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## Chimeras and Virtual Networks, or a Few Thoughts about the New World Order (on the Art-Science Relationship: the Example of the *Art+Science Meeting Project*)<sup>1</sup>

What does “art+science” mean in terms of the goals and programme adopted by the LAZNIA Centre for Contemporary Art?

The question above is by no means easy. New technologies brought forth by science’s efforts are not just part of our everyday lives. As a matter of fact, we seem to be overpowered by their ubiquity. And art serves as a touchstone, a mirror and an interpretation of the world we inhabit, including its technological development.

If we undertake to stage arts events in which artistic practice is combined with scientific practice, we are obliged to account for the motives behind such ventures. When employing visual narratives to identify and explore the effects of social changes impelled by the widespread reliance on ever newer technologies, artists also educate their audiences, sometimes in playful ways, as gallery spaces permit and authorise fantasy and imaginativeness. Crucially, “these ‘technologically determined’ explorations are equally about explaining the complexities of social relations and providing an accurate depiction of our reality as about posing questions that prompt cultural reflection to catch up with cultural dynamics” (Żabicki 2007: 20). Jean Baudrillard insists that “the new technologies [...] do *not* alienate me. Rather, they form an integrated circuit with me” (Baudrillard 2002: 58). In such projects, what is powerfully impressive are the multiple interactive works which engage the audience in their many various fashions, constantly making the viewers transgress boundaries and enhancing the integration of their bodies with machinery. Watching Stelarc’s experimentations or research projects developed by Professor James Gimzewski,<sup>2</sup> we are quite justified to ponder whether Superman and Spiderman actually still belong to the fantasy world? Where does this all lead us?

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<sup>1</sup> This text is a revised and updated version of an article which appeared in Polish in *Ars Educandi*, vol. X, published by Wydawnictwo Uniwersytetu Gdańskiego [Gdansk University Press].

<sup>2</sup> For more information on the work of this distinguished scholar, visit <http://gim.chem.ucla.edu/content/research>

Reflection is not an easy matter in a world in which all knowledge tends to be offered in “wrappings” designed by marketing specialists and sundry promoters, whose aim is to goad the recipient to reach for a particular “product.” By “wrappings,” I mean here the schematic and, often, disappointingly superficial accounts of phenomena and processes. I believe that a race is underway to offer anything and everything in the most eye-catching form, while the content as such tends to be disregarded. Art which employs an “image” to communicate its meanings and, at the same time, makes sure to sustain a proper balance between the aesthetic and the formal, effectively exposes the cases of “empty wrappings.”

Today, artists attend more and more carefully to scientific investigations, findings and achievements. Admittedly, art has always been fascinated with technics and technology, yet a truly seminal breakthrough came with the *Cybernetic Serendipity* exhibition curated by Jasia Reichardt,<sup>3</sup> in the wake of which galleries and museums in Europe and worldwide started to display a growing interest in projects at the intersection of art and science. The Laznia Centre for Contemporary Art is one of the first Polish galleries to address this theme in the dedicated, multi-annual *Art+Science Meeting* project.

The pioneering pursuits undertaken by Frank Malina and György Kepes have since been picked up by many artists. Among the continuators are the artistic duo Monika Fleischmann and Wolfgang Strauss. We happened to present their work in Gdansk in 2011. *The Pleasure of Light* exhibition<sup>4</sup> showed kinetic experiments framed in images and light installations designed by Frank Malina and György Kepes.

In turn, in their *Performing Data* Monika Fleischmann and Wolfgang Strauss tackled modern technologies in the context of communication and data archiving. The work of Masaki Fujihata is an interesting illustration of how state-of-the-art communication methods can be employed in artistic practice.<sup>5</sup> His *Augmenting the World* exhibition held in Gdansk in 2017 fully relies on a merger of research techniques. It does not shy away from using traditional ways of data visualisation and, at the same time, invites the audience to play with the virtual world. As the show’s curator explains: “In his works, he [Fujihata] involved several other people in his projects: artists he collaborated with and local communities alike. (...) It [Fujihata’s art] is, at the same time, related to the past of new media art, springs from its history and, in this way, bridges the past of technological culture with its currently constructed future.”<sup>6</sup>

Artists such as Eduardo Kac, Oron Catts and Guy Ben-Ary collaborate with biotechnological and medical laboratories to study and experiment with neuronal networks, genetic codes and cell structures. Like Christa Sommerer and Laurent

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<sup>3</sup> Held at London’s Institute of Contemporary Arts (ICA) in 1968, the exhibition was one of two shows that were the first to document the meeting of art and modern technology. The other show was *The Machine as Seen at the End of the Mechanical Age* curated by Pontus Hultén at New York’s Museum of Modern Art (MoMa).

