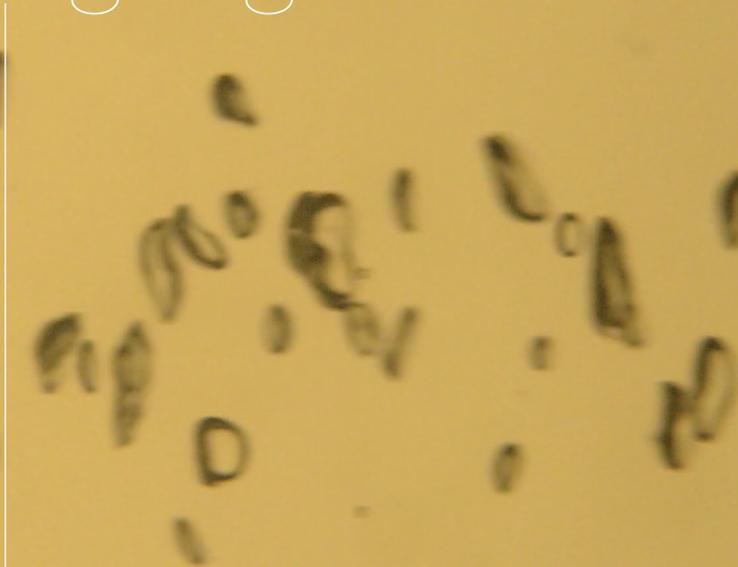
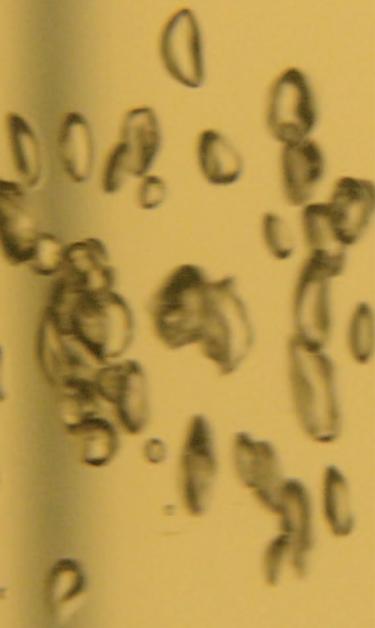


gauge



gauge

**IS AN INVESTIGATION BY A GROUP OF ARTISTS AND SCIENTISTS INTO WEATHER, WATER AND SCALE.
BY FOCUSING ON SPECIFIC MANIFESTATIONS AND INSTANCES, GAUGE HOPES TO INVIGORATE OUR
AGE-OLD CURIOSITY FOR THE UNDULATIONS AND PRECIPICES OF THE WATER CYCLE.**

Created and directed by Madeleine Flynn and Tim Humphrey

WITH

Graeme Leak, *performer/composer/inventor*;
Rosemary Joy, *miniature percussion designer*;
Cameron Robbins, *visual artist*;
Dr Michael Roderick, *Senior Fellow and Associate
Professor Research School of Earth Sciences
& Research School of Biology ANU and
Dr Adrian Pearce Associate Professor,
Department of Computer Science and Systems
Engineering, University of Melbourne.*

OPENING HOURS

Thursday 15 November - Wednesday 21
November 12-8 pm, and then during *Going
Nowhere* from Friday 23- Sunday 25 November.

Daily live 'weather forecast' performances at 6pm.

Gauge is an evolving project which aims to collaborate with artists across the seven continents. The first international artists are Alex Stahl and Pattie Clemens, whose work, *Water Project #2262* will be part of the *Going Nowhere/Gauge* parallel weekend.

The artists and scientists involved in the project are united in their curiosity of processes that can substantially influence the tempo of our lives, and the progress of our cultures. Our hope is that *Gauge* can be a reflection on the beauty and importance of processes related to water, cyclical and ever-pulsing indicators of the life of the planet. More information about the *Gauge* project is available at www.gaugeresearch.org

Lighting Design
Jen Hector

Sound design
Michael Hewes

Production management
Emily O'Brien and
Nathan Evers

Photography
Dean Petersen

Catalogue design
Letterbox

gauge

If at first the word 'gauge' conjures the image of a weather-beaten farmer stamping across cracked ground to check the rainfall, let your thoughts drift around the word a little more. Before long, other associations might surface... you might find yourself imagining silt and cloudscapes, bubble chambers, dripolaters...perhaps a waterpiano?

