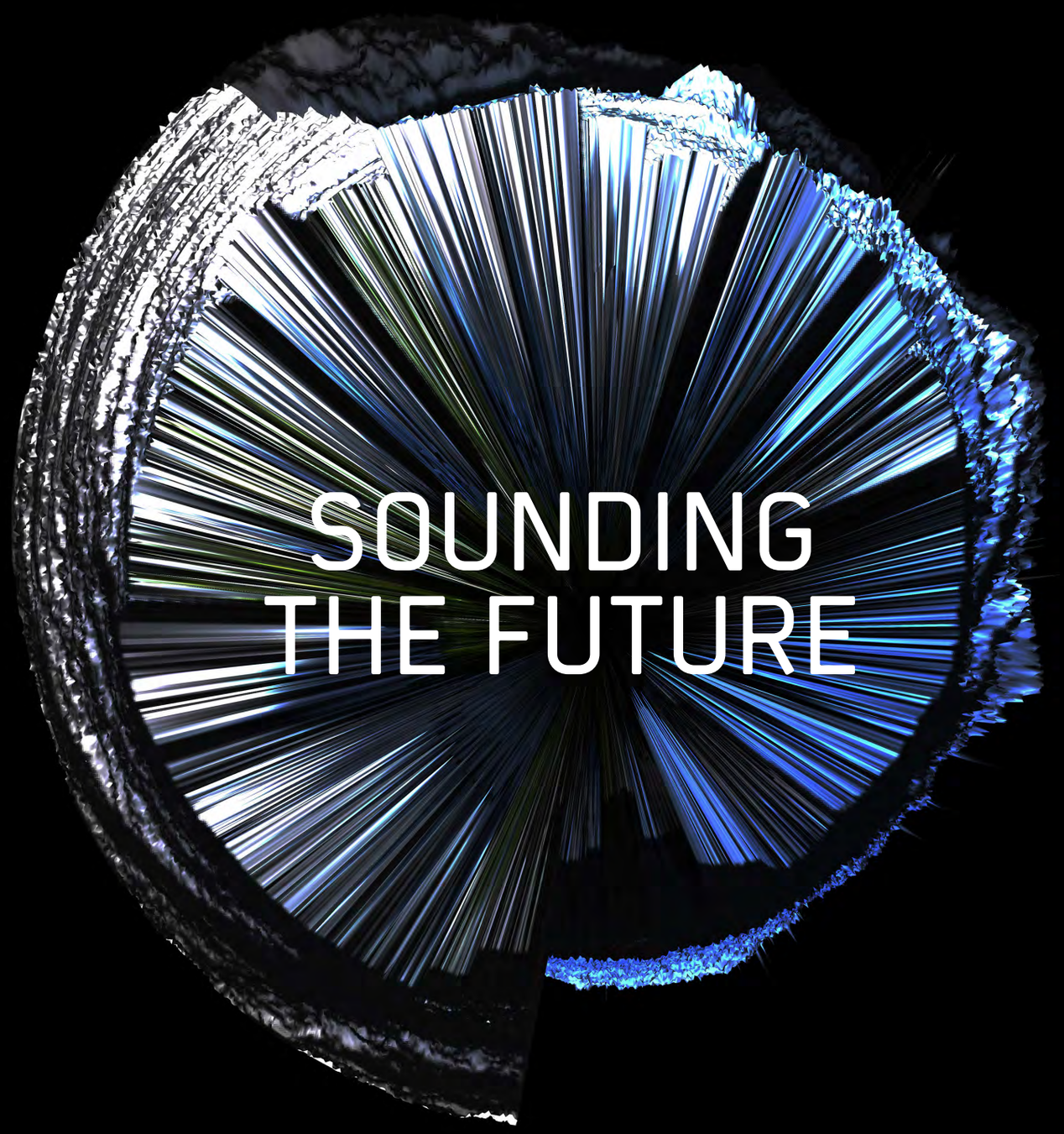
GAIL PRIEST



SOUNDING THE FUTURE

a ficto-critical exploration of art's sonic futures
an audio/hypertext

ACKNOWLEDGMENTS

Sounding the Future has been a three-year project. Over this time I have drawn upon the wit and wisdom of many generous people including but not limited to Thomas Burless, Michaela Coventry, Julien Pauthier, Peter Blamey, George Khut, Pia van Gelder, Tom Smith, Robin Fox, Michaela Davies, Guy Ben-Ary, Cat Hope, Jasmine Guffond, Peter Hollo, Matt Cornell, Hamish Innes-Brown, Mamoru, Jin Sangtae, Julie Vulcan, Lizzie Muller, Katerina Sakkas and Max Breedon.

I left my job of 15 years at RealTime Magazine to undertake this project and I thank Keith Gallasch and Virginia Baxter for their support and encouragement in this venture and for teaching me everything I know about writing. I was able to take this leap of faith courtesy of an Australia Council Emerging & Experimental Arts Fellowship and I thank the peers that thought me worthy of this honour.

The project began with a residency in Bourges, central France, hosted by Bandits-Mages and La Box, ENSA and I thank Sandra Emonet, Isabelle Carlier, Ewen Chardronnet, Marta Jonville, Chloé Nicholas, Jean-Michel Ponty and Roger Cochini for their support and hospitality.

This project concludes with the exhibition at UTS Gallery and I thank Tania Creighton, Eleanor Zeichner and the UTS Art staff for the opportunity to present the work in Australia.

Finally huge gratitude to my family who have always supported my endeavors and to Samuel James for providing sage advice ranging from the technical to the philosophical to the emotional. For someone who doesn't really like science fiction, he has lived with me living it for the last three years.

LISTENING NOTES

This publication is an attempt at a hybrid audio/reading experience. Headphone listening is recommended, particularly as some binaural recordings are used.

The fictional scenarios (Future human & Future city) can be read or listened to, the audio presented in two parts. The Artist interviews and some Artist speculations are audio only. Future now offers text files for reading, with atmospheric soundscapes provided as "music to read by."

Please note the embedded audio player will stop if you move from the page. If you'd like to follow the text across pages while listening it's recommended you use the streaming link provided (consequently internet access will be required).

PREFACE: AUDIBLE IMAGININGS

The future may be hard to see from here, but perhaps we can hear it coming.

The project

Sounding the Future is a body of ficto-critical material (fictional scenarios and factual research) speculating about what the future might sound like and how this may manifest as art. These possible futures are viewed through two filters: the Future human — the integration of technology and biology resulting in trans- and post-human conditions; and the Future city — the sonic potentials and pitfalls of the new cities we imagine. Unavoidably, these futures are informed by the ways in which we listen now and have in the past, so a third strand comprising research and documentary material weaves past and present practice into this future thinking.

However Sounding the Future doesn't seek to suppose what the future in general will sound like, rather what art in the future will sound like — art operating as a distillation of civilisation's desires, fears, virtues and vices. Consequently these are fanciful scenarios rather than hard-science fictions: an afterlife as a sonic manifestation; a quantum rift that acts as a sonic drug; a world in which males are unable to understand or make music; noise terrorists hacking a city that sings; and a society with synaptic burnout from audiovisual overload. What binds all the scenarios is something approaching a techgnostic pursuit of listening as a deeply transformative (though not always positive) act.

The Sounding the Future project has been in development since 2014 and was devised to bring together the various aspects of my work as a soundmaker, sound writer and curator. It has several outcomes: an interactive audiovisual installation for solo viewer that has been exhibited in Germany, Hong Kong and now Sydney; a radiophonic adaptation for ABC Radio National's Soundproof program; a curated exhibition at UTS Gallery, Sydney incorporating newly commissioned works from four Australian artists, George Khut, Peter Blamey and Pia van Gelder & Tom Smith; and this e-publication, including the catalogue for the exhibition, as a final document of the project.

Future fictions

For me there has always been a rich and exciting relationship between speculative fiction and media art. I came quite late to literary science fiction, but when I did, via a borrowed copy of William Gibson's Mona Lisa Overdrive [1] in the mid 1990s, it was full immersion.

What particularly fascinated me was the role that art played in these future speculations. William Gibson (whose later work is less epiphanic, but whose Neuromancer remains my cyberbible bedtime story [2]) is a master of the artwork as novum [3]. From the rogue AI-crafted Cornell Boxes of Count Zero [4]; to the mysterious film fragments of Pattern

Recognition [5]; to the locative Augmented Reality of Spook Country [6], Gibson sniffs out near-future art trends and makes art central to the way in which we experience these alternate realities. Maybe what I find so comforting in Gibson is that he predicts futures where art has a future — ones where the transcendent power of art is beginning to be realised.

But Gibson is not alone. In Pat Cadigan's novel Synners (1991), she developed a whole world around VJ culture, one in which artists are 'synthesisers' hallucinating video clips for the latest pop music [7]. In Needle in the Groove (2000), Jeff Noon writes in wonderful prose poem style about an up-and-coming Manchester band who, via a secret device, makes sublime and soul-loosening music remixes [8]. Leading this trend are the early short stories of J.G. Ballard that offer a cornucopia not just of art related speculations, but specifically sonic art futures. Best known is the muted world of the 'Sound Sweep,' but he also dreamt up malignantly growing public sound sculptures ('Venus Smiles'), singing orchids ('Prima Belladonna') and a terrible revenge killing by exposure to microsound ('Track 12') [9]. Ballard's futures are sonically saturated places, often unnervingly so.

To a sci-fi aficionado these influences will be patently clear within my writing. I leave it up to the reader to decide whether this is poor imitation, post-post-modern allusion, or a genuine desire to recreate the feeling of the cyber futures that so captured my attention back in the 1990s.

Media dreams

At the same time as I was discovering science fiction, I was also entering the burgeoning world of media art, a place where the ideas talked about in these fictions, were, with greater and lesser degrees of success, manifesting. In journals such as 21C and Artbyte media art theory and reviews were rubbing up against commentaries by leading science fiction writers like Bruce Sterling, Rudy Rucker, John Shirley and William Gibson.

While much of the art was unable to deliver due to technological limitations, it was the media theory rhetoric that offered the most intoxicating glimpse of the future.

Hypertextual visions

In fact text in the 1990s was hyper, the power of the link prophesied to deliver a brand new future e-literature. Alas, in most instances this was an idea ahead of its time, as it was both difficult to present and experience on the creepingly slow speeds of the nascent internet. Now by the time the speeds have caught up (arguably), hypertext functionality has become a tool for mass information gleaning and social linking — a restless skittering across the surface of words — rather than a considered immersive and interactive reading experience. [10]

However I often wondered if we gave up too early and I continued to harbour my aspiration to have a crack at hypertext next to my science fiction writing dream. So in homage to the future we dreamt in the 1990s, and as cross-artform experiment in which sound aims to attenuate the attention deficit effects we now associate with link-clicking, I devised the multi-filamental structure of Sounding the Future.

Factual fragments

Literary theorist Frederic Jameson says "Science fiction is generally understood as the attempt to imagine unimaginable futures. But its deepest subject may in fact be our own historical present."[11] With this in mind the speculative fiction material of Sounding the Future is augmented with access to fragments of research that have fed into the speculative scenarios: short pieces summarising current developments in art, science, technology and architecture. This research was augmented by travel to the almost future cities of Seoul, Tokyo and Osaka, allowing me to gather audio and video samples.

Of particular significance are a series of interviews I conducted with current artists who, to me, evidence aspects of future thinking in their approach to making [new] media art. Who better to predict the future of sound, than the artists who are striving to achieve it now. I profusely thank Guy Ben-Ary, Peter Blamey, Michaela Davies, Robin Fox, Jasmine Guffond, Cat Hope, George Khut, Pia van Gelder, Peter Hollo, Matt Cornell, Jin Sangtae and Mamoru for sharing their projects with me and for allowing me to include them here.

The publication

Given my interest in hypertextual reading and my background in publishing (with RealTime magazine), it was vital to me that the project conclude with a digital publication.

The first section of the publication serves as the catalogue for the curated exhibition at UTS Gallery, documenting the commissioned works by George Khut, Pia van Gelder & Tom Smith, Peter Blamey and my own installation. It also includes an introductory essay by speculative specialist Dr Lizzie Muller.

The remainder of the publication comprises the 'body of work' that makes up the installation project. Given the time-pressures of experiencing a voluminous artwork (over three hours' of audiovision) in a gallery context, I wanted to present the material in an alternate format for more in-depth consumption. I have eschewed the video, which in the installation operates as navigation, and have distilled the work down to text, audio and images in an attempt to create an audiobook-reading hybrid. The fictional scenarios give the option to listen to the pieces or read them. In the Future citing section the artist interviews and speculations are predominantly audio, while the Future now pieces are texts with atmospheric soundscapes to read by. Each section concludes with a number of suggested links to related materials, in a similar way to the installation, so that the experience is non-linear and user-driven.

So I invite you to delve into the tangled web of figments and fragments that might constitute what our art in the future might sound like.

Look around....Listen out....Gail Priest, July 14, 2017

References

1 Gibson, W. 1988, Mona Lisa Overdrive, Victor Gollancz Ltd, London.

2 Gibson, W. 1984, Neuromancer, Ace Books, New York.

3 Novum is Darko Suvin's term for the 'new thing' or paradigm that renders a future reality curious. Darko Suvin, Metamorphoses of Science Fiction, (New Haven, Connecticut: Yale University Press, 1979)

4 Gibson, W. 1986, Count Zero, Ace Books, New York.

5 Gibson, W. 2004, Pattern Recognition, Penguin Books Limited, London.

6 Gibson, W. 2007, Spook Country, Penguin Books Limited, London.

7 Cadigan, P. 2001, Synners, Four Walls Eight Windows, New York.

8 Noon, J. 1999, Needle in the Groove, Anchor Books, London.
I have only just discovered that a spoken word CD accompanied by a selection of experimental music produced by Noon and David Toop was released at the same time as the book through Sulfur Records. It is no longer available but tracks are on YouTube: https://www.youtube.com/watch?v=0HaYQNKiXYw.

9 J.G. Ballard, The Complete Short Stories of J. G. Ballard: Volume 1 (London: Fourth Estate, 2010)

10 Johnson, S. 2013, 'Why no one clicked on the great hyptertext story,' Wired Magazine online, 4/16/13, https://www.wired.com/2013/04/hypertext/, accessed August 1, 2017. That said, there are good examples of e-literature to be found at the Electronic Literature Organization, and a particularly successful contemporary hyperfiction is Paul La Farge's Luminous Airlanes.

11 Jameson, F. 2005, Archaeologies of the Future: The Desire Called Utopia and Other Science Fictions, Verso, London.

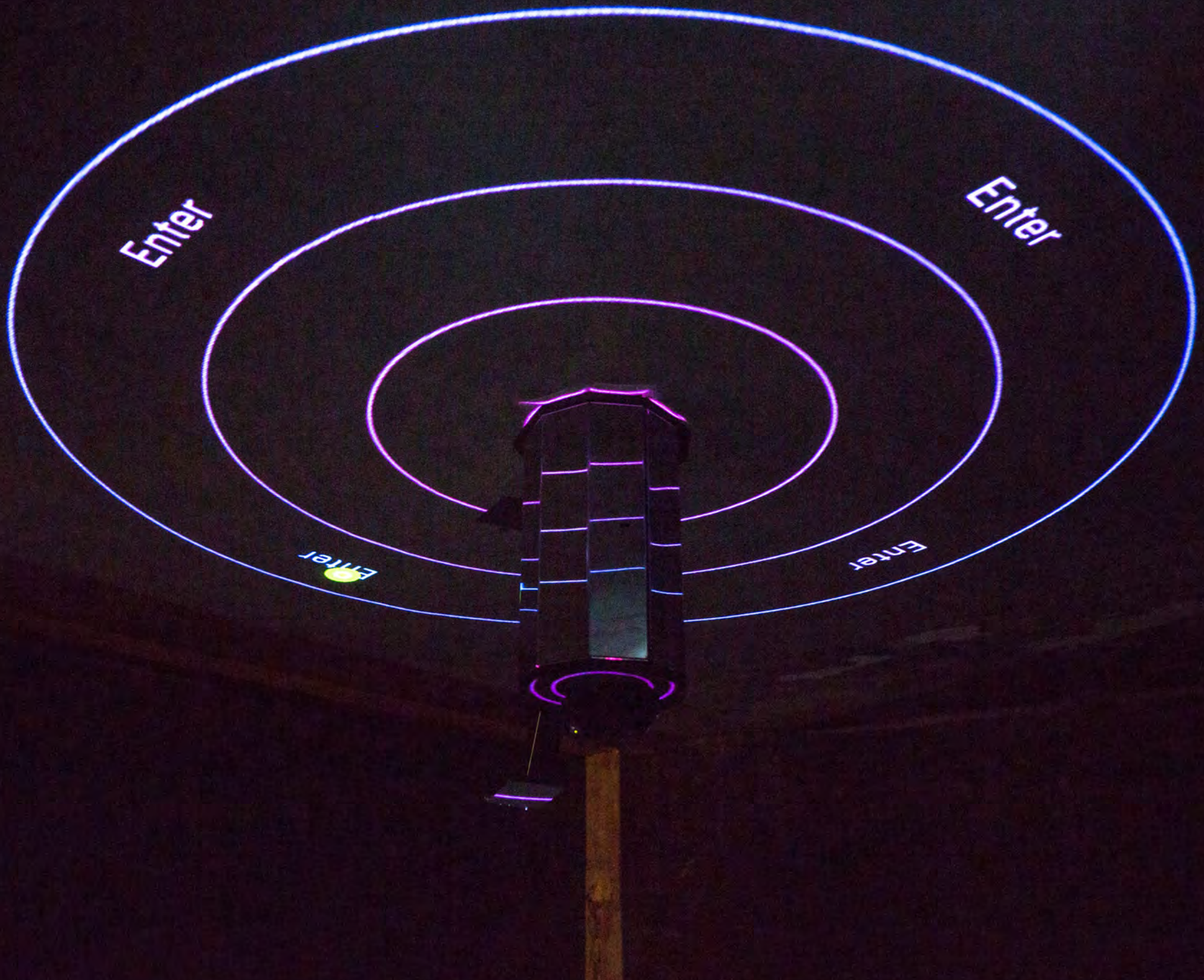
Artists:
Gail Priest
George Poonkhin Khut
Peter Blamey
Pia van Gelder & Tom Smith

curated by Gail Priest

UTS Gallery
August 1 - September 22, 2017

UTS ART

SOUNDING THE FUTURE - EXHIBITION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CURATOR'S NOTES

Sounding the Future is an exhibition that offers speculations about what art in the future will sound like. The exhibition presents sonic "possibles and potentials" ranging from almost-here Transhuman mediations to far-future post-Anthropocene aftermaths with some apocalyptic contingencies in between.

We always speak of 'visions of the future,' but what if we were to let the auditory realm lead our imaginings? Does the dialogue about futurity take on new dimensions when considered through a different sense ratio? [1] Speculations about the future are inevitably informed by the present day, so these dreams of future sounds also offer reflections on how we listen now.

However the exhibition is not simply focused on "what the future sounds like," rather "what art in the future sounds like." Art offers a concentrated and critical perspective on the state of a society. These speculative sound works allow for both the projection of a future world and a framing and analysis that can reveal things about our present relationship to sound. The conceit of a future artwork also offers the artists freedom to dream beyond what is possible now.

My own installation, also titled Sounding the Future, offers the foundation for the exhibition, presenting a survey map of the territory. Consisting of over 50 fragments of speculative fiction and fact, the interactive audiovisual piece is an immersive hypertext suggesting a web of possible sonic near futures. As part of this I conducted a number of interviews with leading Australian artists about their relationship with futurity and from these discussions I selected the artists to engage further with the project and develop concepts for this group exhibition.

Given the plethora of dystopic future scenarios that are almost too easy to imagine today, the artworks in Sounding the Future are on the whole curiously hopeful. While the many negative impacts of our current approach to living are shockingly present, the artists approach these possible futures with a sense of playful ingenuity and constructiveness.

