

# Bioart on Display- challenges and opportunities of exhibiting bioart

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*the tissue seems to grow well...*

## 1. Introduction

This paper is about exhibiting bioart works. It is about the practicalities of organizing and presenting exhibits of an emerging artistic form as it finds its way into museums and galleries.

### 1.1 What is bioart?

Bioart can be understood as an umbrella term referring to artworks that use life and life manipulation as the expressive medium while engaging with practices of biology and the life sciences. Initially strongly associated with genetic art, bioart is an expanded term that seems to have developed in parallel with the advances in modern biology and biotechnology. It includes a variety of works that engage in diverse levels of manipulation, from the whole organism to the cell level to the molecular level, and employ a wide range of (bio)technologies, from physical manipulation to tissue culture to genetic engineering.

One will have hard times to locate a widely accepted definition of bioart: the term is a recent and much debated one that undergoes constant reconsideration, expansion and restriction in vivid discussions among its practitioners and theoreticians. In fact, the term 'bioart' is often dismissed (mostly by the artists themselves) in favour of others – as vivoarts, transgenic art, wet art, biotech art, to name a few- that better capture the particular characteristics or practices of a subset of works.

What qualifies as a work of bioart may vary depending on one's definition on the term. In addition, bioart works vastly differ in both their methods and their intentions. We are aware of this complexity but, for the purposes of this paper, we will continue using the term bioart as a shortcut to refer to biologically and biotechnologically involved works that have been at least labelled to be bioart related. And while we will attempt to identify common features of (subsets of) bioart works, we wish to state and clarify here that every work should eventually be addressed by its own features and characteristics.

## 1.2 Where to find bioart?

Bioart works are in their majority exposed in a contemporary art institute, commonly as part of a dedicated bioart exhibition. Quite often, bioart exhibitions are part of a broader event that combines conferences, symposia and workshops, usually hosted by institutes with a tradition or interest in new media art and the intersection of art and sciences. (For a compilation of biological art related events up to 2004, you may consult Steven Wilson's research on the intersections of art, technology, and science). Other venues for display may be provided by institutes that are actively involved in the production of interdisciplinary research and host residencies for artists or by science museums providing art commission programs (such as Exploratorium's AIR project)

Events of some historical significance were the 'LifeScience' Ars Electronica festival of 1999, gathering several bioart pioneers as Eduardo Kac and George Gessert and the notorious exhibition L'Art Biotech in Nantes 2003, curated by Jens Hauser, often cited as the first dedicated bioart exhibition. In the last decade, a significant amount of events will address bioart-related subjects such as 'Art of the biotech era' as part of the Adelaide Bank Festival of Arts 2004, 'Dias de Bioarte '06' by CAPSULA in Barcelona, 'Still, Living' as part of the BAEP (Biennale of Electronics Arts Perth) 2007 and, most recently, 'Sk-interfaces' by FACT (Foundation of Arts and Creative Technology, Liverpool) 2008. Ars Electronica itself will re-introduce bioart in 2005, during the Hybrid festival, while in 2007 the jury will institutionalize a new award category for the Prix Ars Electronica dedicated to hybrid art (Symbiotica, the Art and Science collaborative research laboratory, will receive the Golden Nica).

## 1.3 On exhibiting bioart

In the coming sections, we will examine practical issues and difficulties of exhibiting works of bioart. We will look into frequent or inherent aspects and particularities of the bioart exhibit that are considered problematic for the hosting institute and we will attempt to point out a few issues of concern for further investigation.

From February 27, 2006 and on, the moderated mailing list for art-science-technology interactions around the Mediterranean Rim YASMIN conducted a discussion on the subject of "Exhibiting bioart". The invited responders included, among others, curators and artists who have been actively involved in the production of bioart exhibits. Opinions and experiences of museum professionals as derived from the above-mentioned discussion as well as the informal stories of artists on exhibition incidents and accidents as shared in discussions groups, mailing lists or interviews were a major source of information for this paper.

## 2. The living exhibit

Many of the prominent definitions of bioart (as in vivo art, life art, transgenic art or others) imply the presence of some sort of living matter. It is commonly suggested that the medium of artistic expression during the production of bioart works is organic life or living systems as expressed in diverse organisms and diverse biological levels. Jens Hauser is often using the term 'wetwork' to stress (among others) the re-materialization of bio-art into displays that embody living matter.

Unavoidably, exhibiting such networks or living exhibits has significant practical and organizational complications for the hosting institute.

Normally, works that employ some sort of life form require particular conditions or arrangements during an exhibition. Kathy High's transgenic rats need to be fed (the artist will report a high level of attachment between her rats and the museum guards feeding them) and Gessert's hybrid irises need access to direct sunlight. Less complex life forms may still require a repetitive feeding procedure and/or particular light or temperature conditions. As for organisms whose natural residence seems to be the laboratory space, they may require specialized lab equipment and/or sterile conditions in order to survive (as e.g. Oron Catts and Ionat Zurr's 'Semi-living worry dolls').