<sup>4</sup> For more information on this issue, see the identically titled publication released on showing the exhibition at the Ludwig Museum in Budapest and at the Laznia Centre for Contemporary Art in Gdansk, available at [www.laznia.pl](http://www.laznia.pl) (in the show’s archive) and at <http://artandsciencemeeting.pl/>.

<sup>5</sup> For more details of Fujihata’s art, see <http://www.fujihata.jp/>.

<sup>6</sup> For more information, see the exhibition’s archive at [www.laznia.pl](http://www.laznia.pl) and <http://artandsciencemeeting.pl/>.



1. *Extended Arm*, Melbourne, Hamburg 2000. Photo: Dean Winter

Mignonneau<sup>7</sup>, they are also eager to employ tools helpful in building a virtual reality. Stelarc<sup>8</sup>, Bill Vorn<sup>9</sup> and Ken Feingold<sup>10</sup> expand the language of art, adding engineering devices and interactive robots to it. Still, we should not be oblivious to the differences in their respective practices, with Stelarc prominently standing out with his dedication to experimenting with the human (his own) body and enhancing its capacities through mechanical arms and hands or prostheses which expand or strengthen limbs and, even, the entire body. His suspension

<sup>7</sup> The duo's work was shown at the *Wonderful Life* exhibition and Laznia's accompanying publication in 2012, as part of the *Art+Science Meeting* project.

<sup>8</sup> For more information on Stelarc's art, see <http://stelarc.org/?catID=20247>.

<sup>9</sup> For more information on Bill Vorn's art, see <http://billvorn.concordia.ca/menuall.html>.

<sup>10</sup> For more information on Ken Feingold's art, see <http://www.kenfeingold.com/>.

performance in which he is hanging from hooks stuck into his skin is perhaps the most famous experiment with the endurance of the human body. This exemplifies Stelarc's strategy of interrogating the human self and subjectivity.

Nearly all the artists listed above tend to employ IT instruments. One of the most interesting experiments I still revisit in my mind was the *Telematic Encounter* by Paul Sermon (1996)<sup>11</sup>, whose work is defined as telematic art. Sermon's virtual figures and avatars which talk with people in real time are truly astonishing. And to evoke astonishment is, indeed, the role of art and the credo adopted by Damien Hirst, who introduced the philosophical discourse into the *Art+Science Meeting* series through an ensemble of works collectively titled *New Religion*<sup>12</sup>. Hirst's critical show was informed by the tenets of engaged art, part of the postmodern art scene. Rather than resulting from collaboration with natural scientists, his works were the outcomes of reconsidering the present condition of the world in terms of the social and cultural conjuncture the artist lived in.

Broadly conceived fantasy is the organising idea of Jasia Reichardt's exhibition *Nearly Human*<sup>13</sup>. Equally relevant in it are Richard Kriesche's industrial robots<sup>14</sup> and Tim Lewis's mule drawing a self-portrait<sup>15</sup>. And each of the works caters to another human need.

## The social aspect of the phenomenon

Consumerism has imperceptibly come to dominate our modern world. Fuelled by advertising campaigns, the desire to possess increasingly more things and their ever newer models has crossed any lines we knew before. Self-focus and striving for comfort in life are, obviously, not condemnable as such (after all, this is part of the species survival mechanism), provided that they are not destructive elsewhere and do not impinge on the global balance. The world is an interlocking system of communicating vessels, where nothing remains stable forever. Observing consumerism "devour" us, we are inclined to conclude woefully that we have become unmindful of Erich Fromm's injunction: "our goal should be to *be* much, not to *have* much" (Fromm 2008: 13)<sup>16</sup>. A glimpse around suffices to realise that Fromm's famous question "to have or to be?" is profoundly relevant today. Each of the artists evoked above addresses this issue because it is artists' role to respond to the developments which can deeply affect our future and to vividly demonstrate their viewpoints, hoping they will be heard.