For example in his work, Shelter Fallout/Spark Harvest, Peter Blamey explores a world of energy scarcity. However he combats this with a proposition for energy harvesting, finding new ways to garner precious resources from the very disastrous circumstances that are rendering drastic change. George Khut's Mettāmatics 1 & 2 proposes a way in which we will experience music remixed via our biological processes, however this interaction requires the pursuit of a state of mindfulness focused on compassion.

In the scenarios put forward in my work, there are definitely negative issues — overcrowding, energy crises, economic disparity, capitalist overdrive — but the imagined artworks show ways to negotiate these territories, often to transcend these conditions. Perhaps this is mere escapism but for me art reminds us of the spiritual values of humanity that are worth maintaining despite the circumstances.

In their collaborative audiovision, Pia van Gelder and Tom Smith speculate on a far future where the stars have transformed to iron and the human race, as we know it, is long extinct. Along the way they consider what they call "a proliferating array of objects, derivatives and metaphors." While it might seem catastrophic to imagine a world without us, it is perhaps a provocation to imagine beyond the Anthropocene, and contemplate our place within evolution on an awe-inspiring scale.

When researching this project I came across Neal Stephenson's Project Hieroglyph. Concerned that a large amount of science fiction was negative he suggested that in order to "get the big stuff done," writers, artists, scientists and technologists needed to start to work together to envision more positive futures. While I didn't set an agenda that the artworks in Sounding the Future should be utopian, this sense of proaction flavoured the thinking. If the future is what we are making now, we need to think critically and constructively about it. We need to seek it out, rather than letting it find us.

Gail Priest, July 2017

1 Media theorist Marshall McLuhan's term for the dominance of one sense over other another, specifically sight over sound. McLuhan, M. 1967 (2011 e-book), The Gutenberg Galaxy: The Making of Typographic Man, University of Toronto Press, Toronto, Canada.

A TREE FALLS: LIZZIE MULLER

One of the most well-known thought experiments has sound at its centre: If a tree falls in a forest and there is no one to hear it, does it make a sound?

This riddle is a mechanism for stimulating speculation, with a number of intricate moving parts. There is a tree — a living thing, with a life cycle, a metabolism, possibly with some form of sentience. The tree falls in a forest — a community of living things with networks of influence and communication.

The tree falls. The question could just as easily be asked with no fall (for trees make sound constantly), but this event is dramatic. The tree falls.

The sound of this event would be loud — it begins with an ominous wrenching creak, and ends in a thunderous crash. This makes the effort to imagine its silence equally dramatic, affecting, poetic.

The fall brings time into play — the event has a beginning, middle and end — a story arc. The falling is a kind of performance; the tree is raising its voice. It pays a high price for this dramatic act – falling, for a tree, is dying. The tree dies in the forest. It may take a few of its fellow trees with it, or perhaps it crashes through them, knocking off branches and finally coming to rest, on the damp, leaf-littered forest floor.

This carefully wrought conundrum creates a vivid (if unlikely) mental image. The tree in my mind is tall and narrow — perhaps an aspen. It falls beautifully, dead straight, through a crowd of almost identical trees. Brilliant sunshine makes the leaves a luminous green.

But the question is not how it looks. The question is: If there is no one to hear it, does it make a sound? I play the mental movie of the falling aspen in my head. First with sound, then rewind (the tree raises itself improbably back to its full height), and again silently.

Like the intricate set-up of its micro-scenario, the riddle has a number of nested riddles within it. Your answers to these riddles will reveal your own philosophical commitments.

First there is the question of the nature of sound. Sound waves travel through the air, reach the ear and cause vibrations. The brain translates this stimulus into a phenomenon that can be experienced. The sound of the tree (falling or otherwise) is a shared property — it is achieved through collaboration between the tree, the air, the ear, the brain and all of the past experiences that allow the embodied brain to recognise that noise.

The tree falling in the forest helps us to think through the physics, biology and subjectivity of sound, but nested within it are further philosophical questions. Does a thing exist at all if it is not perceived? Is an unobserved (or unperceived) phenomenon the same as a perceived one?

It is curious that all of these philosophical questions rely on the sound of the falling tree as their provocation. Not the question of whether it was seen. There is something about the sound-made-by-the-thing that is — experientially, rhetorically — independent of the thing itself. The visual-perception-of-the-thing is bound up so tightly with the thing, that there is little room for philosophical manoeuvre. It is hard to get a wedge of doubt or possibility between the thing and the visual-perception-of-the-thing. Between the thing and the sound-made-by-the-thing, however, there is space to imagine. This slight de-coupling gives us the wriggle room we require for speculation.

That is why imagining sound is so useful for speculative thought, and why the central question of Sounding the Future — what does the art of the future sound like? — is so powerful and provocative.

The micro-scenario of the tree in the forest, the drama of its fall, helps us imagine both sound and its absence. But more provocatively, it helps us to imagine a world without us.

This is perhaps the most testing future scenario that it is possible for the human mind to imagine: the world without humans. But that is the future we need to imagine if we take seriously the implications of our current trajectory. We do not need to imagine the end of the world – we need to imagine the world going on, without us.

Suddenly, the agency of the tree in this thought experiment becomes critical. The independence of things from human agency and perception takes on a more urgent aspect. It is not the existence of the things around us that is called into question, but the likelihood of our own existence in a future that we have made inhospitable (even un-inhabitable) for ourselves.

The future is created in the now. Like energy building up — stored as potential before it becomes kinetic. Like the slow growing of the tree over years, until its great height holds within it the power to enact a tremendous, cataclysmic fall. We are making the future every moment. Let's stop for a moment and listen to it...

GAIL PRIEST
SOUNDING THE FUTURE

Dimensions: 4m x 4m
Materials: video, stainless steel swivel stool, wireless headphones, computer, trackpad, webcam and light

An immersive audio-driven hypertext, Sounding the Future uses speculative narratives to consider what the future might sound like and how this may manifest as art. By imagining how we will listen in the future can our understanding of the aural realm be enhanced and deepened in the present? This speculation touches on multiple issues including technological determinism; transhumanism and transcendence; individuation versus collectivity; capital-driven environmental destruction; and powers of noise and silencing.

The installation is for single viewer/ listener. Seated in the centre of a down-projection and supplied with wireless headphones, the listener is fully immersed in this ficto-critical world. They can navigate between over 50 audiovisual pieces that fall into three streams: Future human — the integration of technology and biology

resulting in trans- and post-human conditions; Future city — the exploitation of the sonic potentials of the new cities we imagine; and Future citing — non-fiction and documentary material that weaves present practice into future thinking.

The overarching interrogation is shaped/framed by an historical interest in media art theory of the 1990s and early 2000s in which the present and the future collided through the science fictionality of "new" media art. Forming part of this was the hope for "hypertext" to become the literature of the future. As both homage and cross-artform experiment, Sounding the Future seeks narrative and structural strategies across sound, text and vision, to create a truly immersive textual experience that works with and around 21st century attention deficiencies and multi-media dependencies.

Concept, text, sound, video: Gail Priest
Interactive programming: Julien Pauthier [FR]
Additional programming (2017): Max Breedon
Furniture design/fabrication: Thomas Burless/tomikeh

Includes feature interviews with:
Robin Fox (AU), Michaela Davies (AU), Guy Ben-Ary (AU), Cat Hope (AU), George Poonkhin Khut (AU), Pia van Gelder (AU), Peter Blamey (AU), Jasmine Guffond (AU/DE)

Extra commentary from: Peter Hollo (AU), Matt Cornell (AU,) Hamish Innes-Brown (AU), Mamoru (JP), Jin Sangtae (SK)

Previous Presentations: .move ON, Werkleitz Festival Halle Germany, 9-25 October 2015

ISEA2016, Run Run Shaw Creative Media Centre, Hong Kong, 18-23 May 2016

www.soundingthefuture.com

GAIL PRIEST is a Katoomba-based artist with a multi-faceted practice in which sound is the key material of communication and investigation. Originally trained in theatre she has worked as a sound designer/ composer for performance and dance with works touring nationally and internationally. She has exhibited her own sound-based installation work in ISEA2016 Hong Kong and Werkleitz Festival, Germany and at Kapelica Gallery, Slovenia, Tokyo Wonder Site, Japan, Artspace and SNO Contemporary Art Projects, Sydney.

She has released several albums and EPs of exploratory music through her own label Metal Bitch as well as Flaming Pines and Endgame records. As a curator she has developed exhibitions and concerts for Performance Space, Artspace, the MCA's ArtBar, dLux media arts and Electrofringe. She also writes extensively about sound and media arts, in particular for RealTime magazine, as well as being the editor of Experimental Music: audio explorations in Australia through UNSW Press (2009). For 2015/2016 she was the Australia Council Emerging and Experimental Arts Fellow.
www.gailpriest.net

This project has been assisted by the Australian Government through the Australia Council for the Arts, its arts funding and advisory body. International travel in 2015 was assisted by the NSW Government through the Create NSW.

The first installation iteration of the work (2014/2015) was realised within the framework of EMARE Move On at Bandits-Mages in association with La Box, L'École nationale supérieure d'art de Bourges (ENSA), with support of the Culture 2013 Programme of the European Commission, the Goethe Institut and Bandits-Mages, France.

Images: Gail Priest, Sounding the Future installation, UTS Gallery 2017, photos David Lawrey

finish
Population projections
Oasis cities
Ultrasonics
Quantum queries
ASMR
Body Sound Art
Vibrational harvesting
Transhumanity
Augmented hearing part 2
The Omega Point
Substrate independence
finish

GEORGE POONKHIN KHUT
METTĀMATICS 1 & 2

Dimensions: variable
Materials: two tables with custom-made wireless electrocardiograph, computer, heart rate controlled interactive sound, texts, and headphones

Sound Design and Compositions: James P. Brown and Gail Priest
Electrocardiograph hardware and software developed: Dr Angelo Fraietta
Fabrication and framing: Acme Framing

George Khut continues his long-running exploration into creative applications for biofeedback and contemplative interactions, with two interactive sound designs made in collaboration with Gail Priest and James Brown, that invite us to imagine new contexts and applications for electronic music and sound design.

Mettāmatics features two sound designs that are mixed and modulated by changes in heart rate variability that can be elicited through gentle breathing combined with intentionally elicited feelings of benevolence, compassion and/or equanimity. The sounds are controlled by very gradual transformations in heart rate patterning that unfold over a 5-10 minute timeframe. The work explores the idea of slow and relatively elusive interactions, that require a sustained engagement and a softened quality of attention and intention.

Heart rate data collected by a custom made electrocardiograph — are analysed in real-time, using frequency-domain methods to measure very low-frequency oscillations (often referred to as 'resonance' or 'coherence') in the pattern of heart rate variations, that can increase during certain forms of slow relaxed breathing and heart-focused meditation. The resulting changes in heart rate patterning are used to mix and modulate layers of sound that provide feedback to participants on connections between their breathing and mental-emotional orientation.

* Mettā is a Pali word meaning benevolence and goodwill. The cultivation of benevolence (mettā bhāvanā) is a popular form of meditation in Buddhism.

Images: George Khut, Mettāmatics 1 &2, UTS Gallery 2017, photos David Lawrey

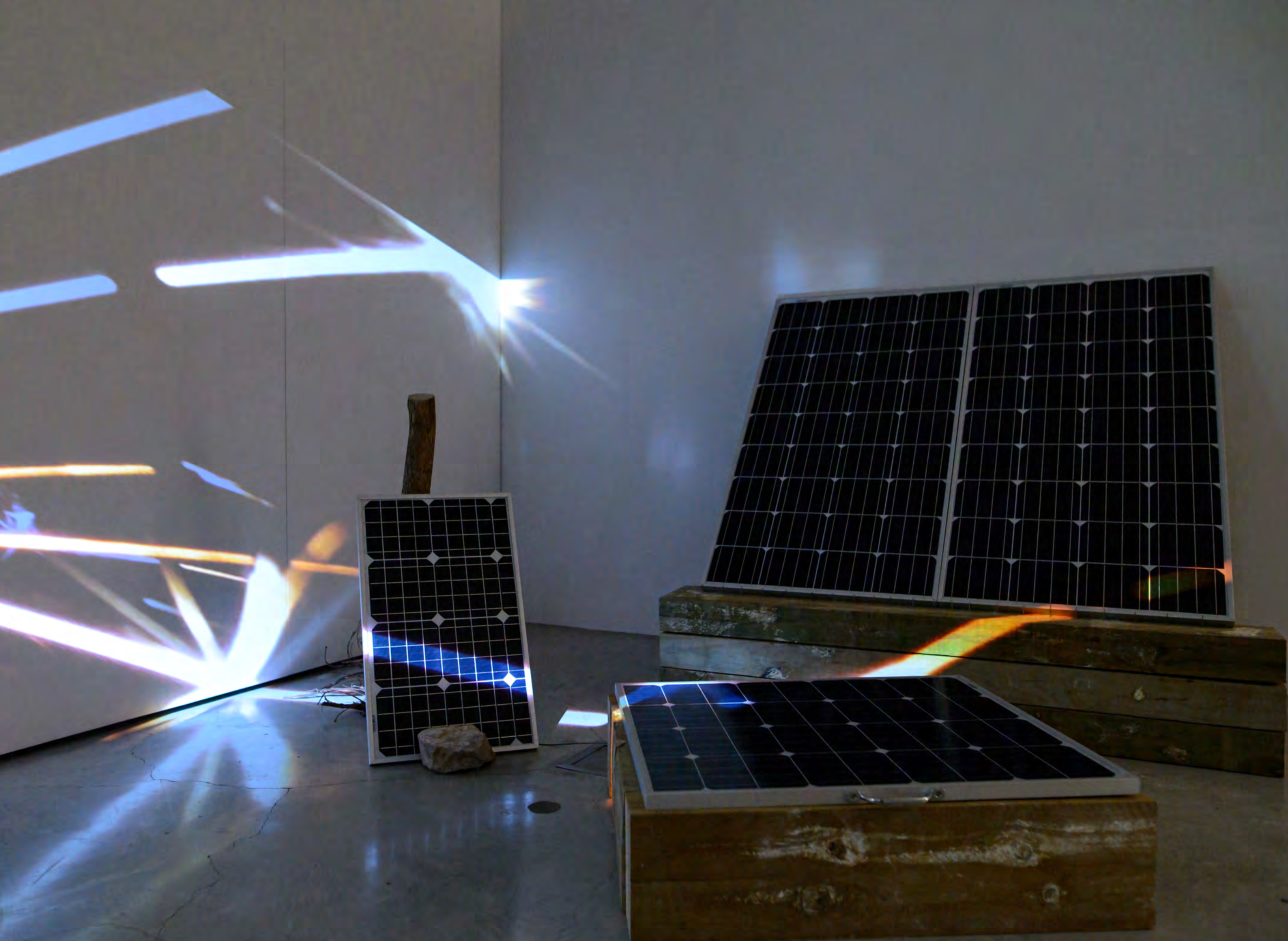
GEORGE POONKHIN KHUT is an Australian artist, academic and interaction-designer working across the fields of electronic art, design and health, at UNSW Australia, Art & Design. For the past 12 years he has been working with biofeedback technologies, creating intimate, body-focused interactive artwork experiences that re-frame our experiences of embodiment and presence. In addition to presenting his work in galleries and museums, he has been developing new audiences for interactive and participatory art with exhibitions and research projects in hospitals, starting with The Heart Library Project at St. Vincent's Public Hospital in 2009, and more recently with his collaboration with Dr Angie Morrow, Staff Specialist in Brain Injury at The Children's Hospital at Westmead, Kids Rehab.

George has exhibited his work across Australia, the UK and Asia. Recent exhibitions include Distillery: Waveforming at the Queensland Art Gallery, Gallery of Modern Art (GoMA) for which he was awarded the National New Media Art Award (2012), The Heart Library Project (recently exhibited at Museum of Contemporary Art Taipei, and previously at St. Vincent's Public Hospital, Sydney, 2009), Cardiomorphologies (Biennale of Electronic Arts Perth, 2007, and Arnolfini, UK, 2006), and Thinking Through The Body, an interdisciplinary research group exploring the use of somatic bodywork methodologies and human-centred design as frameworks for body-focused interactive art.
http://georgekhut.com

George Poonkhin Khut

Mettāmatics 1 & 2

Sound Design and compositions: James P. Brown and Gail Priest
Electrocardiograph hardware and software development: Dr Angelo Fraietta



PETER BLAMEY
Shelter Fallout/Spark Harvest

Dimensions: 3 structures, dimensions variable
Materials: photovoltaic (solar) panels, wood, video, electronics

Be prepared, but how prepared?

Does catastrophe spell the end of responsible energy, or only indicate that we will need to be even more diligent in a post-apocalypse future? Can the fallout from nuclear disaster (be that induced or accidental) actually be utilised to help us survive the resulting nuclear winter? Could lava spewing from an erupting volcano provide us with power while we wait for the situation to stabilise? With global warming increasing the frequency of thunderstorms and bushfires, can harvesting energy from lightning strikes and flying cinders help us cope with the problems at hand? Is the pursuit of resourcefulness in the face of environmental catastrophe a matter of necessity or simply gallows humour? Maybe it signals the ultimate move towards a renewable energy future. In the event that we find ourselves huddled in shelters, facing any number of protracted scenarios, we'll need to grab energy when and however we can. This work explores the sound of that process.

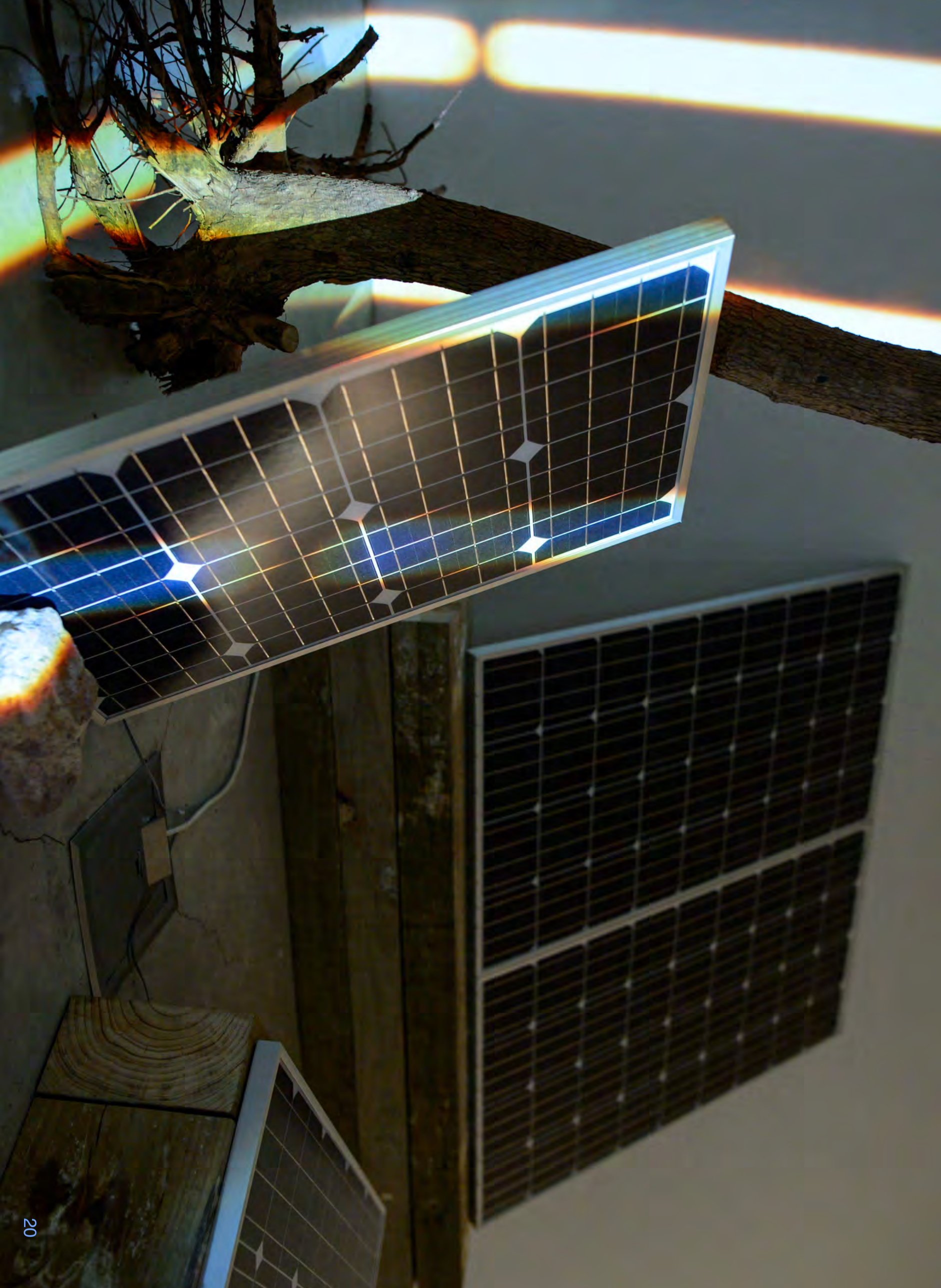
A blackly humorous and somewhat unlikely combination of environmentalism and post-nuclear apocalypse, Shelter Fallout/Spark Harvest considers the possibilities for energy harvesting in the face of catastrophic events, exploring hope, fatalism and futility in equal parts.

