divides ways to describe the world into two opposing categories: mathematical-logical and cultural-emblematic epistemes. The mathematical-logical episteme, laying emphasis on universalism, relates beauty to the laws of nature and the idea of truth (Lähdesmäki 2015b). In mathematics and science, beauty (aesthetic qualities) looks quite Aristotelian: serious, economical, inevitable, and orderly, although mathematicians can also talk about unexpectedness (Lähdesmäki 2015b, 9–10). Lähdesmäki writes that “within the cultural-emblematic episteme, the notion of beauty is understood as a culturally bound and discursive concept based on conventions and shared cultural and social habits produced in and learned through social and cultural reproduction. Beauty is perceived as a relational quality dependent on the contexts and impacts objects and works of art produce.” (Lähdesmäki 2015a). This episteme seems to belong to art.

According to this notion, in the realm of science beauty seems to be universal, while the cultural realm of art it is particular. This traditional ethos of describing the world as scientific-universal and cultural-particular has been eroded when scientific epistemology has lost its universal status⁴ and become more discursive.

³ I very well know that I am making generalisations that do not apply to *all* works of biological art. In the end of 1990s and beginning of 2000s bioart was categorised as media art, and there were works in which living organisms were not so pivotal as it might be nowadays when bioart has a status of its own.

⁴ See Donna Haraway 1988: “Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective” <https://philpapers.org/archive/HARSKT.pdf> ; N. Katherine Hayles 1999: *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*; Karen Barad 2007: *Meeting the Universe Halfway. Quantum Physics and the entanglement of matter and meaning*.

Between Technic and Magic

Federico Campagna (2018) offers a notion of the nature of our contemporary life, and also an alternative. Here there is no space to problematise Campagna's theory in detail, but in short his basic idea is to call our contemporary system of reality as 'Technic' and its opposite 'Magic'⁵. Technic is an abstract rhizome where there are only positions, not things. Everything is measurable in relation to everything else, and everyone is all the time measured by his/her potential, thus nobody can fulfil anything but has to remain continuously on the move. We cannot dwell on real things but whilst trying to pursue something we cannot reach, we live in a state of anguished paralysis. The spirit of the Technic world is absolute instrumentality. The Technic world has dominated also in such phenomena as cybernetics, various categorisations, and certain scientific protocols. Cultural-emblematic as Lähdesmäki describes it, belongs seemingly paradoxically, to the world of Technic; its effectiveness is based on play with absolute language, that is imaginary essence based on cultural agreements. There is neither inside nor outside, only infinite presence, and continuous processing of information. Magic on the other hand has at its core an ineffable which is basically incommunicable and avoids descriptive language, it can only resound in representations. This ineffable is life itself, its existence.

In the domain of Technic, we are used to the so-called 'revolution of images' (whether snapshots and selfies by layman or "artistic" pics, paintings etc.). Images are instrumental, e.g. deciduous representations of truths which can be negotiated in an endless band of new images. There is also plenty of contemporary art where instead of pursuing the classical understanding of beauty and harmony, interminable and uncentred rhizomes, and undefined meanings are created, such as in relational and communal art projects. Laura Beloff cites Jill Bennet who has written about 'practical aesthetics', e.g. aesthetics where the key modality is connectivity. Artworks extend beyond the immediate presentation of the material object (Beloff 2011, 42), and work in the realm of language. This kind of contemporary art, and also related bioart⁶, seems to correspond to 'Technic's cosmogony'⁷ where it is no problem to discuss art that justifies itself as "criticism", and as an actor that brings forth ethical questions (of art, science, ecology or biopolitics). The intention of such art is to start topical discussions—exactly what the world based on absolute language loves. As Lähdesmäki states: "The nature of knowledge, reality, truth, and beauty are given meanings in linguistic utterances, textual expressions, and pictorial or mathematical representations." (Lähdesmäki 2015b, 6.) We take almost granted that language produces its objects. What cannot be measured does not exist.

⁵ 'Technic' here does not mean 'technical' any more than 'Magic' means sorcery but according to Campagna, they are more like 'hyperobjects' defined by Timothy Morton. (Campagna 2018, 8).

