

WE  
HAVE  
ALWAYS  
BEEN  
BIO-  
HACKERS

*The story of an open source poster*

# The Assmebler

**This publication was assembled by:**

**Cathrine  
Kramer  
(Cat)**

Co-founder of the Center for Genomic Gastronomy, an artist-lead think tank that examines the biotechnologies and biodiversity of human food systems.

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# Preface

In 2011 I designed a simple poster that stated WE HAVE ALWAYS BEEN BIOHACKERS together with Zack Denfeld. While visiting Bangalore that same year, we had the poster printed by lithography printers who mainly created posters for the local film industry. The initial WE HAVE ALWAYS BEEN BIOHACKERS posters (we can't remember if we printed 100 or 500) were randomly distributed by ourselves and our friend Yashas Shetty. They were given away at workshops and other events as we travelled between Asia, Europe and North America. Since then, the poster has taken on a life of its own, travelling the world through various networks, both digital and analogue, morphing over time, but with a message that resonates.

This publication documents an attempt at tracing the origin and the path of the poster as it travelled through a community of artists and scientists over the course of a ten year period.

To research this history and map out this path I dug into the collective memory of a handful of people who themselves have a relationship to the poster in one way or another. I conducted online interviews with each of them using various digital platforms, from zoom to Hackteria's homemade island ([island.hackteria.org](http://island.hackteria.org)).

Thank you to all who participated!

# Interviewees

**Marc  
Dusseiller**

Co-founder of Hackteria, he has a background in material science and nanotechnology and for past 10 years has travelled around the world running workshops and activities as Hackteria. Marc is the primary distributor of the poster, having digitized it, and printed it on t-shirts, postcards and other “merchandise”.

**Maya Minder**

Artist based in Switzerland, Zurich and an active member of Hackteria with a love for all things related to the art and science of fermentation. This past year she has helped to create the Open Science Lab in Zurich, which works to bring people into the topic of art and science through biohacking and diy bio. She has been known to use the poster in her presentations over the years.

**Paula Pin**

Researcher and artist activist with a focus of transfeminist bio hacking practices. Developing and experimenting with collective and free technologies, she works out of her laboratory van giving workshops and making exhibitions. She has an A4 copy of the poster hanging in her mobile lab in a van.

## Timbil

Timbil is a member of Lifepatch, a collective focused on art, science and technology. Starting with workshops in fermentation in 2012, they have done many projects since, inviting the local community to join in their activities. Based in Yogyakarta, Indonesia, there are nine members of lifepatch, with backgrounds from art, science, business and engineering. Timbil is a chemical engineer with a love of fermentation, gardening and cooking. There is an original lithography version of the poster hanging in the lifepatch kitchen and Timbil occasionally wears the t-shirt.

## Yashas Shetty

Artist, musician and educator at Srishti Manipal Institute of Art, Design and Technology in Bangalore. He is a co-founder of Hackteria and founder of the research lab (Art)ScienceBLR. He helped organise the first lithographic print of the poster and gave a copy to Marc, thereby distributing it to the Hackteria Network.

## Zack Denfeld

Artist and co-founder of the Center for Genomic Gastronomy. He came up with the initial phrase “We Have Always Been Biohackers” and has also used the poster as a slide in talks over the last decade.

# Timeline

20

# 07

Yashas and Zack print their first lithographic poster in Bangalore for CEMA (Center for Experimental Media Art, Srishti) of a Monkey holding a mouse.

Where it all started:

# monkeys stealing computer equipment





Yashas

“In 2007, the way I remember it... we printed the first poster... which was of a monkey using a mouse, and that poster became the poster for the graduate school that Zack and I were running at that time called CEMA [Center for Experimental Media Arts, Srishti, Bangalore]... the story behind that was we had a building and a bunch of monkeys would come and steal the computer equipment all the time. They would steal the mouse and the hard drives, etc. and just run away with it. So it was kind of a funny poster.”



