

# Karolina Żyniewicz

University of Warsaw

## Becoming liminal – existence in anti-structure

*Man develops thanks to anti-structure, and lasts thanks to the structure.  
The Ritual Process: Structure and Anti-Structure*

V. Turner

### Cultural liminality

Arnold van Gennep and Victor Turner have proposed a division of the rite of passage into three phases: pre-liminal (separation), liminal (marginalization) and post-liminal (inclusion). The unit or group needs to go beyond the existing order, the environment, to be able to move to the new one. Between the extreme and defined phases there is the phase of in-between, which is liminality: “being on the threshold.” In *Anthropology of experience*, co-edited by Victor Turner and Edward M. Bruner, we read: “Limen, or threshold – (...) is a deserted area between a structured past and a structured future (...)” (Turner, Bruner, 2011, p. 52). Thus, it could be said that liminality is defined by the present, which while it lasts is difficult to be placed within any frames and classifications whatsoever. The authors also suggest that the liminal phase expresses culture in the presumed mode, in the categories of “maybe” and “as if” (Turner, Bruner, 2011, p. 52). It is therefore a kind of fantasy, imagination, non-materialized prediction. They call this phase “prolific chaos” and the fighting for new forms and structures.



Arnold van Gennep *The rites of passage*

### Biological liminality

So far I have referred to the cultural dimension of liminality. Now, I would like to introduce its biological aspect as formulated by Susan Merrill Squier in her book entitled *Liminal Lives. Imagining the Human at the Frontiers of Biomedicine*. She refers to the theory of liminality that I have described above, however, she notices the necessity for its extension. She points out that any transformation of corporeality also has a liminal character.

The liminal lives that are the subject of Squier's book exist in the zone of the in-between, on the margin.

Like the Nightlight "adoptable embryos", neither discarded bioproducts nor a valued human being, they are participants in a rite of passage, between everyday life and a higher or different level of existence. (...) Like the embryos, the embryonic stem cells are also marginal (either temporally or taxonomically for the human being) (Squier, 2004, p. 4).

The banked embryos, organs for transplantation or embryonic stem cells, which could be called beings between bodies or two different forms of embodiment, fit the above-mentioned definition. In their liminality, they remain marginal to human beings, but, as Squier emphasizes, more temporarily than taxonomically. Although they become more and more significant in our everyday lives, few are aware of their meaning and presence since laboratory reality is one known to a limited group of people. Not everyone knows. Therefore, those entities, like with other biotechnology products, surround us physically, while the majority of society treats them mainly as abstract, immaterial phenomena based merely on representations created by the media.

As quickly as these beings are normalized, we become unaware of them; something which seems paradoxical.

Despite - or perhaps because of - their increasing importance to culturally dominant zones of representation and practice (science, politics, economics), they escape categorization and detection, appearing only as elements of fantasy in culturally subordinate arenas of representation and practice (literature and visual or performance art). Yet, I will argue that those new beings demand our attention, because they are powerful and dangerous representatives of a transformation we all undergo as we become initiates in a new biomedical personhood mingling existence and nonexistence, organic and inorganic matter, life and death (Squier, 2004, p. 5).

Squier's definition of art generates images of liminal entities, as well as shaping our concepts about them. However, as she emphasizes, we should be aware of the true material dimension of the existence of liminal entities. Is it possible in general? It could be suggested that bio art, which is based on real meetings with liminal entities in laboratories, can make them more socially present. However, we should remember that only the process of the production of bio art projects takes place in a laboratory and it is based on contact with liminal entities. The final effect, presented in the form of an exhibition, is a kind of representation. Taking into account the fact that the production of knowledge is based on representations as well, does art produce a kind of second-hand representation?

Squier contrasts Turner's positive vision of liminality with a slightly more aggregative vision proposed by Paul Rabinow in his book entitled *French DNA. Trouble in purgatory*. Rabinow talks about the so-called "purgatorial anxiety" which is saturated with fears about current changes, as well as with the future that will result from them. This fear is also linked with the difficulty of adopting a specific position towards phenomena which we are the creators of and simultaneously in which we actively participate. Thus, I would claim following on from Squier that "The liminal is an arena of possibility; the purgatorial is an arena of responsibility." (Squier, 2004, p. 8). This aspect of responsibility is crucial for artistic mediation between liminal beings and society. Talking about mediation, I mean the production of representations which should be based on consciousness and the aforementioned responsibility.