Art is a philosophical instrument. Visual artists philosophise using their discipline's distinct techniques – they narrate by painting, drawing, sculpting, photo-

<sup>11</sup> For more details about the artist, see <http://www.paulsermon.org/>.

<sup>12</sup> For more details about the exhibition, see its archive at [www.laznia.pl](http://www.laznia.pl) and <http://artandsciencemeeting.pl/>.

<sup>13</sup> The exhibition was held at the Laznia Centre for Contemporary Art in 2015, as part of the *Art+Science Meeting* series.

<sup>14</sup> The piece titled *World Model* was shown for the first time at the Venice Biennale in 1986.

<sup>15</sup> For more information about Tim Lewis's art, see <http://www.flowersgallery.com/artists/view/tim-lewis>.

<sup>16</sup> Fromm in this publication quotes Karl Marx.



2. Masaki Fujihata, *Augmenting the World*, exhibition in LAZNIA CCA, Gdańsk, Photo: Paweł Józwiak

graphing or organising artistic actions. While in the times past the language of art was comprised of painting, drawing and sculpting, over the last hundred years we have witnessed an explosion of technological advancement, which has given artists ready-made paints and other painting materials as well as cameras and computers. IT, television, radio and the Internet have revolutionised the social order, and art is an expression of these transformations. Having conquered seas and oceans, the human imagination uses super microscopes to penetrate cells and atoms, and photography visualises these findings. We have managed to see the invisible. Our curiosity scrutinises space by means of powerful telescopes and probes, while the Great Hadron Collider experiments designed to solve the mystery of the origins of the universe induce as much interest as anxiety.

Constructed over centuries on the basis of Christian and democratic principles, the social order in Europe is beginning to crumble under the pressure of the events in the Mediterranean. We still do not know how far the surging wave of aggression will go. The technological development can be instrumental in handling this difficult situation, but the same tools can precipitate a catastrophe as well. The pace of data flow on the Internet helps transfer information very efficiently, but also makes this information prone to manipulation. Radio devices can control remote apparatuses. What is the face of the modern Frankenstein? Or should we rather talk of a multi-headed chimera? The fear triggered by everyday news can equally motivate productive action and wake up the beast. These anxieties are addressed in *New Religion* and in the experiments staged by Stelarc and Ken Feingold.



3. *Mule make mule*, Tom Lweis at *Nearby Human* exhibition at LAZANIA CCA, 2015.  
Photo: Paweł Józwiak

Artists also examine what we do to nature. The *Crude Life* exhibition designed by Oron Catts and Ionat Zurr<sup>17</sup> explores experimentation with organic tissues. Can we grow a steak out of a cell without killing another creature in the process? How would it impact the food chain, which governs all species and the whole of nature?

Guy Ben-Ary and his research collaborators investigate the mysteries of the brain and the possibility to re-construct nerve connections. And James Gimzewski<sup>18</sup> works on building an artificial brain. If his efforts succeed, such a brain will be millions of times as quick as the human brain. It does not sound like good news to us, humans, does it? Can the human body be equipped with additional arms and hands and made basically indestructible? These mysteries are fathomed by Stelarc.

<sup>17</sup> For more information on the duo's art, see Laznia's publication accompanying the *Crude Life* exhibition at [www.laznia.pl](http://www.laznia.pl), [http://artandsciencemeeting.pl/?page\\_id=485](http://artandsciencemeeting.pl/?page_id=485) and <http://www.ibmcc.up.pt/hybrid/content.php?menu=6&submenu=59>, <http://www.tca.uwa.edu.au/>.

<sup>18</sup> Gimzewski talked about it in an interview for *LA Times* in February 2014: <http://www.latimes.com/local/la-me-c1-ucla-gimzewski-chip-20140225-dto-htmllstory.html> (accessed on 12.09.2017).

Showed at the *Meat, Metal and Code: Contestable Chimeras* exhibition<sup>19</sup>, Stelarc's experiments express the human drive to transgress boundaries.

