

**Plein Air:
The Ethical Aesthetic Impulse
Reiko Goto and Tim Collins**

Plein Air

The Ethical Aesthetic Impulse

Reiko Goto and Tim Collins

Curated by Angela Lennon

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Goto and Collins

“A Tree is a Living Thing”
was developed with Adam Proctor
Digi-Coordinator, Peacock Visual Arts

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On the Edge

Visual Arts Research



*Institute for Advanced
Studies in the Humanities,
The University of Edinburgh*



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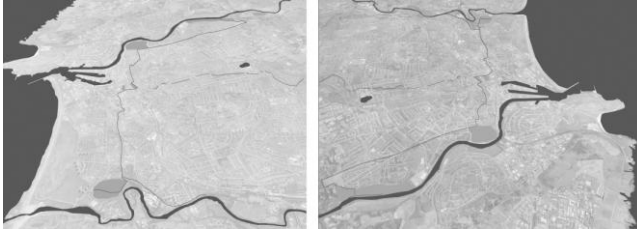
Plein Air supporting project members are:

Prof Trevor Hocking Plant Physiologist,
University of Wolverhampton

Carola Boehm Computer Musicologist,
Manchester Metropolitan University

Matthew Dagleish Artist, Musician, PhD Candidate,
University of Wolverhampton

Noel Hefele Artist, MA Candidate,
Dartington College of Art/UC Falmouth



Between the two rivers: a view from the Don River and a view from the Dee River. Seven sites and seven trees were chosen for public experiments in Aberdeen. The experiments averaged two hours and often involved interaction and discussion with the people curious about the work.

The Dee Trail – Birch
 22 June, 2010, 2:30 PM
 Brisk and sunny day, windy
 C02 /Piano, 13 minutes

Duthie Park – Lime
 28 June, 2010, 9AM
 Bright sunny day
 C02 /Piano, 24 minutes

The Dee River / Robert
 Gordon University – Elm
 23 June, 2010, 11:45 AM
 Sunny, leaf dappled light
 C02 /Piano, 13 minutes

Denburn – Cherry
 29 June, 2010, 10:30 AM
 Bright sunny day
 C02 /Piano, 7 minutes

St. Nicholas Kirk – Elm
 27 June, 2010, 8 AM
 Bright sunny day
 C02 /Piano, 23 minutes

Seaton Park – Maple
 1 July, 2010, 9AM
 Sunny day
 C02 /Piano, 15 minutes

Union Terrace Gardens – Elm
 27 June, 2010, 9:40 AM
 Bright sunny day
 C02 /Piano, 22 minutes

I. Exhibition Overview

There is a long history of artists painting outdoors, „en plein air‘ (in the open air) with a French box easel. In the mid 19th century there were two groups of painters, the Barbizon School committed to realism and direct inspiration from nature. The other the „Impressionists‘ committed to a more open and experimental approach to painting; yet also seeking inspiration from nature in the form of light, movement and changes over time.

With *Plein Air: The Ethical Aesthetic Impulse* Goto and Collins have worked with a team of scientists, technologists and musicians to construct a box easel for the 21st Century. Like their predecessors, these artists seek an authentic experience „in nature‘. Where Millet extended the idea of landscape to peasants working in the fields and the impressionists examined the phenomenological exchange between light and material; Goto extends an interest and the intent to seek empathic exchange with the trees themselves. The work integrates aesthetics, ethics and cognition in the pursuit of a better understanding of the limitations of people/plant and culture/nature relationships. It also addresses CO₂ source and concentration, by monitoring the impact upon a tree. This provides an experiential interface to an important but relatively invisible climate change issue.

In this first exhibition of the experimental work, the artists explore specific trees in different public places between the Don River and the Dee River in Aberdeen. The work results in „true‘ scientific data that tells us about the respiration of trees; the work also results in a musical output which is embedded in a context of feelings and freedom but oddly connected to the life force which is at the same time the tree and me. There is a specific question driving the work:

“Is it possible to create change if we understand that life is interdependent and interrelated with nature in our environments?”