**IN THE WONDROUS, WEATHER-INSPIRED WUNDERKAMMER:
MADELEINE FLYNN & TIM HUMPHREY'S GAUGE** *By Ursula Dawkins*

For creator/directors Madeleine Flynn and Tim Humphrey, the title of their new work *Gauge* is nuanced, suggesting both “a specific sense of measurement and the febrile nature of choice”. Created in collaboration with three other artists and two scientists, *Gauge* is a playful and curious investigation; a hands-on encounter with weather, water and scale.

Flynn and Humphrey first considered creating a work that considers climate change two years ago, in response to Arts House’s Six Degrees project. *Gauge* naturally began to “brew and build” as an extension of ideas already important to Flynn and Humphrey’s practice: “Making sense of large amounts of data in poetic and physical ways,” cite the artists, replying together to interview questions. “Paying attention to sound in public places, from both people and the environment. The tempo of a long approach. And a childhood growing up on a farm in country Victoria, where it is all about the rain gauge and telling how far away someone is by the Doppler effect from their car.”

As collaborators, Flynn and Humphrey invited artists they knew were “specifically and beautifully” engaged with ideas that would fit the project: “Cameron Robbins, whose work uses the forces of the natural world; Graeme Leak, who has a lifetime of working with water in percussion/installation; and Rosemary Joy, whose work is concerned with site-sympathetic scale.”

Two scientists completed the equation: the ANU’s Michael Roderick; and Adrian Pearce, from the University of Melbourne. Dr Roderick, Flynn and Humphrey say, was happy to receive “a cold call from artists from the south” – he is author of the ANU’s Global Atlas of the Water Cycle, “which synthesises data on the past, present and future patterns of rainfall across the world”. Dr Pearce’s research interest is more arcane: as part of an ongoing mutual interest in systems, Flynn and Humphrey wanted to explore with him “the real symmetries between orchestration as it is understood in music, and the meaning that it has in artificial intelligence”. More about “orchestration” a little later...

“Short, sharp and focused” is how Flynn and Humphrey describe the occasions on which all seven collaborators were able to meet and work together – excursions to laboratory and gallery; discussions around cycles, systems and inspirations.

“The questions we all asked each other and ourselves concerned the place of art in a world of storm-warnings; infinite process and finite systems. And specific details concerning the closed system of the water cycle – cloud seeding – the Tank Stream – vapour – artesian basin...”

“The water cycle is a closed system: this means the amount of water in this system has always been the same. Do you remember the drawings of the precipitation and evaporation cycles from primary school?”

gauge

Two weeks of onsite development at Arts House, Meat Market, enabled *Gauge* to take its initial form. “This onsite daily development was crucial to interweaving, inter-locating and impressing upon each other’s works, to create an environment that is one orchestrated whole.” In essence, say Flynn and Humphrey, each artist responded to phenomena that had emerged during discussions with the scientists; and then to one another’s work in the space.

“These responses emerged as a series of quite discrete works that shared a particular aesthetic history. Within this ‘exhibition space’ the sounds are orchestrated, using the aesthetic principles of musical organisation, with the source timbres that result from artists’ reflections on the world water system, or cycle.”

Which brings us back to ‘orchestration’. How do the myriad materials, sounds and textures of *Gauge*’s enigmatic ‘apparatus’ – from clay, water and steel to compressor and humidifier; from bubbling tanks to falling numbers; from galvanised downpipes to melting ice; from live weather data to an old piano – add up to a coherent whole?

“The orchestration of found, or what are often called ‘concrète’ sounds is quite a fine task...,” say Flynn and Humphrey, who worked with sound designer Michael Hewes on the overall aural environment. “If we think of each of the works as part of a texture/timbre: we have the low, sustained liveness of Graeme’s outside framed drips; the energetic interruptions of Rosemary’s percussive water storage/rainfall data performances; the

intermittent texture of the water piano, varied through the real-time data from the weather station on the roof; the regular tempo of a gauge; the continuous, low frequency pitch of Cameron’s bubbles...”.