Artificial life – the “tape of life” replayed in new technologies as a set of information – inspires Christa Sommerer and Laurent Mignonneau<sup>20</sup>, who have worked for two decades now with interfaces and interactive devices in which computer algorithms simulate the evolution processes and behaviours of living organisms. Their work exemplifies how new technologies adapt the old ones and how such pursuits are inscribed in the long history of scientific inventions. The theme was explored in Laznia's *Wonderful Life* exhibition in 2012.<sup>21</sup> Eduardo Kac's famous GFP bunny<sup>22</sup> was a pioneering project of DNA experimentation, which founded an art discipline referred to as bio-art. Kac's *Lagoglyphs* – associated with the famed bunny – was shown in Gdansk in 2009<sup>23</sup>.

### Concluding observations and remarks in the context of Laznia's unique project

Artists and theorists consistently seek to understand and explain the complexity of contemporary civilisation, rigged with technical solutions designed to improve the quality of life. In their efforts, they draw on cultural patterns, local traditions and global concerns. At the same time, they highlight repeatedly that the modern world is fraught with contrasts: there are places where people have completely lost contact with nature and regions where nature keeps people in check. The limited perspective of individual human life will likely fail to grasp the intensity, potency and effects of the powers of nature at work since these will be fully revealed only centuries and eras later.

In the affluent regions of the world, where money is the measure of success, the consumerist lifestyle relegates spiritual values to the margin. The need to put in order and understand our environment, with its characteristic pragmatism, clashes with people's ideas of a “better” life or looming dangers. Humans are naturally predisposed to fear changes, and the sense of security is founded on stability while the world is now transforming at a staggering pace. This is true about all spheres of life and about most places across the globe. The invention of electricity and the electric bulb made us abandon the rhythm of day and night in organising our lives; airplanes make it possible to get to a remote corner of the world within hours; and the Internet and satellite connections allow real-time communication with any place on the planet without leaving our work desks, provided, of course, that we possess a networked device. The ease with which information is sent and received has caused enormous confusion in verifying and arranging the collected

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<sup>19</sup> For more information about Stelarc and the *Meat, Metal and Code: Contestable Chimeras* exhibition, see the likewise named publication released by Laznia in 2014 and the exhibition's archive at [www.laznia.pl](http://www.laznia.pl) and <http://artandsciencemeeting.pl/>.

<sup>20</sup> For more information, see the duo's website at <http://www.interface.ufg.ac.at/christa-laurent/>.

<sup>21</sup> For more information on this topic, see the likewise titled publication released by Laznia and the exhibition's archive at [www.laznia.pl](http://www.laznia.pl) and <http://artandsciencemeeting.pl/>.

<sup>22</sup> <http://www.ekac.org/transgenicindex.html>.

<sup>23</sup> [http://laznia.pl/aktualnosciart,738,2009\\_eduardo\\_kac\\_lagoglyphs.html](http://laznia.pl/aktualnosciart,738,2009_eduardo_kac_lagoglyphs.html).

data in virtual space. Data archiving has become a challenge to archivists and IT professionals. Copyright has taken on a new dimension. At the same time, we have started to ponder what kind of thinking we need – for the ubiquitous haste, the growing indiscriminate appetite for things and the overwhelming lack of time to take a detached view, all limit our perceptual horizon.

Since 2011, the Laznia Centre for Contemporary Art has been involved in a project called *Art+Science Meeting*. The idea of the project had been brewing for a few years and, eventually, when Gdansk applied to become the European Capital of Culture, I joined forces with Professor Ryszard W. Kluszczyński to come up with the final concept of the series. We described our respective positions and insights. In my introduction, I reflect on the following:

How not to get lost in the world enslaved by excessive information? Can we defend ourselves against omnipresent manipulations coming from every direction and through every channel – from aggressive advertising to subliminal messaging? What if we actually are able to defeat our weakness, our inclination to destruction; what if we actually are able to create a better world? Pursuing an ideal may turn out destructive, especially when ambition overwhelms empathy.