⁶ Belonging to the discursive notion of contemporary art I mean such phenomena as e.g. community art and relational aesthetics. A representative example could also be Popu Popu Population Power Studies Group connected to indigenous Arctic people. See <https://bioartsociety.fi/projects/ars-bioarctica/posts/popu-popu-power-to-the-populations>.

⁷ This is Campagna's term.

Hierophanic materials

Similar thoughts as I've described above were denoted by Vera Bühlmann in her article "The Integrity of Objects: Design, Information and the Form of Actuality" (2013). She states that "information has no weight, no extension, no body" (Bühlmann 2013, 70). According to her, the development of analytic geometry and the mathematics of infinitesimal calculus introduced a systematic method for the description of things that affected our thoughts: "the attention shifted increasingly away from things *as* things, and zoomed in toward understanding their properties as properties that behave variably, over time." (Bühlmann 2013, 73–74). Bühlmann takes a stone as an example. When trying to conceive a nature of stone, instead of its warmness or coldness, rather the properties of warmness or coldness themselves became interesting, which eventually resulted in the law of thermodynamics. Science developed based on measuring, documenting, growing, planning processes, protocols, methods... In measuring the weight of a stone and its external dimensions, they are given an abstract character (Bühlmann 2013, 74). This has been regarded as a yardstick of adequity in science but this concerns the classical notion of formalistic aesthetics as well, when form is imposed on material. "The pre-modern hermeneutic understanding of knowledge became increasingly explicated into the technical format of instruments operating *on a general notion of materiality*, not on notions of essentially specific substances." (Bühlmann 2013, 74, italics in original text) From generalised materiality we have reach a further level of abstraction: information is the common denominator of all existing things.

"The pre-modern hermeneutic understanding of knowledge" is very close to what Campagna means by Magic. For Campagna at the core of real is the "ineffable of life", representations of which are very much the realm of art. There is intrinsic value, not instrumentality. Nevertheless, we cannot act without language and cultural agreements; a balance is needed.⁸ Reality, according to Campagna, is thus situated between Technic and Magic. Campagna writes (2018, 111):

Conversely, reinstating the limit-concept of existence (as geared towards the pole of ineffability) alongside that of essence (as pointing towards the pole of language) constitutes the first and necessary step to reopen the space of reality...

It is difficult to attain balance in the contemporary world due to the dominance of Technic, and that is why we are in perpetual agony, as Campagna exaggerates by generalising (2018). Life (and art) always has a memory of its ineffableness though, and it is difficult for Technic to handle such "irrational" new materialist phenomena as for example the memories of a tree in the poem "Dream of the Rood"⁹. In the spirit of new materialisms, Anne F. Harris ponders life after a tree or a stone has been hewn from its original site (Harris 2014, 20). Does the life of the material, its *zoe*, last, only changing its form? Does the stone or the tree—or cell grown for artistic purposes—remember its materiality as a thing? What does it mean that we are used to expecting the original material to

⁸ According to Campagna, there is a continuous movement in and between hypostasis of Technic and Magic, one or the other being in focus in different times and cultures.

⁹ <https://lightspill.com/poetry/oe/rood.html> (Accessed 25.2.2019.)

convince us through the form an artist has forced it into, although the new materialisation manifests a new identity, a new function, a new being? (Harris 2014, 27.) Nevertheless, even in the new form the material resists its manipulator. These glimpses of an ineffable are familiar to us.

Would it be possible that the bioartistic approach can return to “stone its stoniness”, or to wood its treeness, its individual qualities? Although using scientific methods, in many cases the aims of bioart differ from (bio)sciences. In Bartaku’s *Aronia m. BaBe* project¹⁰ a berry seeks its new identity, its berryness. As Bartaku describes, the project builds “on the diverse engagements with the Aronia berry by exploring in a more systematic and critical manner the ways in which the berry can challenge and question the traditional production of knowledge, art and the commodification of nature.”¹¹ A new berry shape has been envisioned based on a clay model, and Bartaku sensed that *Aronia melanocarpa* wanted a new name, i.e. *Baroa Belaobara*. The artist has extracted various pigments and tested their conductivity, created workable solar cells with aronia juice, and worked on a berry plantation.