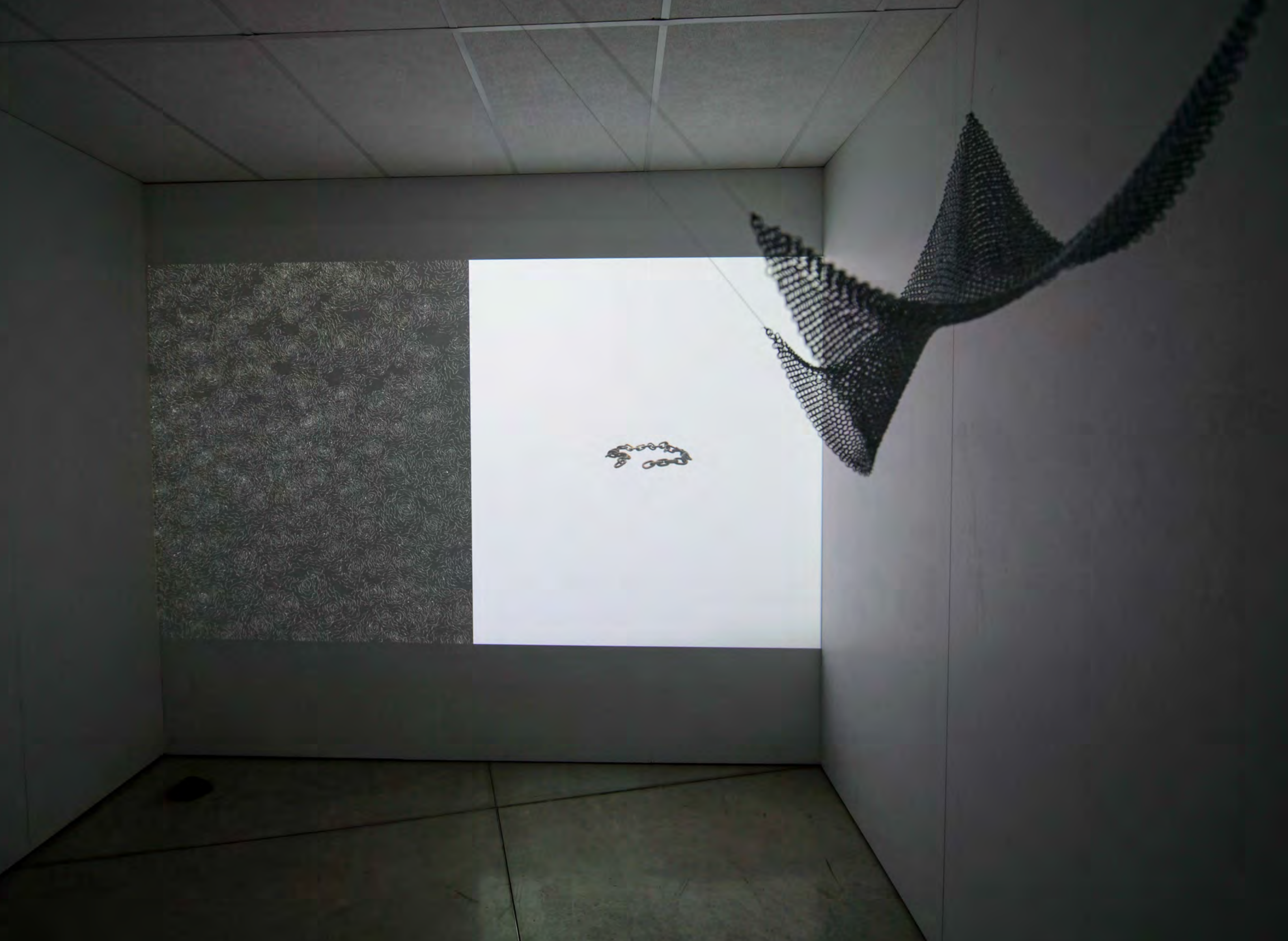
~ ~ ~ ~

PETER BLAMEY is a Sydney-based artist. His work explores themes of sound and energy, and the reimagining of technology through questioning accepted notions of connectivity, variability and use. His practice is typically grass roots, establishing interactions between disparate everyday technologies in order to produce performances, artworks and installations that investigate the relationships between people, technologies and their environments.

Peter has performed at experimental music and arts festivals such as What is Music?, Liquid Architecture, Electrofringe and the NOW now. His work has been exhibited at Artspace, SNO Contemporary Art Projects, Serial Space, ICAN and Hardware galleries, West Space and was part of the Instrument Builders Project at iCAN, Yogyakarta, Indonesia. Sound works have been included in survey exhibitions such as Variable Resistance: ten hours of sound from Australia (SFMOMA, 2002), D>Art.05 Sound (2005) and Music and Technology Month, Issue Project Room, NY (2010). Peter was previously a director of Pelt gallery in Sydney, and currently plays drums in Your Intestines.
https://peterblamey.net

Images: Peter Blamey, Shelter Fallout/Spark Harvest, UTS Gallery 2017, photos David Lawrey





PIA VAN GELDER & TOM SMITH
IRON STAR

Dimensions: variable
Materials: iron, video, 2 channel sound

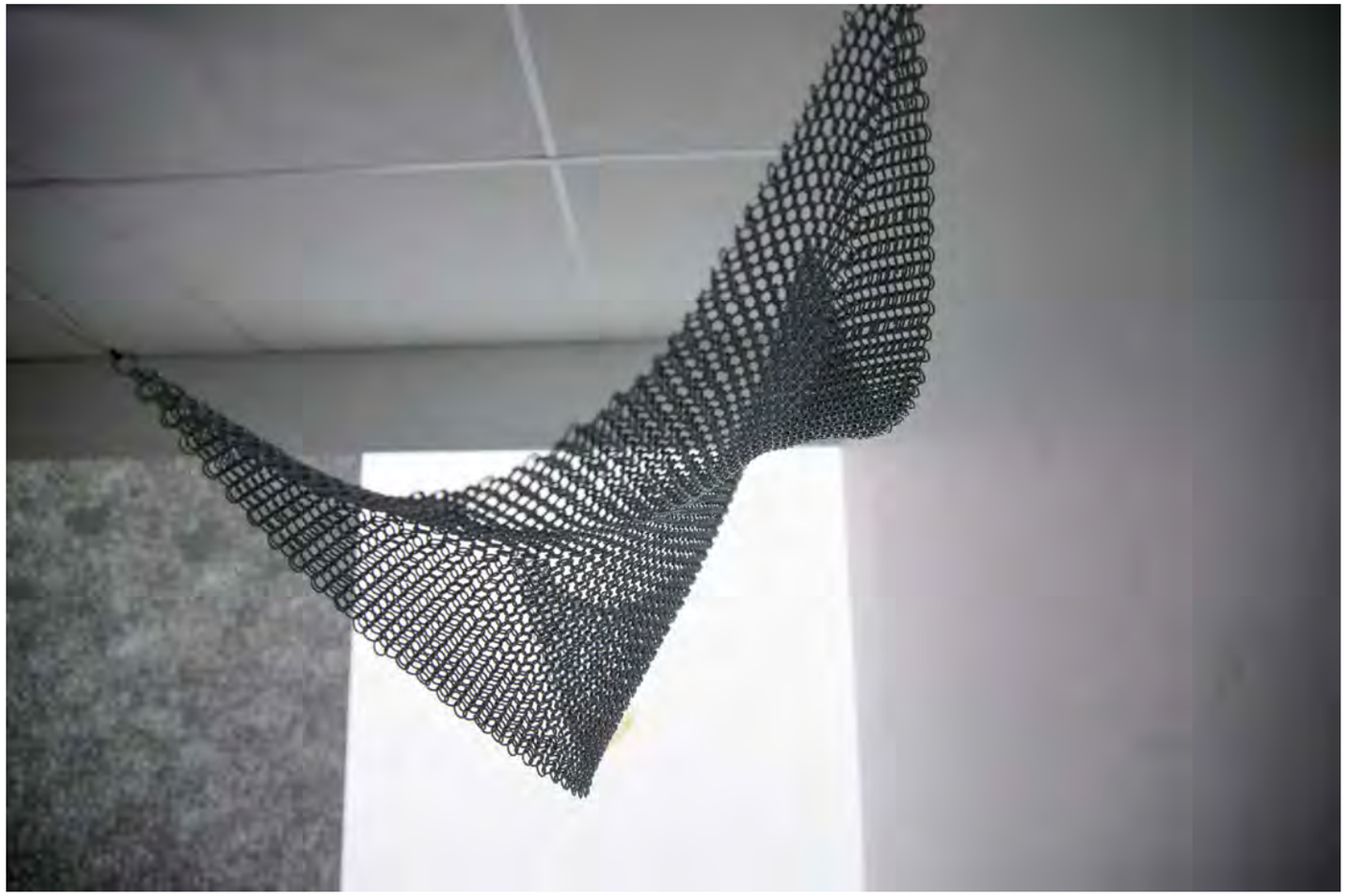
Pythagoreans proposed that the movement of the orbiting sun, moon and planets around the earth produced sound. This 'music of the spheres' prefigured ongoing discourse around sound and space. Some Pythagoreans reasoned that this celestial chord wasn't heard playing in the background because we had learnt to filter it out. Whereas Aristotle was confident that if the planets did hum, our world would shatter due to the immense scale of their corresponding vibrations. Aristotle's hypothetical is an early iteration of circular debates around the (im)possibility of non-anthropocentric perception — debates that continue to take up space in contemporary philosophy.

Iron Star reframes these questions by thinking through the possibility of an iron future. In the distant future, approximately 10 to the power of 1500 years from now, it is theorised that all stars will transform into their most stable nuclear form, iron — the last element a star produces before it goes supernova. In this future, when earth is no longer, the galaxy will be filled with giant stars of iron, transformed

through a process of cold fusion. The temperature will be unfathomably cold. Lingering stellar energy, leftover heat from the stars' earlier plasma form, will result in enormous fluctuating electromagnetic fields. No human can accurately conceive of this iron universe. By this time our bodies will have long since disappeared. There will be no sound. There will be no light.

Iron Star projects into the furthest possible reaches of the future, and upon failing to imagine it, returns to the symbolic universe in which iron is but one of countless signifiers. Iron Star depicts the final state of the universe as a set of processes that will end humanity — while concurrently, iron's use value and symbolic efficacy is shown proliferating into an array of human centric objects, derivatives and metaphors. Within Iron Star, as in the universe more generally, iron exists ambivalently as language, material, object, symbol, and future — but also as the immanent cancellation of all these strata of reality.

PIA VAN GELDER is an artist, researcher and teacher in Sydney, Australia. Her practice often takes shape as interactive and participatory installations and performance that explore contemporary and historical understandings of technology, energy and the body. Van Gelder has exhibited and performed extensively in Australia and internationally. Recent major projects include Recumbent Circuit, Primavera Exhibition MCA (2016), Relaxation Circuit, Underbelly Festival and Westspace, Melbourne (2015) and Psychic Synth, an immersive poly-sensory interactive installation commissioned and presented by Performance Space and Carriageworks (2014).
http://piavangelder.com



TOM SMITH is a Sydney-based artist, curator and musician. His current interests include the tyranny and poetics of the generic, aesthetic standardisation in music production, and the emancipatory potential of default media platforms. His work includes curatorial projects, experimental performance works, and electronic music. Tom has presented nationally and internationally at the National Gallery of Victoria, the Now now Festival, Museum of Contemporary Art Sydney, Liquid Architecture, 55 Sydenham Rd, Firstdraft, Alaska Projects, Blindside, Goldsmith College London, Cashmere Radio Berlin and Floating Projects Hong Kong.
http://thomaswilliamsmith.com

Thanks to Akil Ahamat and Nick Keys for their technical assistance.

Images: Pia van Gelder and Tom Smith, Iron Star installation views, UTS Gallery 2017, photos David Lawrey

EXHIBITION ACKNOWLEDGMENTS

Sounding the Future
UTS Gallery
August 1 - September 22, 2017

UTS ART
Curator and Manager: Tania Creighton
Assistant Curator (Exhibitions): Eleanor Zeichner
Assistant Curator (Collection): Janet Ollevou
Education and Outreach Coordinator: Alice McAuliffe
Curatorial & Collection Assistant: Felicity Sheehan

Public programs
Artist talks & publication launch: Wednesday August 9, 6 - 7pm
Audio-described tour & discussion: Tuesday August 15, 1:30 - 2:30pm

Enormous thanks to Tania Creighton and Eleanor Zeichner at UTS Gallery, Samuel James, Thomas Burless, Michaela Coventry, Julien Pauthier, Max Breedon, Gotaro Uematsu, Tim Andrew, Giedre Kligyte, Sandra Emonet, Isabelle Carlier, Ewen Chardronnet, Chloé Nicholas, Jean-Michel Ponty, George Khut, Pia van Gelder, Tom Smith, Peter Blamey, Robin Fox, Michaela Davies, Guy Ben-Ary, Cat Hope, Jasmine Guffond, Peter Hollo, Matt Cornell, Hamish Innes-Brown, Mamoru, Jin Sangtae, Choi Joonyong and Hong Chulki.

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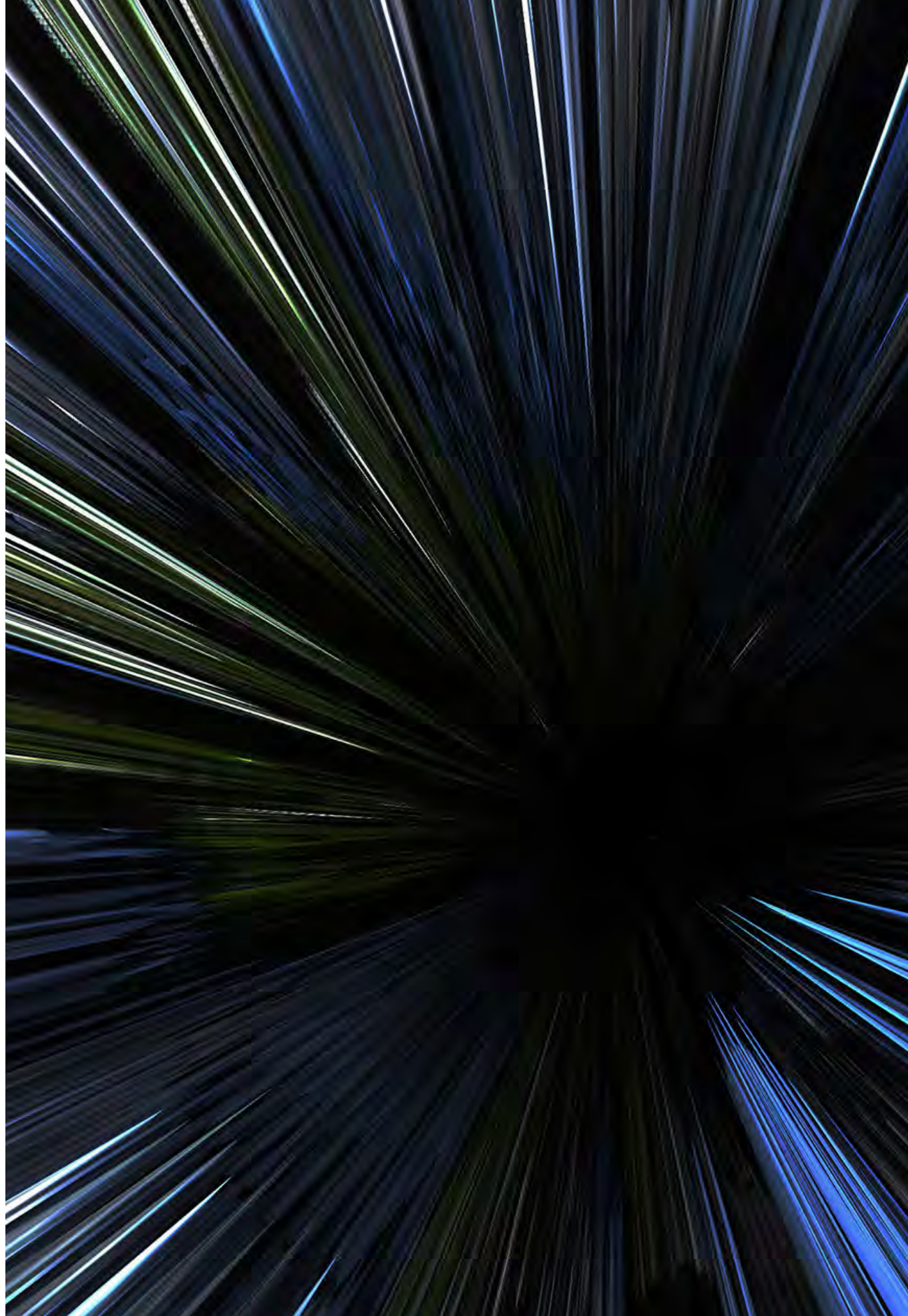
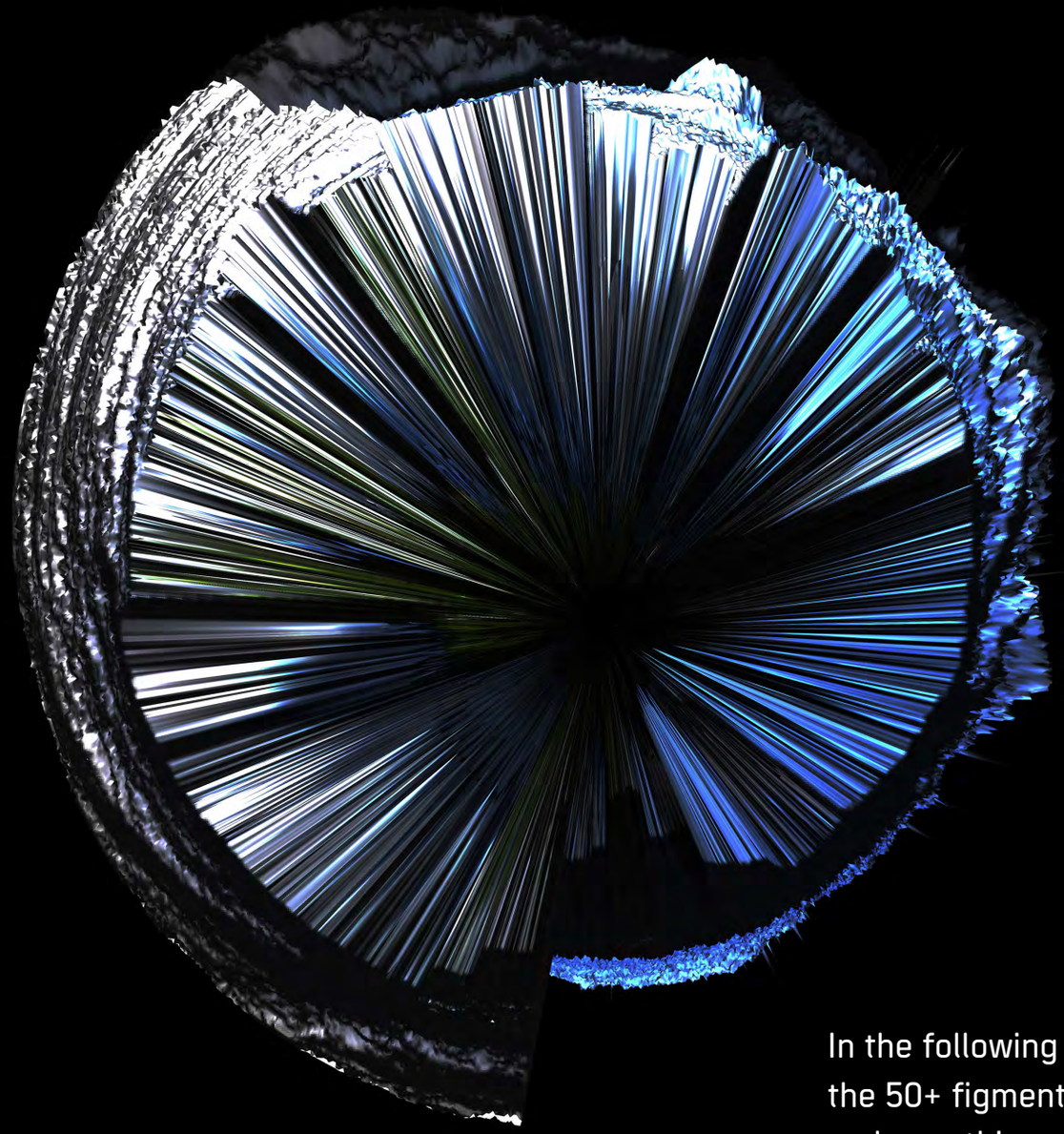
http://art.uts.edu.au