*Photo courtesy Marc Dusseiller.  
The poster currently hangs in his  
toilet in Switzerland.*



*ArtScience Bangalore poster - PCR Laser Gun  
Photo from Hackteria*

## Lithography Posters in Bangalore

*SriVenkateshwara Litho and Printing Press,  
5th Main Road, Gandhi Nagar, Bangalore 9  
Photo courtesy Marc Dusseiller.*

## Yashas

“So the printers, I remember were in a place called Gandhi Nagar in Bangalore, and Gandhi Nagar was the place where all the film distributors for the Kanada film industry were, which is why the printer was there. Because the film industry would use the [lithography printers] to print film posters... and it was just an easy hack. We realized once we started printing, you could get 1000 copies for next to nothing. And of course, then you realize that you have this artist who painstakingly draws [your design]... We had a whole bunch of CEMA posters... and later I started using them for Art/Science stuff. A lot of visiting artists would see those posters, fall in love with them and say, ‘Can I get that done?’ And so then you had this whole cottage industry of artists from Europe using lithographs in Bangalore. So that’s it, as far as I remember. That’s my kind of history with those posters.”



# Timeline

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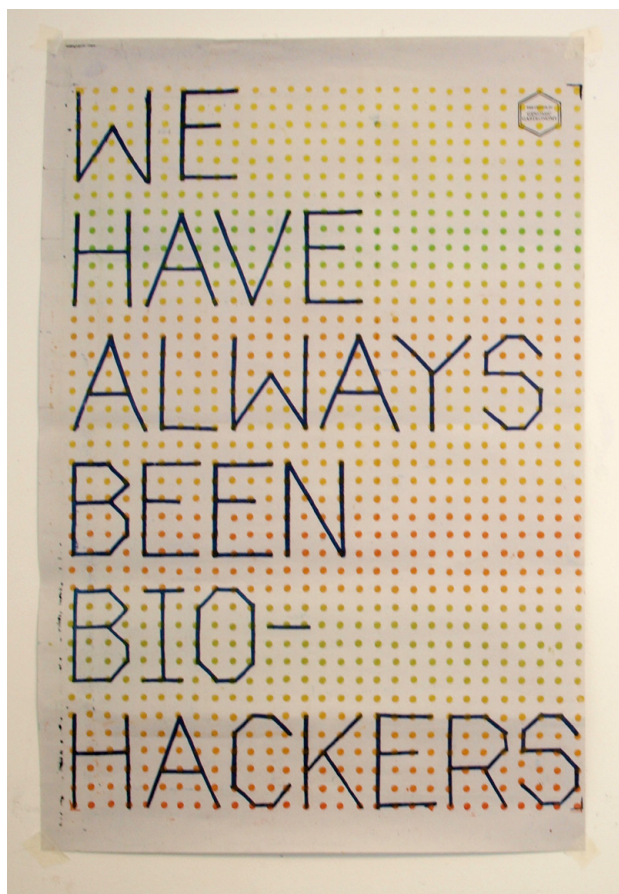


“We Have Always Been Biohackers”  
poster designed by Cat and Zack  
(Center for Genomic Gastronomy)

Poster printed in Bangalore when  
Cat and Zack visit Yashas

Distributed to Marc in Hackteria  
by Yashas during residency in  
Bangalore in November 2011

Digitised by Marc



Marc

I planned a three-four month trip as a way to establish this international Hackteria network for real. So I went to Bangalore, Hong Kong, and Indonesia for doing residencies, kind of continuing this kind of work. And, in fact, my goal for myself on this world tour was to make merchandise for Hackteria. So I went to India to make posters. I went to Hong Kong to make stamps, and I went to Indonesia to make stickers and T-shirts.

We had the “we have always been bio hackers” produced. Do you remember where they ended up? What we did with them?

**Zack**

“I don’t know if we did like a run of 100 or 500. But we took some with us and we left some in Bangalore, I think probably at Yashas’ apartment or possibly in his lab space at Srishti. And we were traveling a lot those days. So we had some of them, too, that we brought with us. And I remember they were very smelly. From, I guess, the oils and the paints that were used. So I think we probably had them in a cardboard tube. So it didn’t smell on the airplane.”

