



SUZANNE ANKER

SCIENCE AND ART

# Science is Suzanne Anker's canvas for defending (or attacking) the world

The North American artist was in Portugal, where she took photographs for her new book. She is one of the pioneers of bioart, where art and science intersect – but always in favor of art.

It all starts with the artistic part. Ideas are born in Suzanne Anker's head as art or metaphor to attack reality. Only then did science intervene, especially as a tool to reflect the ideas of this North American artist. More than a mix between science and art, Suzanne Anker defines bioart as an instrument of criticism through art – which, conveniently, uses the scientific universe as a canvas and brush.

Petri dishes are common pieces in scientific laboratories, but they are also screens in the *Vanitas* series, the most recent created by Suzanne Anker. Under these dishes, usually used to cultivate cells or microorganisms, eggs, insects or even mushrooms appear – they are a symbol of the emergence of synthetic biology, through which organisms are redefined, for example. “We often have lots of fascinating images coming out of laboratories, but they are not art. They are residues of an experience that converts material into numbers”, argues Suzanne Anker (<https://www.suzanneanker.com/artwork>) in an interview with PÚBLICO.

The 77-year-old visual artist is one of the pioneers in bioart, through which she has expressed herself over the last three decades. Laboratory images, tomography scans or even microorganisms have a different discourse when they are taken as art, she guarantees. “While science transforms materials into numbers, art is really the balance point of the cultural imagination. It gives us what people think about something, their fears, hopes or dreams.”



Suzanne Anker NIR ARIEL

The combination of science and art is not simple. Suzanne Anker describes it as an oxymoron, a recurring figure of speech in her observations on this area and which she enunciated at the seminar on art and science organized in October by Ispa – Instituto Universitário, in Lisbon. “If we consider the various ways of knowing the world, art has a different set of values than science. So, to combine the two areas, we need to integrate them in a way that talks about the social values represented by images of science and art,” she says.

For the artist, semiotics is a constant presence in visual works: what does it represent, how does it do it and for what purpose? It is no surprise, therefore, that this December a



new book by the North American artist titled *What Color Is Your Salmon?* (published by Publication Studio Hudson, in the United States). “It is completely dedicated to salmon, because farmed salmon receive certain types of food [not crustaceans] and are dyed to have that characteristic color. It’s my new little project,” she says. Salmon raised in aquaculture, for example, may have grayer meat and receive supplements such as astaxanthin, which makes salmon fillets pinker – the fish wild animals receive in their normal diets are shrimp and krill. (<https://www.publico.pt/2017/12/20/ciencia/noticia/ha-um-teste-para-detectar-salmao-transgenico-e-e-portugues-1796536>)

One of the places of passage for this book was precisely Portugal, more specifically the Mercado da Ribeira, in Lisbon. The photographs of the fish, with salmon loins in the center of the image, will be present in the book that will be released later this year. It is, however, not the only book she will release. There are two others waiting to be released in December: *The Double Identity of Carbon* – an essay on the necessary balance of carbon, “without which there is no life, but which in excess also takes our life” – and *Cultures of Entanglement* – a book of works on plants and non-human animals, based at a conference held in 2019.