### **Becoming liminal**

Taking into account Squier's suggestions about the changing of our corporeality and culture, it could be argued that becoming liminal is based on a two-way process. We tend to look for justification for biological changes in the realm of culture, while biological changes affect the transformation of culture significantly. Biotechnology, therefore, sets a certain pattern of transgression to which

we should adapt somehow in order to be able to exist in the new reality. Transhumanism is based, to a large extent, on believing in the possibility of exceeding the limitations of the human body. It may happen that we will soon witness a new post-liminal state, yet at the moment we are still in transit.

### **Liminal beings as biofacts**

Liminal beings, as described by Squier, seem to be included within the cluster of 'biofacts,' a term coined by Nicole S. Karafyllis – a German philosopher and biologist. 'Biofact,' a neologism comprised of (Greek) 'bios' and 'artifact,' refers to a being that is both natural and artificial. It is brought into existence by purposive human action, 'yet exists due to the process of growth (Karafyllis, 2008, pp. 189-190).

This term includes a wide spectrum of entities, natural living beings and technical artifacts. The natural process of growth becomes a medium for design. What is crucial in terms of biofacts is that the starting point is initiated by a human, although, the process is determined by natural growth. To help us understand the nature of biofacts, Karafyllis compares them to plants: "they grow and fuse with their incorporating contexts, they assimilate, and they can be assimilated" (Karafyllis, 2008, p. 190).

This aspect of growth as a medium is important for my further considerations about bio art as a way of coexistence with liminal beings and other forms of biofacts. Growth is a medium of design and creation in both the areas of bio art and science.

### **Bio art and coexistence with liminal beings**

In short, bio art (Biological art) is an artistic practice based on biology as we can read in *Manifesto*: "Bio Art manipulates, modifies or creates life and living processes." (Eduardo Kac, Marion Laval-Jeantet, Benoît Mangin, Marta de Menezes, George Gessert, Paul Vanouse 2017). The authors of *Manifesto* stress that bio art, working with life, has automatically gained political, social, cultural, and ethical implications. In addition, in dealing with the borders between the human and non-human, the living and non-living, natural and artificial seems crucial for bio art practice. Although, *Manifesto* has only been signed by a few bio art practitioners, it is meaningful for our understanding of the field. Similarly to scientists, bio artists can represent a kind of specialization, for instance: tissue culture engineering (SymbioticA), genotype and phenotype reprogramming (Marta de Menezes), transgenic art (Eduardo Kac), bacterial art (Anna Dumi-

triu), biorobotics (Stelarc). It is also possible to work with different subareas, an approach which I personally represent. What is characteristic for bio art is the fact that the material for creation is 'life' (understood in many ways). And that this material is not merely a source of inspiration. The visual side of projects in this field is usually based on the aesthetics of laboratory work (representations taken from the process of knowledge production). That is one of the reasons why they are often perceived as research projects rather than as pieces of art. Another important aspect to be outlined here is the lack of total control over the process of creation. We can say in the case of bio art that the pieces of art are biofacts. Karafyllis suggests that growth is the medium and the basis in the process of designing biofacts. Growth is not fully controllable so it can be associated with an accident. Accidents have always been seen as a crucial ingredient within artistic practice. Ryszard W. Kluszczyński during a discussion panel at CSW Zamek Ujazdowski (which I participated in) stated that art&science practitioners, including bio artists, are the curators of situations rather than creators themselves. Artists may build the context or ask the questions but living agents (or AI) are developing in an uncontrollable way.

Although, the term bio art seems to be intuitive there is some risk in using it. Joanna Żylińska has pointed out that:

For several reasons, it is worth rejecting this handy label [bioart]. It not only marginalizes art (or pushes it into a niche), separating it from techno-science practices, but also introduces practices of art as reactionary, and at best only as a reflection of technoscience. Although the concept of bioart. may actually refer to artists and works exhibited above all in galleries, I think it would be more appropriate to ask how cultural studies on biotechnology can seriously approach its interdisciplinary character (Żylińska, 2013, p. 219).

From the perspective of a practitioner I can totally agree. As I mentioned before, bio art uses laboratory aesthetics, with a lot of representations being the products of the process of knowledge production. The difference between art and science can be hard to place but the reason and the context for doing bio art projects are important. Artistic projects based on science should take their own position, being something more than "second hand" science.

### **Working with liminal beings in biological laboratories**

Since I am both an artist and a scholar, I have an opportunity to use my own experiences from the process of art production in academic debates. This

also allows me to enrich the scope of this paper by going beyond the theoretical perspective.