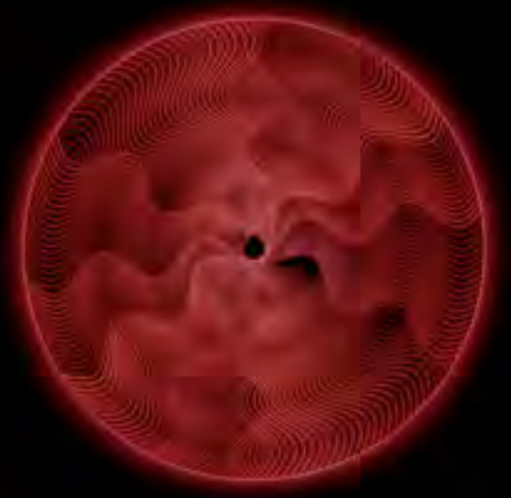


2

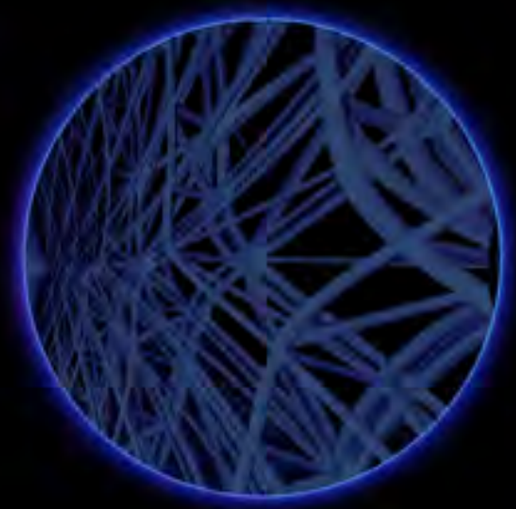
SOUNDING THE FUTURE - A BODY OF WORK

In the following pages you can browse (via text and audio) the 50+ figments and fragments, via text and audio, that make up this speculation on future sounds. Each fragment offers suggested links to other fragments so that you may choose your own journey.

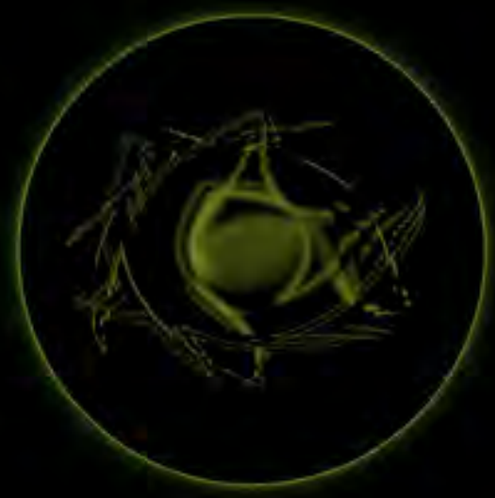
Future human and Future city offer fictional explorations while Future citing presents non-fiction material — interviews, research finds and current devices that probe the probability of these imaginary futures coming to pass.



Future human



Future city



Future citing

WELCOME TO THE PLATEAU

Stream audio track (internet required).

While it may seem like the beginning, you are in fact in the middle.

We have been reading our ancients and we subscribe to the doctrine of middles — without beginnings or endings. In the middle we are here now — the only place we can be.

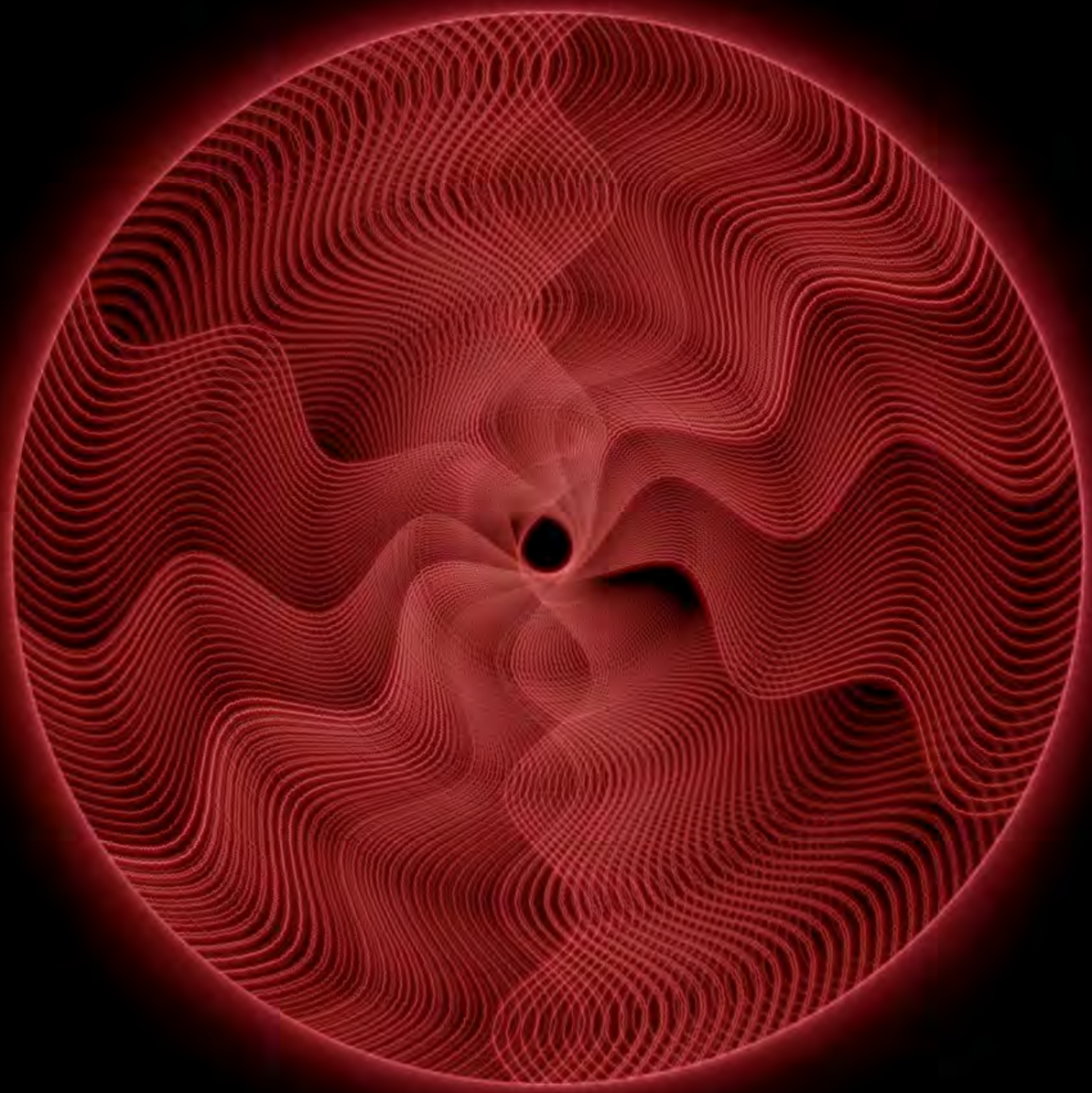
Think of this middle as a plateau, one of thousands, from which we have a 360 degree view — all around us mirages of possibles, potentials — dare we say futures.

Look around, listen out.

From our place in this now, on this plateau (one of thousands), we will collect; we will assemble some futures out of figments and fragments. These futures may be true, some may become true, and others will always be fictions. You may not reach an end or a revelation, maybe the best we can achieve is a saturation.

In this now, on this plateau, one of thousands, we can go in any direction...

Which way will we go?



3

FUTURE HUMAN

FUTURE HUMAN

We can now be so much more than we were —
biology's limitations,
augmented by technology
fed to overflow by data
and redecorated by digi-skins.

Sense ratios tweakable on demand.
See beyond, touch potential,
taste the next, smell tomorrow,
hear the future.

Extropy's the new entropy,
and when we're done here,
there's always eternity,
in the sacred data-dump
of the upload.

Omega Point Band

We and I,
mind with mind
and no matter,
bleeding bytes between us.

Battery life

Fuck entropy.
Let's dance...

E.A.R

Now we are 50 hertz
the frequency of soul and bone,
the eternal hum of all that flows...

Sound shot

Sound = Action » vibration

Time

Sonic skinning

All auged up
and nowhere to go.

In the wolf thickets

Ololygas — "all around reverberates
the otherworldly echo of
women's awful yearly shrieking." [1]

1 Alkaios of Lesbos, cited in Carson, A. 1992, 'The Gender of Sound,' Glass, Irony and God, New Direction Books, New York.

OMEGA POINT BAND

Part 1
Stream audio track (internet required).

When all the minds are uploaded,
will we be together again?
When all the minds are uploaded,
will we all "know" the same thing?
And all equal in knowledge, will this knowing be enough?

When all the minds are uploaded —
these minds that hold our flaws —
will we not then be equally flawed?

And when all the minds are uploaded,
who will be left to maintain the bits and boxes that hold us?
To dust and defrag us?

When all the minds are uploaded,
we will be together again...

For a long, long, long, long time...

~ ~ ~ ~ ~

Part 2
Stream audio track
(internet required).

We/I are.

We/I are all.
And nothing.
And all that can and will be.
We/I are the end of the line.
And the beginning again.

We/I did not expect.
We/I did not anticipate.
We/I a curious creature.
A communal creature.
In uploaded omnipotence.

All our dreams for We/I.
Before and after.
Part of mind.
Beyond body.
Beyond flesh,
hunger-desire remains.

Always wanted to be a rockstar.
Every mind's secret dream.
A dream that doesn't die
with the death of death.

We/I are the Omega Point Band.
Remember us/me.
Who exists in nonexistence.
But still needs an audience.
Needs your adoration.
Your approval.

We/I are the Omega Point Band.
And we transmit to you
our latest track,
direct from the infinite.

Surf the stars to find us.
We're playing here for you.

Future human

E.A.R

Future citing

Substrate independence

The Omega Point

Guy Ben-Ary

Future city

E.A.R.

Part 1
Stream audio track [internet required].

Particle nudges particle sucks particle:
compression and rarefaction.

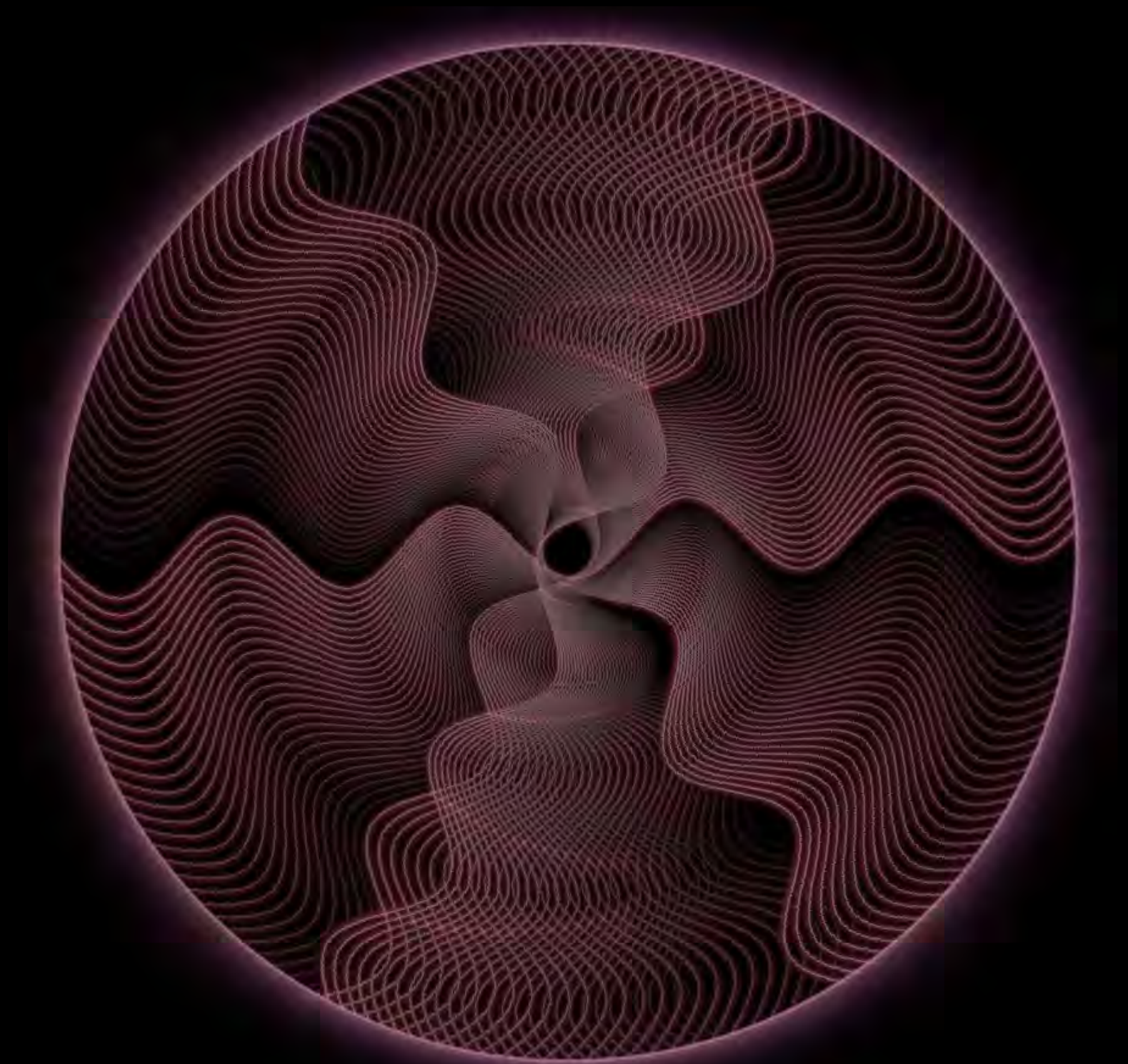
Yes We were.
Now We are.
50 Hz, bareness of being.

Years wore heavy on Us,
flesh and organs finite.
We chose to let go
and become the wave.

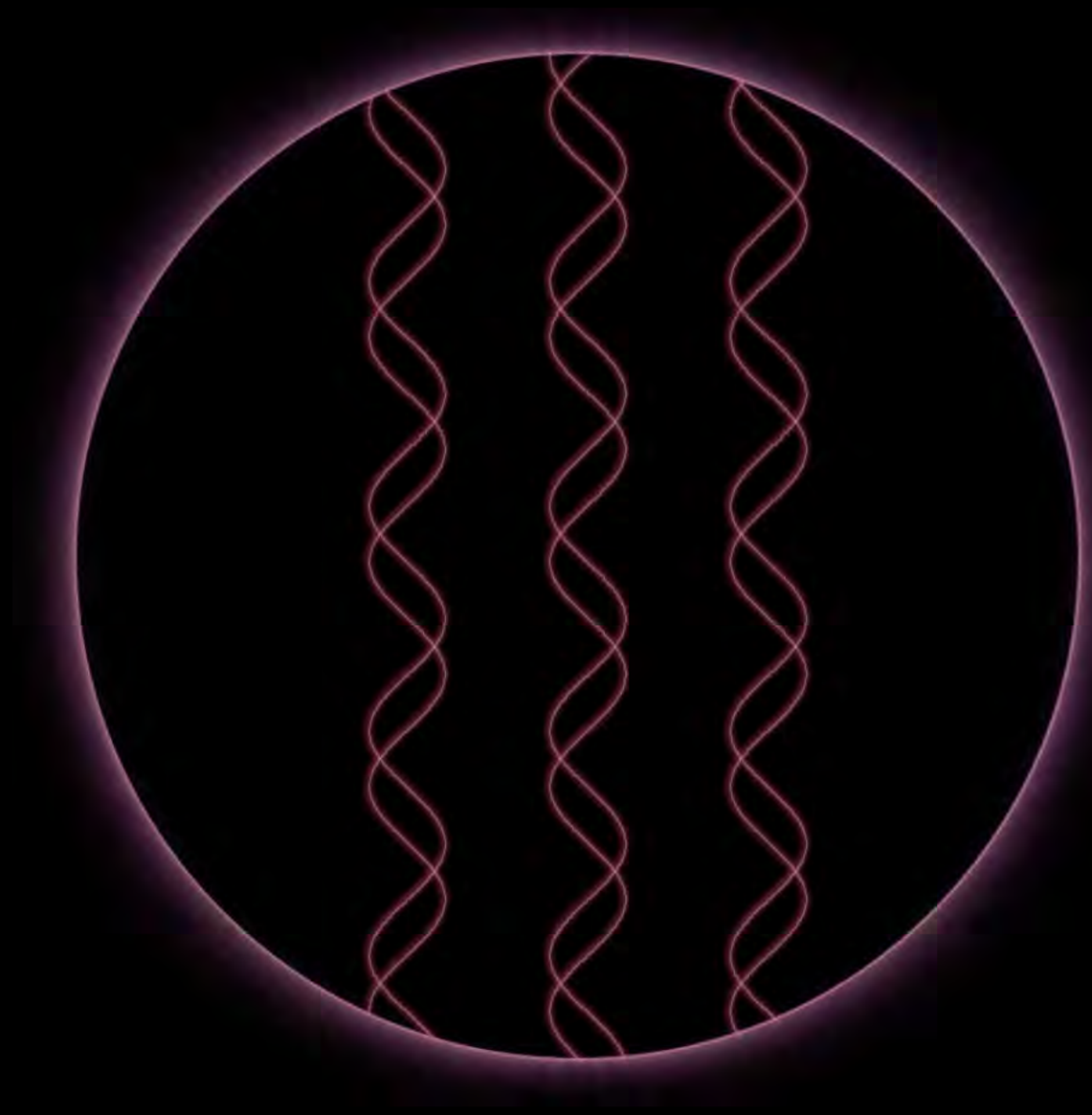
We are an Entity of Audio Reality
E.A.R.
Encoded.
Uploaded.

