

Programme Artist Review Series – Saturday 9 December

Immersivity, Art, Architecture, Sound and Ecology

Series events co-chaired by Dr John Levack Drever, Lauren Goode and Ian Stonehouse

Welcome

14:00-14:40 Presentation by Honor Harger

Title: ***Nature's Radio: Sounding out the Spectrum***

The work of 19th century scientists James Clerk Maxwell, Michael Faraday, André-Marie Ampère and others on developing the theory of electromagnetism not only ushered in the electrical age, but also revealed a natural resource that could be used for far more applications than energy. The electromagnetic spectrum charts the range of electromagnetic waves and includes X-rays, visible light, infra-red radiation, and radio waves. Some of the most catalytic changes in society have been brought about from studying and utilising the part of the electromagnetic spectrum where radio waves propagate.

With the invention of telecommunication technology at the end of the 19th century, radio waves became a tool for rethinking the world we live in. Radio collapsed geographical distance, crossed borders and cultures and became a powerful catalyst for commerce. From the 1930s onward, radio enabled scientists to study the cosmos in entirely new ways. Radio has, in effect, created an electromagnetic 'portrait' of our world. We can not only look at this portrayal, but by employing the very technology which Marconi and Tesla brought into being, we can also listen.

This lecture will trace the twin histories of radio telecommunications and radio astronomy from Hertz's work on the radio wave, to Penzias & Wilson's "accidental" discovery of radiation from the Big Bang, demonstrating how radio has been used to deepen scientists' understanding of our universe. It will continue by illustrating how radio has been used to reveal the hidden aural attributes of the electromagnetic spectrum, citing artistic works by *radioqualia* and other artists.

Drawing on the taxonomies of sonification developed by Gregory Kramer, the paper will suggest that as well as being a Brechtian "apparatus of communication", radio is also "an agent of audification". Weaving together these discussions, the paper will outline how artists can utilise the science of the electromagnetic wave to make astronomical space audible. Referring to the *radioqualia* project, "Radio Astronomy" (2004 – present), the paper will show how radio can reveal the sonic character of objects in our Universe, and in the process make these phenomena more tangible and comprehensible.

radioqualia: <http://www.radioqualia.net>

AV Festival: <http://www.avfest.co.uk>

14:40-15:10 Presentation by Thor McIntyre-Burnie

Title: ***'Orchitecture' – the art of sound in space***

I am an artist who uses sound a great deal, but I hesitate to call myself a sound artist. In fact it annoys me that people do this, as if in order for sound to be considered in 'high art', it needs to be considered in isolation. Sound is one of the most site-specific mediums going – it exists in time and space. Spaces and the scenarios that inhabit or flux through them are what interest me. Sound offers a great way of both spending time with a space – or listening to it – and subtly tweaking the way the space functions, is used and perceived. Using documentation of a selection of past and current projects I will discuss the use of sound as a spatial tool.

Aswarm: <http://www.aswarm.com/>

'APier': <http://www.fylkingen.se/hz/n2/ar2.html> and 'APier2': http://www.measure.org.uk/show7/ex_7_intro.html

'Orchitecture': <http://www.nlo.co.uk/orchitecture/index.htm>

15:10-15:40 Presentation by Ruairi Glynn

Architecture draws upon the larger artistic, scientific and cultural community to define itself in the context of our environment and society, but today Architecture seems increasingly to be failing to keep up with the pace of technological and societal change. Interactive installations, responsive furniture, mobile devices, new choreography and performance techniques, theater technologies, open source software and hardware development and wider technological advancement are all contributing to our understanding of the digitally mediated society we live within. What we are now seeing and what will

be the subject of my talk is how some of the most advanced architectural thinking, is being produced outside of traditional architectural research and how in a new format, the speculative architecture of Cedric Price's *Fun Palace* (1961) is finally becoming a reality.