Not to mention “the public interventions of the mud play and vortex creation”.

“These textures are then heard both locally, close to the works, and through the whole, open listening space of the Meat Market. In a way, the work only exists through the people and weather who activate it.”

Gauge, say the artists, is an ephemeral, hands-on weather museum, where visitors can play with mud, ice, water, fog and rain. In the grand, 19th-century surrounds of its venue, *Gauge* is beautifully and deliberately lit by Jen Hector to create the feeling of a curiously contemporary Wunderkammer.

“And you don’t need to wear your gumboots. All this weather is happening indoors!”

Out in their backyards and paddocks hundreds of Melburnians, apparently, regularly tread the worn pathways to their own rain gauges, reading and submitting their data to Melbourne Water to help build microclimate pictures of rainfall across the state.

“There are people who have been doing this for 30 years. We love the idea of this very particular local participation in large-scale data collection. We hope that *Gauge* has a similar invitation and sense for people to participate in the creation of a weather sound-world”.

25.9

4.1

23.2
51 57 2.7

1013

4

MADELEINE FLYNN & TIM HUMPHREY



Madeleine Flynn and Tim Humphrey are artists who situate their sound and music practice across a wide range of performance and installation contexts, communities and collaborations.

Their work has been commissioned and presented by festivals, curators and venues nationally and internationally. They have a Green Room Award for Outstanding Soundscapes and Music and in 2012 they were awarded the National Art Music Award APRA – AMC for excellence in Experimental Music.

www.madeleineandtim.net

What's yours is mine?

The amount of freshwater in the world remains constant. Uneven distribution and increased demand for freshwater creates scarcity. Our works for Gauge are inspired by the downward fall of water in the cycle from the cloud to the watertable. Complementary with Cam's work, we imagine a closed system where the amount of water in the system is allocated and constant, but dispersed in distribution.

Inspired by the water cycle description from Dr Michael Roderick and ongoing discussions with Dr Adrian Pearce re orchestration in music/sound and process.

1. Waterpiano

MATERIALS: Beale 1942 piano, bitumen paint, on-site 2400 L water tank collecting water from Meat Market roof, pump, hose, drip irrigation system, water container modulated by live weather data from installed on-site weather station via a custom made Pure Data electro-acoustic patch.

2. The Gauge

MATERIALS: Gauge, falling numbers generated live from installed on-site weather station (with Cameron Robbins). We have also worked with the team to create the living, breathing soundworld.



ROSEMARY JOY



Rosemary Joy creates sculptural percussion projects, often site specific and usually for very small audiences. A member of Aphids since 1997, her projects include System Building, inspired by and performed in Watertoren West (Noorderzon Festival, Groningen), Radialsystem V (Berlin), Melbourne Recital Centre, CarriageWorks and Red Gate Gallery (Beijing); and Xantolo, a collaboration with Mexican percussionist Evaristo Aguilar, inspired by the Day of the Dead celebrations in Mexico, performed at the Melbourne Recital Centre.

Rosemary has created sculptural percussion instruments for many collaborations with composer David Young including Yakumo Honjin performed in Matsue Castle in far-West Japan; Underground which toured to the Netherlands, Belgium, Mexico, Japan and Australia from 2007-10; and the Aphids, Speak Percussion, Fritz Hauser and Boa Boamann collaboration Schallmaschine 06 underneath Federation Square for the Melbourne International Arts Festival. Earlier collaborations include Veronique with percussionist Vanessa Tomlinson performed at the Shanghai International Arts Festival.

Australia is both the driest permanently inhabited country and the wettest permanently inhabited country in the world. Most Australian cities store enough water for 5 years' supply. London, in contrast, has water storage capacity for only 6 weeks.

The narrative of Australia's efforts to control water is riddled with strange fits and starts from the water storage tanks built by convicts on the Tank Stream, Sydney's freshwater supply, not long before it was overcome by pollution; to the turgid complexities of the Murray Darling.

