

## From the sonArc::project to C\_plexus solaris

From In-forming Plasma in Vitro to  
Transforming the Solar Storm in  
2012 in Vivo

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In 2012 NASA scientists expect the next solar super storm, an “electromagnetic tsunami”, like in September 1859 when auroras could be seen all over the world and the new technology of electric telegraphy was disturbed by natural radio – decades before our radio had been invented.

In 2003 I have started my sonArc::project. Since then I have been exploring the question of the “domesticability of lightning” with the sonArc cycle – the coding or forming of high-frequency high-voltage plasma as a pure electrical / electronic interface, a direct yet bodiless connection to an electrical system and its medial-epistemic roots and changing formats. sonArcinterfaces are high-voltage-DC-arcs based on the studies of Duddell and Poulson or AC-arcs based on the inventions of Tesla around 1900. It is a reversal of de Maria’s “Lightning Field”. The system, an amorphous sculpture of electromagnetic waves, is scalable. When the lightning’s impulses connect in order to form long waves that resonate with the ionosphere, the weather becomes modelable.

Thus, the most important medium in the 21st century, that is electricity, has physically no materiality in its heterogeneous manifestations. Materialism has lost its material. “Electricity is the pure purpose of the form that frees itself from it, the form that begins to sublimate its indifference”, writes Hegel. Ever since electricity began to be systematically investigated. It has raised an ontological problem – alongside with Hegel, Marx and Engels who also attempted a definition of this “fluidum” in order to leave no scope for metaphysical speculations. (Meanwhile, ontology founders upon electricity, and it, immaterial, increasingly vanishes from the collective consciousness over the course of the century: electricity has become nothing more than a

crude carrier of energy that drives locomotives and kitchen appliances. In its wake the electronic disappears, giving way to the digital. But what is numbered and calculated there and what does it flow upon or is it transmitted by? Where are the transitions?

Thinking the media in art can mean letting the “at-hand-ness” of their medial apparatuses and their simulation enter into their form, or integrating the paradox of their medial materiality, for example that of the electrons and their interactions, into the form – plasma as an amorphous state.



Fig. 1: 1 sonArc::ema, WKV, Stuttgart 2007 Photo: artist / 2 WHITEph, Bethanien, Berlin 2004 Photo: A. Messmer / 3 C\_plexus solaris 2012, Modell



Fig. 1: 4 sonArc::ion, TESLA, Berlin 2005 Photo: S. Vidè / 5 sonArc::ema, ars electronica, Linz 2008 Photo D. Gelfand / 6 sonArc::ema, WKV, Stuttgart 2007 Photo: de Waha

Selim Lemström built the first and only machines on a mountain in Lapland which created artificial induced aurora borealis. In 2009 I acquired the rare original three volumes of Lemström’s scientific studies from 1886/87. Based on inventions and ideas of Nikola Tesla, explorations of Lemström and the actual NASA and ESA research on SPRITES (= transit luminous events in between the tropo- and ionosphere) and their radial echo in natural electromagnetic ELF (Extremely Low Frequency) waves, we are transforming atmospheric plasma live stream data from spaceweather labs into ultrasonic and plasma-modulated air and high frequency electrical fields within space which let fluorescent substances and tubes glow. You can perceive this for example in my current blackcube installation at Laboral in Gijón, Spain. “Sferics” are the radiosignals from northern lights transformed into sound. Their hearable soundfigures are “whistlers” and “cracklers”. The inuits

could hear the aurora borealis which Alexander von Humboldt in the 18th century also mentioned. “The whistling crackling noise which sometimes accompanies the aurora is the voice of these spirits trying to communicate with the people of the earth”, the anthropologist E. W. Hawkes reported about the “heavenly regions” of the Inuits in 1916.

With sonArcs, huge spherical horns and HOSOC, a hovering sound architecture Thomas Reinke and I have patented last year, we are going to transform the solar storm in 2012 – natural radio music – live into an space weather opera during the solar storm at night on an open field: C\_plexus solaris – “victory of the sun!” – 99 years after Malevitch, Matyushin and Kruchenykh’s nihilistic futurist opera.