Interactive Architecture: <http://www.interactivearchitecture.org>

Ruairi Glynn's site: <http://www.ruairiglynn.co.uk>

15:40-16:00 BREAK

16:00-16:30 Presentation by Mick Grierson

Title: ***Articles in Space***

Articles in Space is a generative audiovisual work consisting entirely of material gathered in real-time from a particular environment. The work is produced by a near-silent box, connected to a speaker system, a video projector, a camera and a microphone. The machine self-propagates a continuous and developing audiovisual landscape that both reflects and treats the surrounding audiovisual scene. As such, it functions to represent the space, its atmosphere, and the people within it. Furthermore, activity modulates the behaviour of the machine, creating a subtle reflection of the way in which we impact on our environments. The machine is loaded with an artificially intelligent creative model which controls and responds to the events which unfold around it.

Mick Grierson's site: <http://www.mickgrierson.co.uk/>

Goldsmiths College, Electronic Music Studios Link: <http://www.goldsmiths.ac.uk/departments/music/ems/>

16:30-17:10 Presentation by Jem Finer

Title: ***Landscape Fiction: Time Before Clocks and the Interstellar Imagination***

The landscape is alive with nodal points in the highways and byways of the universe; stone circles, ziggurats, pyramids, all constructions of centers about which the heavenly bodies appear to revolve. I'm interested in these locations as time keepers, calendars and observatories, dating from a time when nature's cycles were the only clocks and a direct relationship with the sun, moon, stars and planets was necessary not only to make sense of their mysterious paths across the sky, but to keep time, to establish rhythms of nature and change.

Leaving the 2D world of the computer screen to work in the physical world, in the landscape, I've been seeking to connect with time on geological scales, cut loose from its accelerating resolution into ever more minute particles of a second, both through the building of sculptural observatories and through 'non clocks', mediating slow time through music.

I will be talking about these ideas with particular reference to '*The Centre of the Universe*', a sculptural observatory, and to a new work, '*Score for a Hole in the Ground*', which uses water and gravity as energy sources to play a composition of indeterminate score and duration. Taking the form of a hole in the ground and an acoustic amplification system modeled on the horn of an old gramophone this sculptural instrument is located in Kings Wood, a forest in Kent.

Jem Finer's site: http://elrino.co.uk/Jem_Finer.html

Long player: <http://longplayer.org/>

Score for a hole in the ground: <http://www.scoreforaholeintheground.org/>

17:10-18:00 Panel discussion Questions and feedback addressed to all presenters and co-chairs as a panel and invitation to the audience to raise issues.

Meeting to close promptly at 18:00

Audience/presenter participants to adjourn, as inclined, to the local bar 'The Rosemary Branch'

Keywords for each event in the series: Although keywords have been suggested for particular dates, it is expected that, as these are general terms, they will also span events and that they will only be adhered to loosely, as it is the richness of the unpredictable, oblique and uncapturable connections arising during an event process that are invited too for focussing upon during this series, and which is to touch on knowledge as a live realm, in different ways, both translatable and non-translatable.

20 Sep '06: Ecology; biophysics; immersive practices; introduction to the Live Art Garden Initiative. 21 Oct '06: Deleuzian philosophy; architectures of time. 18 Nov '06: Sound; electromagnetic fields; meditative perception and movement.

9 Dec '06: Sound; electromagnetic fields; vibration; acoustics and environmental architecture. 20 Jan '07: Dural, immersive performance and consciousness. 14 Feb '07: Ecology and interactivity; sensing; responsive systems

Selected extract for 9 Dec: *Intensive Science and Virtual Philosophy* By Manuel Delanda

Ref: 'Chronos'; 'the objective time-scale of oscillators' [...relate to coherence times and coherent whole, as opposed to asymptotic tendency]. Pg 87 Chpt.: 'The actualization of the virtual in time'