This portable system reveals details about the source and impact of CO₂ in cities. This is understood as the secret life of trees; which the artists understand as an incredible sensitivity and reactivity to the constant but changing impact of humans on the atmospheric chemistry in cities. Goto references the human need to hear the breath of people and living things we care for to assure ourselves of their well being. This technology provides one way of listening to the breath of trees.

The system has been designed to be portable and flexible it allows the artists to travel to various public forests, gardens and parks to experience the life of trees. The sound system and programme by Mathew Dagleish was designed to provide a range of musical voices and data/sound calibrations to experiment with. In this exhibition Collins and Goto have chosen the Piano for its tonal legibility. Conversations are underway to develop a dedicated, signature voice for the system in the next round of development.

Collins has begun talking to colleagues and manufacturers about a portable backpack monitor and sound system with a „wand’ that would allow a more performative/active approach to the monitoring of trees with movement and music. Discussion has occurred with Prof Hocking regarding a means to monitor a large stand of many trees in a city; an idea that would inform the development of a long-term public installation with a twice daily symphony of trees that begins just before rush hour, and ends with a CO₂ crescendo at peak impact; integrating artistic content and scientific truth in what could be understood as a tragic tale of human induced climate change.

In Aberdeen we have developed two maps of the city: one is a view of the city from the Don River, the other provides a view from the Dee River. An imaginary trail of trees has been created that connects the rivers, city and parks. We chose seven places and seven trees for this exhibition. *Plein Air* was used to observe specific trees in these places. In the installation the photographs and sound are the document of each place, a photo of the easel and a tree and the sound of each tree as it responds to CO2. The green house represents our studio. This structure allows us to work daily and develop intimate relationships with various trees in different kinds of weather and seasonal changes. The video projection was developed in the core of the city. This twenty-four hour time-lapse animation, and its voice over considers ideas relevant to Collins' work on art and the role of artists in the production of aesthetic truth and the distribution of creative freedoms. Complimenting that position is Goto's evolving work on empathy which they both feel provides an interesting intentional framework for practical pursuit of the ethical-aesthetic impulse.

The work remains research based following a pattern of collaboration developed at Carnegie Mellon University as Research Fellows from 1996 through 2007. The work remains focused on issues of natural systems and the role of art in the public realm following a long standing professional focus and practice developed in San Francisco from 1983 through 1993.



Denburn – Cherry

II. Empathy as Premise and Method for Art

We chose empathy, the perception and imaginative exchange of subjective states with foreign subjects and their environment, as the basic premise and method in this exhibition.

Empathy is an act of perceiving in which we reach out to the other to grasp their state or condition. It consists of one's emotional and physical experiences. Empathetic experience moves towards something foreign rather than something familiar, it involves memory and considered imagination.

We comprehend feeling in others by observing the other person's facial expression or bodily gesture because we too express feeling through the body. Expression can take these forms: facial expression, body languages, speech, politics, education and art. These expressions can be called actions. *Action is always the creation of what is not.* (Stein, p.56). Reading the bodies expression of feeling in others can be cultivated.

Empathy is not based on one's self interest. It is a reaching beyond self but without losing or forgetting oneself. We bridge the gap between self and other, known and unknown. We resonate with the feeling of the other and amplify it. Empathy in this sense occurs between subjects. It is inter subjective. In this way empathy helps us to enrich our own world image through interaction with different individuals.

Empathy and sympathy are different.

Sympathy is an act of assuming feeling in another based on what we know. In this sense it is founded in an intellectual understanding in which we rationalize a situation and impose a projection.

Sympathy reflects one's own experience and intellectual understanding rather than reaching beyond it. Empathic experience also involves intellectual understanding expressed as a new idea. Sympathy is based in one's self interest in the context.

Plants do not have feelings, emotions and mobility like we do. They have senses that respond to light, temperature, humidity and air. We have an ability to read their physical states such as vigour and sluggishness or comfort and discomfort.

