

Mario de Vega (Mexico City, 1979). Works in Berlin & Mexico City.
<http://maridoevega.info>

His work overlaps relations between stability, failure, simulation and ambiguity with site-specific interventions, sound events, electronic devices, process-oriented projects and sculpture.

As sound improviser, his practice explores the value of fragility & in-determination involving a wide range of customized objects, analog and modified electronics, turntables and computer based interfaces in different combinations performing solo or in collaboration with several musicians.

His work has appeared in different contexts throughout Mexico, Europe, United States, Canada, Japan, Korea, Russia and South America.

Krems. Artist in Residency Program
Mario de Vega (MEX)

Thermal

Thermal is a research that involves molecular irritation, high frequency demodulation, overheating, resonance, reflection and electromagnetic activity amplification using a microwave oven and self design hardware.

During the residency period, I will work in the production of sound documents and sculptural results using a microwave oven to modify the molecular composition of several objects. During the production process high frequency activity is produced in relation with the molecular activity of the object and self-design hardware will be used to be able to demodulate into audible ranges high frequency and electromagnetic activity.

Microwave radiation is between common radio and infrared frequencies. Microwaves are electromagnetic waves with wavelengths ranging from as long as one meter to as short as one millimetre, or equivalently, with frequencies between 300 MHz (0.3 GHz) and 300 GHz.

Any metal or conductive object placed into the microwave will act as an antenna to some degree, resulting in an electric current. This causes the object to act as a heating element. This effect varies with the object's shape and molecular composition. During the heating process a strong electromagnetic field is generated and this electromagnetic activity will be demodulated into audible ranges.

Research / production lines:

1. Overheating of light bulbs, solar panels, audio and data CDs, silicon, foam, etc (sound results)
2. Molecular irritation of soap, eggs, medicine (tablets) and candies (photography)
3. Voltage resonance with metal based / pointed-end objects as forks, knives, bullets and electronic components (sculpture).
4. Plasma production with grapes, kiwis (yes, fruits) and naked flames (video).

Goals:

1. High spectrum logging / demodulation (200 MHz – 8 Ghz). Sound performances, sculptures, photographs and videos will be produced using microwave ovens and high frequency sniffers (custom hardware produced during the residency period).

2. Performance-oriented situations. Example: Time-based sound performance using a microwave oven without any object inside (empty), using custom hardware to demodulate and amplify complex sound events produced during the overheating process of the microwave. On stage just a microwave and an antenna, no performer. The result is an audio event generated by the overheating of the machine. Security must be organized in relation with the possible explosion of the microwave.

4. Time-based relations and molecular modification. Exhibition of the formal results obtained in the process (video, photo prints and objects).



Soap after 11 minutes into a 1200 W microwave oven