Iberall [Winfree] argues that, given that nonlinear oscillators have a characteristic time scale, ranging from the very short scales of atomic oscillators, to the intermediate scales of biological oscillators, to the very long lifecycles of stars and other cosmic bodies, we may view them as forming a nested set of levels. This embedded set would ensure <<the unfolding of time, pulse by pulse... Time is not a universal unity for all levels of organisation. Yet levels are nested within one another and, within limits, are referable to each other.>> In other words, rather than assuming that time exists as an already quantized flow (divided into uniform, identical instants) we should account for this metric structure using the embedded set of differently scaled oscillations. In a sense, each oscillation would 'synthesise' a pulse of metric time, many nested sequences of these pulses yielding the familiar form of time which we humans can measure using a variety of chronometers. This concept of time is remarkably close to that of Deleuze's for whom each of these pulses of action would constitute a synthesis of 'present time' (the 'lived present' of atomic, biological and cosmic oscillations), a synthesis that would work by contracting an immediate past and future into a living present. He refers to this metric or extensive time by the name of 'Chronos', and writes;

<<In accordance to Chronos, only the present exists in time. Past, present and future are not three dimensions of time; only the present fills time, whereas past and future are two dimensions relative to the present in time. In other words, whatever is future or past in relation to a certain present (a certain extension or duration) belongs to a more vast present which has a greater extension or duration. There is always a more vast present which absorbs the past and the future. Thus, the relativity of past and future with respect to the present entails a relativity of the presents themselves in relation to each other...Chronos is an encasement, a coiling up of relative presents...>>

[Also see pg 89 for an excellent example concerning two twin brothers, one of which undergoes space travel and regarding aging, and in relation to understanding 'objective time scale of oscillators' as opposed to subjective experience]

Ref: 'Aion' and 'Time itself unfolds...instead of things unfolding within it [time]' (Deleuze); and 'the virtual' 'populated exclusively by 'pure becomings without being' . Pg 107-108 Chpt.: 'The actualization of the virtual in time'

'Deleuze finds inspiration for this conception of [virtual] time in phase transitions, or more exactly, in the critical events defining unactualised transitions. When seen as pure becoming, the critical point of temperature of 0 degree C, for example, marks neither a melting nor a freezing of water, both of which are actual becomings (becoming liquid or solid) occurring as the critical threshold is crossed in a definite direction. A pure becoming, on the other hand, would involve both directions at once, a melting-freezing event which never actually occurs, but is 'always forthcoming and already past.'

The events involved in the construction of virtual space, the progressive unfolding of virtual multiplicities as well as the stretching of their singularities into series of ordinary points, need to be thought as pure becomings in this sense. In this construction, as Deleuze says, 'Time itself unfolds...instead of things unfolding within it...[Time] ceases to be cardinal and becomes ordinal, a pure order of time.' Unlike actual time, which is made exclusively out of presents (what is past and future relative to one times scale is still the living present of a cycle of greater duration), a pure becoming would imply a temporality which always sidesteps the present, since to exist in the present is to be, no longer to become. This temporality must be conceived as an ordinal continuum unfolding into past and future, a time where nothing ever occurs but where everything is endlessly becoming in both unlimited directions at once, always 'already happened' (in the past direction) and always 'about to happen' (in the future direction). And unlike actual time which is asymmetric relative to the direction of relative pasts and futures, a pure becoming would imply a temporality which is perfectly symmetric in this respect, the direction of the arrow of time emerging as a broken symmetry only as the virtual is actualized.' [...]

In what sense would a temporality characterised by an instant which unfolds itself into past and future be nonmetric? Actual time, as I said, may be seen as the product of a metrization or quantization performed by a nested set of presents with characteristic times scales. Whether one views the latter in terms of relaxation times or in terms of the intrinsic period of nonlinear oscillations, the processes occurring in actual time always have a time scale of limited duration and yet are potentially infinite, in the sense that a particular sequence of cycles may go on pulsing for ever. Virtual time, on the other hand, would be nonmetric in the sense that it is unlimited in the past and future directions in which it unfolds, but always finite like the instant without thickness that performs the unfolding. The time of the virtual would be constituted entirely by what, from the point of view of metric time, cannot be but singularities: a maximum and a minimum, events of unlimited duration (the unfolding of multiplicities) and events of zero duration (the operation of the quasi-cause). [...]

