Sunscriber

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In the book *A Friendly Alien,* Peter Cook and Colin Fournier describe the Kunsthaus Graz BIX façade as 'an experimental laboratory'. The *Sunscriber* project aims to update previously virtual experimental features of the façade by integrating a technological apparatus based on sustainability.

In this way, the installation highlights once again the unique architecture of the Kunsthaus Graz as one of Graz's major urban landmarks. It is also a concretization of the principles of the 'Climate and Energy Action Plan 2019-2021' devised by the Land Steiermark. This plan ensures the development of strategies for climate protection and adaptation to climate change (https://www.ea-stmk.at/kess-aktionsplan).

Sunscriber consists of three main components: a set of photovoltaic cells on the roof of the Needle, a computer program to monitor the energy collected by the photovoltaic cells, and the existing lighting infrastructure of the BIX façade, which consists of 946 light bulbs and BIX software. The computer program functions as a user interface and controls the light effects on the exterior surface of the façade. For *Sunscriber* this program uses the energy from the photovoltaic cells as its reference index. Only the energy generated by the integrated photovoltaic system is used to illuminate the BIX façade.

The energy regulation features of the *Sunscriber* are coupled with the design interface and aesthetic features of the 'image' that is then shown on the façade. Depending on the energy levels collected by the photovoltaic cell measures on a given day, the visual composition of the façade image changes. There are also variations in its morphological contours and brightness, and the timespan of the illumination, so that the duration and frequency of the façade's lights changes from night to night. The fact that the façade is not lit for the whole night has a strong impact both on passers-by and the city's night-time urban silhouette. These potential disruptions to the material and symbolic expressions of the Kunsthaus Graz by the BIX façade lead to questions about alternatives for the regulation of energy use by public landmarks. This is also related to the search for new solutions to tackle the light pollution in urban landscapes and new ways of articulating these issues in contemporary art, architecture and design practices.

The ‘sociotechnical imaginary’ (the concept to be borrowed from Sheila Jasanoff and Sang-Hyun Kim’s work from 2009 published in *Minerva*) of this art project aims to link the architectural vision of the Kunsthaus Graz with threads from the history of scientific thought, technology and material culture. As its name suggests, *Sunscriber* is basically an ‘inscription device’ (here we refer to Bruno Latour’s concept from his book *Science in Action*, 1987) that transmediates the materiality of solar rays into human scientific language with the dual use of an electronic infrastructure and digital media interface. It shows how much energy has been harvested, how much energy it can still use, how long it will keep operating based on the weather conditions on a given day. Kunsthaus Graz will be hosting it throughout 2021 as an addition to its ‘friendly alien’ form. *Sunscriber* literally scribes the sun, recording its daily activity on the Graz landscape and screening it on the BIX façade, while it harvests the energy to create the inscription from the same source. It is a simple, close-circuited system that unpacks a mundane—yet vital—cosmological event, i.e. the sun’s rays reaching the surface of the Earth at varying levels. *Sunscriber* treats the sun’s rays as additional non-human actors that infuse the cells, wires and nozzles of a technological apparatus repurposed for an art project.

The title of the project, *Sunscriber*, takes its etymological roots from three distinct entities in the history of human material culture: a profession (*scribe*), a hand tool (*scriber*), and a science-fiction space technology (*sunjammer*).

Scribes are important literary workers responsible for the recording and transmission of written knowledge from generation to generation, especially before the widespread use of the printing press. A scribe could have been a monk, a clerk, a typist, a bookkeeper. The ubiquitous computers of our times—and the technological systems in which they are embedded—can be regarded as contemporary scribes, including the *Sunscriber*.

A *scriber* was a hand-crafted metal tool used to make temporary marks on the hard surface of objects that were being modelled, cast, sculpted or shaped in a workshop. Historically, the scriber was an indispensable tool for a carpenter or metalworker—mainly for those who could not afford machines to mark their work. Scribers are a better alternative to pencil or ink because they are more precise and easier to handle. And the marks they leave on a hard surface fade naturally over time. Since the inscriptions on the BIX façade made by the *Sunscriber* also fade when the device runs out of energy, shouldn’t we think of it as a digital scriber?

Finally, *sunjammer* was a semantic invention of the 20th century: In his 1964 short story ***The Sunjammer***, the science-fiction writer Arthur C. Clarke describes spaceships sailing in deep space, powered by energy from their solar panels. In 2015, NASA considered naming one of its space missions after Clarke’s spaceships. Solar panels have also played a central role in the design and manufacture of satellites

and space technologies since the early days of the Cold War space race. For this project, however, we reinterpret the features of the Kunsthaus Graz—as a Friendly Alien spaceship with the aesthetic form and technical function of a *scriber* rather than a *jammer*. *Sunscriber* doesn't jam, squeeze or pack solar rays for military or telecommunication purposes, but unpacks, expands and retranslates them for the material manifestation of its socio-technical imaginary. It reshapes its host, the alien spaceship, in line with its cultural and ecological objective.

The semantic attributions of the *Sunscriber* raise a number of conceptual questions about the troubling times of the early 21st century. To what extent can the widespread use of alternative energy technologies—such as the photovoltaic cells in this project—mitigate the damaging effects of the Anthropocene in the coming decades if we do not change our material production and consumption practices? In what other creative ways can we repurpose the contemporary digital scribes and scribers of our times for documenting, understanding and transforming the material cultures we make and the ecologies that surround us? If we consider the *Sunscriber* as the prototype of a potentially communal technological apparatus situated in early 21st-century Earth, can its cybernetic features be expanded to larger-scale self-regulating systems all the way up to Gaia? In his recent book *Novacene,* the centenarian technology and environmental philosopher James Lovelock argues that we need to reconsider the scale and boundaries of Gaia and imagine a new self-regulating entity that goes beyond the physical boundaries of the Earth. As a consequence of the increasing pace and regularity of computer and spacecraft technologies, Lovelock claims that the artificial intelligence systems we develop—both on Earth and in outer space—will form unprecedented bonds with the existing self-regulation mechanisms of Gaia and will join our forces for the sustenance of life here on Earth. One wonders if and how we could contribute to that deep futuristic process. Perhaps the *Sunscriber*, the Kunsthaus Graz and its visitors will become part of it.