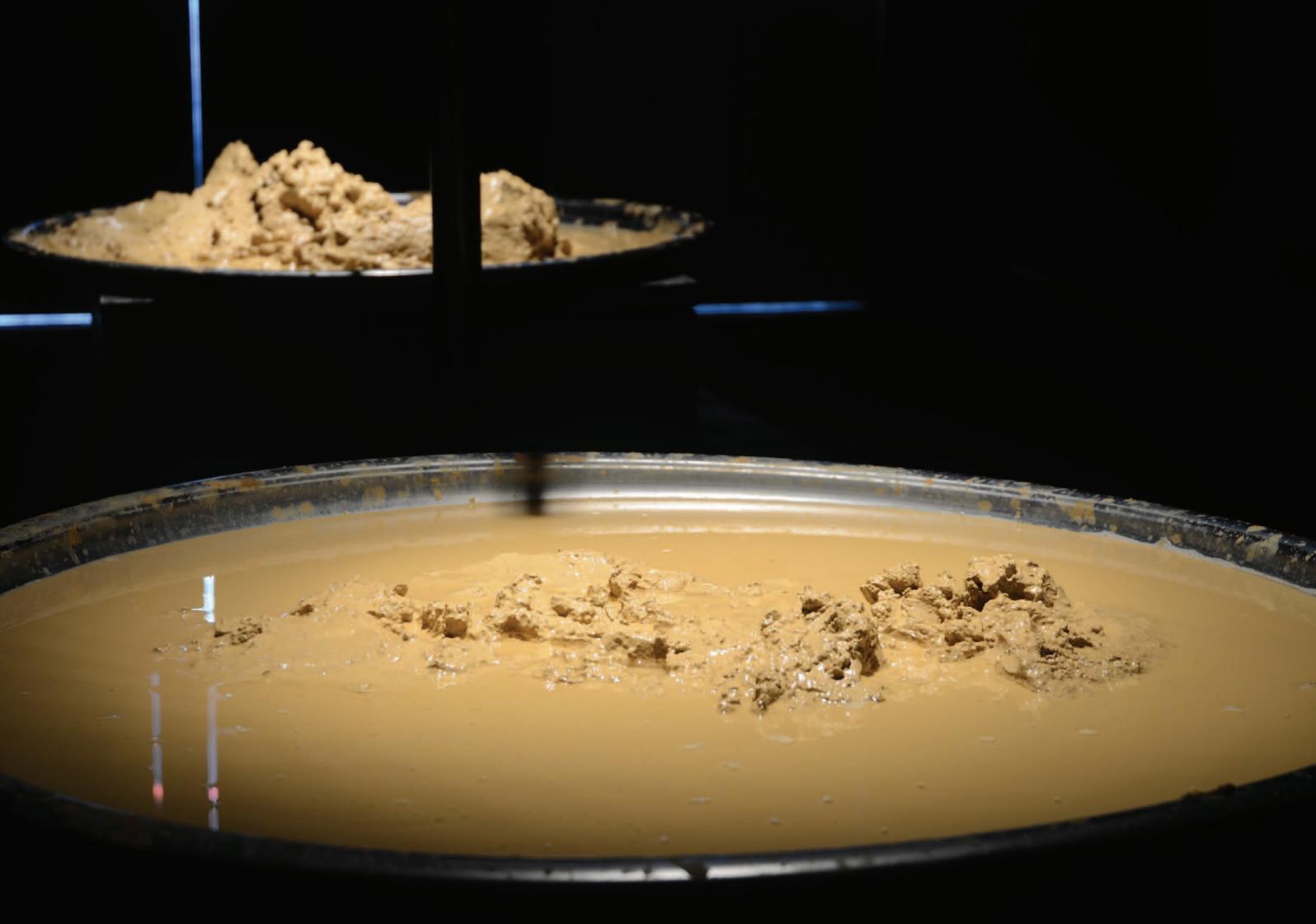
With thanks to Dr Michael Roderick and Michael Cathcart.

1. **Water Storage Capacity**

MATERIALS: African Rosewood, Danish oil, beeswax.
with thanks to Adam Stewart for construction of the boxes.

