

English translation of the exhibition texts

## **DISNOVATION.ORG**

### **The Long Shadow of the Up Arrow. Post Growth prototypes**

02.02.2023 – 25.06.2023

#### **1st Floor**

The upward arrow symbolizes the narrative of progress according to which economic growth and techno-logical advancements solve the ecological problems these create. The exhibition explores this way of thinking as well as its lacunae, and it juxtaposes them with transformative post-growth practices and prototypes. The series of videos, installations, objects, and texts – new chapters being added regularly – was devised by the international collective DISNOVATION.ORG, who invited collaborators from various fields of arts and sciences. The exhibition marks the first comprehensive exhibition of this project in the German-speaking world.

#### **POST GROWTH**

AN EXHIBITION BY DISNOVATION.ORG [Maria Roszkowska, Nicolas Maigret, Baruch Gottlieb] with Jerome Saint-Clair, Clémence Seurat, Julien Maudet, Nicolas Nova, Pauline Briand.

How long can we continue pursuing economic growth? What ideological, social, and biophysical factors precipitate the current environmental crises? What agency is available for transformative practices and imaginaries to avert large-scale ecosystemic breakdown?

This series of new works invites us to challenge concepts of growth and progress and explores the radical implications of speculative artistic prototypes, such as an economic model based on energy emitted by the Sun. This research encounters the vital challenges of a shift away from the overexploitation of fossil fuels on which the reproduction of our societies mainly depends today.

The Post Growth series re-envision social metabolism through an understanding of the energy it requires, it aims to reconsider the critical dimension of living and material activities within the biosphere, drawing on environmental accounting, ecofeminism, indigenous knowledge, and historical materialism.

This exhibition is an invitation to a collective and practical examination of our shared future, examining the notion of growth, in its many facets and implications, testing the limits of technology, of politics, and of our imaginations.

#### **THE SOLAR SHARE**

AN EDIBLE SOLAR CURRENCY\*

*Energy is the only universal currency.* – Vaclav Smil

Let's be Solar Materialists in solidarity with the Planetariat!

- Sunlight is the primary source of energy for most life on Earth,
- Plants transform this vital energy into forms we can consume.
- Plants powers the Planet, and terrestrial life relies on their solar powered biomass.

This artwork is an invitation to fully appreciate human dependence on perpetual solar-activated energy flows on Earth (in the form of solar biomass and weather, water cycles and ocean currents)

"The Solar Share" is an Edible Solar Currency that can be exchanged for other commodities or saved and stored. It takes the form of sealed packages of shelf-stable hard-tack biscuits composed only of wheat and water.

### **1 Solar Share equals to**

- The average sunlight available for plants per square meter of Earth's surface annually, which is approximately:
- ~ The sunlight necessary to grow 590g of wheat
- ~ 1 day's human nutritional requirement (2000-2300 kcal)
- ~ 1 package of wheat-based hard-tack biscuits

The solar share is the materialization of a one square meter of the average solar income on Earth in one year.

Each Solar Share is Planetary proof of work. This Edible Solar Currency represents the simplest economic relation between our cosmic energy source and human metabolic energy requirements. Using a speculative photosynthesis-based exchange unit, this artwork challenges customary understandings of monetary „value“, to explore how economic models would need to be reformulated were they built around renewable solar income.

—  
\* Currency: is understood here according to its etymology — The „condition of flowing“ — The „state or fact of flowing from person to person“ — From an economic perspective, a currency was originally a form of receipt representing grain stored in temple granaries.

## **A BESTIARY OF THE ANTHROPOCENE**

AN ILLUSTRATED ATLAS OF HYBRID MINERALS, ANIMALS, PLANTS, FUNGI, AND OTHER SPECIMENS

A Bestiary of the Anthropocene is an illustrated compilation of hybrid creatures of our time, equally inspired by medieval bestiaries and observations of our damaged planet. Designed as a field handbook, it aims at helping us observe, navigate, and orientate into the increasingly artificial fabric of the world. Plastiglomerates, surveillance robot dogs, fordite, artificial grass, antenna trees, Sars-Co-vid-2, decapitated mountains, drone-fighting eagles, standardized bananas... each of these specimens are symptomatic of the rapidly transforming "post-natural" era we live in. Often without us even noticing them, these creatures exponentially spread and co-exist with us.

A Bestiary of the Anthropocene seeks to capture this precise moment when the biosphere and technosphere merge and mesh into one new hybrid body. What happens when technologies and their unintended consequences become so ubiquitous that it is difficult to define what is "natural" or not? What does it mean to live in a hybrid environment made of organic and synthetic matter? What new specimens are currently populating our planet at the beginning of the 21st century?

## **SHADOW GROWTH**

ECONOMIC GROWTH VS. THE RESULTING SOCIAL COST OF CO<sub>2</sub> EMISSIONS

The Vast Obscurity Beneath The Upwards Arrow.