Artists are the “sensitive” social group whose task is to address all these topics essential to our civilisation. They dare to touch issues so far unexplored. Through art, they pose questions which have not yet been answered by science – which searches for hard evidence. Art allows us to ask questions even before an appropriate language has emerged to utter the answers. Artistic strategies or a creative process at each stage can be uncovered if the artist considers exposing the behind the scenes essential to the artistic goal. [...] By talking about new communication methods and the application of visual arts in illustration, examination or the description of scientific problems, we are introducing the viewer to technical solutions which have finally made it to the market or are just about to, and will merge into daily life just like many other inventions, completely unknown less than 50 years ago and yet, as of today, indispensable in the daily life of the contemporary world. Addressing issues so often involving ethical norms and customs in discussions anchored in an art project, we hope to enable the public to express and face their own doubts – through art (Charzyńska 2011).

Professor Kluszczyński explains our goals and pursuits in the following way:

The transformations that can be observed taking place in the work of artists, a multi-directional hybridization, is increasingly guiding art towards, among other things, wide-ranging areas of research in both the humanities and the social sciences, as well as in the direction of those disciplines known as the hard sciences. Today, the leading tendencies in art are multidisciplinary and transboundary. Progressive art is taking up the tasks of cultural studies, a trend most commonly seen in critical theory, as well as in creative dialogues between art and biotechnology, genetics, computer science, nanotechnology, research into artificial life and artificial intelligence, and many engineering disciplines (Kluszczyński).

An important consideration for us was the widespread tendency for disciplines to set themselves apart in a kind of splendid isolation, which was particularly conspicuous in the scarcity of contacts between humanists and scientists. In 2011, a conference titled *Towards a Third Culture: Coexistence of Art, Science and Technology* was held, in which Charles Percy Snow’s book *Two Cultures* was systemati-





4. *Life Writer* ©2006, Christa Sommerer & Laurent Mignonneau

cally referred to, and the work of such people as Frank Malina was copiously discussed (the conference proceedings, edited by Kluszczynski et al., appeared with the identical title in 2011). Malina is an extremely important person, first of all as a founder of *Leonardo* in 1968<sup>24</sup>, which serves as a platform for sharing experience and opinions among creative practitioners. Despite various ups and downs, the journal still exists, also in the electronic form now, and is associated with an array of complementary enterprises.

The 2011 Gdansk conference was accompanied by exhibitions. Alongside Malina, whose works were put on display jointly with György Kepes's in *The Pleasure of Light* show<sup>25</sup>, the role of technology in the modern world was explored by Monika Fleischmann and Wolfgang Strauss in the *Performing Data* exhibition, part of the *Art+Science Meeting* series<sup>26</sup>. An important theme tackled in the show was that of the increasingly digitalised collection, archiving and distribution of data. The scholars and artists investigated also the tools facilitating the construction and browsing

<sup>24</sup> <http://www.leonardo.info/leoinfo.html>.

<sup>25</sup> For more information, see [www.laznia.pl](http://www.laznia.pl) and *The pleasure of light*. György Kepes, Frank J. Malina (Warszawa-Gdańsk: Wyd. Narodowe Centrum Kultury i Centrum Sztuki Współczesnej Łaźnia, 2011).

<sup>26</sup> *The Performing Data*. Monika Fleischmann+Wolfgang Strauss (Warszawa-Gdańsk: Wyd. Narodowe Centrum Kultury i Centrum Sztuki Współczesnej Łaźnia, 2011).

of such archives as well as using them for educational purposes. Masaki Fujihata's concerns and approaches are similar. However, computers, software and machines are intertwined with the organic world of humans, animals and plants. Explorations of the phenomena in which technic meets biology are also communicated in the early interactive installations of Christa Sommerer and Laurent Mignonneau and in several projects of Eduardo Kac<sup>27</sup>, who came to Gdansk's Laznia in 2009<sup>28</sup>, triggering an array of impassioned responses with his tales about his genetics-based works. A particularly heated controversy was stirred by the aforementioned bunny, whose genetic code was modified at the zygote stage. In 2011, Victoria Vesna<sup>29</sup> in collaboration with the chemist and nanotechnologist James Gimzewski presented the *Blue Morph*<sup>30</sup>, an installation referring to research on the butterfly species of the same name. One year later, Oron Catts and Ionat Zurr came to show their profoundly biotechnological projects. *Crude Life*, as the exhibition was called, initiated Laznia's cooperation with the Intercollegiate Faculty of Biotechnology UG&MUG. The exhibition germinated in the university laboratories under the committed care of their staff to later develop and "live" a life as envisaged by the artist.