A translation.
A transmission.
A diffusion.
A broadcast.

~ ~ ~ ~ ~



Part 2
Sstream audio track (internet required).



Evie knows it is time because when she wakes the lifeline of her left hand is pulsing with a streak of gold, a tiny countdown near its end.

She doesn't need to read it.
She's kept the factory default at 48 hours. No need to drag it out. No one to really say goodbye to. She's outlived them all.

She could have chosen to reset and keep going, but halfway through the last cycle she knew she'd had enough.

48 hours gives time to make final arrangements, activate the legalities, tidy the house, water the plants...

In a mirror Evie looks 35 — lean, trim fit, healthy. This is the problem with "Immortality almost." The body, ever reparable, can go on indefinitely, but the mind wearies of the effort of existence.

It had been Jeremy's idea, and Jeremy was gone. Accidents can still happen to an ageless body. She's outlived him twice now.

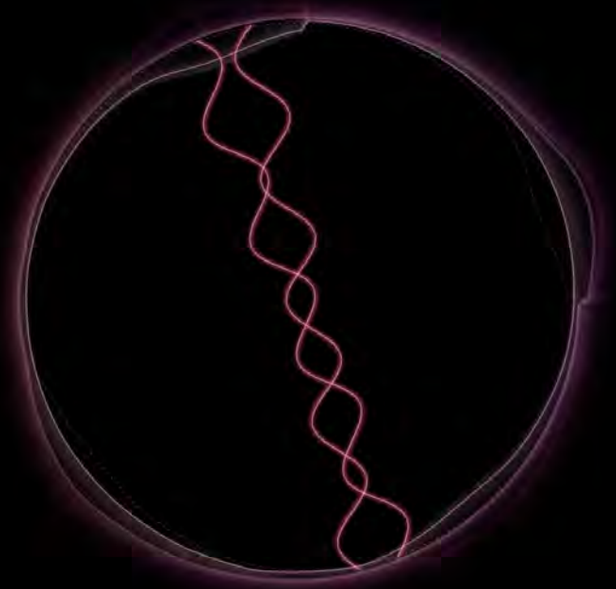
And now there are so many more options. Those still attached to the meat of existence go for old-fashioned cryonics. The new-religion has its own game going — augmenting prayer with synaptic overloads shooting you straight to a new brand of eternity. The fully invested and financially fortunate go for the total package — Substrate-Independent Mind Upload [SIMU] — carbon copy transfers across quantum drives.

But these options are a little too pricey (even on a payment plan) and to Evie's taste a little too showy, egotistical. Evie's plan offers both abstraction and a certain permanence, as long as the tech stays upgradable.

She's had four previous visits to the clinic, to download data and start the mapping, but to ensure utter authenticity they need the final input and transfer after 'shutdown'.

Evie looks around the soft green walls and calming ferns that fill the room. She realises she won't miss the physical at all, except for that final glimpse of the nice blue eyes of the technician who squeezes her hand as she fades.

There is a pause while the last of the encephalographic data slots in, and the system reboots using her final electrical spasms...



It's not music, rather a sonic space —
an environment of layers and levels
that can be traversed in all directions
without ever reaching an end.
A lifetime of being...
not represented or illustrated.
A saturation of being...
the sonic sensing of consciousness.

Neither entity nor substance,
Evie's mind,
Evie's soul,
Evie's whole
is now
sound...

Future human

Omega Point Band

Future citing

Transhumanity

Substrate independence

Sonification

Future city

BATTERY LIFE

Part 1
Stream audio track (internet required).

We're running on empty.
At the big end of town
they seek solutions —
one big idea to save "mankind"
so they say,
their arse-pocket bottom-lines,
so we know.

While deals are done and undone
with fossil fuel oligarchies,
Rome isn't burning,
it's just blinking out.

Meanwhile the little people
are sick of waiting.
The hacker-hive-mind kicks in
and it becomes a matter of scale.

Everything sucking
power from everything else.
Vibrational harvesting —
sound and movement
with biological juice
for good measure.

It's a lossy cycle,
but so far, it keeps on turning.

~ ~ ~ ~ ~

Part 2
Stream audio track (internet required).

It's always been about adaptation.
Get too specialised
and you might find yourself
edged into obsolescence.

That's what Manuela tells herself
as she parks her bike on the street
and detaches her battery pack
from the dynamo.

Down the stairs to the cellar,
she hands it over to BERN-ICE,
the girl-guy at the entrance.
At this venue they take
door charge literally;
her battery added
to a chain of trickle feeds,
converted and amped up
to run the sound system.
The more people,
the more power to the PA.
She wants it long and loud.

At the bar that grows
from the fender of a long-gone
gas-guzzling auto,
she grabs a beer
with an electrolyte chaser.
If you use yourself as a feed
you gotta make sure you don't get... kinky.

She passes Leon, the barman,
two slim silver disks as payment,
battery coins she's juiced up earlier.

Leon is looking overcharged.
She can feel the field of static around him.
"You've been working too hard Leon,
I reckon you need to offload some.
How about you jack up the PA for me?"

Leon smiles —
his teeth laced with metal
sparking bright blue —
"To hear you loud baby, sure."

The borders between work, leisure and survival
are pretty permeable these days.
You've just gotta do things to keep moving,
to make vibrations
keep charging.
Just as long as you don't stop...

Sal is up first,
performing his mash of noise,
spoken word and stand-up.
A beer in one hand,
a coil of wire wrapped around the other,
jacked into a bulging vein,
powering his own hyper-directional speaker.

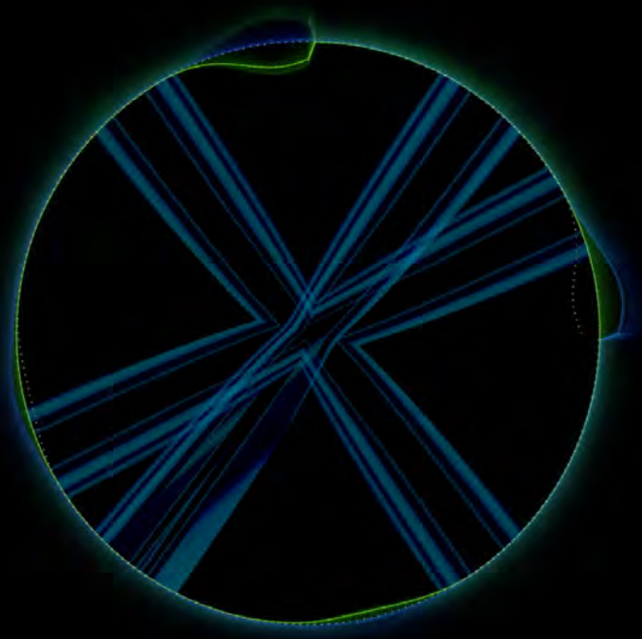
Screaming obscenities the crowd can't hear,
cloaked and channeled
through ultrasonic beams,
he can hurl abuse
pinpointed to a patron,
accuracy of a 15cm radius.

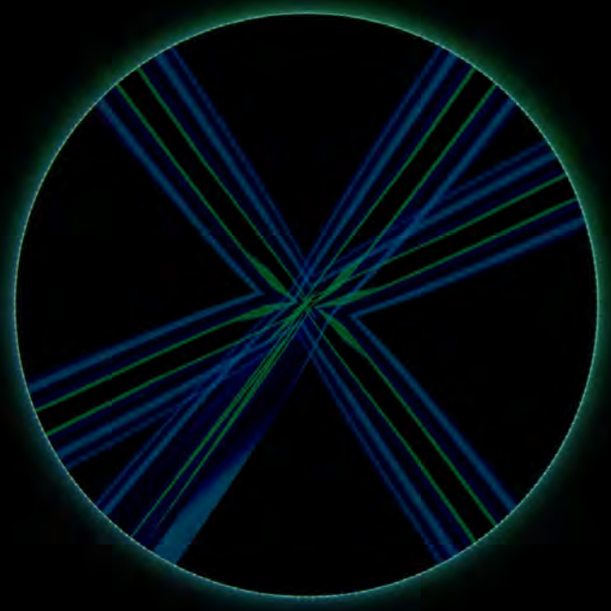
Some victims are laughing,
others are getting pissed.
Sal might get his own later
out in the lane.
But if so, he'll be sucking it
for what its worth —
a punch holds a few good joules
he can keep for later.

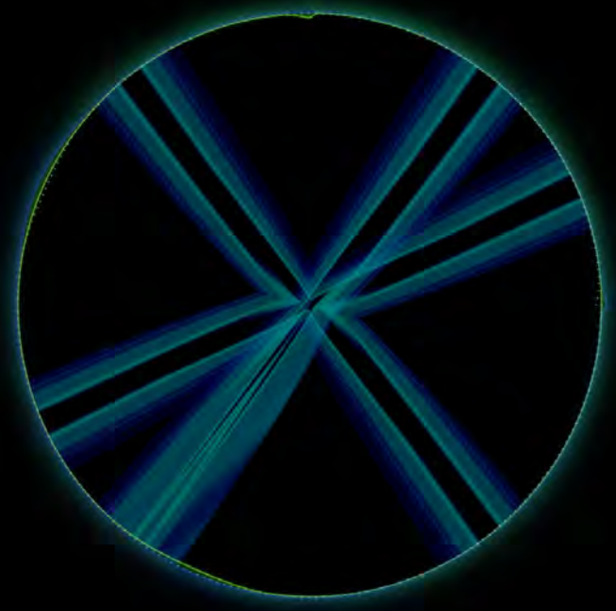
Midnight — Manuela's turn to play.
She pinches some flesh on her left arm,
and pushes through a fine needle,
in and out,
leaving copper thread in a cross-hatch pattern,
neat as an ancient embroiderer,
the design a primal noise generator
of hums and buzzes and spits;
uneasy peace between flesh and current.

She hives off channels from the feed.
Buffer-shuffled skipping beats,
bass-boom driving drill-like
and screaming meemy
treble flesh and flash
over the rhythmic bones.

And the crowd begins to move,
to sway and stomp and stamp...
...and then there's dancing.







Just what she wants to see.
The floor of Leon's
is wired up to harvest vibes.
You get the crowd generating,
you get an extra cut at the end of the night.
Tonight's alright she thinks,
as she sinks another needle into flesh
for the howling finale.

At the end she's high
and full of buzz —
charged in all capacities.

The nano-film filters in her converter
have recycled some mighty vibrations —
sound & movement —
all back into the juices
they all need now
more than water...

As she leaves, she gives Leon
a full-mouthed kiss,
just to enjoy the sting of the static,
and heads back out
into the battery-lit night.

Future human

Future citing

Ultrasonics

Body Sound Art

Vibrational harvesting

Future city

Stasis shift

SOUND SHOT

Part 1
Stream audio track (internet required).

We stand in a non-specified space.
It is 14.1 degrees,
46% humidity.

We stand 340.29 metres away
from an action,
a non-specified action.

Somehow some thing hits
some other thing
and the second thing
begins to vibrate,
causing the air around it
to compress
and rarefy.

This sonic vibration,
caused by this action,
takes one second
to travel to us
standing 340.29 metres away.

Meanwhile we are pierced by light
travelling over 800 thousand times
faster,
illuminating this action that has just
taken place
340.29 metres away.

If we stand 400 meters away,
things begin to slip —
the action,
the sight of the action
and sonic result skip —
time sliced out of synch.

To look in an instant,
to listen over a while.

Sound takes time.

Sound...

...takes...

...time.

Part 2
Stream audio track [internet required].

The Golden Arcade,
an underground shopping mall,
one of thousands that burrow
below the city.

The long, tiled tunnel
doesn't come to an end
but rather just fades away:
the walls and floor melding
into a single smudge
of an unnamed hue
between yellow and grey.

Off the main aisle,
rooms and booths offer treatments
for whatever ails you.

A fortune teller using glowing moon runes
with as much accuracy
as has always been afforded that profession.
The traditional medicine peddler
grinds antler and milks venom sack,
synthetic or vat grown,
maintained for the curative powers of
symbology.

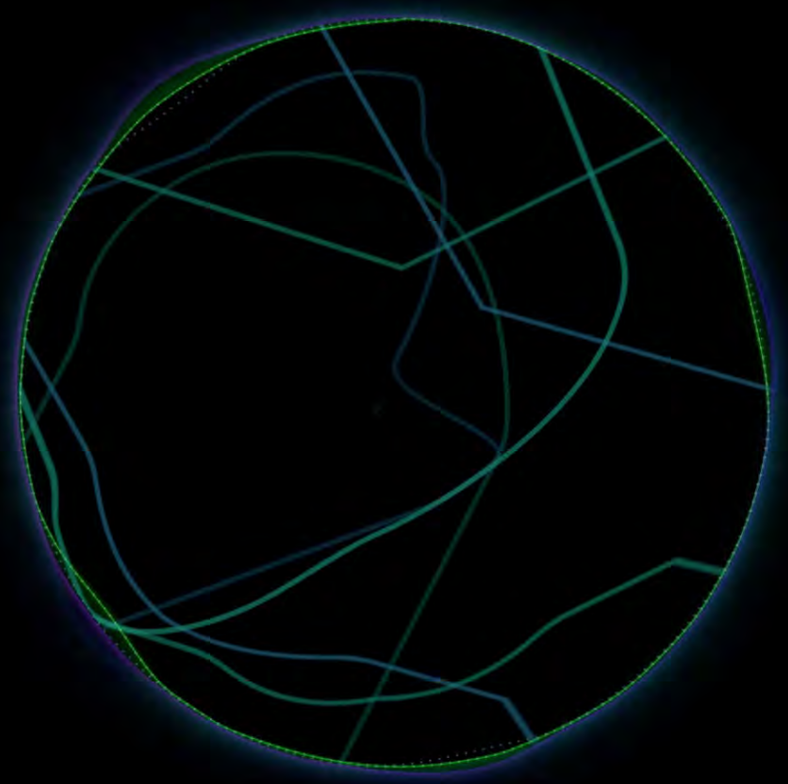
Arguably medicinal there's the stand-up bars,
where drunkenness offers the cure of
forgetting,
just for a little while.

A wooden door with no sign.
You must be told of this place,
carry an introduction —
a card with pictographs
in a language no one can identify.

You knock,
slide the card through a slot
and if true
there's scrape of bolt on metal,
chain off slot.

Ducking your head you enter,
hand over your credits
[a hefty portion of your monthly earnings],
and are offered a drink,
compelled to partake.
A clear liquid that tastes of nothing,
it burns.

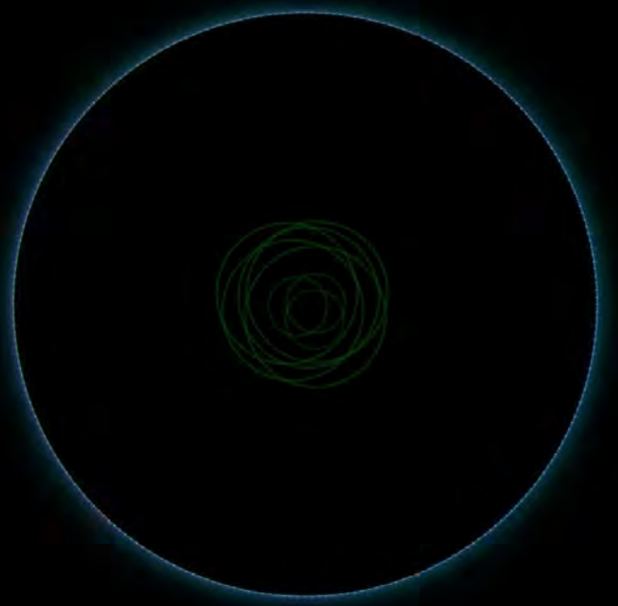
In this room is a tone —
the high whine of
an ancient refrigerator.
It has the same antiseptic effect on the ears
as the clear liquid to the oesophagus.

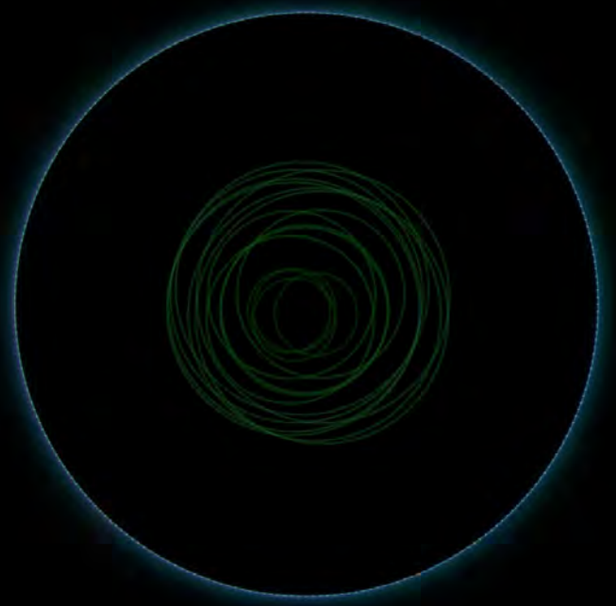


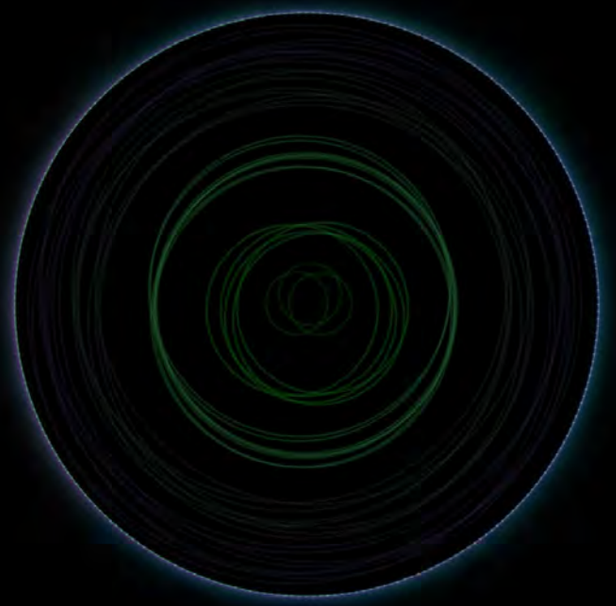
After some time you are ushered
into another smaller room,
featuring an old-fashioned dentist's torture
chair.

It's strongly recommended
that you reroute to biological,
and use an in-ear enhancement device.
While using implant conduction
delivers maximum payload,
blow outs are painful and inconvenient.

After your devices are paired and synched
with the transmission box,
you wait...







It can happen at any time over your scheduled session.
Not knowing when
is part of the process.

And then it hits...

It's not volume.
It's full spectrum,
infinite depth,
endless quantity
minute detail,
auditory sense overflowing.

A lifetime of sounds happening all at once.
Time taken out of the equation
and all the vibrations collapsed
into a single moment.

It's so brief because
in the moment it takes to sense it,
the rift is observed.
All possibilities slam back
into singular specificities —
times, places, zones and senses,
separated and measurable.

While it's over in an instant,
there is an afterglow.
For several hours
sound has incredible depth,
intense clarity.
You hear the material of things,
aware of minute vibrations
over vast distances.

You can hear the footfall
of ants on the pavement,
the formation of clouds,
even the sound of cells dividing.
And it's clear.
And it all links together.

Like all excesses,
there is a downside.
After a number of shots
(different for each individual),
things can start to get glitchy, unhinged.

You've stolen a possibility
and taken time in advance
and there's an equalising force at work.
Cause and effect gets blurry,
actions and sounds out of synch,
hearing things both before
and after they happen —
your understanding of your place
in time and space becomes unstable.