To facilitate a living exhibit, the hosting institute often needs to undergo spatial modifications and incorporate new routines and procedures in its normal practices. A dedicated environment may be necessary to host, facilitate and possibly restrict the life form in presence. The needs of the living organism may result in additional duties for the museum personnel, with feeding being the most obvious example. (Interestingly enough, though, Oron Catts and Ionat Zurr turned the burden of feeding their worry dolls into an open ritual). It is not unlikely that dedicated or specialized personnel may be required to carry out the procedure.

One can easily acknowledge that, practically and spatially, the (art) museum is not the optimal space for accommodating living organisms. Art museums and galleries are usually confined spaces designed to protect traditional -material- art from possibly harmful environmental conditions, including other (non- human) life forms. But, according to Gessert, the problem with exhibiting artworks that employ some sort of life form is not only practical but also philosophical. He argues that the museum architecture embodies the deeply rooted throughout art history and art theory idea of separation between art and nature.

Still, living exhibits are not an unknown challenge for the contemporary art gallery: the museum architecture and function has been repetitively challenged by artworks that, without engaging in biotechnological procedures or the manipulation of life, call for a continuous presence of plants, animals or even humans.

Are, then, bioart exhibits different? Possible not (or, not until biotechnological complications are added up). But one can think of instances of works employing organisms whose needs are yet not obvious to understand: one may be able to imagine the needs of a whole (and recognizable) organism but what about living forms one is hardly ever confronted with? And does the biotechnological complexity of those organisms and the scientific jargon likely to be involved make it harder for the artist to communicate the artwork's needs and requirements (increasing the risk of failure)? In that case, the problem with the bioart exhibit may be more a matter of communication, understanding and collaboration rather than a matter of resources.

### 3. A laboratory inside the gallery

A significant amount of bioart works utilize biotechnological procedures or practices as the tools for artistic production. When bioart practitioners are engaging with modern biology and biotechnology as the medium for artistic expression the resulting works are what Menezes describes as "art created in test tubes, using the laboratory as the art studio".

It is important to notice that several of these works would not have been possible without access to laboratory equipment and scientific expertise. While Do-It-Yourself culture and amateur biology is gaining momentum among bio-artists, it is true that several of the biotechnological protocols and practices involved in the realization of the artworks are quite costly in terms of laboratory equipment and scientific resources. Not surprisingly, if the artwork is created inside the laboratory, certain implications will emerge for the artwork to step out of the lab and move into an exhibition space.

There are several examples of exhibits that involved a complete laboratory setup recreated within the museum space. This is particularly true for artworks that are tightly dependent from the technology involved and require dedicated equipment for their maintenance. Works that execute biotechnological protocols in public will require all necessary equipment to be present in the museum space. Another, less straight-forward example of recreating laboratory spaces inside the exhibition space occurs due to health and safety regulations: it is likely that the exhibition space ought to comply with particular specifications as e.g. the presence of ventilation or other facilities for the exhibit to proceed.

The consequences on the practical effort and costs of the exhibit are obvious. Moreover, we are wondering on the aesthetics and language of the laboratory setting as replicated (or not) within the museum setup. For this, it is useful to distinguish between deliberate laboratory settings that are an intentional part of the artwork and imposed laboratory settings that are an unavoidable side-effect of the exhibit. One can also distinguish between dynamic lab displays (such as a laboratory bench in use), static/closed displays (such as an incubator in use) or even hidden/aestheticized displays. The impression(s) of science or authority that these displays create is an interesting subject on its own sake.

#### 4. Exhibiting the absent

One can easily acknowledge that the challenges of living works or technologically elaborate exhibits, often combined in the same piece, significantly increase the practical, organizational and financial requirements of the exhibit. But if bioart works are likely to be difficult or expensive to exhibit, how does their complexity influence the way the works are actually presented? For one, it is determining of the length of the exhibit: temporary exhibits are by far more manageable and, therefore, more frequent than permanent ones. And often, it simply means that an existing artwork will just not be exhibited in its original form.

Next to the pragmatic reason of the often prohibited costs for presenting and maintaining the exhibit, additional reasons inherent to the exact nature of the work may render a bio-art piece unavailable for exhibition: the work might be not directly available or replicable for the time of the exhibition or the life-span of a (not immediately reproducible) work might be shorter than the actual length of the exhibition.

In all cases, alternative possibilities need to be considered for the inclusion of a preferred yet unavailable work. Most likely, the work is exposed as representation (e.g. images of the work) or as documentation (e.g. video of the work's realization) or even by means of residues or physical remains of the original work.