Biologists are obliged to consult their research projects using animals or human material with bioethical committees to obtain official permission to conduct their research. For the purpose of this paper I will only be focused on the second instance: work with bio material derived from the human body. What is interesting, in most bioethical regulations regarding the use of human bio material, the crucial issue is the ownership of biomaterial and the rules for its obtainment while respecting the human being who is the donor. All the documents I have found: *The Nuremberg Code* (1949), *Declaration of Helsinki* (Helsinki 1964 – Seoul 2008), *International Ethical Guidelines for Biomedical Research involving Human Subjects* (Geneva 2002) or the WHO declaration (Geneva 2005) are focused mostly on an anthropocentric way of thinking. Human biomaterial is not considered to be separate from the donors themselves. This approach is important when we are considering bioethical issues in bio art because a lot of bio projects are a sort of trial to apply a non-anthropocentric approach. It goes without saying that a significant number of bio art projects raise bioethical questions and concerns (something that has been stressed in the aforementioned bio art *Manifesto*). That kind of artistic practice can also give rise to new ethical dilemmas. The most important problem of carrying out and presenting bio art projects is the question of whether artists have the right to ‘play God’ by working with living beings and life in general. Actually, a similar question may apply to the work of biologists. Biology is actually based on “killing.” Does the research goal justify working with living beings, including their “killing?” Moreover, it could also be rightly asked as to whether a scientific goal is more important than an artistic one and whether “killing” for the purpose of knowledge is more acceptable than killing for art.

While working with my own cells within the framework of the *safe suicide* project, I had a similar experience. My work had been perceived as a kind of body art, which was a justification to allow me to decide about the biological material taken from my own body. However, it created a significant ethical and legal issue concerning the presentations of my bio art projects outside laboratories, in places such as galleries, museums, science centers. It is usually the case that bio artists are not given the opportunity to present their projects outside laboratories, because galleries are not prepared to create the necessary specific environment or are not equipped with the technological apparatus essential for the survival of a live exhibition. For instance, working with tissues and keeping them alive requires the preparation of sterile conditions. Even in the case of tis-

sue cultivation in a gallery the audience are unable to have direct contact with them: for this is a matter of bio hazard. Meaning that contact is consequently mediated by photography or video. We can say that the laboratory production of bio art projects is linked with the same bio ethical issues which exist in the case of biotechnology. Yet the post laboratory existence of these projects in galleries and museums generates new ethical questions.

### **Project *safe suicide* – my cells as liminal beings**

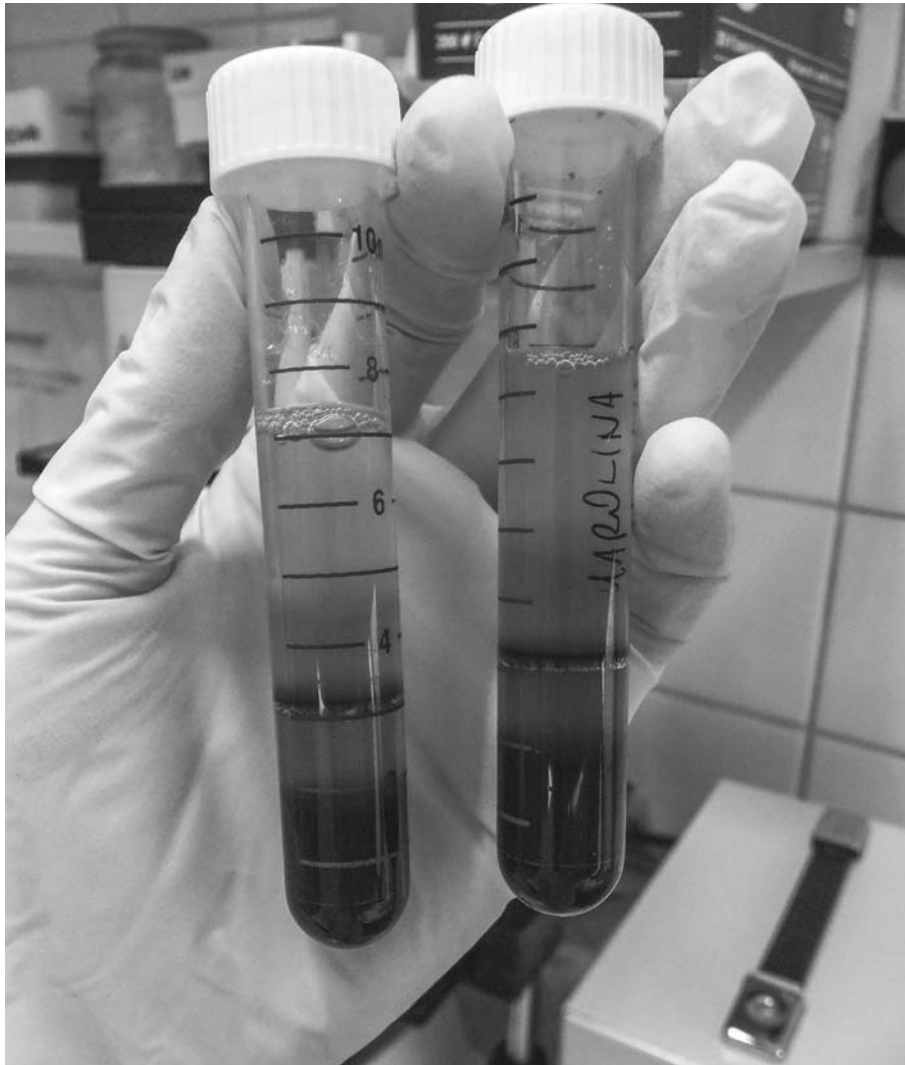
My work with my own B lymphocytes and fibroblasts has made me think that the definition of liminal entities proposed by Squier needs a certain extension. I have brought out two cell lines that have their origin in my body. Those cells do not have a chance to transform themselves into another body, or become part of a new body, although fibroblasts could be used to grow skin tissue. Since their life is somehow controlled by the plan of the experiments, it becomes of a certain importance to determine how to treat this type of cell line. One of the possible approaches to be taken here is treating laboratory devices that keep them alive as specific technological bodies. In that way incubators would maintain the temperature of the human body and the appropriate level of CO<sub>2</sub>. In the case of my cell lines, the liminal phase seems to be the final one.