No doubt, this description of the temporal aspect of virtuality lacks the precision of its spatial counterpart. The latter has the advantage of over a century of mathematical work on the nature of nonmetric spaces and their broken symmetry relations to metric ones, whereas similar formal treatments of time do not really exist.

News - Latest book by Manuel Delanda has just been published:

A New Philosophy of Society: Assemblage Theory and Social Complexity

<http://www.continuumbooks.com/news/details.aspx?NewsID=318&ImprintID=2&CountryID=1&ReturnType=2>

About the series

Transdisciplinary presentations facilitating critical exchange, discussion and review through an informal and supportive atmosphere; and guided by specific research interests. The general focus areas are: live art and mixed media performance; landscape & interactive architecture and sustainability; critical studies and philosophy; biophysics, acoustics, ecology and sound art. The guest review presenters invited are drawn from these backgrounds and disciplines. The aims of the artist review meetings are both to support the development of researchers or practitioners, through the sharing and review of recent practice including work-in-progress, and the Live Art Garden Initiative, an art, architecture, sound and ecology project.

The series program; and all further info visit: <http://www.liveartgardeninitiative.org.uk/events.html>

The Series yahoo group – to join email: TheSeriesGroup-subscribe@yahoogroups.co.uk

More ...

The series is also an opportunity for realising an experimental research process, as a live knowledge process. This is a transinterdisciplinary series which realises a conditioning process of potential interest itself. It's relevant to consider what one might be 'doing' by engaging in this process, for instance:-

- not taking for granted that these meetings are for example, in part, about 'discussion' as opposed to 'digression';
- or considering that, the way in which we share knowledge, is potentially, intensively operative, just like the ways in which one reads a book produces an implosion of affects
- or thinking about terms, as infinitely multifaceted and capable of operating the conveyance of different sets of tangible (and intangible) ideas and concepts, within different registers or disciplines
- and perhaps realising that struggling to align, via a translation, terms across disciplines (to reach consensus) can be a way of producing an impoverished reduction from knowledge processes, whereas there are alternative approaches...

I'm drawing from Deleuze and Guattari in *What is philosophy* – the following extract seems relevant to quote

'Concepts are centers of vibrations, each in itself and every one in relation to all the others. This is why they all resonate rather than cohere or correspond with each other. There is no reason why concepts should cohere. As fragmentary totalities, concepts are not even pieces of a puzzle, for their irregular contours do not correspond to each other. They do form a wall, but it is a dry-stone wall, and everything holds together only along diverging lines. Even bridges from one concept to another are still junctions, or detours, which do not define any discursive whole. They are movable bridges. From this point of view, philosophy can be seen as being in a perpetual state of digression or digressiveness.' (Page 23, Chpt. 'What Is a Concept?').

Acknowledgments

Many thanks and much appreciation goes to all participating presenters on these occasions whose additional in-kind support is making possible a far more exciting and rewarding series programme, and one that will have wider significant impacts.

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Co-organised by: **Live Art Garden Initiative** and **Electronic Music Studios, Goldsmiths College**



About the Electronic Music Studios, Goldsmiths College

The Stanley Glasser Electronic Music Studios (established in 1967) comprises a suite of working areas for undergraduate & postgraduate students wishing to explore the creative potential of studio equipment & audio software in relation to composition, live electronics, interactive performance, sound-art, acoustic ecology and research. <http://www.goldsmiths.ac.uk/departments/music/ems/>

About the Live Art Garden Initiative

The Initiative is to conceive of, set-up and develop an art, architecture and ecology project. The project will involve the creation of new garden environments in which site-specific live arts will be created and receive an audience. The research and practice directions of the Initiative are guided by transinterdisciplinary research. <http://www.liveartgardeninitiative.org.uk>