It is possible to experience plants empathetically through careful observation, memory and imagination. We share the environment with them. But we don't perceive their instantaneous response to the environment; this is what makes them foreign. A gardener can express feelings through empathetic relations with plants. Preserving or creating new green spaces involves feelings, new ideas and actions through an empathetic relationship with nature. Empathy allows us to experience how we interrelate with other species and their environment. Observing plants in relation to our mind and feeling can be an important practice for understanding ecological relationships.

In environmental aesthetics there is a discussion by authors such as Emily Brady and Arnold Berleant that explore shifting ideas about the classical separation of subject and object, nature and culture. In critical theory Claire Bishop, Nicholas Bourriaud and Grant Kester have all made important contributions to a social aesthetic. Kester provides a rigorous historic framework, as well as detail on a critical approach to artwork that claims creative exchange and human inter-relationship as art process. He ascribes value through attention to inter-personal ethics and empathy that leads to transformative experience.

This is part of the critical framework the reading and theories that inform Goto and Collins artwork to date. It has provided a foundation for the real challenges Goto was faced with as she began to think through an empathic approach to her practice which is presently informed by a deep reading of “On the Problem of Empathy” by Edith Stein.

Stein, E. (1917) “On The Problem of Empathy” 1989 translation by Stein, W. Washington, D.C.: Institute of Carmelite Studies.



The Dee Trail – Birch

III. Text from the video: “A Tree is a Living Thing”

This is a 10 minute lapsed-time animation that focuses upon one very large tree set against the Aberdeen City skyline as it reacts to changes that occur over a day. The video opens with view of the sunrise through the spires of Aberdeen. The day goes from quiet and grey to sunny, then cloudy and windy. The tree goes through an amazing set of changes in relation to both the light and the wind. The sky becomes more and more animated until the piece closes with the sunset reflected in the eastern clouds. The content below is overlaid upon the film as spoken narrative.

White on black text, before the sunrise

“So long as I myself am identical with Nature, I understand what a LIVING nature is as well as I understand my own life; I apprehend how this universal life of Nature reveals itself in manifold forms, in progressive developments, in gradual approximations to freedom. As soon, however, as I separate myself... from Nature, nothing remains to me but a dead object, and I cease to comprehend how a life outside me can be possible.”

F.W.J. Schelling, *the Naturphilosophie* p. 36

SPOKEN NARRATIVE

We want to talk about trees while we watch a large Elm interact with the changes that occur in a day. We will start by raising questions about scientific truth versus aesthetic truth, we then move to questions about freedom in the domain of nature, versus freedom in the domain of culture.

We close with thoughts about creativity and inter-being as one way to resolve logical inconsistencies.

A DIALOGUE with LIVING THINGS

Extraordinary LIVING things can stop us in our tracks, and demand our attention. Other LIVING things become familiar through intimate experience and attention over time. If science is defined by useful general truths, is it the role of aesthetics to help us to see specific truths? In other words, if science informs us of what trees are as a set of things and how they function as a biological organism— is it aesthetics that is responsible for the pictures in our head, and the potential to differentiate unique and specific experience from the general idea? How do we value those things that envelop us with unexpected imaginative and aesthetic force? Can we know ourselves through others, through empathic exchange with LIVING things?

Empathy is not based on one's self interest. It is a reaching beyond self but without losing or forgetting oneself. We bridge the gap between self and other, known and unknown. We resonate with the feeling of the other and amplify it. Empathy in this sense occurs between subjects; it is intersubjective. In this way empathy helps us to expand how we understand ourselves in relationship to other things.

How do you know when that idea of a tree in your head has been energized or reshaped by the tree you see before you? Does it require a commitment to experience it over hours, a day, a season or years? Is it the comparison between this tree, and all others in your daily life, or over the period of your entire life? Would this mean that the older we are, the better we are at making these judgements? Or are some of us more aware of these things? Can that awareness be taught or learned? Is there any agreement on this matter amongst family, friends and acquaintances? Is it the trunk,

the splay of the branches or the green leafy upper-story that provides you with significant aesthetic clues?

Ultimately these are questions of intrinsic value, where we see the tree as valuable unto itself. What do we need to know, to prepare us for an experiential judgement of a LIVING thing?