As part of my project I bred my own cells (with some laboratory staff assistance). At first, I bred B lymphocytes, then fibroblasts. The work with those two kinds of cells differed due to their nature: B lymphocytes are suspension cells, while fibroblasts are adherent cells. During the first stage of the project I had the possibility to work with different kinds of cells: B lymphocytes from patients (learning about sterile work), my own B lymphocytes (immortalized and unimmortalized), some hybrid HeLa cells and different kinds of bacteria. However, for the purpose of the paper I shall only focus on the work with B lymphocytes. The relationship with the above-mentioned living non-human agents were an integral part of my research diary. The diary includes my own experiences but also the attitudes of scientists to those liminal beings. An analysis of the diary's content could be helpful in the process of understanding our relationship with liminal beings, therefore, I shall employ it in my further analysis.

#### Safe suicide – part I (B lymphocytes)

The main inspiration for the project was the story of HeLa cells and Henrietta Lacks described by Rebecca Skloot in the book *The immortal life of Henrietta Lacks* (2011). The story gave rise to important ethical issues. HeLa cells are the most common laboratory cell line, having now many modifications and hybrids. The most important aspect of HeLa cells, which are cancer cells, is

their immortality which means their ability for unlimited division. The line has been taken from the body of Henrietta Lacks, a black woman who died of cervical cancer, without her official permission. After her death, HeLa cells became a kind of product on the biomedical market. Henrietta's family did not know about the existence of HeLa. They had not been involved in any financial benefit from the sale of their relative's cells. For Henrietta's daughter it was hard from an emotional point of view because she saw the HeLa cells as fragments of her own mother. The main question here is: who is the owner of the cells?



*Fig. 1. B lymphocytes isolation.*



Who should decide about them? What is the status of the cells? The answer to these questions can be found in the documents I mentioned before dealing with bioethical regulations, though on an artistic/non-anthropocentric consideration level matters can be more complicated.

Those questions were the starting point for the first part of the project *safe suicide*. The project's main idea was to cultivate a line of my own B lymphocytes and immortalize them with the use of the Epstein Barr virus to make them similar to HeLa cells, and secondly to "kill" the immortalized cells during various experiments.



Fig. 2. Cells defrosting.

Another debatable aspect of *safe suicide* was the issue of liminal lives (cells) subjectification. Thus, the question arises as to whether the cells separated from

my organism and bred in *in vitro* conditions are still a part of me. Another crucial issue is: am I performing an act of self-destruction when killing my cells?<sup>1</sup>

The most frequent question I have heard during the project concerned my own feelings that were evoked while I was killing my own cells. People seemed to see a difference between me working with my own cells and the lines derived from other people. My approach to working with my own cells was quite emotional at the beginning when I was in the process of learning how the laboratory equipment and research worked:

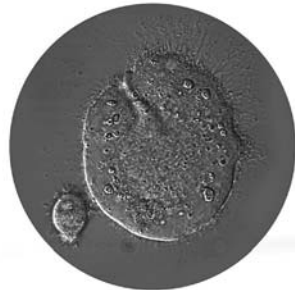
The process of freezing cells is magical. The optimal temperature (regulated in an incubator) is the temperature of the human body. When A. suggested I warm up the tube with the cells in my palms I felt a kind of tenderness which the body gives to its fragment existing beyond it. This task is probably the only opportunity to have direct embodied contact with the cells. All actions in a laminar chamber requires one to avoid contact. They are mediated by pipets (diary: 03.03.2016).