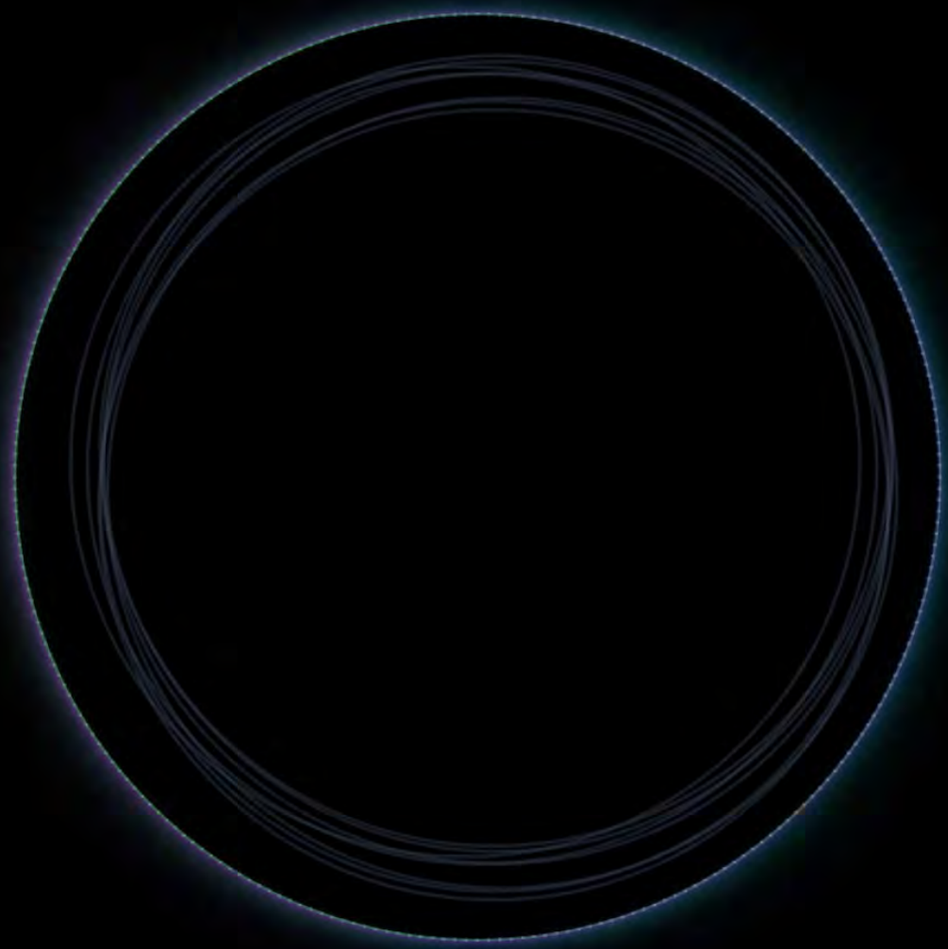
You can try recalibration
of your in-ear piece,
a time-delay compensation
to re-align things again,
but it's never quite right,
always losing and gaining,
needing constant tweaking.

Other theories suggest a kind of detox —
meditation on that antiseptic sine —
while others say there is no cure.
You are in fact in transition,
heading to join that other possible.
You should keep doing
what you're doing,
until you catch up with yourself there.

That's what they say....

But it's your choice.

Do you want the Sound Shot?



Future human

Sonic skinning

Future citing

Sound vs Vision

Quantum queries

Future city

Stasis shift

SONIC SKINNING

Part 1
Stream audio track (internet required).

Augmentations —
augs for short —
available for all the senses.

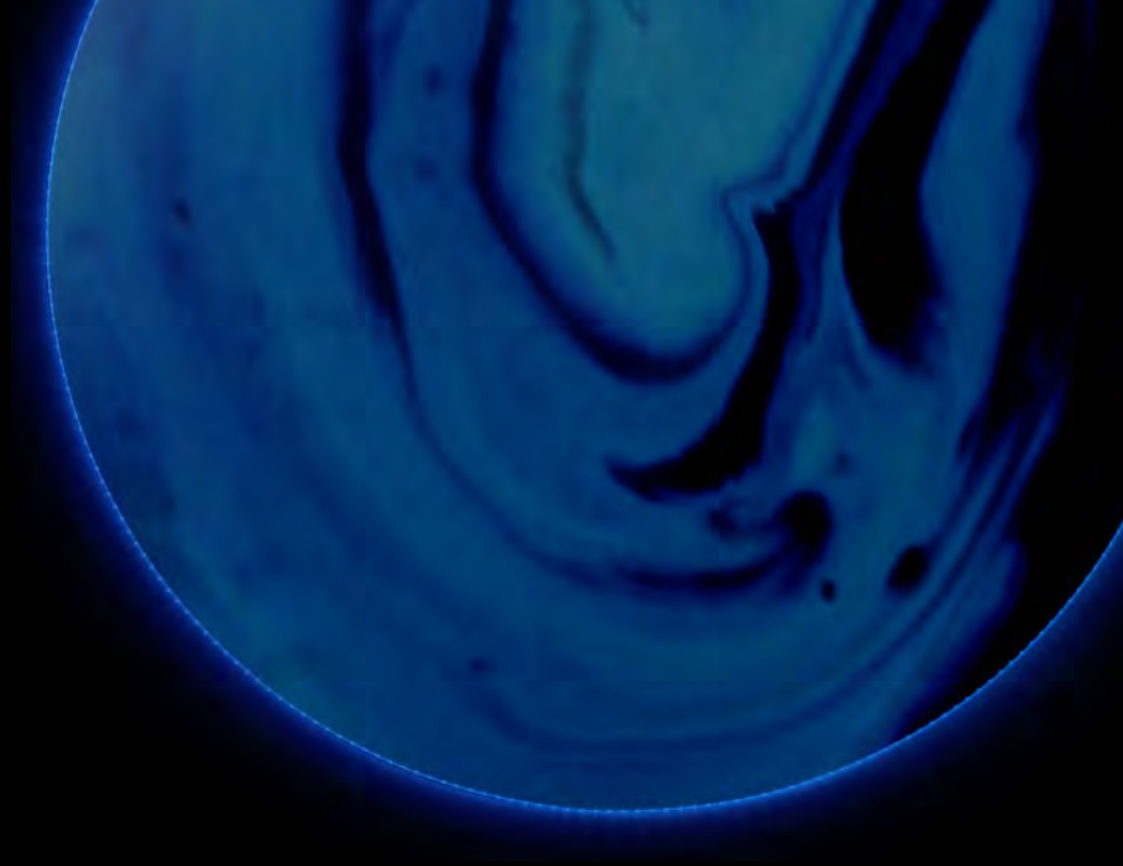
Tweak your sight
with infra-ultra-spectra hues
and a stream of extra data cues.

An accessory olfactory system:
taste and smell combined
from the birds and beasts,
all the better for hunting and mating games.

Hearing combines analogue upgrades
with extra-neural stimulation.
Overlaid and re-composed,
we're turning up
and tuning out
in equal measure.

Touch is well... touchy.
If you're dialed up too high
It can be pretty embarrassing
(much like drugs in the 20th century).

In fact, we don't need drugs now.
That's why augs are legally sanctioned.
Always in hyper-mode



you burn out fast
and most learn to knock
it back to functional.

Because you do have to function.
It's expensive to live an Aug-life,
subscription fees by the month,
from a range of competitive service providers.
And that's before you get into
Sense-X-linking.

Yes, almost anything is possible
in this auged-up world.

So let us clip on our externals
and reboot our intra-neurals
and hit shuffle play on our augmented future.

~ ~ ~ ~ ~

Part 2
Stream audio track (internet required).

The question that troubles Gabrielle is: Are we evolving the bio-tech or is it evolving us?

Gabrielle makes credit designing "sonic skins" for audio augs. A sonic skin is like a changeable cover that colours your aural world. Thematically linked sets of sounds enhancing your experience of the everyday.

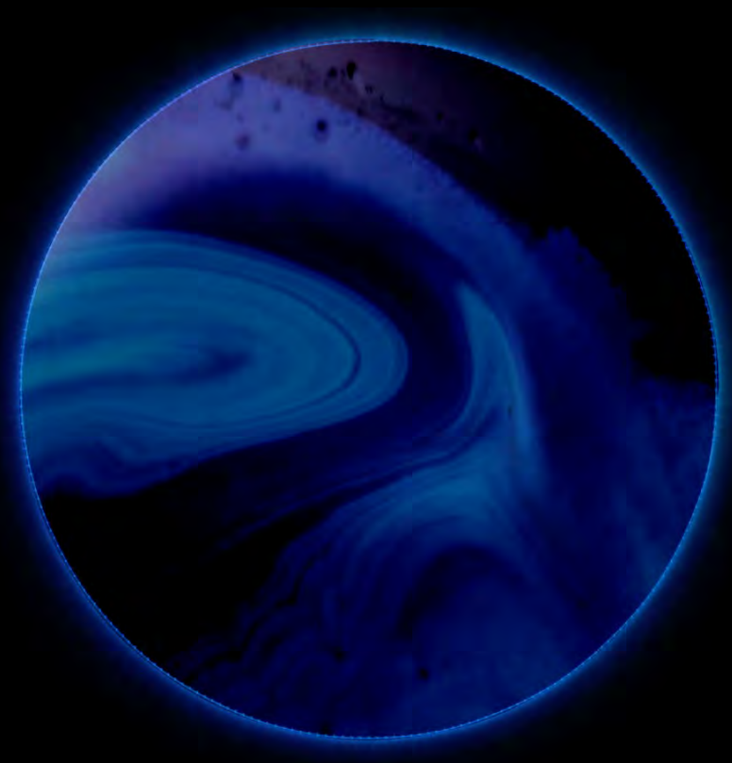
More than accompaniment, it's generative and interactive — real world sounds remapped realtime with a whole new sonic palette. There are many commercial packages: Hooked on Classics — name your epoch; novelty narratives — Zombie Apocalypse, Alien Encounter; Life Invitro; the choice is pretty broad.

But Gabrielle is an artist, creating one-off skins for private collectors and the occasional exhibition. Her sonic skins are made from rare archival samples, interactive filters, and generative synthesis modules. Her current commission is for an anonymous client. They only make contact through an agent.

She decides to base the sonic skin on weather sonification. Cloud, wind, humidity, rain data, synthesised and remapped to synch with real world sounds. For example: the voices of children, matched with data from small stratus clouds overhead, become delicate chime-like static; the barking dog a granulated rupture drawn from upper atmosphere precipitation; the cars on the road rumbling through frequencies reconfigured from looming cumulonimbus on the horizon.

She delivers the work she calls Cloud Skin to the agent and assumes the client is happy as she doesn't hear anything back, until six months later, when the anonymous client requests to meet her.

The co-ordinates she's given lead her to a park in the old quarter, the meeting spot a bench on the far side, sheltered by a hedge of



synthetic shrubbery. She never sees the client. They are wearing some kind of scatter suit, all blur and blend, but she feels them close.

Most people keep conversation analogue, direct-to-implant option feeling too uncanny, but the client appears, directly inside her thoughts, as a vintage digital help voice from the late 20th century.

+ Forgive me, but I have a soft spot for this era of voice synthesis.

- I hope you are satisfied with the sonic skin? Does it require any adjustments?

+ I am more than happy...
(though the synthetic voice doesn't express this)
+ ...ecstatic in fact. I wanted to thank you in person.

- That's very kind but not necessary.

+ I also wanted to see if you really knew what you'd created?

- I'm not sure I understand. I was rather pleased with the result — felt like I'd extended my designs. Perhaps it's one my better pieces.

+ It is more than that. I believe you've discovered something miraculous.

- Miraculous?

+ Yes, this is beyond art. It is spiritual.

- Well some people interpret art as such.

+ No. Through your work I hear the voice of God.

- You mean metaphorically.

+ No. God speaks to me, we can converse.

She looks around to see if anyone is nearby.

- You hear "God" in the sonic skin? What does he say?

+ He tells me deep truths in a language of no words.

- Did it do this from the very beginning?

+ It started a month after using it.

- You have it activated the whole time?

+ Yes. At first because I thought it so beautiful, but then because of the communication.

- Have you told anyone about this?

+ I don't speak to anyone else, only my facilitator via written communication. But I felt I needed to make the exception for you.

- Well I'm really honoured and I am happy that you interpret the Cloud Skin however you desire, but I can't take credit for creating a telephone to God.

+ That's OK. I didn't really expect you to believe me. It doesn't matter. You've done what was required of you.

With that she feels the cloaked presence move away.

She hears in a newsfeed a week later, that the reclusive heir of a major software mogul has gone missing, but not before liquidating all his assets, large amounts of money going to obscure cult churches. The company is in free fall.

And when Gabrielle checks her bank account, she is suddenly a whole lot closer to what some might think is heaven.

Future human

The Omega Point

Band

Future citing

Augmented hearing 1

Augmented hearing 2

Sonification

Jasmine Guffond

Future city

Park life

IN THE WOLF THICKETS

Part 1
Stream audio track
(internet required).

Back then there were XX sounds
though the loudest still hard to hear
over the dominant roar of the XY.

Eventually perceived as a problem,
places set aside
to allow the XX to sound out,
gather density and volume.

This segregation satisfied no-one,
the clipped-wing
of classification and containment
reminiscent of domestication.

And caught in a media cycle
of "Little-mis[s]-representation"
the seen always dominated the heard
(her dress received louder than her noise).

The reasons for this were [blah]:
— complicated [blah]
— historic [blah]
— embedded [blah]
— engrained [blah]
— their own fault? [blah]
A blend of the above.

Things shifted slowly,
but not at the rate of change
of all other aspects of the 21st century.

It would perhaps still be the same today,
had it not been for The Syndrome.

~ ~ ~ ~ ~

Part 2
Stream audio track (internet required).

Marianna looks out at the crowd,
most with eyes closed,
moving their heads,
in figures of eight,
playing with the angle
of ears to wave.

Marianna is playing first tonight at Ololyga's, [1]
the venue behind the nondescript door,
down the lane, off the side-street,
in the suburb a few too many away from the centre.

She drew the short straw.
No headliner hierarchies here —
an unwritten rule that keeps
egos in check and genre battles gentle.

Marianna is playing herself —
she taps her source,
her body the feed —
lets her program sort patterns
and then she tweaks the results.

The thump of heart and flow of blood
become the base of tidal surges
and sucking undertows.
The movement of joint and bone,
finger and limb,
creates tectonic upheaval.
The zing of scheming neurons
the cracksnaphisspop of electricity.

Bringing the inside out —
this is the noise of women.
Before they had
the wail and the shriek,
now the whole being
can be sourced and revealed
and turned inside out into song.

Marianna feels good.
Her pulse increasing,
beat responding,
waves breaking,
sound peaking,
then it's flatline sine
as she pulls the plug.

Marianna looks out at the applauding crowd
and it's 90% female.

~ ~ ~ ~ ~

Ivana looks out at the crowd
and it's 90% female.

She takes that statistic,
along with many others
and manifests them
into her Sonic Social Demography,
mapping the shifts,
riding the curves and crashes.

She hopes to find answers
in the patterns and flows.
To hear what, so far,
has not been seen.

This is the sound of politics,
and the politics of sound.

Of course music has always been political —
back before, the mainstream
a major cog in the machinations of the
military industrial entertainment complex.
Opiates and aphrodisiacs,
keep them moving to the beat.

But now that only half the numbers
are susceptible,

the music machine's half as useful.
Deemed a woman's act
music is tolerated,
but not encouraged.

So on its last legs
a marginal mainstream
slides into the darkness of a
catacombic underground.

Welcome to Ololyga's.

~ ~ ~ ~ ~

Jones looks up at the stage
and it's 100% female,
the crowd five men to 45 women.

Not that men aren't allowed,
just some come to make trouble
and Bertha the Bouncer is pretty formidable.

No matter how much subsidised sport,
avatar porn and the comedy galas they're given,
some men still believe:
"if I can't have it...no one can."

And things are getting a little more serious.
Every century it seems
breeds a whack-cult
ready to call for a "witch burning"
with access to governmental ears.

But Jones comes here often,
he's "OK", a fan-boy.
Well, if that's what they think,
he doesn't mind so much.
He just feels lucky
he's one of the remaining —
the 15% who can still feel the music.

PROFOUND AUDITORY AGNOSIA (PAAS)

Affecting 85% of the XY population, 0.5% effect on XX population, though it is strongly believed XX carry the as-yet unidentified mutation.

Cause unknown but strong evidence points to over exposure to Radio Frequencies which reached peak bandwidth saturation in the mid 21st century.

The hearing mechanism remains fully functional with the subject able to understand and produce speech and accept causal relationship of action to sounds if the action is visible. However in the absence of any visual signifier, the subject is unable to identify a sound disconnected from its source, nor make sense of patterning, pitch or rhythmic formulations.

The subjects feel NO affect from any form of audible construction.

Jones feels extra lucky,
he's an even rarer case.
He can actually try to make music.

Those who can are quite shy,
taking time to emerge
from their bedroom experimentations,
first seeking audience
via gender blind subscription streams.

Jones has been making for a while
and last week put himself forward
for Ololyga's Open Night.

A disjunctive collage style,
approximating, he imagines,
the meaningless jumble
of a PAAS sufferer.

It felt good.
It felt weird,
expectation and judgment
a loose noose that could tighten
anytime.

Marianna was encouraging:
"take it further…." she advised.
Ivana dissected his motivations
over vodkas until three in the morning.
He almost felt accepted.

Tonight the audience XY stats are up by one,
as he has come with this guy called Simon.
Simon started working at the café
Jones cooks at.

Most men give you a hard time,
but Simon seemed interested,
kept asking…
so tonight Jones is introducing him to Ololyga's.

~ ~ ~ ~ ~

Ada abhors a crowd
and plays in a small soundproofed booth
out the back.
Each audience of one receives
a 7-minute session of sonic acupuncture.

Tiny sounds.
Some sting like insect bites.
Others twinge like a nerve pinch.
Some burn like a wax drop.
All sharp, psychic shocks,
to zap the synapses.

Ada is a nerve-core artist.

Some nerve-corists
set up treatment clinics,
call themselves practitioners,
but Ada fights that fem-nurturer paradigm.
For her it's about the aesthetics and affect…
She wants to blow minds,
not cauterise them.

As she's powering down her gear
this guy Simon reappears,
had a session an hour ago,
wants to say how amazing it was.

She thanks him,
and moves towards the door
which he's blocking….
which he's now closing behind him…
now advancing towards her,
scanner in hand,
taking her measure,
pressing her back into the chair.

As she protests
he explains —
They've been watching.

There is potential.
Her techniques
might be useful,
reactivate, rehabilitate,
cure even.

They've realigned priorities
to make it seem like they don't care.
But this inequality,
well it's just not fair...
unacceptable.
Her cooperation will be rewarded,
or it will be forced.

As he firmly guides
her into the back seat
of the black car
in the lane,
he leans in and whispers:
"After all, is it not your duty
To redress the imbalance?"