NATURE and LIFE: In the days before they became things, were the trees free?

Every LIVING thing carries the reason, the cause and effect of its existence in itself. We understand LIVING things as bodies, or as live forms of material substance that are defined by the relationship of separate parts which make up the whole.

There is an idea that is at the core of all LIVING things, in that they organize themselves, and the form and day to day existence is defined by both purpose and intention. The LIVING thing nourishes itself, through the organization and inter-relationship of the parts.

Life is an idea that sustains a thing. Life is defined by respiration, nutrition, excretion, growth and reproduction. To live, to grow, to reproduce and to age are the natural free conditions of all LIVING things that exist outside the bounds of culture.

In all of this (I) am identical and I am free, as (I) to am a LIVING thing.

SOCIETY and MEN: How did LIVING things become the rightful property of free men?

As the feudal system came to an end ideas of people being ruled by lord and master acting under the auspices of god

and king began to give way to the 18th Century Age of Enlightenment. Autonomous self determination and productivity were the new goals; freedom, democracy, and reason were the methods. It was argued that mans ingenuity and labour mixed with nature through cultivation, husbandry or extraction, resulted in ownership. Ownership was a moral contract, an agreement amongst men to respect the effort and enterprise necessary to secure value from nature. A motto at the time was based on an article by Immanuel Kant, challenging all to ‚dare to know‘ and... to have the courage to use one’s own understanding to better oneself.

Not all men were free, and certainly no women at that time. Any LIVING thing, material or resource that could be enclosed, improved and subsumed or presumed as property would be. This idea of autonomous self determination, and the right to own property and vote was initially a small us, and a large them. Then a century later most men, then men and slaves, and eventually women would secure civil and property rights. Corporations were afforded all the rights, protections, privileges, responsibilities, and liabilities under law at the turn of the 20th Century before most women had the right to vote.

There are no real examples of setting other non-human things free, although there have been movements over the past thirty years to protect the rights of LIVING-things that were threatened by private interests. The most specific examples are the endangered species acts and laws which use rational science to define the tipping point, the brink of species failure and a final loss of genetic diversity.

(You) are free as described by a social contract of rights, protections and privileges. All other LIVING things materials and resources as much as they can be defined by their relationship to men are defined as property. (I) am property.

INTER-BEING: Empathy is an imaginative exchange between two LIVING things. Could this be the first step to real freedom?

Empathy is an act of perceiving in which we reach out to the other to grasp their state or condition. It consists of one's emotional and physical experiences. Empathic experience moves towards something foreign rather than something familiar, it involves memory and considered imagination.

To live well is to be free to pursue life to the best of one's capacities and to support similar creative expression in others. To be creative is to live and practice with the intent to renew and add depth to our perception; to seek experience that calls into question the values that define everyday life.

Theory is necessary because the world is full of contradictions that demand creative resolution. Trees are the green infrastructure that shades the streams, knits the soils in steep banks, trees clear the air and cool the hottest days. Trees have great impact; they are a formidable aesthetic presence in our lives. As LIVING things they conduct an exquisite discourse with the sun and air, pumping moisture from the soil to the sky, they provide structure and shelter, serve as both refuge and provision for many others. They benefit others as a condition... of being and inter-being.

We live on an island relatively devoid of trees. We are all responsible and affected by climate change yet trees, the largest LIVING things that isolate the most significant amount of carbon are not as yet allies in an attempt to resolve that contradiction.

Is it aesthetic truth or empathy and morality that initiate ideas of freedom and emancipation? Or is it the potential practical value, the benefit to society that we must consider

as we expand the set of us, to include some of them? Or is it simply a matter of coming to our senses, realizing that culture without nature is a contradiction in terms?

At this point in time, the remaining other is nature, the largest beings of that kingdom and this world, are the trees.

White on black text, after the sunset

Herbert Marcuse has said, “*Things [nature] have their ,inherent measure’: this measure is in them, it is the potential enclosed in them; only man can free it and in doing so, free his own human potential*” (Marcuse, 1972).