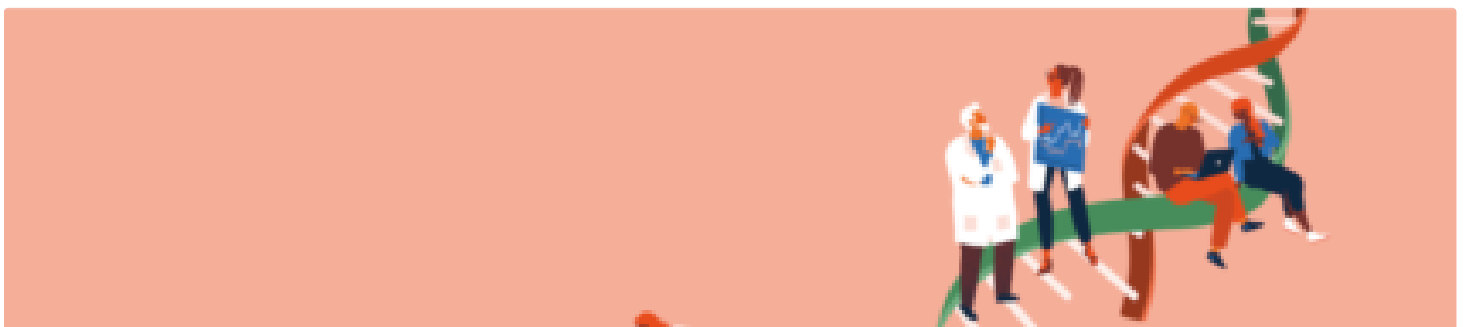
One of the photographs taken at Mercado da Ribeira, in Lisbon, which will be featured in the book *What color is your salmon?* SUZANNE ANKER

# We are nothing more than an alphabet

“Artists are not scientists”, summarizes Suzanne Anker. “But bioart can be a critique of new technologies, climate change or CRISPR-Cas9 [gene editing tool]. But I believe that the best work in bioart happens when the artist understands the metaphors embedded in science,” she adds. The vision she spreads is that art can be a way to deepen debates in science, such as the recent cases of artificial intelligence or gene editing. (<https://www.publico.pt/2020/10/19/ciencia/noticia/doencas-ja-fazem-ensaios-humanos-crispcas9-1935543>)

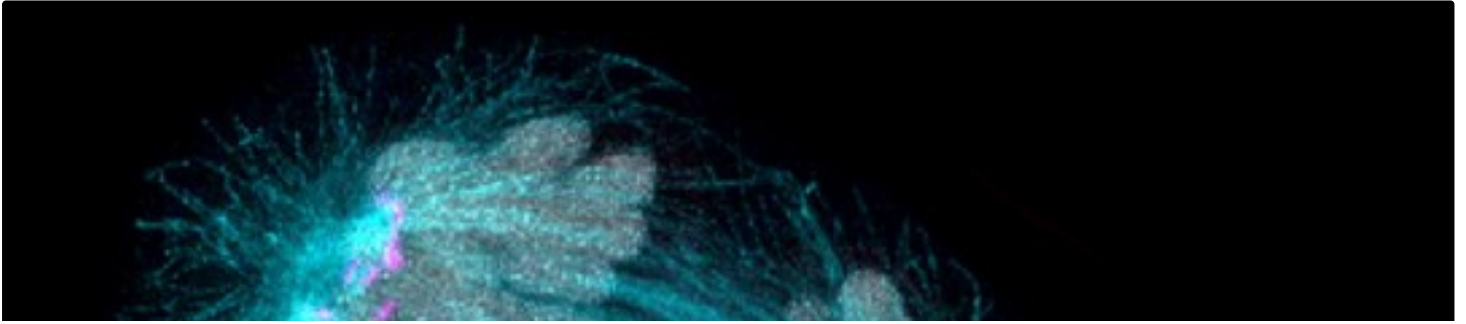
It is the social function of art (<https://www.publico.pt/2022/02/23/p3/noticia/comissao-europeia-40-mil-euros-projectos-liquem-ciencia-tecnologia-artes-1996385>) that seems to dictate all creative efforts. “Art exists in a social space and people can have conversations about biology being the big hat we all live under today. And we live in a golden age [in biology], where new species are being created and other species are becoming extinct,” she says. “Raising awareness among the population is a fundamental task, because the general public is not going to sit down and read a science book. They can even read an article in a newspaper or magazine, but the discussion takes place in other formats”, she says.

It can be used to discuss the future, such as life beyond Earth (already done so in the exhibition *Astroculture*), or to make the genetic code into something tangible (as in *Codex Genome*). It is the genetic code that opens the doors to the world of bioart for Suzanne Anker. “My work has always involved visual arts and nature. But when I started seeing other forms of instrumentation, I understood that nature is science through different lenses,” she recalls, adding that that was when she started putting kaleidoscopic lenses (which create visual effects) on photographic cameras. “Through these images, some matter looked like a cell or an egg or any biological entity.”