It was a valuable experience for me to work with something derived from my body. I could take care of it and decide about its existence. My approach to my body cells has transferred from personal to scientific and with time I have become much less sensitive, especially when in the process of "killing".

Increasingly often I forget I am working with my own cells. I am getting schemes of scientific thinking: cells are just material to work with. Sometimes someone asks me what I feel about killing my own cells but I do not know. I do not even know what I should feel. It is a kind of perverse situation. I take care of my cells, feeding them and maintaining sterile conditions just in order to destroy them intentionally (diary: 30.05.2016).

Finally, I stopped noticing the difference between working with my own cells and laboratory cell lines. This was also the result of the laboratory work itself which does not require any direct contact with the cells. Sterile work means using pipets and gloves. Another factor contributing to me distancing myself from emotional and personal feelings may be the mediated perception. Using a microscope allowed me to see the shape of the cells and their movements. Without it,

<sup>1</sup> The project was mainly carried out in three laboratories which were: 1. Institute of Genetics and Biotechnology, Faculty of Biology, University of Warsaw, where I worked on mitochondrial diseases (with human cells), 2. Nencki's Institute of Experimental Biology, Laboratory of Cellular Aging where I worked on molecular aging (with human cells), 3. Faculty of Biology, University of Warsaw - laboratory of confocal microscopy,. I also collaborated with: 1. Institute of Microbiology, Faculty of Biology, University of Warsaw - microbiological laboratory, 2. Institute of Cytology, Faculty of Biology, University of Warsaw - cytological laboratory.



wspólna hodowla moich limfoblastów (limfocyty B unieśmiertelnione wirusem Epsteina - Barr) i komórek HeLa (Flipln), na pożywce RPMI (przeznaczonej dla komórek nieadherentnych, w tym limfocytów), komórka zdrowa, jedynie obserwacja mikroskopowa poza inkubatorem spowodowała jej śmierć

the common cultivation of my lymphoblasts (lymphocytes B immortalized with the use of Epstein-Barr virus) and HeLa cells (Flipln); cultured in RPMI medium (dedicated for nonadherent cells, included lymphocytes); observation outside the incubator caused death

Fig. 3 Cellular death documentation.

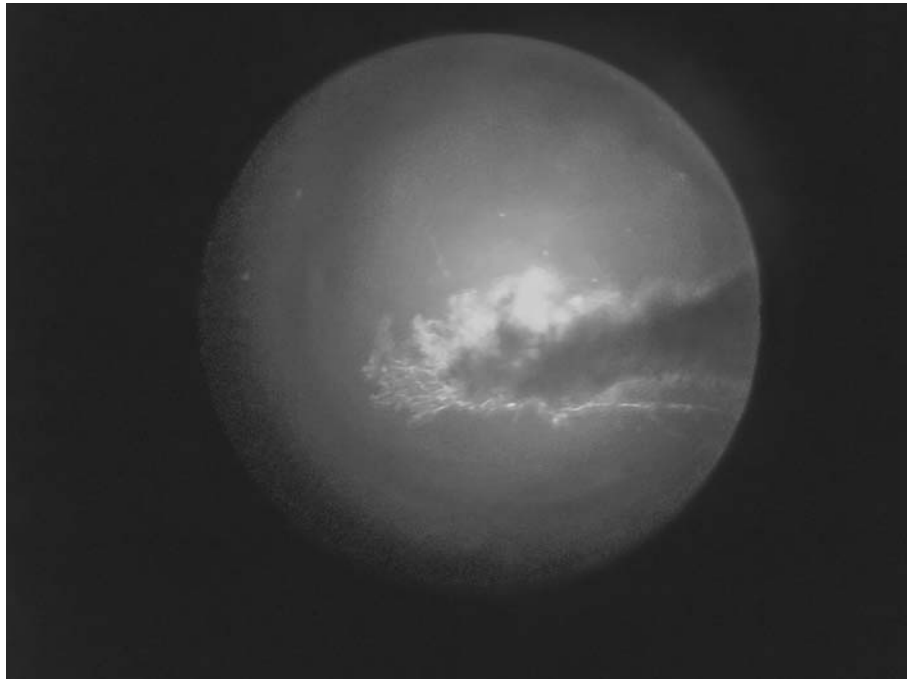
they are just a kind of dust suspended in the liquid of a medium.