Do you remember who we gave them to? Because we were definitely just giving them away...

**Zack**

Yeah, I think anyone we ran into in our projects that wanted them, it was kind of like a really oversized business card or postcard. get in contact with us, you know, and they were printed on pretty thin, almost newsprint quality paper. So they weren’t intended as like, long term artifacts that would survive in like a rainstorm or something if you got them wet and kind of not last very long, so we weren’t precious about them, we were definitely just giving them away.



Marc

“Then I was totally in a merchandise mode - not for money just for branding. Spreading the word (of Hackteria). It's something also my Indonesian friends are really good at, you know, with the t-shirts and with the stickers, we put these Hackteria stickers everywhere... we thought it could be some kind of a movement. It didn't work out that way. We made Hackteria posters with some text, we made this scan of prints. And when I arrived in Indonesia (from Bangalore), I was doing a residency, I just thought the first couple of days: let's make nice photos of all these posters we made to save them digitally. And so, obviously, I had one (We have always been biohackers) poster with me. And because I really liked it and I think Yashas was like 'I can't give you one, maybe only one' or something, I remember, just from this photo I made as a digital version of it. I scan the letters originally from the posters with some kind of Inkscape or whatever. And then I made a new digital background with the rainbow and saved it as a file. So that's kind of how I made the digital copy of it.

## Lets save the whales







trip



trip



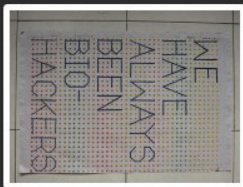
trip



trip



trip



trip



trip, Yoova general



best\_of\_world\_tour, trip



trip



trip, Yoova general

Screenshot of Marc Dusseiller's image folder from 2011



trip, Yoova\_gen...



trip



trip, Yoova general

# Timeline

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# 12

Digital file of poster put on  
Hackteria wiki as open source  
image

Printed as postcards

Printed digitally as A3 and A4  
posters

Travels to USA on tour with  
Hackteria (UCLA and DIY Bio Labs  
in California)

Image of Zack and Cat for Wired  
Magazine



*Hacteria workshops.  
Photo courtesy Marc Dusseiller.*

Timbil

“we (lifepatch members) rented a house (in 2012) and then we can hang out anytime we want. And when Marc visited us, he brought us the poster, and we put it in our kitchen at that time.”

Marc

“And then I printed postcards of it when I was back in Switzerland, without any credits or mentioning, on some nice paper in 2012. Throughout the year, I printed them and always had them with me - I did many trips in 2012. I would sometimes bring it as an A3 print. In 2012, we also went to the US for a tour to California. I think we gave it away to many people as an A4 or A3 print from this digital version, or as little postcards. I remember, maybe we came to visit a biohacker space, and we just put it on a wall or we even left a whole pile, I think with also other merchandise and stickers and we were at UCLA - a summer school - as teachers. But then we also added three weeks to visit other places in California, checking out the do-it-yourself biology scene in California. So I think that's when the poster arrived in some places in the US, without even talking about what it is, it was just a giveaway. I sometimes stamped it with the Hackteria stamp.”



This photograph was taken of myself and Zack in an apartment we were staying in Amsterdam. It was published alongside a small written feature of our work as the Center for Genomic Gastronomy in Wired magazine (UK edition). The photographer showed up at our apartment, telling us he didn't really have any ideas, so could we think of anything that would look cool or represent our work. We decided to go to the market, buy as much fresh fruit and vegetables as we could and order them based on color. The photographer saw copies of the poster laying on the floor and asked if we could hang them behind our head.



We wanted put the range of color on display because we had been talking to audiences about how we didn't like to use the word "natural" when working with food, because all of the cultivars of fruits and vegetables are so radically different than the wild-type varieties that can be found in pre-agricultural circumstances. Carrots are bright orange because humans have selected for reduced bitter flavour, sweetness and orange color. There is nothing "natural" about orange carrots, they are that way because of human, preferences and desires. We have since used the photo in talks to explain the 'we have always been biohackers' concept, and the way that humans have been manipulating organisms and environments for centuries.

