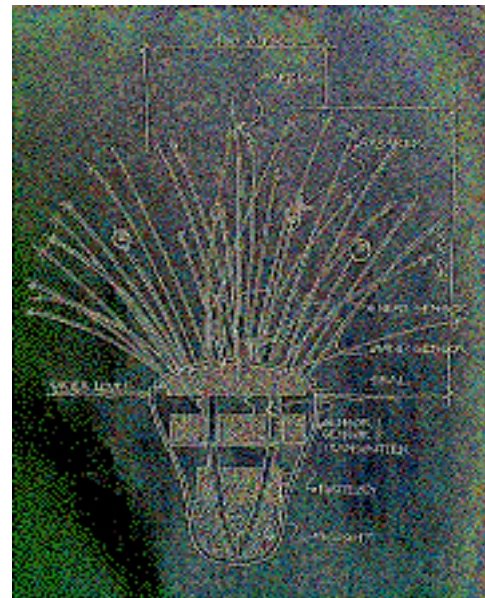


# PLANT A – an interactive installation by Garth Paine

A weed, so easily crushed underfoot, can push its way up through a tarmac path, creating a sizeable fracture in what appears to us to be an impervious surface.

One might postulate that if the weed could see the bigger picture, it might have decided to grow two feet to the left in the flowerbed or the grass.

It is exactly this chaotic behaviour of the natural world that informs the **Plant A** installation. Whilst human kind tries to harness or tame the chaotic forces of nature, or to explain it in theories such as quantum mechanics and fractals, humanity cannot perceive a truly chaotic state. The forces of nature that dictate the growth of plant life fall into this category. It is not possible for us to predict with certainty the meteorological conditions from day to day, let alone year to year, and certainly not on the micro scale of the weed in the footpath. It is precisely these chaotic variations that are used in **Plant A** to conduct the sound score - to control and dictate the output of the real time synthesis process.



The software design process predetermines the general structure and aesthetic of the sound, but the momentary output is unique. It is unlikely that the combination of wind speed, wind direction, solar radiation, and temperature that occur in this instance will be precisely replicated in any other moment. This chaotic variation is the very source of diversity, and is why the realtime synthesis process in Supercollider is used in preference to mixing of pre-recorded sound samples. This piece is occurring in realtime, driven by an outdoor weather station that is collecting wind speed, wind direction, temperature and solar radiation data, that is collected and treated in MAX and fed as MIDI pitchbend data to Supercollider where 6 algorithms generate 8 channels of musical sound.

**Plant A** uses the abstraction of the gallery aesthetic as a way of representing the paradox observed in organic plant life, where the apparently static external face of the plant contrasts the hidden, dynamic activity of photosynthesis and nutrient gathering that keeps the plant alive, and drives it's growth. These sounds give a voice to the secret inner life processes of the plant.

The viscous and fluid aesthetic of the sound material is an attempt to capture something of both the dynamism of the processes that maintain life and the ever-changing, silken thread that is the presence of life, the life force itself. The fact that the sound material is generated on the basis of meteorological conditions is a way of drawing, as tightly as possible, the bond between the processes of nature and the processors of the **Plant A** installation. The sound material cannot then be avoided, being the voice of the processes of nature.

Sound and music is in many ways a unique media, for it is not an external artefact. Sound literally penetrates the body. It is also impossible to concretely tie composed sound or music to a representation of anything beyond a communication of emotional states and journeys.

As an artist my interest lies in exploring ways of contextualising digital art processes within the natural organic environment. I have little interest in the purely synthetic, but prefer, as is illustrated in **Plant A**, to take a fundamentally organic source as the basis for the synthesis process. In so doing, I hope that some quality of that organic material will permeate the work, bringing the synthesis at least a small way towards the organic world, and within the human context.



This project was funded by Arts Victoria. Its original form was as the Reeds installation you see in the photographs. More information is available from <http://www.activatedspace.com.au> or by emailing the artist [garth@activatedspace.com.au](mailto:garth@activatedspace.com.au)