Synthetic Aesthetics

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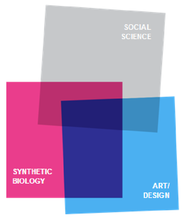
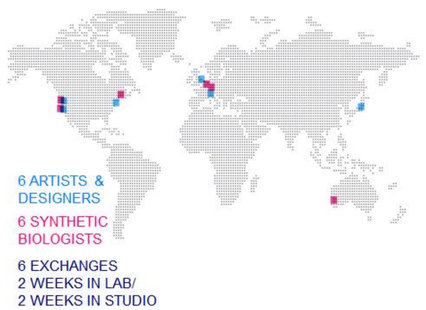
The Synthetic Aesthetics project brought together synthetic biologists, social scientists and artists and designers to ask:



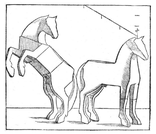
HOW WOULD YOU DESIGN NATURE?

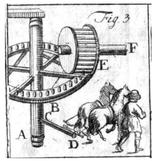


Six scientists and engineers were paired with six artists and designers from around the world. The artists and designers spent two weeks in the science laboratory. More unusually, the scientists and engineers spent an equal amount of time in the art studio.

The pairs' projects were diverse and thought-provoking. Four of the six projects are described here.

Protocell scientist Sheref Mansy (Trento) and critical designer Sascha Pohflepp (Mediamatic), reflecting on our historical reliance on animals like horses, asked whether *in*animate machines are only an interlude in history, and what the new 'living machines' in synthetic biology will look like.

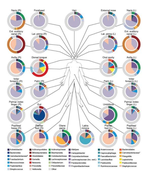




Synthetic biologist Wendell Lim (UCSF) and product designer Will Carey (IDEO) developed a speculative design product: microbial packaging that creates its own contents.

Inspired by the massive temporal scale of cyanobacteria, cyanobacteriologist Hideo Iwasaki (Waseda) and bioartist Oron Catts (UWA) explored synthetic biology from the humbling perspective of geological time.

Cyanobacteria deposit minerals. The pair examined these 'living rocks' in the saline lakes of Western Australia.



Bacteria are in us and on us and all around us, yet we regard them as dirty and hazardous. Smell artist Sissel Tolaas (IFF) and synthetic biologist Christina Agapakis (Harvard) decided to explore this contradiction through the medium of cheese.

The pair extracted bacteria from human skin and used it to make cheese in the laboratory.

Toe cheese smells particularly bad!

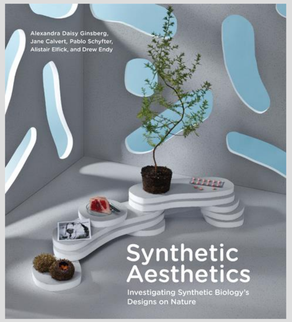
This project is playful, but it raises profound questions about: our relationship to bacteria; the reality of the human microbiome; and the distinction between our bodies and our food, which bacteria do not distinguish in the way that we do.

www.syntheticaesthetics.org

The pairs co-authored chapters on their joint work in the book *Synthetic Aesthetics: Investigating Synthetic Biology's Designs on Nature* (MIT Press, 2014).

Their work raises questions about:

- the limitations of engineering metaphors in synthetic biology;
- the relationship between design and values;
- the diverse ways of inhabiting the spaces of promise in synthetic biology.



The Synthetic Aesthetics project was not about beautifying, sanitising or better communicating the science. It was an exploratory investigation of the intersection of art/design and synthetic biology that allowed for dialogue and dissent.

Acknowledgements

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