# Timeline

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# 13

Used on the back cover of  
Food Phreaking issue 00 -  
A publication by the Center  
for Genomic Gastronomy

Lifepatch and Hackteria visit  
Bangalore - poster hangs on the  
wall in the background during a  
remote fermentation workshop/  
performance.



Marc

During Hackteria workshop in 2013 in BLR, created a remote fermentation workshop in Indonesia, where the poster was used as a backdrop for the workshop.



*Remote fermentation workshops by Lifepatch.  
Photo courtesy Marc Dusseiller.*

# Timeline

20

# 14

Glowing version made for  
Hackteria workshop with  
bioluminescence

Printed t-shirts in Indonesia

Timbil

“I said to Marc “Every year you visit Yogajakarta, so why don’t we make the Hackteria in Yogajakarta?” and we decided, “Yes, let’s do it!”. Then 2014 we made it, and we had one corner of the public lab we called “kaos sologri” - ‘kaos’ means T-shirt in Indonesian language. So we printed a lot of t-shirts: everyone has an idea, and then we make a simple design, and then print it. So Marc printed (the we have always been biohackers t-shirt), maybe more than 100 or 200 pieces, that we used and also sold at that time.”

## Kaos Sologri



Marc

“Because again, for Hackteria lab, 2014 (in Indonesia)... every participant designed their own t shirts, so we had a lot of different t shirts. And we also made the “We have always been biohacker” t shirt - I think we made three of them: pink on black, with the rainbow, and the rest on white t shirts. I think we made quite a lot on white t shirts, maybe 20 or something. But there were three limited edition in black. They’re very, very rare. I think Dogard has one and a Croatian guy. And it looks really cool. In fact, pink on black looked much better than on white. Somehow that color really was nice. I think Dogard has one and I think I had one. But then I also gave it to someone, I think I sold it for 50 bucks or something. This is really rare.” Marc

“And then we went to Norway. And because we figured out that this is such a cool t shirt, we thought: ‘let’s go to Norway. And they’re all really rich up there.’ And my friend from Indonesia came for pixel festival. We made another 25 or 30 t shirts, gray ones, white ones, black ones I can’t remember, with the hope that we can sell them really expensive to these Norwegians and make a lot of money. I think in the end, we gave them all away for free.” Marc

# Timeline

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A large, bold, black serif number '21' is centered on a white background. The '2' has a thick, rounded top and a curved bottom, while the '1' is a simple, thick vertical stroke with a horizontal base.

Poster continues to circulate,  
gets used in talks by both  
Hackteria and the Center for  
Genomic Gastronomy.

10 year comemorative poster  
is printed in black and gold  
for exhibition at MU Artspace  
in Eindhoven, and is given to  
visitors for free, in the middle  
of a pandemic.



**Paula**

It's about spreading the word and getting people involved in the process of the lab. To give them the possibility to know that they can build things. So young people are not only the users of technology, but the creators of technology. For me the message is like a super hacktivism because it's a political point of view.

**Zack**

I think the phrase suggests on the one hand that the high-end biotech researchers aren't as sophisticated as they perhaps present themselves to be - they are often just creating hacks, and making educated guesses, and at the the same time the phrase lifts up and promotes the unattributed "biohacker" (from seed savers to animal breeders) who for centuries have methodically manipulated biology.

I think a lot of it came from the conversations a lot of us were having - this is where the poster became interesting, because during that point of time (2011), I was doing a lot of very high tech, genetic engineering and synthetic biology, stuff like that. But at the same time, I always saw that as an American kind of thing: to think of biohacking as only genetic engineering and so on and so forth.