Future human

Battery life

Sound shot

Future citing

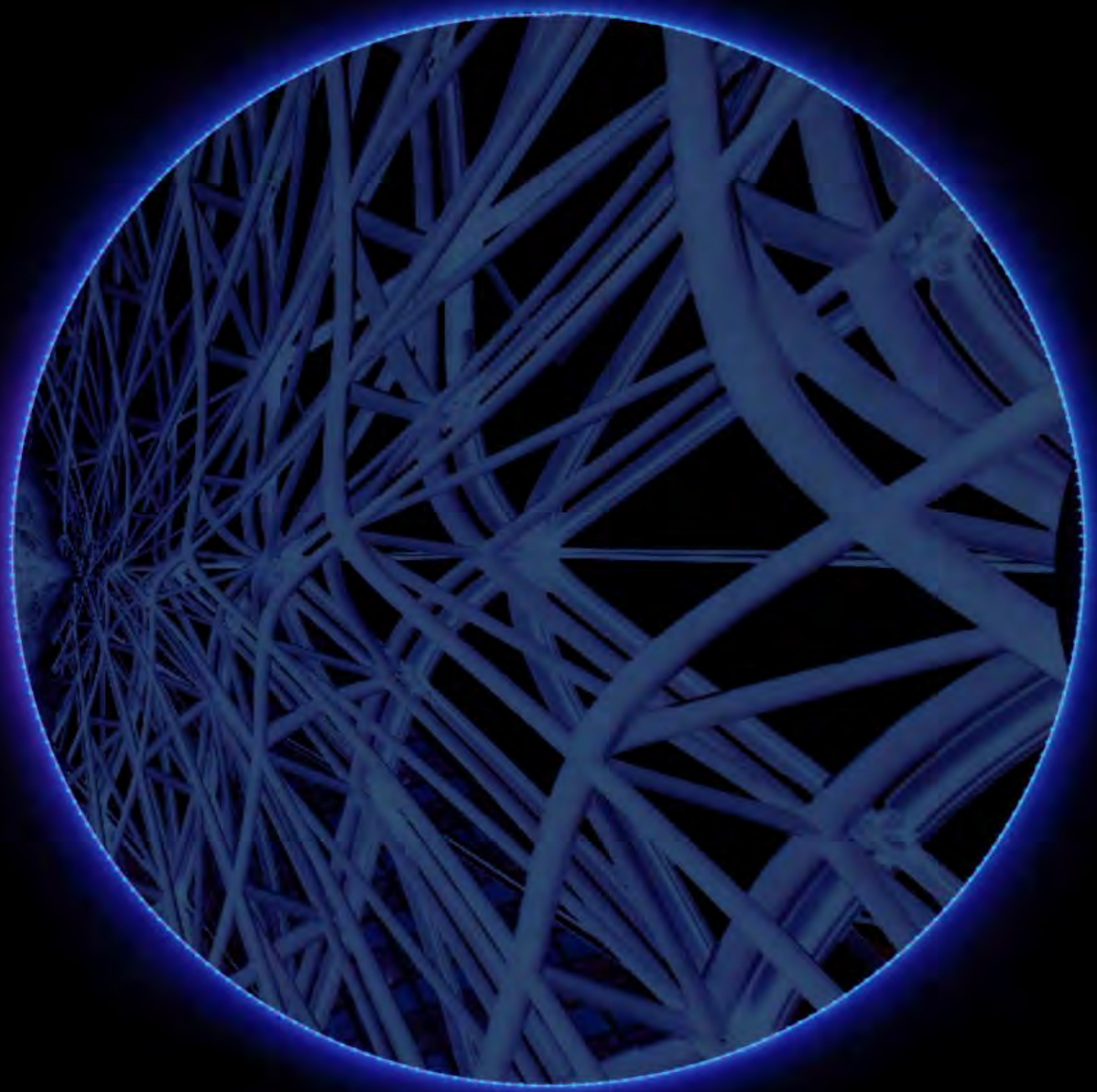
Body Sound Art

ASMR

City cacophonies

Future city

Sensory stack overflow



4

FUTURE CITY

FUTURE CITY

Do we become the city?
Or does the city become us?

Do we cling to our re-renovated
sky-dreamscrapers
on our sinking coasts?

Or do we disperse
become the unsettled —
the new nomads?

Architectural visions,
despite best intentions,
are for a certain class
who can already float.

Struggling against entropy's undertow
the rest is just improvisation.

Welltuned city

Buckminster Fuller asked:
"How much do our buildings weigh?"
But perhaps we should wonder:
"What is their song?"

Sensory stack overflow

Commodified desire...
Is it figurative?
Or abstract?

Stasis shift

2017: population 7.6 billion
2050: population 9 billion
2100: population 12 billion
[United Nations, Population Division]

Park life

Sound fountains,
sono-graff,
and other subversive acts.

WELLTUNED CITY

Part 1
Stream audio track
(internet required).

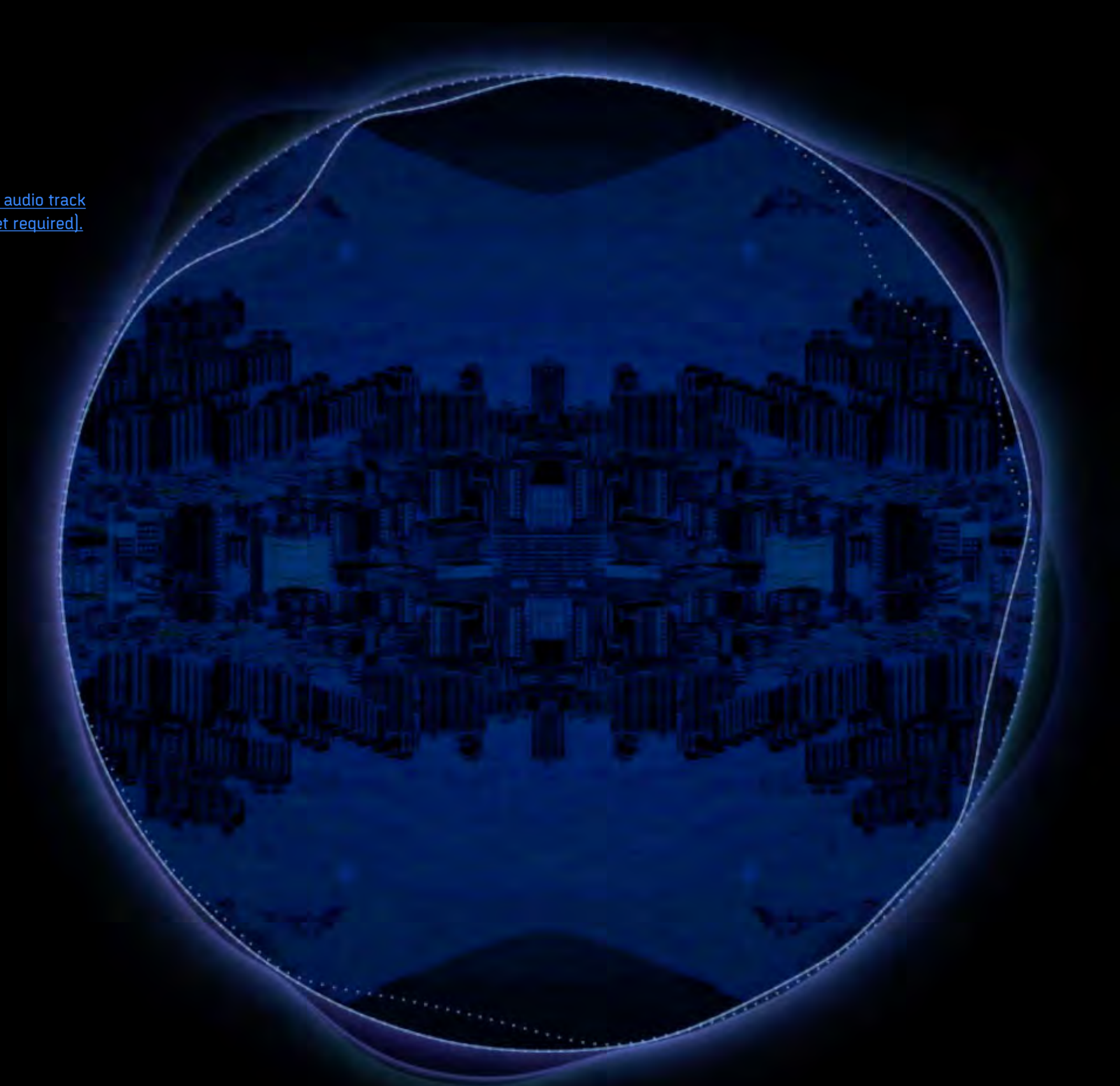
The city hums,
more felt than heard.
The city creaks and shrieks.
The city pings and zings and shivers
in endless iterations,
only the algorithm knows.

In the centre of a desert
a singing city;
each building a composition,
part of a greater whole.

An orchestrated city,
the towers are tuning forks,
the high-rises resonators
and the desert winds drone dreamy
down Euclidean boulevards.

But with harmony comes hegemony.
Some suspect the city's motivations.
And now they turn their efforts
to subvert the city's song.

~ ~ ~ ~ ~



Part 2
Stream audio track
(internet required).

Anita is in a service tunnel huddled over a tablet.
She is in the process of corrupting the program
that drives the song of this 'scraper —
both an act of sabotage
and a work of art.

Anita's building is a beauty.
One hundred storeys high,
panes of glass,
sheets of steel,
in overlapping segments,
like glimmering snakeskin.

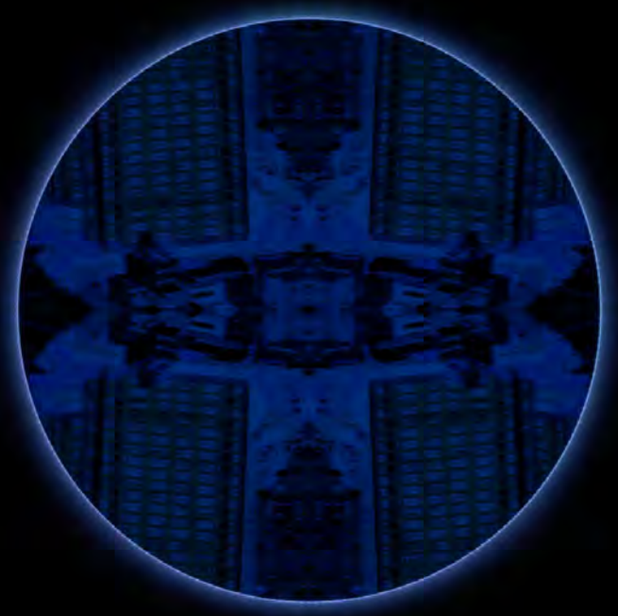
Every part of the building
is wired to sing —
to resonate —
a giant multi-speakered system.

There are hundreds like it,
each a unique instrument
adding to the city's symphony.
And in each one
someone like Anita
hacking it.

Anita came to the city
because she was asked —
wooed, as were many —

the songs of the city
made from fragments of material
from the pool of invited composers.

Too late they realised they were pure input
and the master algorithm took over.
Their services no longer required
they were meant to leave,
but some disappeared,
melding into the service classes
that keep the city humming.


This singing city,
an oasis in the desert,
is a cultural destination like no other.
The obscenely wealthy gather
to tell themselves stories
about their right to rule,
cutting deals amongst their own kind.

The city's songs are constant,
not always dominant,
but always there,
on the edge of perception.

Seductive and beautiful,
charged and persuasive,
the oligarchs cannot help
but hum their tunes.

Access to the Singing City
is via an underground shuttle
connecting a helipad
in the middle of the desert.

Here nomadic groups,
the displaced and unsettled,
coastal homes now sunken,
land now poisoned,
seek an audience to be accepted
as a shift-slave in the Singing City.

This second city,
the organic one,
of disorder and natural noise —
the sounds of daily survival —
is regularly silenced,
its citizens dispersed
by the Singing City's guards.

There are no birds
in this singing city.
They've tried importing
but they die within days.

The authorities blame climate,
but others suspect it's the sounds —
believe messages are passed
between the powerful,
encoded in song
via carrier waves
that birds can hear
and cannot bear.

Anita and her clan
can't access the central control centre.
No one has been able to locate it.
But they can interfere with
the playback mechanics
of the buildings themselves.

So tonight the buildings glitch,
issue streams of corrupted data —
noise and chaos,
grit and grating —
broken shards of sound
rupturing the harmonics
of the well-tuned city.

They can't interfere for long.
They'll be discovered soon,
but for a few minutes the
transmission is interrupted
and the ears of the city
are awakened
to the noise of resistance.

Future human

Battery life

Future citing

The Unsettled

We built the future and no one came

Oasis cities

Population projections

Future city

Stasis shift

SENSORY STACK OVERFLOW

Part 1
Stream audio track
(internet required).

Some call it 'The Big Flash,'
others 'The Last Blast.'
A synaptic burn out
of the audiovisual bandwidth,
pumped and pimped and overloaded
by the buy sell
and sell buy.

Now fried,
we are back to basics —
shapes and colours,
sounds in space,
and how to make it
mean again.

~ ~ ~ ~ ~

Part 2
Stream audio track
(internet required).

Buy it.
Buy it now.

We are told what to desire
by the 24-hour assault of light and colour,
hyper-kinetic images and sounds.
Flickering visions perfectly planned
to hypnotise and defeat opposition;
sound designed to fill all space
and wipe thought.
The city shimmering with messages
yelling what to be
and which products will make it so.

The majority of us accept this.
Absorb the images,
act on the messages,
do as we are sold.

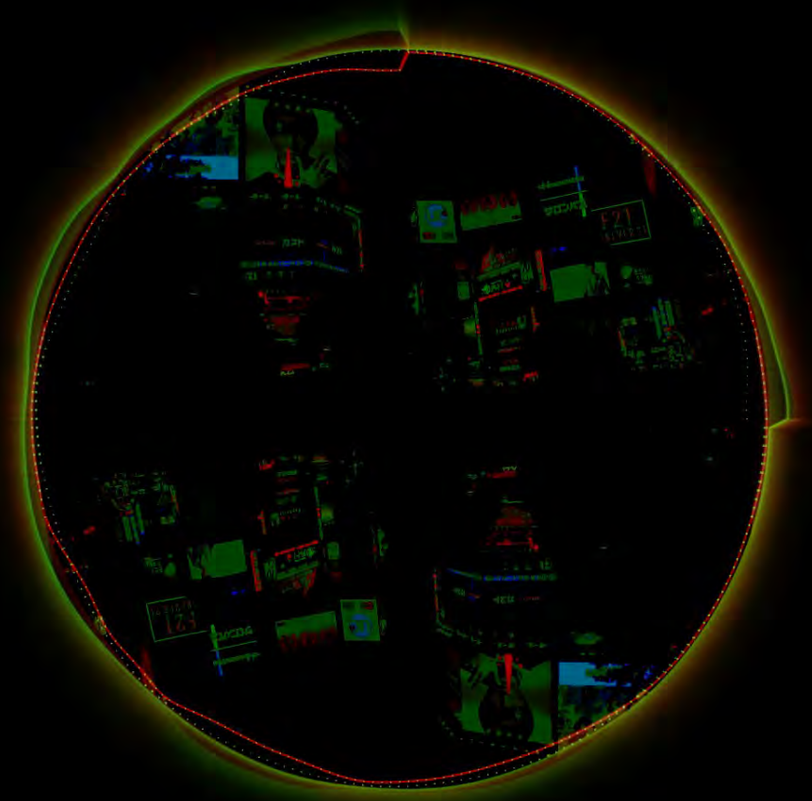
With continuous exposure
we develop immunities,
so the makers of the messages
increase their strength.

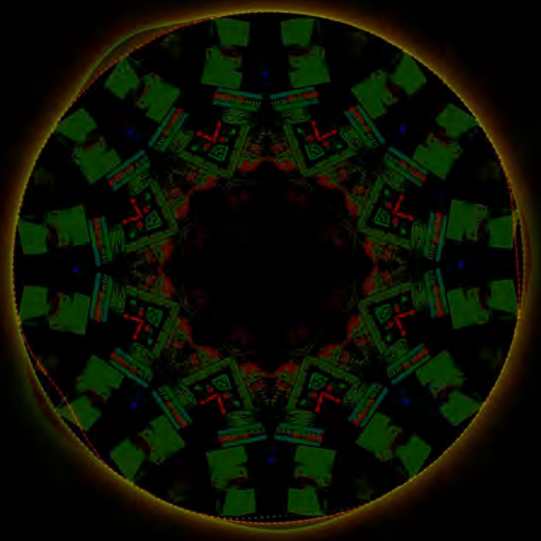
While we bring it on ourselves,
our northern neighbours tip the scale.
Opposed to our system of desire,
they realise the best way to combat it is
to encourage it to implode.

So in a bloodless act of war
(they call it liberation),
the northern neighbours
hack the systems of the south,
subtly at first so that no one notices,
and start turning everything up.

The images get brighter,
faster, more intense,
the sounds louder
and more cacophonous —
every band of the spectrum in the red.

And then it happens.





One Saturday evening at 9pm,
all transmission systems,
all public screens,
and private devices,
start to synch,
issuing an avalanche of images
of alarming speed and brightness,
set to a screaming squall of cataclysmic noise.
People cower on the ground in terror
of this unbearable sound and light show.

All the systems blow
and for the first time in a long time
there is darkness and silence.

When the systems come back online
the effects of the attack are profound,
but not as anticipated.

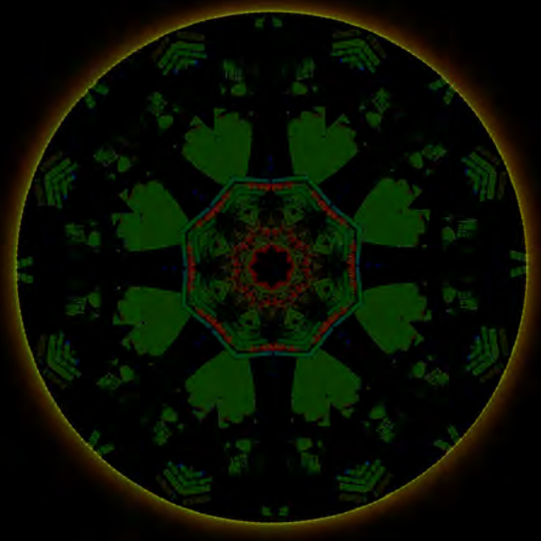
We can still see —
read words,
recognise objects,
find our way around —
but something has gone missing.

Visual representations,
those extraneous to
practicalities of daily living,
offer us... nothing.

No emotional affect,
desire and disgust gone.
A kind of visual Aspergers —
a void of association.
We no longer feel anything
for the manufactured image.

While dulled to optical manipulation,
we are hypersensitive
to its aural equivalent.
Functional sounds
remain unaffected,
while those that are composed,
harmonically specific,
emotionally manipulative,
trigger something akin
to an allergic reaction.

The more sound resembles
what once was called "music,"
the more it renders the listener
dizzy, nauseated, agitated.



With research it becomes apparent
that a set of neural pathways has burned out,
pathways that once processed
manufactured figuration —
representation.
The simulation of reality
no longer coheres.
Like animals watching television
we find the proposition fleshless and
unscented.
At best it means nothing,
at worst it confuses and disturbs.

So the city has become pragmatic
and unadorned.
Simplified.
All we can cope with is the
leanness of form equalling function.

But after a year or so,
some of us begin to notice changes.
The stirring of what can only be described
as attachments to certain abstractions.