Schelling, J. (1803) “Ideas for a Philosophy of Nature”. E. E. Harris, P. Heath, R. Stern, 1988 Translation. Cambridge UK: Cambridge University Press.

Marcuse, H. (1972) *Nature and Revolution. Counterrevolution and Revolt*. Boston, MA: Beacon Press



IV. Art, Tools and Technology: The System

The original painting easels and the innovation of paint in tubes were tools that allowed artists to move outdoors and immerse themselves in the experience of nature. In our project, *Plein Air* is an interactive device that allows us to see and hear how trees are doing in relation to human interaction and atmospheric change. The easel holds plant physiology sensing equipment and computer programs that translate data to sound. The *Plein Air* easel includes a stand that holds a tree leaf chamber. It connects the reactions of that leaf to a number of plant physiology monitoring devices in the easel box. The audience will experience sound that re-presents the trees' response to atmospheric changes particularly in relationship to carbon dioxide; caused by human respiration, transportation, home heating and industrial pollutants.

The *Plein Air* easel holds two systems: one is a plant physiology monitoring system the other is a sound system. The physiological system compares atmospheric conditions to the conditions relative to a leaf. The sensors monitor: CO₂, humidity, temperature, air flow and light intensity. Mathematical equations based on these parameters give us photosynthesis and transpiration.

The process of photosynthesis begins with a leaf of the tree that is surrounded by atmospheric turbulence. On a leaf there are thousands of small pores called stomata. When the stomata open they take in carbon dioxide. The stomata also control transpiration. Water from the soil is drawn up through the root and up the stem; passing into and through the green leaves. Transpiration maintains the leaf temperature while stomatal control prevents dehydration. Inside the leaf the green substance in plants called chlorophyll processes the sun light, carbon dioxide and water to create a type of sugar that builds the plant body, fruits and seeds. Leaves reduce the CO₂ level and produce oxygen during the day time and reverse the activity during

the night. Some plants reduce the CO₂ level more than others.

The real-time sound system has been developed by Matthew Dalglish a PhD candidate at the University of Wolverhampton. He designed, developed and built the hardware and software that transfers the plant physiological data into a sound program. The real-time approach allows us to experience the tree's immediate response as the environment is changing; such as clouds and cars going by, or people breathing close to the tree. The sound exploration is intended to be more than a simple illustration of the scientific data or sonic pattern. It intended to create an experience that allows the user and viewer to feel and share a momentary but heightened sense of environmental awareness as the tree responds to atmospheric changes.





Union Terrace Gardens – Elm

V. Artists Biography

Reiko Goto and Tim Collins are ecological artists. They have collaborated together since 1987. They have lived in the UK for five years, now reside in Stonehaven, Scotland. Reiko is a PhD candidate working with Professor Anne Douglas at „On the Edge’ at Robert Gordon University. Reiko’s interests are ecology based - an inquiry of living things in relationship to their environment. Her work has been presented at Capp Street Project in San Francisco and the Walker Art Center in Minneapolis. Tim is currently a visiting research fellow at the Institute for Advanced Studies in the Humanities at the University of Edinburgh. He is currently working on a book that deals with art, aesthetics and environmental change.

<http://collinsandgoto.com>
<http://eden3.net>

2000 – 2005

Three Rivers - Second Nature, a 5 year analysis of green infrastructure systems in Allegheny County Pennsylvania, STUDIO for Creative Inquiry, Carnegie Mellon University, Pittsburgh, Pennsylvania.

2002

Nine Mile Run and Slag Garden, in Ecovention. Curated by Sue Spaid and Amy Lipton, Contemporary Art Center, Cincinnati, Ohio. (Goto and Collins with Bingham)

1999

Watermark, in Natural Realities. Curated by Heike Strelow, The Ludwig Museum, Aachen Germany.

1997 – 2000

Nine Mile Run, Developing a restoration ecology model for a sustainable open space on an urban brownfield. Pittsburgh, Pennsylvania.

1990-1993

Aqua Pura, San Francisco Arts Commission, Art in Public Places. Permanent Public Artwork for San Andreas Water Treatment Facility. San Francisco, California.



Duthie Park – Lime

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