The lifecycle of living or semi-living bioart can only momentarily represent life outside of descriptive language but yet it echoes ineffable existence. An example of this is Ulla Taipale’s *The Other Side*, a project about the immortal meanings of bees.¹² The work consists of audio excerpts from historical and contemporary literature about beekeeping and myths related to bees. Measuring is the domain of Technic but it is Magic’s realm to understand that a stone can be an ordinary stone (or tree can be wood and bees domesticated insects) and simultaneously something else (sacred, posthuman, art), that is ‘hierophanic’ opening up a sacred dimension within a profane world as Mircea Eliade has maintained (Campagna 2018, 172). Campagna writes that this “...sacredness ... always lies dormant at the heart of every material compound – but which requires a specific symbolic form to be perceptible to human eyes and heart.” (Campagna 2018, 176). Much biological art moves on the line of reality where the materiality of objects is real but their sacred dimension¹³ is still attainable. I am thinking about Oron Catts’ and Ionat Zurr’s public killing rituals of their tissue sculptures by collectively touching and thus contaminating cells¹⁴. Catts and Zurr have grown semi-living sculptures using e.g. biodegradable polymers and immortalised cell lines. These tiny sculptures are kept alive in custom-made bioreactors for some time but must be killed in the end. Although the killing ritual is about the responsibilities we as a society have towards liminal lives that we create in the service of life sciences and how we deal with biodegradable waste, and is thus

10 See f.ex. <https://empathy.pixelache.ac/events/berry-babe-a-l-live-scene-installation> (Accessed 2.7.2019.)

11 From the unpublished research plan for Aalto University by Bart Vandeput (September 2015).

12 *The Other Side* has been installed in the cemetery of Poblenou in Barcelona (2018) and Cimetière des Rois in Geneve (2019). Although the work has no living or biological components it is closely connected to works many bioartists do with living bees. See https://issuu.com/capsula/docs/the_other_side_book_final_isbn (Accessed 22.10.2019.)

13 By sacredness I do not mean any religious item but something unassailable, highly valued and important we might not have words to define.

14 See Jennifer Johung’s feature article in *Artlink* 1.9.2014, <https://www.artlink.com.au/articles/4212/vital-maintenance-tissue-culture-26-art/> (Accessed 2.4.2019.) I have also taken part in one of those killing rituals with Catts and Zurr in the Biofilia lab on January 2013.

intertwined with the “absolute language” of Technic e.g. the negotiation about what is culturally acceptable, there is still an element of sacredness, something we cannot talk about.

Alchemical Aesthetics

Although bioartists do not own a philosopher’s stone it can be said that they realise a sort of alchemical aesthetics, that is reaching an understanding of the coincidence of opposites (Campagna 2018, 169), sometimes even with an intention to create new kind of life. Campagna writes about ‘paradoxical understanding’ which can be achieved through a form of ‘direct apprehension’, only partly in the grasp of descriptive language. Although language fails to convey an incommunicable object, it is possible to point towards it through art (Campagna 2018, 170). Often it means the destruction of the customary order of the world to open up space for reality. According to Campagna (2018, 172) reality is a space where worldly existence, action and imagination are both possible and authentic. To make ruptures into the web of customary order and to push it towards the ineffable seems to be the sole opportunity to ease our anguish.

Alchemical aesthetics means that “opposing forces and principles can coexist paradoxically, not by annihilating each other, but by combining together” (Campagna 2018, 171). In bioart this is illustrated by creating hybrid representations of mysterious life by means of the most modern technology. Beloff writes (2017, 782):

This kind of art both observes and explores the possibilities of the *uncanny nature* – a nature or reality that used to be familiar but which has been modified in a laboratory, ex-tended with newly designed features, or located in a new context with various agencies and components, which all together form a hybrid ecology.