But a lot of the people in Indonesia, Hackteria, you guys, were messing around with, you know, fermentation, very basic ideas of what hacking is, fermentation is hacking. So I think that statement, "we have always been biohackers" is kind of this anti-American aesthetic, which thinks of biohacking as a lab, as a sterile environment. And it's usually like, you know, men, 'geeks', hacking away. But the fact is that, we've always been biohackers. So that is the statement. So therefore, the statement was a kind of indication of our kind of practice as well, which is not to look at hacking or bio hacking as this male, white American kind of thing. But a thing that everyone does, and has always been doing. Which is why I think it is an interesting poster, and I think why it's been embraced by so many people around the world.

What is the relationship between biohacking and transfeminism?

Paula

We were hacking the gender, thinking of gender as a cultural construction. And then at some point, I had many friends that were thinking more or less similar, and we worked together, thinking about open source hormones. And then I found Rian Hammond (<http://www.ryanhammond.us/> who has projects such as “Mapping a Hormone Hyperobject”). And then I have the opportunity to work with a them...for me was the connection was from my own interest in technology, but also, we were working with eco sex movements. Looking at nature not as our mother but as a lover, for example. And from that I was also merging with the plant.



*Screenshot of Paula during Interview*

We have always  
been biohackers

—

We have always  
been fermenters

Maya

I didn't know (the poster was) from you. Mark showed it to me and I loved it so much, I made it viral. I spread it all over. I love the slogan, "we have always been biohackers" because it resonates so much with the fermentation practice, right?

The alchemy of fermentation and 'fermenter', which means cooking without heat. So 10,000 years ago, people wouldn't know what was actually happening, and believed it is a kind of magic, because the microbes are invisible. And only for 150 years, we claim that the

scientists have the ultimate tools to handle those invisible helpers, but I thought no. Humans have always been dealing with microbes, we always used microbes because it was this production of alcohol, cheese and food processing, it was super essential. And back then, it hasn't been so much of a secret knowledge, maybe with the Greeks and the Delfin temples where they create a kind of magic tinctures and drinks, but actually fermentation has been something which was used and produced in daily life.

So everybody knew the process and it was knowledge which was often transferred orally. So the knowledge you get from your grandparents, your mothers and fathers, and this is an intrinsic knowledge because it's a knowledge which is transferred also through gestures and not only by books. For example, cooking recipes - you can read cooking recipes, but only if you see somebody cooking with its hand gestures, smell it, see it, grasp it with a holistic and olfactory approach, then you fully incooperate the recipe into your canon of cooking.

And therefore I think we always been biohackers is through the practice of fermentation, cooking and craft. It has been inherited through human history and traditions of daily practice, and that's beautiful because cooking as well as all those techniques of cleaning, cooking, carework - this section of society is not accepted as a science but it's somehow the pillars of our society, how we live as a community and in a human environment together. So yeah, I love this poster. I love it so much.

# What is a biohacker? Or Biohacking?

Timbil

Actually, I don't know about that. You know, the term biohacker - we have one member (of Lifepatch) from microbiology, Sujana, but he also, you know, cannot grasp what is "biohackers". But since 2010, when I first met Marc we discussed this a lot, and then I had a chance to visit several exhibitions, and was also invited to several exhibitions at that time (related to biohacking and bioart). So I tried to grasp why biology is considered art.

So what is hacking and biology? What I was trying to do was just a normal thing - I got really curious about fermentation and other stuff. And then Marc explained it, like we can use our activities as a tool to learn about biotechnology, and then we can also use it for an installation or whatever. Even in 2009 or 10, we had a workshop with microbiology students - we have a personal connection with a professor (in microbiology) and then he was actually the one who taught us about fermentation. Because around 2010, the situation in Indonesia at that time, the taxes (on alcohol) rose 300%, so cheap wine is very expensive. You know, beer is more expensive here than in Europe. So that's when we start to learn all that stuff.



Yashas

If you look at the Hackteria Wikipedia page, the projects went from like building an internet for bacteria to listening to bats. And that's what biohacking was. Right? So it's not about engineering, in a really crude sense, it was about being aware of the whole thing (ecologies, the world, the interconnectedness of things). Being aware of what biology is - biology is not bacteria. It's biologies of forests, trees, roots. So extending that notion itself.