Are residual or representational exhibitions perceived as a compromise because of practical limitations? Since a majority of bioart works (and artists) strongly value and utilize the notion of material presence as embodied in (tangible) displays, representational exhibitions are often expected to be lacking the (emotional and sensational) impact of the original display. We prefer to think that interesting possibilities can emerge out of purely practical reasons. How can one exhibit the absent bio-art work in an engaging and powerful way? Certainly, lessons can be learned from the field of performance art and new media art where performative actions, immaterial art or dynamic works are routinely documented and archived for future representations. Still, re-presenting the material absent (rather than the immaterial/dynamic) may call for new practices or techniques to be applied.

A distinct occasion when a representation of the absent is needed may actually emerge during the exhibition and due to possible failures or unexpected complications. There are many things that can go wrong with the bioart exhibit, like overheated bio-reactors (in Orlan's 'Harlequin Coat') or unruly growing cells (in Oron Catts and Ionat Zurr's 'Victimless leather') and failures will result to a literal death of the exhibit. Moreover, legal complications may result to the exclusion or removal of a piece. The above mentioned cases are considerably different in their content but, in both cases, what is left is space for explanation. How does the institute utilize that exact empty space for representation and discourse? And how does it deal with the important issues that emerge such as the failed in the first case, and the potentially harmful or legally vague in the other?

## 5. Of processes

### 5. 1 The biotechnological process

Many bioart works have a strong temporal element and can be better described as processes rather than as objects. Here, our notion of the process is two- fold: we refer to both works that are themselves an on-going process and works that need to be understood as the result of a longer procedure. Process-oriented works pose interesting challenges for the museum which has a long tradition of object-based and finalized displays.

Performative bioart pieces (often with participatory and interactive elements) have a prominent temporal dimension. The same holds true for artworks-protocols that are designed to be experienced as a development in time (see e.g. Paul Vanouse's 'Latent Figure Protocol' often performed in public). While presenting such works in a museum setup has certain difficulties, we suggest that, in respect to issues of capture and representation, one needs to look into experiences gained from performance art. Besides, issues emerging from the time needs of the work, such as difficulties in audience engagement, need not to be related to the biological or biotechnological character of the work.

What we find distinguishing of many bioart works is that often, the significance of the work is to be found in the process of its production/realization rather than in the final object. One could further argue that the process of artistic exploration within the laboratory or within the practices of science needs not to conclude in the production of a feasible/sustained object, but for now let us assume the existence of a bioart object in the work.

If the bioart work needs to be understood as the outcome of a longer procedure, what kind of support does the bioart exhibit offer in order to connect the object to the process of its creation? We are interested in the opportunities of a narrative that augments the bioart object by creating

associations with the aspects and procedures of its existence. And by that, we refer to both the (purely technical) biotechnological procedure behind the work and the wider context of its creation.

## 5.2 The interdisciplinary process

In their majority, bioart works created inside the laboratory are the products of a collaborative and interdisciplinary process taking place between the artist, who is normally the initiator of a creative action, and the scientist, who is normally the carrier of knowledge and expertise. The early stages of this collaboration tend to be one-sided with the artist attempting to extract knowledge and technical skills from the biologist and the technician. However, if the interaction and communication between the artist and the scientist is successful, opportunities for an exchange beneficial for both parties may emerge.

While it is outside of the scope of this paper to investigate the potentials of interdisciplinary collaboration, we observe that the bioart piece is the outcome of a complex interaction, exchange and discourse between the artist and the scientist. Such an observation may pose interesting questions for the presentation of a bioart work. Can one consider this process of interaction as related or complimentary to the artwork and, consequently, relevant for the bio-art exhibit? We would suggest that associating the work to the conditions of its production may provide a useful cultural or social context for the piece. If one wishes to create exhibits that engage with the bioart work as a process and not as a mere object, then it is not only the materials and methods that call for explanations or representation but also the (human-related) connections and interactions that occurred for the artwork to happen.

## 6. Conclusions - future discussion

In this paper, we tried to identify elements and characteristics of the bioart 'genre' that -according to artists and curators- seem to pose significant challenges in organizing a bioart exhibit.

Practical and organizational issues due to the complications of living or technologically advanced exhibits (or, most likely, of both) result to increased requirements in effort and costs that often make the bioart exhibit prohibited. While one can argue that organizational issues can be easily reduced to a matter of resources (or budget), resources are simply not always available. One may question the effects on the size or type of events or institutes that are to be hosting bioart works. Nevertheless, an area of investigation is to be found on how to better facilitate the pragmatic need for setting up engaging exhibitions of absent bioart works.

Further on, one needs to address the language and discourse the bioart exhibit engages in terms of both the aesthetic choices made and the implied prepositions of those exact choices. In respect to the structure and storyline dynamics of a bioart exhibit, we find the notion of processes to be an exciting one. And we are wondering on the potentials of (the experiences gained from) process-based exhibits for the narrative of museum exhibits in general.

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