

Will Bio Art Lose Its Interdisciplinary Experimentality in the Process of Paradigm Formation? – A Case Study of Bio Art & Design Award

Foreword

The project “Bio Art/ Design Writing Community” is supported by National Culture and Arts Foundation. This article introduces four essays in the project. It begins with a brief introduction to the operation and mechanism of the Dutch Bio Art& Design Award (hereinafter referred to as BAD)¹ and reflects whether the award will undermine the experimental nature of interdisciplinary practices by establishing a paradigm in bio art and bio design? In this project, three scholars from different fields were invited to comment on the BAD award-winning artworks in 2019. The annual exhibition by the BAD award functions as the studied case as well. Thus, this article will also introduce the objectives and vision of the project and guide the readers to following three article written by different scholars on the same subject.

Bio Art & Design Award, BAD Award

The BAD Award is based in the Netherlands and was founded in 2010. From 2010-2013, the award was named as “the Designer and Artists for Genomics Award.” Since 2014, it was officially named the Bio Art & Design Award. This award aims to encourage the practices of bio art and bio design and servers as a platform matching artists, designers, and bioscience institutes in the Netherlands. The reason why this award serves as a platform for the collaboration of art and sciences is that the competition does not call for a finished work; rather, the communication and collaboration between artists and research institutes for sciences through three-phase selections of the award. The chairman of the Jury is the American curator and writer, William Myers, as well as the author of the Thames & Hudson publications *Biodesign Nature + Science + Creativity* (2012) and *Bio Art: Altered Realities* (2015). The award is a collaboration among several important Dutch institutes for culture and sciences, currently including ZonMW (Medical Research Council, The Hague)², MU Artspace (Eindhoven)³ and BioArt Laboratories (Eindhoven)⁴.

The award is divided into three stages. In the first stage, the organizers will announce twelve collaborative Dutch life science research institutes on the award’s official website, and meanwhile make an open call for artists and designers from all over the world to participate in the selection. Creators who are interested in this award may make a preliminary idea based on the collaborating institutes, and further develop the ideas into a proposal. For the registration, applicants have to submit their proposal, portfolio and

¹ <http://www.badaward.nl/>

² <https://www.zonmw.nl/nl/>

³ <https://www.mu.nl/nl>

⁴ <https://bioartlab.com/>

curriculum vitae. Approximately 50 artists and designers enter the competition each year, and the organizers and the chairperson of the Jury conduct the first-round selection based on the content of their projects and their past works. Entries must be made within five years of graduating from an art or design school, which means that the competition is primarily intended to reward young artists who just started their career.

The matching will be conducted in the second selection. 16 artists and art collectives and 12 representatives from scientific institutions will be invited to ZonMW, where each participant will take turns to introduce themselves for 3 minutes. Followed by speed dating, each participant will communicate and discuss with three to four groups of scientists for 15 minutes. After that, all the artists and scientists will write down the top three candidate they would like to collaborate with, and the organizer will match them up according to their preferences. However, since there are 16 artists and art collectives in this phase, four groups of artists will be eliminated at this stage because the scientists are less willing to collaborate with them.

After the first two rounds, a total of 12 teams, consisting of artists and scientists, will compete for the final three awards. All the teams will spend approximately six weeks working on a proposal together, followed by an oral interview at a location arranged by the organizers. The three winning teams will be given a budget of 25,000 Euros to carry out their projects over a period of about six months and then present their results at the MU in Eindhoven. Not only works of the three winners will be exhibited, but also other works in the field of bio art and bio design, with a total of about 12 pieces of works.

From the above, we know that there are several special features of the awards. Firstly, the award is targeted at young artists. Secondly, the selection is based on artists' proposals. After winning the award and receiving the budget, the production of the works will begin. In addition, during the competition, the artists must not only show their creative abilities, but also their ability to communicate with scientists, otherwise they will not be favored by scientists in the second stage. The final selection of the competition, which usually involves curators, scholars, scientists, and previous winners of the award. The diversity of the judges' roles is also what makes this competition special.

Does "paradigm" reduce the experimental nature of cross-disciplinary practice?

From the operation of the BAD Award, we can see that a major focus of the practice of bio art is the interaction and collaboration between artists and scientists, exchanging their own expertise and stimulating new sparks. The results of these collaborations can also be a reward for the life sciences field itself. The results of such collaborations often vary depending on the expertise of the artists and the scientist, and this makes co-creation more difficult and challenging. However, because of the difficulty of the practice, this type of project is potential to produce experimental results within the boundaries of the professional field, and at the same time, with the intervention of scientists,

this kind of cross-disciplinary practice and new forms of knowledge production may have the opportunity to be produced.

Most of the scientists who participated in the award are interested in collaborating with artists and designers. Many of the participating scientists also believe that collaboration with the artists provides an opportunity to expand their own horizons and explore more possibilities of their research. In addition, they can communicate with the public on more difficult and technical aspects of their research through exhibitions, lectures, and other forms of scientific communication. Therefore, such collaborative works are not just the result of artists exploring themselves, or designers solving problems, but also an opportunity to serve as a tool and medium for scientific communication between scientific interpretation and explanation of science. And because these works are accomplished under the premise that both sides need to be satisfied, the field becomes an incubator for highly experimental works at the intersection of multiple disciplines.

Since this field has been developed in a comparatively short time, and no one can fully define what bio art and bio design are. Looking back on the past one to two decades, many works have intertwined bioscience with art and design, and have become pioneers under the undefined framework. However, since its inauguration in 2010, the BAD award has become an award in the name of bio art and bio design, and with the awards year after year and the holding of the annual bio art exhibition, it is likely that the field of bio art and bio design is gradually shaping up as a "paradigm" due to the award. In the process of forming a paradigm, we must consider whether the original experimental and uncertainty of the field will gradually disappear because of the formation of a paradigm. And doesn't the fading of such instability somehow suggest that the field's ability to explore the unknown is likely to diminish?