2. **Silt**

MATERIALS: clay, water, steel







GRAEME LEAK



Graeme is an independent composer, performer and musical director.

He brings together players from beginners to professionals in his projects and he runs community music making sessions across the country. In 2003 he built a Musical Fence installation in outback Queensland that has since become a popular tourist attraction.

He is a creative director of *The Spaghetti Western Orchestra* that recently performed a BBC Prom concert at the Royal Albert Hall in London.

Graeme has devised and produced events for the Melbourne Recital Centre and Arts Centre Melbourne and has directed pieces for CHOGM, The Commonwealth Games, The Melbourne Festival, Ten Days on the Island and the Queensland Music Festival.

www.graemeleak.com

The Dripolator (2012)

Four microphones, galvanised downpipes, melting ice, water

Fabrication and design consultant: Ian Bracegirdle

The Dripolator converts everyday sound into music via tube resonance. Microphones are mounted in the ends of the drain pipes, 'listening' to the world. Two are focused on the drips falling in the water from the melting ice, the other two are focused on the sound of the outside world (they are located in the kitchen, pointing out of the window). We are listening to these via the amplifier and speakers. Nothing is pre-recorded or processed by a computer, it is simply the sound of drips and the outside world, all heard through drain pipes – which add the musical drone sound.

The sonic beauty of water has been central to my work since 1980s. It is both a medium for sound waves and a sound source in itself. It can also play the piano.

The Dripolator was first assembled for *Constellation* (a durational chamber work for 12 composers; an exhibition with performance interruptions by Madeleine Flynn and Tim Humphrey, 2010) and was recently re-developed with assistance from the Melbourne Recital Centre for *MusicPlay* 2012.



CAMERON ROBBINS



Cameron's work makes tangible the underlying structures and rhythms of natural forces. He has produced site-specific installations in art galleries, disused buildings and outdoor sites around Australia. These inquiries employ structural devices such as wind- or ocean-powered mechanical systems. Their aesthetic is the result of both careful engineering and resourcefulness. The outputs of these site-specific installations include wind drawings, ephemeral structures, and sound compositions. These interpretations of the dynamics and scale of the physical world suggest the complexities of the unknown.

www.cameronrobbins.com

How old is a glass of water?

From the astronomers we know that enormous volumes of water reside in different parts of the cosmos and throughout the Milky Way galaxy. Water ice can be found on many of our planets and moons in the solar system, and also in the comets. Water can be created from hydrogen and oxygen in the shockwaves of exploding stars, where many of the heavier elements and minerals are created. From these metamorphosed star ashes, clouds of material eventually condense to form planets such as the Earth. This means that our drinking water is older than 4.5 billion years. When we see water bubbling out of the ground in hot springs and volcanoes, part of it has been percolating from the hot interior since the planet was born.

My works for *Gauge* reflect the upward motion of water from within the earth to the clouds.

1. *Plutonic Waters* (Bubble Chamber)

MATERIALS: 160 litres rainwater, Acrylic, compressor, gauges, timber, lightbox, dimensions approx 180 x 180 x 180cm

2. *Cloudscape*

MATERIALS: 2,700 litres rainwater, vinyl pool, ultrasonic humidifier, fan



SCIENTISTS

Dr Adrian Pearce



Associate Professor Adrian Pearce is a Senior Lecturer in the Department of Computing and Information Systems at The University of Melbourne. A/Prof Pearce completed a BSc (Hons) at Curtin University of Technology and a PhD at the University of Melbourne in computer science.

His work falls within the field of artificial intelligence and includes reasoning about action and change, based on asynchronous variants of the situation calculus, and epistemic reasoning involving complex epistemic modalities, including common knowledge. He is currently Research Theme Leader in the Defence Science Institute, the Director of Education for the NICTA Victoria Research Laboratory and Director of the Intelligent Agent Laboratory

Dr Michael Roderick



Michael Roderick graduated with a degree in surveying in 1984 and subsequently worked as a surveyor across northern Australia until 1990.

He then completed a PhD in satellite remote sensing and environmental modelling at Curtin University in 1994 and joined the ANU as a Research Fellow in 1996. He holds a joint appointment as a Senior Fellow between the Research School of Earth Sciences and the Research School of Biology.