It was so hard for us because you know, when we went to MIT, it was these just like this really stupid engineers talking about something. Right. So therefore, I always thought that it was inherent, the idea of a biohacker is not a geek in a lab doing some shit. It was like a woman sending out, you know, like, curd, some guy, villager, fermenting booze. That was, I think that was our understanding of it, or where it came from. I don't know, I mean, maybe a cultural thing, or whatever. But our notion was that, and not this Wired magazine kind of discourse.

Maya

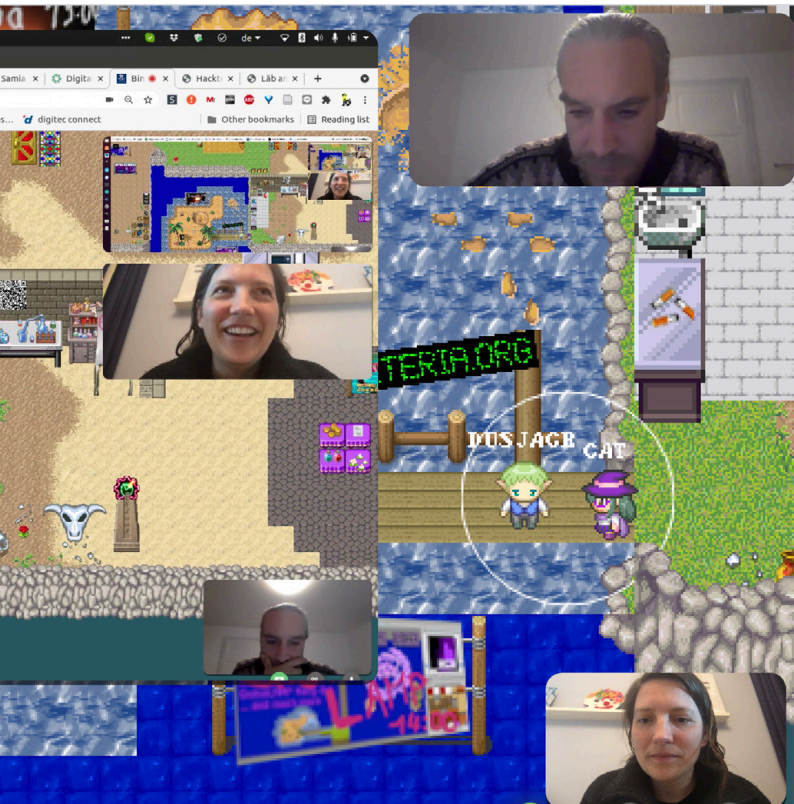
“What is biohacking? I’m more the organic person, going more into crafts and old techniques and ancient knowledge, but of course there’s the biohacking sessions, which is doing real synthetic biology, which they try to level up to what the industry is doing, or at least monitoring what the industry is doing. And then of course, you have to post-humanists who are doing self experiments. So there are many, many ways interpreting what is biohacking, and recently I’ve seen a t-shirt with the logo “bio” and then all the other words. Bio is life, right? Bio is life.”



Marc

But then recently I have used the term biohacking less and less, it's just, it's been... I don't know... it had its time. There is a slide I have, where I talk about the distribution of coconuts. "A deep history of coconuts, decoded origins of cultivation and ancient trade routes and colonization". And then I just make these different definitions of what is biohacking. I try to position the presentation or my own interest in it. Yeah, like not being a grinder or self improvement geeks, who also use the term 'biohackers'.

*Screenshot during interview with Marc inside Hackteria island environment*





While this publication is complete in this version, it is just a node on a much larger timeline. If you have crossed paths with the poster in your own journey, I would love to hear from you, as this is an ongoing investigation into the travels of a poster.

Feel free to contact me:  
[info@genomicgastronomy.com](mailto:info@genomicgastronomy.com)