Other perspectives on the human-machine relations have been presented by Stelarc, Ken Feingold and Bill Vorn. Stelarc firmly advocates a symbiosis between the biological and the technological, the coupling of meat and metal. As miniature devices developed by nanotechnology enter into the human body, a chimera is born. Ken Feingold approaches this phenomenon in a different way. His moving sculptures, often equipped with voice synthesisers and having the artist's face, interact and talk with the audience. Arranged in this way, they unmistakably suggest their philosophical underpinnings. Feingold, as Erkki Huhtamo puts it, "has traversed many landscapes, mindscapes, and means of expression" (Huhtamo 2014: 37). Bill Vorn<sup>31</sup>, in turn, draws on the tradition of using automata and robots in art, uses a language characteristic of his theatre (as Feingold does) and labels his work "robotic art" (Vorn 2014: 15). The portrayal of the human need of copying, or even reinventing, a part of ourselves is given an additional touch by *Nearly Human*, an exhibition addressing robotic art history curated by Jasia Reichardt. The show, described by Reichardt as a tale of human fantasy translated into the language of art, features over seventy works, including archival photographs, drawings, films and interactive sculptures. In 2016, Dmitry Bulatov curated the project *Die and Become! Art and Science as the Conjectured Possible*<sup>32</sup>, which examined the Romantic

<sup>27</sup> <http://www.ekac.org/>.

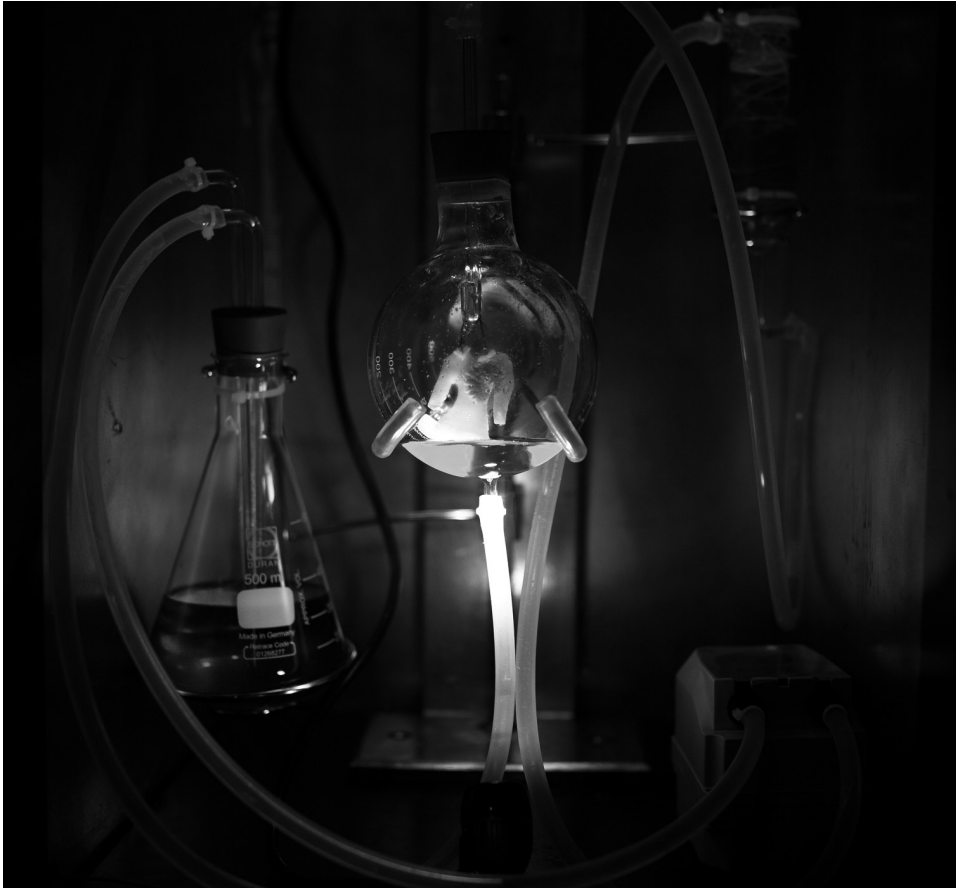
<sup>28</sup> For more information about the artist's visit to Gdansk, see: [http://laznia.pl/edukacja-art,288,2009\\_immediate\\_art\\_eduardo\\_kac\\_transformacja\\_zycia\\_mutacja\\_sztuki\\_.html](http://laznia.pl/edukacja-art,288,2009_immediate_art_eduardo_kac_transformacja_zycia_mutacja_sztuki_.html).

