

Ars Electronica & Climate and Energy Fund present a new exhibition

There Is No Planet B: Global Warming and Human Responsibility

(Linz, 6.9.2021) Energy is the basis of all life — as essential for the existence of microscopic organisms as it is for us humans. But because our modern society mainly satisfies its enormous hunger for energy by burning coal, natural gas and oil, we are fanning the flames of climate change by adding ever more greenhouse gases to the atmosphere. From increasingly frequent extreme weather events, rising sea levels, and the collapse of the Gulf Stream, to the thawing of permafrost and the mass release of methane, the steady warming of the earth is causing an almost unmanageable domino effect that seriously threatens the very basis of life for the species Homo Sapiens — not only in ecological terms, but also because of the resulting social, economic and political upheavals. Conflicts that are present today will become much more intense in the future.

So it's high time to change course and slow down the pace of global warming. The absolute worst case scenarios — which are unfortunately realistic — should not be allowed to happen in the first place. We should also be able to gain the time we need to adapt our social, ecological, economic and political structures to a new normal. To achieve this, we as a society and as individuals must fundamentally change the way we deal with the world. For example, Austrians need to learn to live in a way that doesn't use up the resources of 3.5 Earths year after year — because that clearly can't go on forever. Part of this overall societal change and development is an energy transition worthy of its name. We must stop producing our energy in a way that robs us of our livelihood; instead, we must rely on sustainable energy sources. In the exhibition "There Is No Planet B," the Climate and Energy Fund and the Ars Electronica Center show what the coming energy transition looks like. We also demonstrate that there's no lack of viable concepts: we can do it here and now, if we finally take action.

Life, climate and climate crisis

Science has not yet clarified exactly how life on Earth came into being. However, what's certain is that the earth's atmosphere and its highly specific chemical composition is extremely important for life as we know it today — and so is the fact that since the industrial era began, humans have had a considerable impact on the atmosphere. How the atmosphere, climate and weather are interrelated and how powerful yet sensitive the earthly ecosystem and its balance are, can be seen from the artistic works in the cluster "Life, Climate and Climate Crisis":

The Museum of Edible Earth / masharu (RU/NL)

Geophagy refers to the consumption of earth and earth-like substances such as clay or chalk. This ancient spiritual practice is an integral part of the culture in many African, Asian and Latin American countries. The Museum of Edible Earth (MME) addresses geophagy through an

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interdisciplinary project centered on a collection of earth samples consumed by people for a variety of reasons. Museum visitors are invited to examine their relationship to the environment and the earth and to test their knowledge of food and cultural traditions. Currently, the MME holds around 400 earth samples from 36 countries, operates a digital and interactive archive platform, and offers video, photo and text documentation around different geophagy practices as well as samples of edible ceramics.

Raindrop / Alistair McClymont (UK)

Alistair McClymont's work revolves around the exploration of cultural and physical phenomena. *Raindrop* shows a drop of water in free fall. But it is held in place by a specially shaped vertical air stream from a machine, allowing visitors to view it. The physical law of gravity is seemingly suspended here; triggering frustration in the audience.

Life Support System / DISNOVATION.ORG (FR/PL/CA)

The *Life Support System* experiment consists of one square meter of wheat artificially grown in a closed environment. All inputs such as water, light, heat and nutrients are measured, monitored and made available to the public. This one square meter of life support is capable of providing the necessary caloric intake for one adult human for one day every four months. To feed a single adult human throughout the year, about 100 such units would have to be in operation at any one time. This process illustrates the tremendous expense required to meet human food needs in an enclosed or artificial environment, as opposed to farming on arable land. The *Life Support System* illustrates the immense power of the ecosystem and shows the often-undervalued work of our biosphere.

A Genealogy of Man-made Earthquakes / Sissel Marie Tonn (DK) and Jonathan Reus (US)

In the north of the Netherlands, man-made earthquakes have been occurring repeatedly for the past 32 years and can be traced back to gas production in Europe's largest natural gas field, the Groningen gas field. *The Intimate Earthquake Archive* by artist Sissel Marie Tonn shows two different ways of "storing" information about man-made earthquakes: the seismic activity of the earthquakes as meticulously recorded and annotated in the huge digital database of the Netherlands Meteorological Institute (KNMI), and the personal stories of people living in Groningen who can describe precisely how they perceive this seismic activity in their bodies.

Energy transition and sustainability

Once we have reached certain standards of living and the comforts that come with them, we are clearly reluctant to give them up again. The consequence of this lifestyle is a hunger for energy that is difficult to satisfy. When that happens with energy sources that are harmful to the climate, it is fatal for humanity as a whole, but at first it mainly affects the regions and societies that are actually contributing least to the problem. What is needed — and there's no alternative — is an energy transition, i.e. a transition from the use of non-sustainable fossil fuels to a

sustainable supply of renewable energies. What exactly those renewable forms of energy are, and how the energy can be stored and distributed, can be seen in the artistic projects and scientific field trials in the Energy Transition and Sustainability Cluster:

Derotation / Domas Schwarz (AT)

In *Derotation*, a video of a rotating wind turbine is played on a screen that rotates at exactly the same speed. While the mast of the wind turbine circles around the central axis, the rotor blades seem to stand still.

Asunder / Tega Brain (AU), Julian Oliver (NZ), and Bengt Sjöln (SE)


“Understanding AI” meets “Global Shift.” *Asunder* highlights the growing interest in tackling current environmental problems through artificial intelligence. State-of-the-art climate and environmental simulation technology, a supercomputer, and machine learning-based image creation techniques are combined here to create a fictional “environmental manager” with a twinkle in its eye, which suggests and simulates ways to adapt. The work is divided into different simulations for different regions and the AI offers a number of good ideas. However, limits are quickly reached when it comes to implementing many of the suggestions, such as moving entire cities, merging nations, or straightening coastlines.

SolarVille - A Vision for a Clean Energy Future / SPACE10 (DK)

SolarVille is the prototype of a miniature neighborhood powered entirely by solar energy. Some households generate their own renewable energy using solar panels, while others automatically buy the excess electricity produced in the community from the generator — using blockchain technology. The result is a self-sufficient microgrid where people trade renewable, affordable energy according to their individual needs. And that is cause for hope. After all, some 3.5 billion people in the world still have no access to electricity, or very limited access, and reaching them with the current electricity distribution system is an almost impossibly expensive task. The remaining 6.2 billion people who have access to electricity largely consume energy from unsustainable sources. If the world is serious about meeting its climate goals, renewable energy sources must become the norm by mid-century.

Ars Electronica: <https://ars.electronica.art/>

Climate and Energy Fund: <https://www.klimafonds.gv.at/>

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