Just seeing cells with the use of a microscope we can become conscious of their physical presence. Then they have definite shapes and size. Scientists are becoming sort of routine in their work without being tender with every cell line, which is the material of their work. Although, at the same time they can say "my cells" in the meaning of my research material (diary: 07.03.2016).

In terms of learning from coexistence with liminal beings (taken in my broader definition), the process of immortalization becomes one of the most intriguing parts of the work. It is meaningful that what is not possible for humans, being entities having bodies, is possible for cells. That is the difference between the *in vivo* and *in vitro* condition. In the *safe suicide (part I)* project I used the Epstein-Barr virus to make my B lymphocytes immortal. That virus overcomes the limit of cell divisions. It made me ponder whether we are able to learn from immortalized cells how to be immortal in the way we learn how to be liminal.

The answer seems to be obvious: we are not. Immortal cells in our body create cancer which is one of the biggest risks to our lives. Immortal life is possible only in the *in vitro* condition. However, this immortal state is also limited by human decisions. Cells are cultivated to be used in planned experiments, which often means the death of the cells. We can think that our relationship with those liminal beings is a kind of domination but this is merely an illusion. Sometimes cells behave unpredictably and it is hard to foresee what will happen even if the experiment is well prepared.

For two days now the cells have refused to cooperate. Really strange things are happening. It is always surprising for me when something is surprising for biologists who have worked for many years with the same bio material. The portion of cells which I froze the day before yesterday is not visible under the microscope. It seems I froze just the medium for freezing without the cells. A. is on vacation so I showed the cells to E. She did not want to give me any advice as to what I should do because she is not experienced in working with adherent cells. She suggested to me that if I am not sure what is happening it is safer to just remove/kill the batch portion. I defrosted the next batch but this one also looks strange. It seems that the cells did not stick to the bottom of the petri dish. A. was not able to diagnose the situation from afar. It is a risky situation. I have just five tubes with cells left in the freezer and I cannot waste them (05.01.2017).



*Fig. 4. Fibroblasts migration from biopatch.*

As this fragment of my research diary suggests, the relationship with liminal beings is dynamic and unpredictable. What is important to stress is the fact that to understand this dynamic we have to *really* work with the cells. Not everybody

is able to get a laboratory. Artists doing bio art try to do it and share their experiences with audiences at exhibitions and workshops. Although this is not actually giving the possibility of real embodied contact, it is the kind of representation which Squier mentioned in her book. The question arises: is it enough to simply teach people how to become liminal?

### **Bio art exhibitions – a different kind of coexistence**

To be more precise about the difference between the direct contact with liminal beings during the production of bio projects and any mediated contact with them during exhibitions and workshops, I shall describe in brief some observations which I had during one of the exhibitions from the *safe suicide* project (during the *Przemiany Festival* in the Copernicus Science Center, 2016). Apart from presenting some pictures of my dying cells, I showed a kind of belt with test tubes containing the remains of my cells. They were colored with a Trypan blue. Trypan blue is useful for counting cells under a microscope but it is toxic for them. One of the visitors told me he had been expecting to see something alive. Since my work was announced as a bio art project. He wanted to try to open one of the tubes to put his finger inside and have direct contact with the