<sup>29</sup> <http://victoriavesna.com/>.

<sup>30</sup> The *Blue Morph* show was held by Gdansk's Baltic Sea Cultural Centre in 2011 as part of the *Art+Science Meeting* series. Victoria Vesna describes her project in a text available at [http://artandsciencemeeting.pl/?page\\_id=408](http://artandsciencemeeting.pl/?page_id=408).

<sup>31</sup> For more information on the topic, see <http://artandsciencemeeting.pl/> and [www.laznia.pl](http://www.laznia.pl) as well as the publication accompanying the Gdansk exhibition: *Robotic Art and Culture: Bill Vorn and his Hysterical Machines*, ed. R.W. Kluszczyński et al. (Gdansk: Wyd. Centrum Sztuki Współczesnej ŁAŻNIA, 2014).

<sup>32</sup> For more information, see <http://artandsciencemeeting.pl/> and [www.laznia.pl](http://www.laznia.pl), as well as the publication accompanying the Gdansk exhibition: *Die and become! Art and Science as the Conjectured Possible*, ed. D. Bulatov (Gdansk: Centrum Sztuki Współczesnej ŁAŻNIA, 2016).



5. *Victimless Leather* at *Crude Life. The Tissue Culture & Art Project* exhibition at LAZNIA CCA, 2012. Photo: Krzysztof Miękus

perception of man and his need to transcend his selfhood. “Art comes into being when the demands of universality no longer serve as the justification of the process of understanding mankind and the world” (Bulatov 2016: 10).

For over twenty years, *Ars Electronica* has been the venue in Europe where to see the projects combining art practices and scientific research. It is an annual celebration of creative individuals. The festival is more than just a competition. Many of the projects presented look into the most urgent problems of our world, in which the technological is interwoven with the ecological and the social. On display are also models and visualisations of machines and robots already put to practical use. Playful allusions to our propensity to record, measure and quantify everything are galore<sup>33</sup>.

<sup>33</sup> I will again evoke Christa Sommerer, Laurent Mignonneau and their presentation (<http://www.interface.ufg.ac.at/christa-laurent/WORKS/FRAMES/FrameSet.html>) and Agnes Meyer-Brandis's *Teacup Tools* entered into the Linz competition (*CyberArts 2015*, Hatje Cantz Verlag for Ars Electronica, 2015, pp. 66–67, <http://www.ffur.de/tea>).

In Poland, it was the Laznia Centre for Contemporary Art that undertook to present these developments systematically. It is, indeed, a pioneering effort, nationally speaking. We collaborate with Warsaw's Copernicus Science Centre, the Intercollegiate Faculty of Biotechnology UG&MUG and a range of foreign partners associated with particular artists or, even, works. We have won over Jasia Reichardt, a legend who, in Poland, is known first of all for her efforts at promoting the work of Franciszka and Stefan Themerson. Outside Poland, she is thought of, first of all, in connection with the breakthrough show of *Cybernetic Serendipity*<sup>34</sup> held at London's Institute of Contemporary Arts in 1968. Reichardt has paid ample attention to art-and-science links throughout her career. She grew up in the Themersons' home, which was formative to her intellectual development as she could witness the Common Room meetings active (in 1957-1959) in the basement of the Gaberbocchus Press office. It was there that she met the champions of a unique common philosophy of art and science, which was, in its day, revolutionary in Great Britain and, even, worldwide. Reichardt's exhibition cannot be occluded by MoMa's concurrent *The Machine as Seen at the End of the Mechanical Age*<sup>35</sup>, and both exhibitions are considered iconic today.