(Economic growth vs. the resulting social cost of CO<sub>2</sub> emissions)

—  
This artistic provocation seeks to highlight the planetary processes that are obscured in the shadow of GDP economic growth, such as fossil fuel combustion and the social costs of CO<sub>2</sub> emissions. ShadowGrowth prototypes strategies that can challenge or replace the iconic GDP growth curve to better address today's urgent ecosystemic challenges. ShadowGrowth confronts conventional GDP

with the inherent „social cost of carbon emissions”, a cost which the most ethical estimates situate between \$2.7k to \$200k per ton of CO<sub>2</sub>-eq in long-term damage to society (Archer et al., “The Ultimate Cost of Carbon”, 2020).

## **LIFE SUPPORT SYSTEM**

### **ECOSYSTEM SERVICES ESTIMATION EXPERIMENT**

This artistic provocation seeks to estimate the orders of magnitude of critical ecosystem services, which are fundamental to all planetary life processes. It is common to describe our relationships with society, the world, and the biosphere with metaphors from economics, which has specific understandings of value. Today's prevailing economics conventions are unable to recognize intrinsic value of the ecosystems on which all life depends. In cultures overdetermined by concepts from economics, we are left without adequate discursive instruments to socially or politically address the importance of ecosystem contributions to life on Earth.

This experiment consists of 1 square meter of wheat, cultivated in a closed environment. Critical inputs such as water, light, heat, and nutrients are measured, monitored, and displayed to the public. This procedure makes palpable the immense scale of ecosystem contributions, and provides a speculative reference for a reckoning of the undervalued and over-exploited ‘work of the biosphere.’

## **POST GROWTH TOOLKIT (THE INTERVIEWS)**

### **INTERVIEWS ON THE FRICTIONS BETWEEN ECONOMIC GROWTH AND ENVIRONMENTAL CRISES**

In order to better understand the foundations of today's political and ecological crises, the artist collective set out to meet researchers, theoreticians, and activists and collected a number of stories and operational concepts in the form of video interviews. Focusing on notions such as planetary limits, the rebound effect, ecosystem services, and the seventh-generation principle, these videos are published online to help cultivate a community and a set of theoretical and narrative tools that re-examine the utilitarian vision of nature conceived merely as a standing reserve for human industry, delegitimizing the logic of resource optimization, and technological solutionism. These proposals seek to encourage the prototyping and envisioning of radically different modes of living in relation with our environment.

## **POST GROWTH TOOLKIT (THE GAME)**

### **A GAME TO REPROGRAM OURSELVES OUT OF THE ECONOMIC GROWTH ORTHODOXY**

The Earth's ecosystems are undergoing irremediable changes as a result of human development, the source of a number of crises whose consequences can be measured on the scale of the planet. Rethinking our way of coexisting with our environment requires us to reevaluate the continuous growth of our energy footprints. The Post Growth Toolkit game is an invitation to reprogram ourselves out of the economic growth orthodoxy. This critical game series highlights the material conditions necessary to maintain our current standard of living in order to better understand how we may reproduce these differently.

At the intersection of science and speculative fiction, the Post Growth Toolkit game proposes to literally reshuffle our world-views and to share stories, concepts, and objects to re-examine how we are programmed and to stimulate new modes of understanding. It takes the form of a tactical card game: where small groups of players are invited to explore a number of key notions. The game becomes a means of transmission and collective debate intended to help participants find their bearings in a period of radical change.

## **POST GROWTH PROTOTYPES**

### **A SERIES THAT PUTS PROVOCATIVE ACADEMIC MODELS TO WORK**

„All models are wrong, but some are useful.“<sup>2</sup> George Box. Post Growth Prototypes invites us to question dominant narratives of growth and progress and to explore speculative environmental accounting models at the limits of the quantifiable. Post Growth Prototypes is a series of critical case studies, which puts provocative academic models to work. This video essay addresses biosphere work, solar income, and energy transition in the Anthropocene. Over nine chapters, we will attempt to highlight, through the necessarily distorting lens of scientific models, some of the facets of our contemporary environmental condition which are often obscured, unquantifiable, imperceptible, entangled complexities, and known unknowns.

## **ENERGY SLAVE TOKENS**

### **HUMAN LABOUR TO FOSSIL FUEL CONVERSION UNITS**

In 1940, Richard Buckminster Fuller introduced the term “energy slave” to describe the energy required to power the modern lifestyle. The concept “energy slave” refers to the technological or mechanical energy equivalent to the physical working capacity of a human adult. The energy requirements for any lifestyle can be calculated as a number of “energy slaves” equivalent to the number of human laborers which otherwise would be needed to produce the same amount of energy. In 2013, it has been estimated that the average European employs the equivalent of 400-500 “energy slaves” 24 hours a day.

The Energy Slave Tokens consists of a series of weights made of bitumen, which are the energy equivalents to specific quantities of physical human labour time, namely 1 hour, 1 day, 1 week, 1 month, 1 year, and 1 life. This series of weights is designed to present the orders of magnitude that separate the labor power generated by our human bodies from the energy exploited mostly from fossil fuels which powers the technosphere. These open-source tokens are designed to be easily replicated, used, and distributed without restriction.