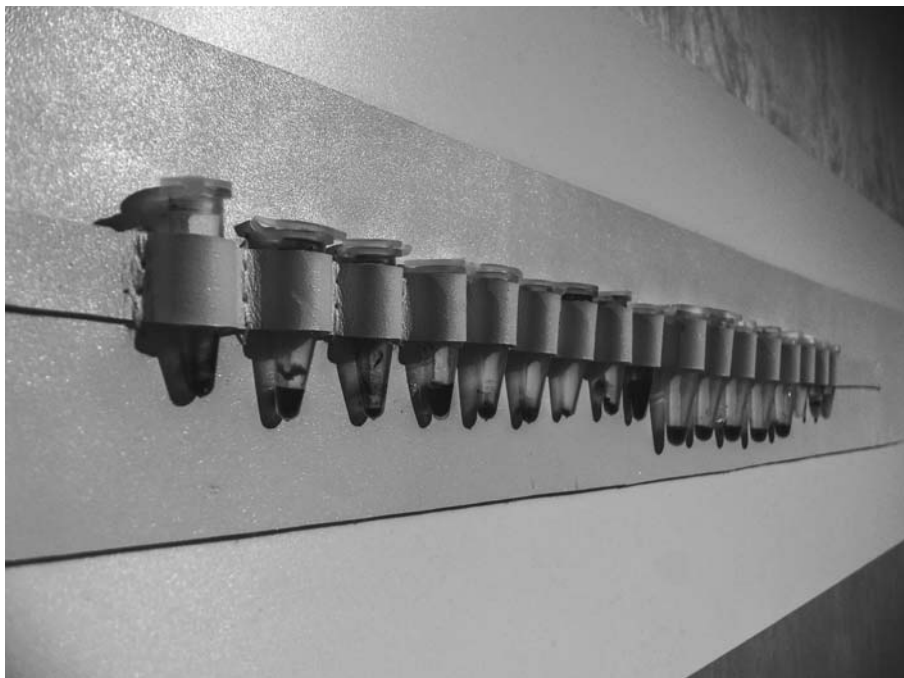


Fig. 5. Exhibition in Copernicus Science Center.

cells. I could not allow him to do so because of the bio hazard but I understood the purpose of this provocation. I decided to mention the incident here to point out that any exhibition of bio art projects can be another way of coexistence with liminal beings, the mediated ones. This is a different contact than the one artists have during their work in a laboratory. I would argue that it is more mediated.

The exhibition did not present living tissues. It was my conscious decision inspired by my previous experiences from different exhibitions, especially the exhibition entitled: *Crude Life* by SymbioticA (Łaźnia Gallery; curator: Ryszard W. Kluszczyński, Gdańsk 2012). SymbioticA is a collective well known for being bio art pioneers and their work with tissue cultivating. There was a special sealed sterile room that created the appropriate conditions for growing cells. This part was not approachable for the audience. The audience could be a bit disappointed at not having any possibility to touch the growing objects. They were also so small that it was hard to see them without a zoom. The question which came to mind at that time was: what is the most important element of this exhibition? Is this growing tissues being separated or maybe these posters showing them in detail? It seems to be a similar problem to the one had later by the viewer of my own exhibition, the problem of a need for physical contact. Analyzing more than one bio project we can find common points in the way translations are used and done. We could repeat the question I put before: is it enough simply to give people the chance to learn how to become liminal? Here we can again return to Squier's suggestions. But this is still not direct contact. However, it does not mean it is not valuable and important. Even giving people the possibility of seeing a representation is an attempt to make them aware of the existence of liminal beings and general biological transformation.

### **Bio art workshops – being closer to liminal beings**

Workshops are typical for bio art activity (and Art & Science in general). They can be associated with exhibitions or be totally independent. In terms of giving people the possibility to interact with liminal beings and living non-human agents in general, workshops seem to be more important than exhibitions. Workshops are based on interactions. Usually artists are not able to lead a workshop without the participation of scientists. The scenario can involve work with the same living beings presented at the exhibition (Art Laboratory Berlin usually organizes a combination of exhibitions and workshops) or with scientific techniques used by the artist (for instance, Mary Crispr) Workshops organized outside the laboratory should be based on a simplified protocol version and simpler wet work tasks, like DNA sequencing or the cultivating of bacteria. Increasingly

more popular is the use of DIY (Do It Yourself) methodology which allows non-scientists to perform experiments derived from biotechnology outside the laboratory. What it is important to stress is the fact that DIY workshops are not necessarily linked with bio art or Art & Science practice in general. There are a lot of places/collectives called bio-acker spaces which perform biotechnological experiments using self-made tools. Many bio artists have moved onto DIY methodology, avoiding expensive and complicated collaboration with professional laboratories. Equally taking into account my own experiences, it is hard to organize a bio art workshop to create any kind of bio art project. The process of preparing projects like that is long (a few months or more) so it is not possible to compress it into a few hours. That is why workshops usually have a more scientific character. It is the sharing of background and possibilities that makes it look more like a scientific workshop. Returning to the issue of translation and mediation I wish to stress that a workshop has quite a different form from an exhibition. Within the framework of a workshop participants can have direct contact with living matter. It is also a kind of translation because of the protocol modification and it being conducted in a different area than a laboratory. The questions arising are actually: is this kind of practice safe and ethical? Is it more artistic/performative or maybe more epistemic in some way? What is actually the difference between a bio art workshop and a bio-hacking one?