### Laznia's project and education through art

Education through art is a constantly discussed and re-discovered idea. A few decades ago, Polish museums and galleries offered only guided tours of exhibitions (if at all). However, as the audience were increasingly confused facing contemporary art, efforts were made to hold conferences, workshops and lessons introducing issues of art history, including the latest developments in the arts. A lot of attention is now devoted to the role of arts in education and art itself as a cultural and social phenomenon. But still the focus is on the tools to be used in engaging our audiences and workshop participants. One of the recurrently discussed topics is the role of the institution of culture as defined by a particular individual.

The principles of the personalist concept of organisation management are accompanied and supported by the principles of servant leadership introduced to scholarly discourse by Robert Greenleaf. [...] A true leader, an organiser of social life involved in the management of an institution, [who] feels a need to serve others by assisting or helping them as they strive for self-perfection (Skutnik, 2014: 36).

For in the market-ruled world, individualism and recognisability encapsulated in the term "brand" determine visibility and, consequently, the potential audience's interest. It makes sense to define the goals of this form of contacting viewers of various art shows, particularly those exhibiting machines or objects produced in laboratory processes. This form of presentation is likely to trigger questions as to

<sup>34</sup> For more information on the topic, see <http://cyberneticserendipity.net/> and <https://www.ica.org.uk/whats-on/cybernetic-serendipity-documentation>.

<sup>35</sup> For more information on the topic, see the MoMa archive at: [https://www.moma.org/momaorg/shared/pdfs/docs/press\\_archives/4149/releases/MOMA\\_1968\\_July-December\\_0081.pdf?2010](https://www.moma.org/momaorg/shared/pdfs/docs/press_archives/4149/releases/MOMA_1968_July-December_0081.pdf?2010).

the reasons behind it. When we take exhibits out of laboratories, we make sure to provide comprehensive information about such pieces, but the viewer can always ask why the artists chose this way to tell their tales. What questions did they mean to ask? This is a genuine riddle.

Many years ago, I received a present: a set of electronic-microscope photographs of vitamin structures. The colourful, abstract images discovered by means of the sensitive device impressed me immensely. Talking about his fascination with drugs, Damien Hirst highlights the need of contrasts in art. People need stimuli to understand what is going on around them. Communication is effective when its message moves the addressee.

We should bear in mind that “first, anyone who seriously intends to become a philosopher must ‘once in his life’ withdraw into himself and attempt, within himself, to overthrow and build anew all the sciences that, up to then, he has been accepting. Philosophy – wisdom (sagesse) – is the philosophizer’s quite personal affair,” as Edmund Husserl insisted (Husserl 1977: 2). In educating, effective communication is of primary import. Whoever ventures to teach is up against themselves. The human imagination and art help envelop knowledge in feelings, give it a shape and a colour and, in this way, make it accessible. This is exactly the role a modern gallery and a modern museum must perform. As someone said some time ago during a debate in Poznań<sup>36</sup>, “culture is not for all, but it is for everybody. And its responsibility is to give each and everyone of us, instead of just ‘the culturally competent,’ a chance to realise his or her personal potential” (Skutnik, 2014). Essentially, this pertinent thought defines the role of contemporary art from the perspective of both artists and audiences.

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<sup>36</sup> The *Praktyki i metody edukacji kulturalnej* [Cultural education practices and methods] conference took place at Poznań’s Centrum Kultury Zamek in 2013. Its discussions were summed up in the collective volume of *Edukacja kulturowa. Podręcznik* [Cultural education: A textbook] (Poznań: Wyd. Centrum Kultury Zamek, Poznań, 2014). See [http://www.wpek.pl/pi/98258\\_1.pdf](http://www.wpek.pl/pi/98258_1.pdf).

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### Abstract

#### *Chimera and Virtual Network, or a Contribution to the New World Order (Art and Science Relationships on “Art + Science Meeting”)*

The “Art + Science Meeting” project presents art and science through an expanded exhibition, workshop, publication, meeting and debate program as two different perspectives of the same reality. The interdisciplinary open to discussion character of the project gives a possibility to present the achievements of world’s most outstanding artists who create in the hybrid area of science and technology: art and biotechnology, genetics, computer science, nanotechnology, research into artificial life and artificial intelligence... It also allows a wider look on the contemporary civilization for which science and technology are progress conditions but still remain opaque.

### Keywords

art, science, technologies, biotechnologies, machines

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