He is also an associate editor of Water Resources Research. The main focus of his research revolves around water, at scales from cells to the globe.

COLLABORATORS

Lighting design Jenny Hector

This year Jenny has designed the set & lighting for Melbourne City Council's presentation of Berlin's Rimini Protokol's 100 *Per Cent Melbourne*, the lighting design for Circus Oz's premiere *From The Ground Up*, the lights for Back to Back's *Hell House* and the set and lighting for YGLAM's latest production *Love Bites*.

In 2011 Jenny travelled to Belgium & Switzerland with Back to Back's *Democratic Set*, designed the set & lights for Jo Lloyd's premiere *Future Perfect* and was the chief lighting designer for Paul Kelly & Paul Grabowsky's national tour, *Meet Me In The Middle Of The Air*.

Federation Square commissioned a remount and extension of the 2010 Luminaries exhibition for the 2011 Light In Winter Festival, which she both designed & curated. She received Green Room Awards for Jenny Kemp's *Madeliene* (lighting realization) and Balletlab's *Miracle* (co-lighting design).

Sound design Michael Hewes

Michael Hewes is a world-renowned Melbourne-based sound designer, producer and audio engineer specializing in the recording and live production of Contemporary Music.

He has worked with many of the leading Contemporary Music organizations in Australia, including Astra Chamber Music Society (since 1989), Elision Ensemble (since 1990), Ken Murray, Pipeline, Libra Ensemble, Michael Kieran Harvey, Chamber Made Opera, The David Chesworth Ensemble, Speak Percussion, Aphids Events, Victorian College of the Arts and Glass Percussion Project. For many years he has been composing and implementing spatial and/or interactive sound works and environments both in Australia and internationally. He is a core member of Run Stop Sound.

gauge futures

THE WATER CYCLE ON A GLOBAL SCALE

As a closed global system, the water cycle invites an investigation into patterns of water distribution. The varying access to water across different world populations is an increasingly important political question. As a reflection on the fact that whatever water falls as rain or snow has only recently been lifted from another part of the earth part of our ongoing vision for Gauge is to invite artists from the seven continents to create work.

In this first iteration, in addition to our Australian artists, we have invited San Francisco based artists Alex Stahl and Pattie Clemens to create a new work, *Water #2262*, which will be shown as a filmed work during the Going Nowhere weekend.

Notes for Water Project #2262.

Water Project #2262 is three things.

It is our third hydro-acoustic research experiment, conducted to observe the chaotic interplay of musical vibrations and water. It is part of an ongoing effort to develop new technology for acoustical actuation of unusual materials. A trumpet-shaped laminar flow nozzle is directly modulated by sound waves; no intervening sensors, logic or controls are employed.

It is an artistic reflection on life in the San Francisco Bay Area: where we live with the daily undulations of massive Pacific Coast fog banks, cresting surf-like on extreme inland temperature gradients; where we live with fault lines and the ever-present likelihood of major seismic activity in the bay; and where our lives depend on the miracles and absurdities of regional water systems engineering.

The title derives from *Water Project #2261*, a musical composition by Cheri Knight, recorded in the late 1970s with Steve Peters and Alex Stahl, that is featured in the video.

Patti Clemens

Patti Clemens is a vocalist, music producer, inventor, designer and maker of musical instruments, and other novel objects that produce sound.

Alex Stahl

Alex Stahl is a designer, builder and operator of musical instruments, sound environments, acoustical architecture and studio tools.

Joey Williams

Joey Williams, VideOda, is a videographer, D.P. and post-production editor.

For 25 years he has documented fine arts, performances, and community activism in the realms of peace and social justice.

Thanks to the ArtsHouse team, and particularly to Jim Stenson, who has gone up and over to help us during our time here. The artistic team would like to thank Dr Adrian Pearce and Dr Michael Roderick whose willingness, curiosity and openness to the creative process has been greatly inspiring. This project has been supported in development by the Inter-Arts Office Australia Council of the Arts and CultureLAB and in presentation by the ArtsHouse, City of Melbourne and Arts Victoria.