She picked up a biology book looking for something that wasn't a disease, he says. The [chromosome](https://www.publico.pt/2018/05/14/ciencia/noticia/como-a-separacao-dos-cromossomas-pode-ter-muita-beleza-1829498) (<https://www.publico.pt/2018/05/14/ciencia/noticia/como-a-separacao-dos-cromossomas-pode-ter-muita-beleza-1829498>) appeared, this long structure of genetic material (or DNA) that is in all cells. “What intrigued me about

genetics was looking at a photograph, DNA it always looked like something different,” she recalls. Shortly afterwards she presented her first works on art and genetics – it was 1996.



These works represent transcriptions of images with a series of chromosomal forms using various materials, from sugar, sponges or iron. “I organized them into karyotypes [sets of chromosomes] based on different animal structures, after learning that different animals could be recognized through the organization of different chromosomes. I got very involved in this and I think this is the way the body writes itself. We are linguistically similar to alphabets”, she concludes.

## What to do with the Christmas tree?

There is more science in Suzanne Anker's work than is revealed to us from the outset. “Bioart is difficult to understand, but it is gaining momentum around the world. It is divided into many categories, from computer technology to painting, text, drawing or even films,” she notes. The example that comes immediately to the North American is the film *Gattaca*, from 1997, a scientific dystopia about the potential problems of reproductive technology starring Ethan Hawk and Uma Thurman.

It's no coincidence that the film is so familiar. Suzanne Anker herself has worked on questions raised about the future of reproduction, whether due to concerns about “setbacks” in abortion in some North American states, or the improvement of babies through genetic editing. “The world is being overturned and all these issues, from gender to disabilities, the human body and human rights are on the table”, she points out.





Installation at the Beijing Art and Technology Biennale, China

Suzanne Anker's path will probably cross paths with all of these themes one year at a time. Art brings you regular questions, as in *Gattaca*: “If we have certain tools, how can we use them and what are the consequences of that? The integration of technology with science and medicine is really complicated. The question is always: how does this affect our humanity?”

And have you found answers? “No”, she laughs. “No”, she repeats to confirm. The answers and discussions are also reserved for the classes she has taught since 2011 at the School of Visual Arts, in New York (United States). It is a space for artists, with some intrusions in the short summer classes – scientists, doctors and students from other areas appear, from anywhere in the United States, but also from Lebanon or the United Kingdom. “It’s very inspiring. There are very good projects with sustainable biomaterials, such as mycelium (<https://www.publico.pt/2023/06/10/p3/noticia/tijolos-superleves-sao-fungos-montamse-legos-2052445>)[the plant part of fungi] or bacterial cellulose”, she describes



Piece created with an egg and an insect recently for the series *Vanitas*, which highlights the emergence of synthetic biology SUZANNE ANKER

The story that comes to mind brings, again, sustainability – a pressing issue in Suzanne Anker's classes and work –, but also the upcoming festivities. “I had a student who was very disturbed by the way people discard Christmas trees,” she says, laughing intermittently throughout the story. “We created a whole project about Christmas trees. He made paper, different oils with a pine scent, filled the *studio* with the leaves of the Christmas tree... He was sad about the fate of this tree and he found a way”, he concludes, reinforcing that it is the idea of reusing trees and protecting the environment that motivates the project – it all starts with artistic creation.

There is no shortage of projects in Suzanne Anker's hands, but the climate is at the heart of her concerns. The series *After Eden* will transform years of photography into a collage of different seasons in the same photograph – “a monoseason”, she defines it. “In New York, my tulips are bursting in the middle of winter and the saffrasses are showing up when they shouldn't,” she explains. Unlike Antonio Vivaldi, who separated the seasons into four concerts, Suzanne Anker wants to assert the contrast and raise awareness of how tropical the entire planet is becoming. After all, for the American artist, art is a metaphor (or perhaps an excuse) to attack reality.