Biological Art/Design Writing Communities

Following the previous question, if a system of commentary and criticism is in place to research, analyze and review the developed "paradigms" and provide constructive feedback, then the paradigms will still be challenged and the experimental and avant-garde nature of bio art will be maintained. However, in the field of bio art and bio design, from my experience that there are not many reviews on it. Besides, as a cross-disciplinary practice, bio art and bio design often involves multiple fields and expertise in its development, and it is relatively difficult to find scholars and researchers who are capable of writing and commenting on all aspects of bio art and bio design.

For instance, many works of bio art are dealing with the front-end biotechnology, such as synthetic biology, genetic modification, and will respond not only to the context of art history, but also to the history of science, technology, technology and society, science communication, such knowledge in the humanities and social sciences. When it comes to bio design works, it is necessary to think in the context of "design", which may involve such emerging design fields as speculative design, sustainable design, etc.

Researchers must even be able to observe and criticize the history of design.

Looking at the issues mentioned above, it seems to imply that we must expect a decathlon of researchers to be working on works of bio art and bio design. However, such an expectation is not feasible given the lengthy training required for each profession. Therefore, I have initiated this project, "Bio-Art/Design Writing Community", to invite experts and scholars from different fields to analyze and write reviews on the same bio art work or exhibition, and to read each other's articles after finalizing their articles. The three articles in this project will become the writing sample of this "bio art/design writing community".

Three Taiwanese researchers of different fields living in the Netherlands were invited to participate in this project, they are: art researcher and curator Yu Liang-kai from the PhD program in Art and Society at the University of Leiden, the Netherlands; Cheng Yu-ting, researcher of human-computer interaction design from the PhD program in Industrial Design at the Eindhoven University of Technology, the Netherlands; and Tang Chia-shou from the PhD program in Anthropology at the University of Amsterdam, the Netherlands, who also has previous experience in science, technology and society. This project invites them to research and write about a major exhibition on bio art held at the MU Art Center in Eindhoven, the Netherlands, at the end of 2019.

A Case Study: 2019 BAD Award-winning works and the bio art exhibition *Polarities: Psychology and Politics of Being Ecological*.

The MU Art Center has hosted exhibitions focused on bio art and bio design at the end of each year since 2014,⁵ and the 2019 exhibition, titled *Polarities: Psychology and Politics of Being Ecological*, was organized by MU Art Center director Angeliqu Spaninks and Xandra van der Eijk,⁶ Head of the Ecology Future, MA program at the St. Joost School of Fine Art and Design (she is also a 2017 BAD award winner). The three researchers review the exhibition and the three BAD award-winners and they compose three reviews on the exhibition and the winners. The three articles are "Bio-Diegetic Prototype" by Cheng Yu-Ting and "Rethinking Bio-Art's Universals Complex Amidst the Crisis of Globalism: A Study of the 2019 BAD Award Winners and *Polarities: Psychology and Politics of Being Ecological*" by Tang Chia-shou and "Why Look at Snail's Sex? Interweaving Bio Art and Gender Perspective" by Yu Liang-kai.

In "Bio-Diegetic Prototype," Cheng Yu-ting takes the concept of "diegetic prototype" in Design Fiction as a starting point to observe the field of bio art, and analyzes and discusses the three award-winning works in her review. Tang Chia-shou's essay takes a broader perspective, observing the

⁵ MU art space, <http://www.mu.nl/en>

⁶ <https://www.akvstjoostmasters.nl/community/tutors/xandra-van-der-eijk>



Picture 1: 2019 BAD Award winner Emma van der Leest, Aneta Schaap-Oziemlak collaborated with Center of Expertise in Mycology, Radboudumc/Canisius Wilhelmina Ziekenhuis Nijmegen for “Fungkee - Fungal Supercoatings.”



Picture 2: “(NON)Native” by Korean designer Minji Choi presenting in ***Polarities: Psychology and Politics of Being Ecological.***

organization of the exhibition and all the participating works, and attempts to criticize the many problems that may arise from the unquestioning embrace of "universals" in the works of bio art. Yu Liang-kai's essay, on the other hand, selects a few works from the exhibition that relate to gender issues, and focuses on observing these bio art works from a gender perspective, offering his responses and critiques.

The three researchers have different approaches in writing, ranging from challenging universal issues in the field of bio art from a macro perspective to deepening the analysis of specific works. As these three researchers have received different academic training in respective fields, their approaches to writing are also different. Although the content of the essays differed from field to field, the three participating writers have unanimously adjusted and changed the way they write in their academic fields, reducing the academic jargon that was only understood in their own fields and choosing instead a writing style that could communicate with other fields. Thus, the three essays essentially show the diversity of research brought by the three different academic fields, but without causing any difficulties to the readers due to the lack of knowledge of the terminology of the field.

Conclusion

The three reviews in this project are the initial writing samples of the "Bio Art/Design Writing Community", which is also a starting point. As an interdisciplinary practice, bio art and bio design involve a wide range of fields, from natural science, applied science research to artistic practice and design methodologies. Therefore, for such multi-faceted projects and exhibitions, a corresponding "cross-disciplinary" commentary system is inevitably required to sort out the complexity of bio art itself. An interdisciplinary writing and criticism require the diversity of academic research energy. In other words, in this experiment, only three researchers are invited, but if other bio-art works and exhibitions need to be critiqued in the future, it is inevitable that more experts from other fields will be invited to join this critical and critical discussion. The "Bio Art/Design Writing Community" must provide a diverse writing environment, and the mode of critique must remain highly communicative, which is the vision and goal of this project in the future.