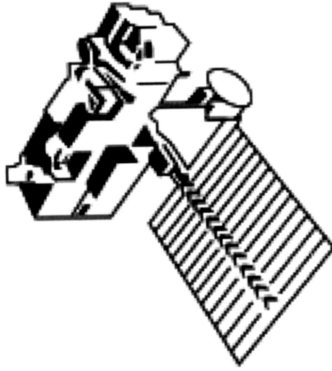


by HEHE, 2002



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Above us, rotating around the globe, thousands of data packages are beaming back and forth, are counted, calculated, manipulated and thrown into the ever filling data banks of global atmospheric modelling systems. Manmade materials, signals and codes permeate space, both near and far. Yet seldom do we think of this rich mix spinning around above us - since we have few means to access it.

This first prototype for PollStream is an application that displays, analyses and recodes images of cloud cover over MakroLab in Blair Atholl, the Scottish Highlands. The images were taken during the two week residency at MakroLab by the NASA satellite TERRA (EOS AM-1) with the MODIS instrument (Moderate Resolution Imaging Spectroradiometer). The software pinpoints the position of Makrolab, enlarges the image to maximum resolution and scans each pixel's brightness. The software is able to generate and distort an audio collage according to the daily cloud patterns over Blair Atholl. Some of these audio files were recorded from radio signals picked up from Makrolab's AR5000 wideband radio receiver. These sounds are a mixture of natural or unknown radio frequencies, air traffic control, aeronautical and meteorological codes, mobile telephone calls and utility radio transmissions. Depending upon the pattern generated by the cloud cover on a particular day, the radio samples will vary in pitch, speed, phase shift, modulation and duration. Other audio signals use an algorithm to generate sound waves according to the cloud pattern.

In Pollstream N° 1, as in the geophysical world, the clouds interact, pollute, alter and distort audio channels as well as generate their own noises: The higher the density of the cloud, the higher the pitch and speed of the audio signal that is reflected. Heavy precipitation may cause a strong signal to reduce for a relatively short time and phase shifting. A cloud suspected of carrying an electrical charge will generate a high level of frequency interference and audio scattering.

The question is not simply, what might pollution sound like but also, how can one define pollution within the electromagnetic spectrum? Is it nature that is polluting culture or the other way around?

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Radio cloud sequencer prototype,  
using satellite images.

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