Friedrich Schelling wrote about the uncanny defined as something that should have remained hidden but has instead come to the surface (Eco 2011, 312). According to Ernst Jentsch (1906), the uncanny is something unusual, which causes ‘intellectual uncertainty’ and which ‘we can’t figure out’. Thus, it is not surprising the uncanny has also been attributed to some bioart¹⁵, since artistic intention may be just to create intellectual ambivalence revealing something we know to be there but we cannot quite figure out. Encountering the inscrutable can lead a to sublime experience, e. g. to feel horror for something that cannot harm us. Theories of the sublime at the turn of the 18th and 19th centuries were connected to experiencing nature and its phenomena. Horrendous and aesthetic contemplation did meet. However, we do not talk much about the sublime anymore. We do not stay in experiences and thoughtful examination is in itself a redundant gesture, since in the world of Technic everything is possible, interchangeable, replaceable, and negotiable; comprehensive examination does not lead to any final and justified evaluation. The sublime has been replaced by subsequent shock that we are used to experiencing as an inheritance of avant-garde in the beginning of the 20th century. I maintain that something like the sublime can be experienced in certain kinds of bioart though, as long as the effect in the recipient is not just from the guts but requires some knowledge, capacity to prompt, and lively associative activity (Cf. Jentsch 1906, 4). This is present

¹⁵ See for example Beloff 2017. She cites Sigmund Freud who referred to Jentsch in his 1919 text about uncanny.

in works of Terike Haapoja, *Inhale/Exhale* (2008/2013)¹⁶ for instance. It is an installation of three coffin-like glass cases filled with soil and dead leaves. Automatic ventilation fans facilitate the decomposition process, and the carbon dioxide produced is measured with sensors and translated into sound. As a result, the ‘coffin’ seems to slowly inhale and exhale as the CO₂ level goes up and down. Although the recipient knows the mechanism and where the sounds of sighs or breathing come from, there remains an uncanny sense since most of us are used to thinking that soil is silent.

The classical definition of the sublime was connected to landscapes and nature, and eventually art drawing from nature. In biological art living material might not be drawn from nature, but it is changing (and dying) over time. Artworks develop and have a lifecycle, not only featuring an infinite presence in the Technic world. Connected associations remain open. A bioartwork might start to live a life of its own: a cell, a berry, a bee or soil remembers its origins, but reveal these to us only as echoes.

A bioartist can transgress the laws of nature by producing hybrids that threaten Technic’s established classifications, e.g. customary order. This has been done through ages in tales, stories and mythologies. For example, in mythology there are descriptions of chimeras of human and non-human, such as Medusa. This unnatural or paradoxical combination still evokes fear and horror deep inside us, since we suspect that it is a reflection of life itself which is not reasonable, communicable, and certainly not negotiable.

If aesthetics and beauty as Lähdesmäki describes it, are already lost to Technic’s absolute language in art and science, can bioart save us? Can it save our sense of reality by creating paradoxical, hierophanic hybrids, that preserve the pre-modern hermeneutic understanding of knowledge of their own originality, materiality, thingness? Otherwise we are forever stuck with the instrumentality of the Technic world. Campagna remarks that Magic’s paradox seeks to resolve the problem posed by Technic’s world of possibility, with its extension of limits and perpetual growth, through intensive harmony of opposite forces, through combining things that do not seem to belong together. Or does bioart acquiesce just to take part in ethical and social language games by posing critical questions and displaying alternatives in the world of Technic, playing with information, discourses, and instruments operating on a general notion of materiality?

Rather many artists with their works concentrate on theoretical or professional negotiations on the aesthetic character of bioart, assimilating it to the world of Technic by imposing form to material. However, I would like to see bioartists turn even more to knowledge that is not solely found in the content, subject matter, or in the artistic process either but in the paradoxical, alchemical identity of materials, their hierophanic nature as a hypostasis.

