

# FUNGUTOPIA

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## ABSTRACT

The Project FUNGUTOPIA is a design | research in process. It explores the living material of fungal mycelium to grow designs, in a way that is situated in a participatory community process. It is inspired by the concept of the three ecologies by Félix Guattari, what means that it tries to combine actions that address a mental, social and natural idea of ecology.

The project is experimenting with modes of working with living, growing materials and the aesthetics they create. It tries to establish a practical understanding how design can change when we think in lifecycles of creation, use and decay. It explores the potential of “design in process”: The hypothesis is, that the properties of the growing, transient material of fungal mycelium could serve as role-model for a design in process, as a permeable design term, in which the material as well as the user are taken serious as agencies.

FUNGUTOPIA is the design of a social and ecological utopia based on urban mushroom cultivation. As a community-experiment it educates and involves people in the cultivation of mushrooms and on different stages of the fungal-design-process. Communicating the many possible applications of fungus to solve man-made, urban problems, FUNGUTOPIA works with the idea of

an utopia as a motor for real change.

## DESCRIPTION

### THE THREE ECOLOGIES

“It seems essential to me that we organize new micro-political and micro-social practices, new solidarities, a new gentleness, while at the same time applying new aesthetic and analytical practices to the formations of the unconscious. If social and political practices are to be set back on their feet, we need to work for humanity, rather than simply for a permanent re-equilibration of the capitalist semiotic universe.” (Guattari, 1989)

In his book “The three ecologies” Félix Guattari explores the term of ecology (Guattari, 2008). He explains, that the notion of an ecology understood as pure nature is quite short-sighted and that we should indeed think of a mental, social and surrounding/natural ecology, that is completely entangled. Following this thought one can not hope to solve any ecological problem without taking all three ecologies into account. Guattari is also quite convinced, that the arts are one of the few fields that are able to think and act in a way that is dealing transversal with the contemporary ecological crisis.

### THE PROJECT DEVELOPMENT

The project Fungutopia was started as a master thesis in 2011 with the idea of undertaking several “experiments in world-making”. These Experiments should all try to work with the idea of the three ecologies, emphasizing in each experiment one of the three. In the end, it turned out, that the topic of mushrooms as growing material, as remediator, as food and medicine was strong enough to be used as a “boundary object”, addressing all three terms of ecology.

The research and the experiments took different stages, from a fictional scenario, to prototype-building, experimental installations, workshops and a community project.

### EXHIBITS AT NORDES

At NORDES13, the exhibits of FUNGUTOPIA will focus on the prototype for a MUSHroom Growing Kit that allows to grow mycelium forms at home and on a

documentation of the community process. It will further explore the adaption of Guattari's Three Ecologies in the field of ecological design and the discussion of "design in process".



Figure 1: Mushroom Research Centre Ruhr, 2010

### MUSHROOM GROWING KIT

The MUSHroom is a prototype for an open source growing kit for mushrooms. It was the first experiment, that was undertaken in the frame of the world-making experiments, searching possible answers for the question posed by Guattari: "How can we use technology in a way that is supporting our most urgent ecological problems?"

By building a mushroom growing kit using mostly fablab equipment and open source hardware, an indoor greenhouse for the special needs of mushroom cultivation was created. The kit serves to control humidity and temperature for different kinds of mushrooms and allows the cultivation of rare species at home for fresh digestion. It also creates an aesthetic object that undermines the positive potential of mushrooms, displaying how they are grown today with the help of specialized laboratories and works against the notion of mushrooms as being something somehow awkward, growing only in dark, moldy cellars.

The MUSHroom Growing Kit is also a device for growing fungal mycelium in forms. In this sense it is like a 3D-Printer, for "Grow-It-Yourself-Design".

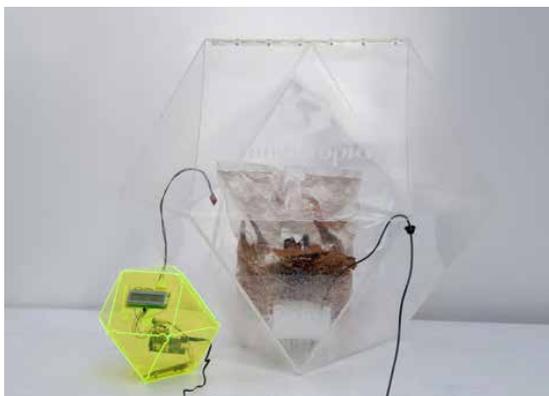


Figure 2: MUSHroom, 2011-2012

### FUNGUTOPIA STATIONS & WORKSHOPS

The second step of the whole experiment was to involve the public, designers and other interested groups in the process of mushroom cultivation. Different workshops took place since 2011, the first was offered during the DMY Festival in Berlin, a one month series of workshops in a social housing district in Düsseldorf followed, and in 2012 another Fungutopia Station was built for the PLAN12 Architecture-Festival in Cologne.



Figure 3: Fungutopia Station, DMY Berlin 2011

In these workshops, the participants are not only thought how to grow oystermushroom with simple kitchentools, but also how to let the mycelium grow in forms. Beside these practical techniques the potential of mushrooms as remediators, building material and medicine are discussed. The question how we could co-design with living materials as a broadened idea of ecological design, how to design processes rather than finished objects and how a design by many different agencies could be managed, is raised.

### REFERENCING

Links:

<http://www.makeandthink.de/fungutopia/>

Guattari, Félix and Chris Turner (Translator) 1989.

"The Three Ecologies." in: *New Formations* No. 8, 1989.

Guattari, Félix 2008. *The Three Ecologies*. London: Bloomsbury