Fig. 6. Workshop for HAT Research Center, in collaboration with Jakub Piątkowski, PhD

### **Bio artists – liminal beings working with liminal beings**

So far in this paper I have focused mostly on the process of bio art project creation and the relationship between bio artists and liminal beings. Now I would like to take into consideration bio artists and Art & Science practitioners in general as a kind of liminal being. There is the question as to if a bio artist in having direct or, more precisely, less mediated contact with liminal beings in laboratories has the opportunity to learn about becoming liminal. Becoming liminal seems to be the domain of bio artists. It is a form of transdisciplinary practice between art and science. Artists enter the world of science, yet they treat it as merely a tool/medium of artistic expression. Taking into account my own experiences, I would argue that the visual aspect is often dominated by the aspect of knowledge that can be derived from a given project. This could be the reason why bio art is not present within mainstream art. Bio artists may often hear that their projects are too scientific, but at the same moment it is not scientific enough for science itself. Bio art as Art & Science in general used to be a separate field. Being in-between causes some practical problems with obtaining scholarships or grants. Bio art projects are too scientific for art programs and too artistic for scientific programs. It seems to be necessary to create a new category and also new terminology. Here there is a similar question to the one I asked in writing about the liminality of cell lines: is the liminal phase the last one or should we possibly expect some post-liminal stage?

### **Anti-structure or structure?**

The main feature of liminality is the lack of a defined status. This directed me to think about bio art and Art & Science in general as a liminal practice. In fact, every form of transdisciplinarity meets the criteria. Is it a new form of liminality or just a multiplication and imposition of existing ones? Can we talk about multiliminality? And finally, is the current form of liminality anti-structure or structure already? And here it is difficult to answer. On the one hand, the lack of precise language fitting to "in-between" activities could be a strong indicator of its rather anti-structure, with its searching for new ways. On the other hand, it is hard to imagine those practices in a more structured form. As I proposed before, we can suppose as in the case of typical laboratory cell lines, the second stage of the rite being the last one. Is it really possible we no longer need structures?



### Abstract:

This paper is based both on my empirical experience, related to the implementation of artistic projects in biological laboratories, and on theoretical consideration. It focuses on the cultural and biological meaning of liminality. First, I introduce the idea of liminality derived from anthropology, and more precisely from the theory of the trigeminal structure of ritual as formulated by Arnold van Gennep and developed by Victor Turner. Then, to those anthropological theories pertaining to culture I add the voice of Susan Merrill Squier, who draws attention to the fact that technological changes around our corporeality should affect the expansion of liminality and its biological significance. Finally, I refer to her concept of the existence of liminal beings – non-human agents living in the area of the in-between, between any current form of embodiment and a future one. In Squier's opinion in being humans we become liminal while coexistence with liminal beings can help us to pass this important bio cultural ritual. I would like to post the question: what does this coexistence look like? Can bio art create an opportunity for this coexistence?

**Keywords: liminality, liminal lives, bio art, biology, nature, culture**

### References:

- Council for International Organizations of Medical Sciences (CIOMS), *International Ethical Guidelines for Biomedical Research Involving Human Subjects*, Geneva 2002.
- Gennep, Arnold van. (1909), *The Rites of Passage*, Chicago: University of Chicago Press.
- Karafyllis, C. Nicole. (2008), *Ethical and epistemological problems of hybridizing living beings: Biofacts and body shopping*. [in:] Hans Poser and Wenchao Li (Ed.): *The Ethics of Today's Science and Technology. A German-Chinese Approach*, Muenster: LIT Publisher.
- Knorr Cetina, K. (1999), *Epistemic culture. How the sciences make knowledge*, London: Harvard University Press.
- Latour B. (2010). *Splatając na nowo to, co społeczne. Wprowadzenie do teorii aktora-sieci*, Kraków: Universitas.
- Rabinow, P. (1999), *French DNA: Trouble in Purgatory*, Chicago: University of Chicago Press.
- Squier, M. Susan. (2004). *Liminal Lives: Imagining the Human at the Frontiers of Biomedicine*, Duke University Press.
- Skloot R. (2011), *The Immortal Life of Henrietta Lacks*, Random House Lcc Us.
- The Nuremberg Code* (in:) *Trials of War Criminals before the Nuremberg Military Tribunals*, Washington, D.C., US Government Printing Office 1949, vol.II, pp. 181-182.
- Turner, V. (1977), *The Ritual Process: Structure and Anti-structure*, Ithaca: Cornell University Press.

Turner, V., Bruner. (2011), *Antropologia doświadczenia*, (transl. E. Klekot, A. Szurek), Kraków: Wydawnictwo Uniwersytetu Jagiellońskiego.

WHO, *Handbook of Good Clinical Research Practice (GCP). Guidance for Implementation*, Geneva 2005.

World Medical Association (WMA), *Declaration of Helsinki, Ethical Principles for Medical Research Involving Human Subjects*, Helsinki 1964-Seoul 2008.

Żylińska, J. (2013), *Bioetyka w epoce nowych mediów*, Warszawa: Instytut Badań Literackich PAN.