Bioart, or more generally the intertwining of living and non-living, reinstates a physical ambivalence—the uncanny—leading to a sublime experience in which what we sense goes beyond

¹⁶ See <http://www.terikehaapoja.net/inhale-exhale-2/>

our conscious reasoning. This experience of the uncanny is equally evoked in artworks in which we do not readily see the act of interference, such as genetic manipulation. Still we *know* it. It might not be a shocking perception but something “[a]mong all the psychical uncertainties that can become a cause for the uncanny feeling to arise, there is one in particular that is able to develop a fairly regular, powerful and very general effect: namely, doubt as to whether an apparently living being really is animate and, conversely, doubt as to whether a lifeless object may not in fact be animate – and more precisely, when this doubt only makes itself felt obscurely in one’s consciousness.” (Jentsch 1906, 8.)

In its wetness, bloodiness, unruliness and corporeality, as well as in its sensible but non-formal aesthetic dimension, the beauty of bioart could lie in its role as a herald of ineffable life at the core of Magic world. It can open space for reality.

References

- Barad, Karen. 2007. *Meeting the Universe Halfway. Quantum Physics and the entanglement of matter and meaning*. Durham: Duke University Press.
- Beloff, Laura 2011, “Notes on Experience in the Field”. In L. Beloff, E. Berger, T. Haapoja (eds.), *[Fieldnotes]. From, Landscape to Laboratory*. Helsinki: The Finnish Society of Bioart.
- Beloff, Laura 2017, “Uncanny Realm – The Extension of The Natural”. In J. J. Arango, A. Bubarno, F. C. Londono, & G. M. Mejia (eds.), *ISEA - Proceedings of the 23rd International Symposium on Electronic Arts - BIO-CREATION AND PEACE* (pp. 780–783).
- Bühlmann, Vera 2013, “The Integrity of Objects: Design, Information and the Form of Actuality”. In J. Sutela (ed.) *ADD Metaphysics*. Helsinki: Aalto University Publication Series.Eco,
- Campagna, Federico 2018, *Technic and Magic. The Reconstruction of Reality*. London: Bloomsbury Academic.
- Eco, Umberto 2011 (ed.), *On Ugliness*. London: Maclehorse Press.
- Glenn, Jonathan and Teresa Glenn. 2019. “The Dream of the Rood”. <https://lightspill.com/poetry/oe/rood.html>.
- Haraway, Donna. 1988. “The Science Question in Feminism and the Privilege of Partial Perspective”. *Feminist Studies*, vol 14, no 3, pp. 575-599. <https://philpapers.org/archive/HARSKT.pdf>
- Harris, Anne F. 2014, “Hewn”. In J. J. Cohen (ed.), *Inhuman Nature*. Washington, DC: Oliphaunt Books.
- Hayles, N. Katherine. 1999. *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*. Chicago: University of Chicago Press.
- Jentsch, Ernst. 1906. “On the Psychology of Uncanny”. http://www.art3idea.psu.edu/locus/Jentsch_uncanny.pdf (Accessed 27.5.2019).
- Johung, Jennifer. 2014. “Vital maintenance: Tissue Culture & Art.” *Artlink*, September 1, 2014. <https://www.artlink.com.au/articles/4212/vital-maintenance-tissue-culture-26-art/>
- Lähdesmäki, Tuuli 2015a, “Introduction: Interdisciplinary Discussions on Beauty”. In T. Lähdesmäki and B. R. Sherringham (eds.), *Philosophies of Beauty on the Move*. Oxford: Interdisciplinary Press.

- Lähdesmäki, Tuuli 2015b, “Universalist and Particularist Discourses on the Intersection of Reality, Truth and Beauty”. In T. Lähdesmäki and B. R. Sherringham (eds.), *Philosophies of Beauty on the Move*. Oxford: Interdisciplinary Press.
- Morton, Timothy. 2018. “Preface, The Keymaker”. Campagna, Federico 2018, *Technic and Magic. The Reconstruction of Reality*, p.x. London: Bloomsbury Academic.
- O’Reilly, Kira. 2019. “Statement”. Accessed October 22, 2019.
<http://www.kiraoreilly.com/statement>
- Roche, Richard, and Francesca Farina and Seán Commins. 2018. *Why Science Needs Art*. London: Routledge.
- Taipale, Ulla. 2018. *The Other Side*. Barcelona: Taipale.
https://issuu.com/capsula/docs/the_other_side_book_final_isbn.