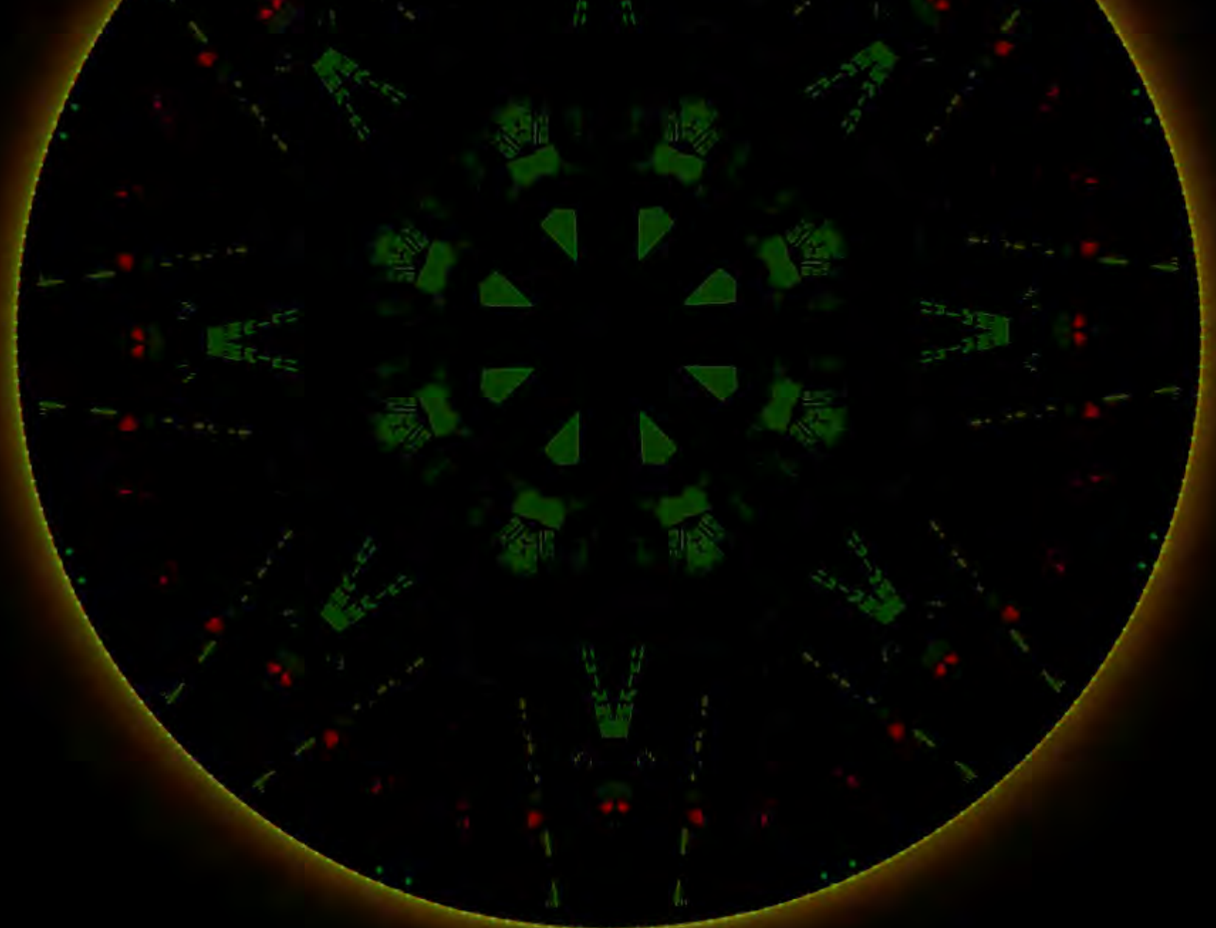
We start to develop fetishes
for the triangular shape
made by the intersection of walls and floor,
or the symbol that marks the entrance
to the subway.
Start to seek out the hum
of an electricity box in a dead-end alley,
or the particular bleep of a credit machine.

And then some of us remember
what it is like to take one thing
and make something else from it.
And we begin to experiment.

We take non-harmonic
and disconnected sounds
and play with their placement
in relation to, yet independent from each other.
We take objects,
exploring form as shape,
rather than metaphor and meaning.

There are those who
hope that this is
just the beginning,
that the rest of our
aesthetic
associations
will come back
online,
that we will return
to the way we were
before.

But for some of us,
this culture remade
from reduction and
distillation
rather than
representation and
hyperbole,
is what we've been waiting...
what we've been working for.



Future human

Sound shot

Future citing

ASMR

City cacophonies

Future city

Stasis shift

STASIS SHIFT

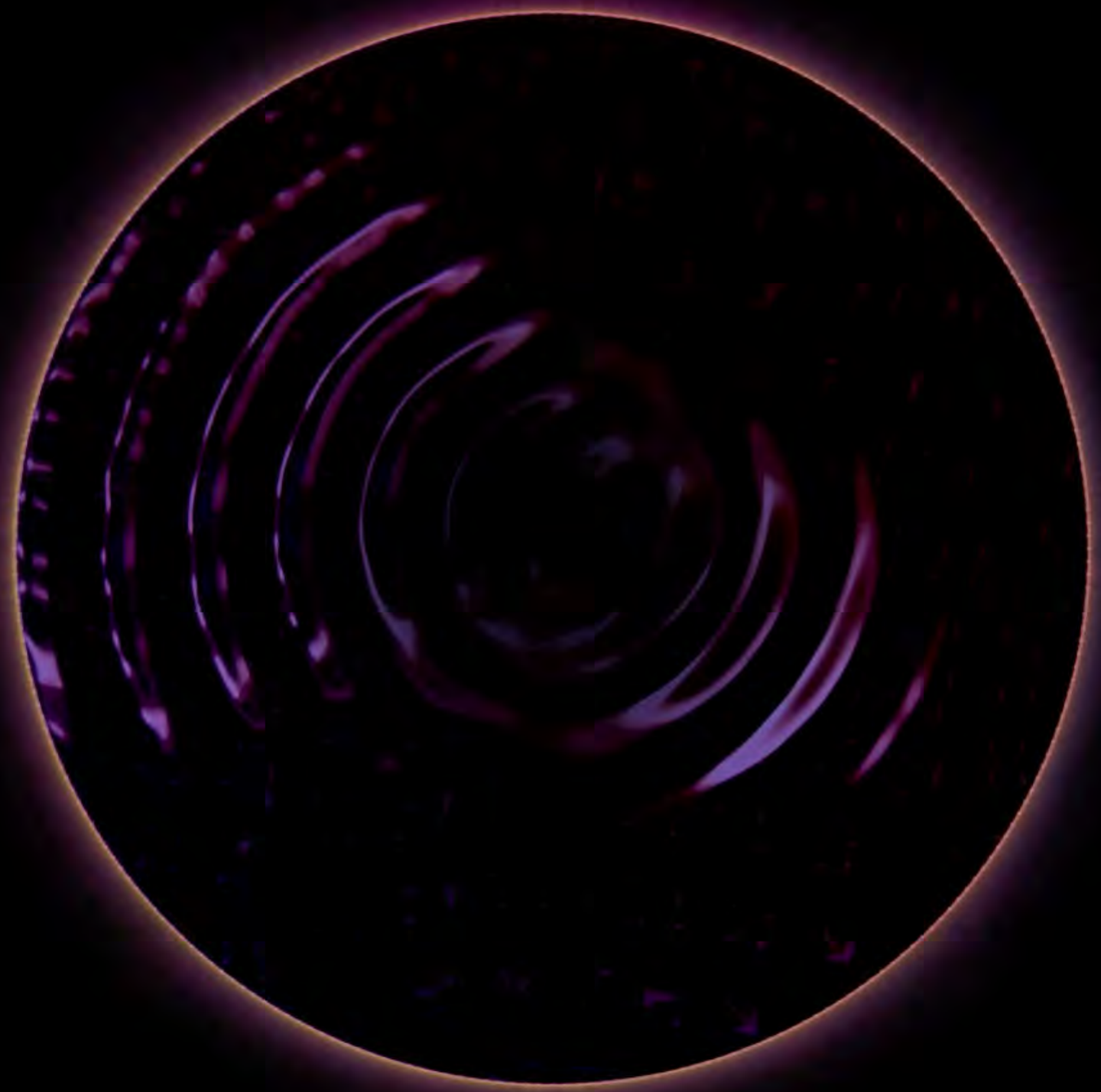
Part 1
Stream audio track (internet required).

The city shakes.
Infrastructure cannot cope
— we are destabilised.

It is the sound of collective movements.
The summed thwack of footfalls.
The hum of devices.
The burbling of voices.
Air passing between shifting bodies.

Too many people.
Too much sound.
Too many vibrations.

~ ~ ~ ~ ~



Part 2
Stream audio track [internet required].

Vibration Minimisation Act, Legislation 15647B — amended 21XX.

During stasis shift a citizen will contribute no extraneous sonic and/or vibrational energy, beyond that required for basic life-support.

The duration of a stasis shift is to be determined by local government bodies in accordance with needs and accumulated measurements of the local areas.

Violating a stasis shift is a criminal offense punishable by long-term stasis imprisonment.

Connie hates her job. She works at the Sound and Vibrational Audit Office (SVAO). It's the only job she can get on her shift.

When you're "on shift," you go to work, pursue personal activities within the specified leisure time, then you go into stasis.
It's just like sleep — only involuntary.

Relying on circadian rhythms, on natural sleep cycles, is no longer enough. There are still noises, movements, excess vibrational energy that the city cannot sustain.

In stasis, a medically approved time-release cocktail takes you under then brings you back just in time for your active shift to commence.

The system is not inflexible — seeking a balance, wellbeing for all. Applications for exchange are subject to approval, employment scheduling and a hot swap with another "body." In fact the Stasis Bureau offers regular rotations to ensure that shifts don't become clannish, with the attendant risk of inter-civil unrest.

But Connie is staying in her shift, despite her job because — would she say she's in love with... she's having a good time with... she's definitely in love with Serge's vibrations.

Vibration Minimisation Act (VMA), Legislation 15647B — section 105.

All extraneous, amplified, broadcast or transmitted sounds are to be delivered directly via neural implant devices. Only realtime speech and the sound and vibrational consequences related to the movement of bodies through space are allowable as part of the analogue sound and vibration spectrum.

Citizens are allocated a vibrational energy quota. Willfully generating more vibrational energy than your quota is an offense punishable by long-term stasis imprisonment.

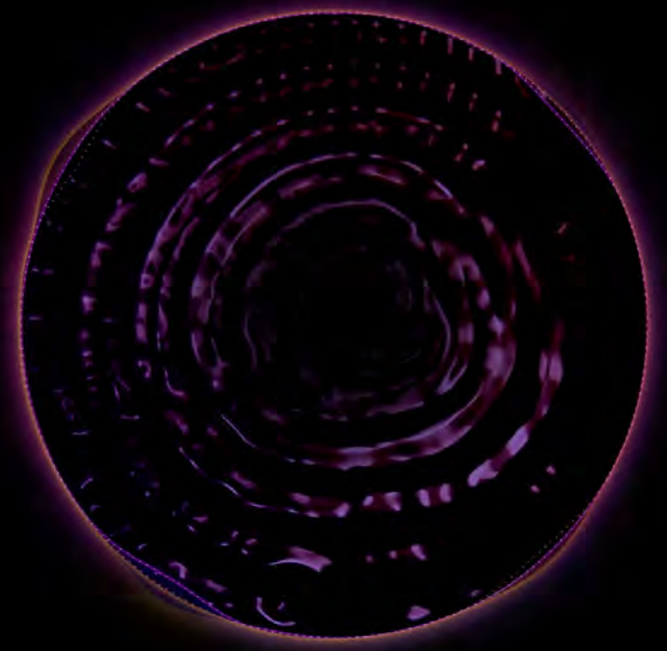
The VMA came into force 50 years ago, so Connie has known no other way. But she's read about before, when music was not purely of the mind, but a visceral, embodied sensation. Of this thing called "dancing," whereby, so compelled by the vibrations, your body moved in sympathy. Connie's mother would talk of these things... her father would make her stop.

The body is now so regulated, it's a necessary inconvenience soon to be dispensed with when substrate independence comes online. All mind and no flesh. Any time now they say — even calling for early adopter volunteers.

Connie met Serge in a bar one night. He became very interested when she mentioned where she worked, but equally elusive about himself. After they'd shared stasis several times he decided she was ready and took her on a tour. It blew her mind, or her body more importantly.

Serge is an artist, or a location scout of sorts — finds spaces, generally off-limits to non-operationals — industrial zones, transport tunnels, manufacturing plants — that emit, during their operation, a particular and governmentally sanctioned level of vibration.

He matches these with frequencies, sound constructions which he disperses via the standard neural ports. But If you sidle up to the right pillar, lean against the right wall, lie on the ground above the right pipe you get an approximation of what music used to be like.



Connie starts to feed Serge information, accessed through encrypted docs, filed on her senior's terminal. She finds discrepancies in outputs and taxes, waived penalties, hushed up and paid over. One place in particular, three times the emissions of their taxing.

In an underground tunnel terminus, where the damping is weak and the factory leaks its roil and rumble, they gather — four or five, sometimes six — and play outlawed sounds out loud. Feel the tremors and trembles of objects in oscillation, of strike and reverberation.

Serge has found diagrams for devices called speakers and they use these to play with the flow of energy and the shimmer of materials, and the shiver through bodies moved by and with sound.

Connie keeps an eye on the files and so far they remain unnoticed, hiding their excesses in the corruption of the system. If her senior finds out...well, they both hold cards.

So for a while yet Connie, Serge and friends may feel the body's pulse and pull with the pounding of sound...

But when they're eventually found out, the sleep will be long, lonely and still.

Future human

Battery life

E.A.R

Future citing

Vibrational harvesting

Population projections

Future city

Sensory stack overflow

PARK LIFE

Part 1
Stream audio track
[internet required].

In the cities of our future,
green buildings instead of grey.

Breathing structures —
catching winds,
cleaning air,
growing food,
cycling energies.

Rooftop gardens,
vertical parks,
multi-storied adventure playgrounds
of re-configured wilderness,
for those lucky enough to dwell there.

But as St Gibson says
the future is unevenly distributed.
The rest of our cities hybrid monsters,
architecture and small-thought planning
accumulated over centuries.

While we wait for our archibiotic enclaves to grow,
will there still be small patches
between concrete and highway
where we sit and dream?

~ ~ ~ ~ ~

Part 2
Stream audio track [internet required].

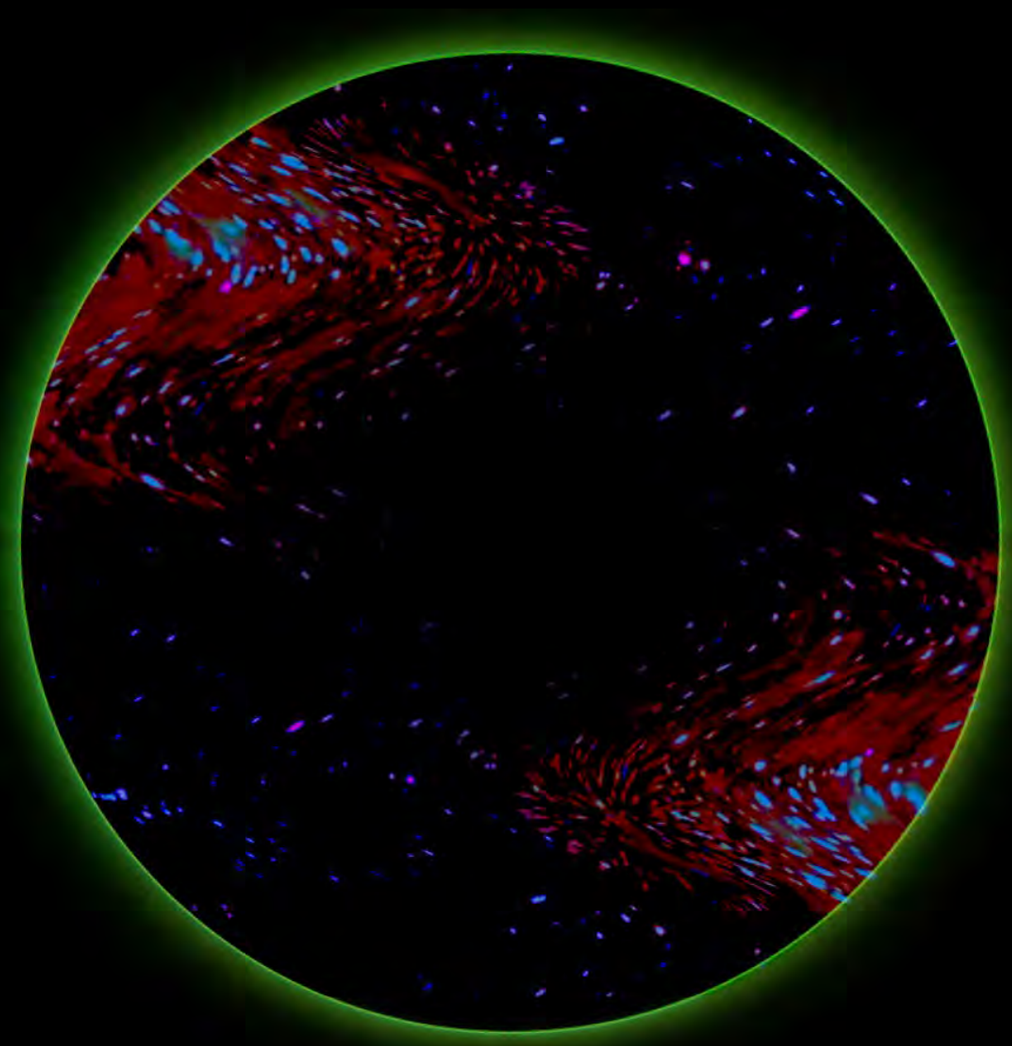
It's still called the old town, though most of the ornate facades are projections, behind which modern square and block blandness hides. As history crumbles it's cheaper to simulate than restore.

Between the real world town hall brutalism and the cathedral gothic hologram lies the park; a hybrid — natural and synthetic — transitions almost seamless except for the occasional power surge when hedges and rose gardens glitch and blur. The synthetic was to be temporary while the plant stocks redeveloped but growth rates have been slower than anticipated.

In the centre of the park a fountain, as tradition demands, but through this one flows not water but visual sounds. Right now the fountain streams with glorious purples and blues. Occupying a state between gas and liquid, the colours flow and swirl and frolic around the curvilinear caverns of the central column sculpture.

And what you see is what you hear, exactly and inextricably, if your neural implant is enabled for Chromasonics (the next new sense available on an Aug-life subscription plan). Sound is felt as colour, colour as sound, both as vibration and saturation and neural stimulation, a deep and cellular knowing that the two are one.

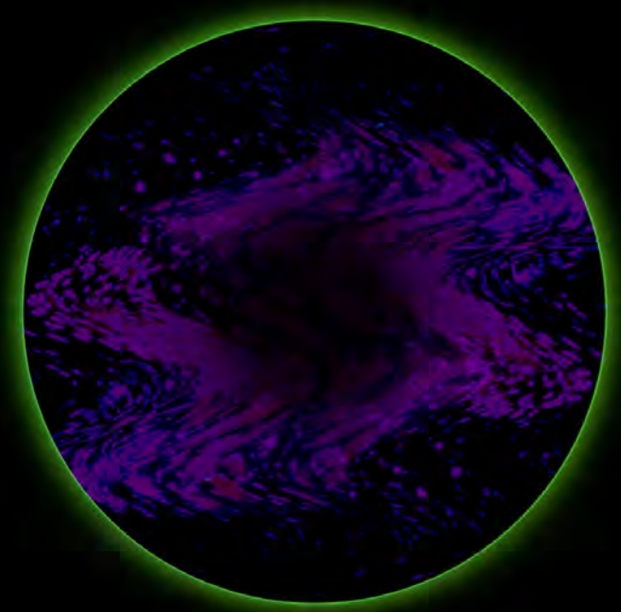
And the fountain is interactive — you can log into its flow and play the colour music of your mind. The artist, an early Chromasonicist, imagined works like these around the world linked-up in a global symphony, but the public didn't take up on the offer.

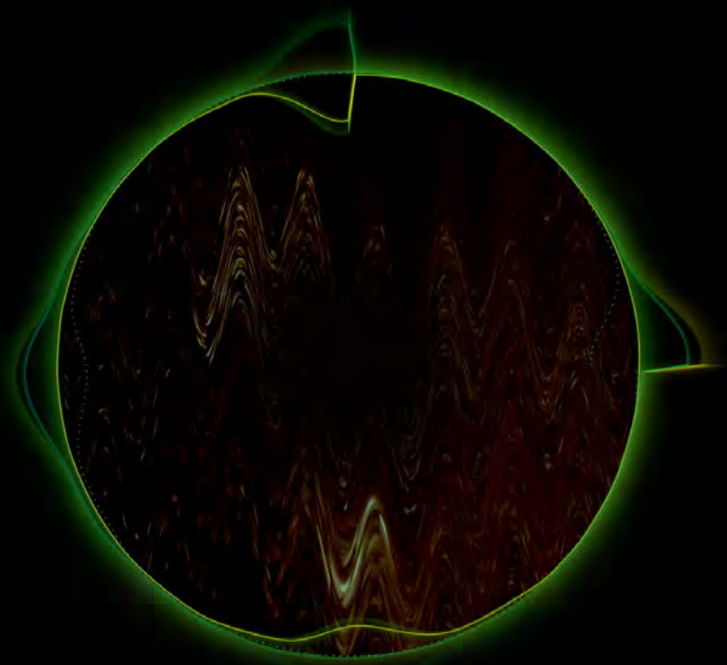


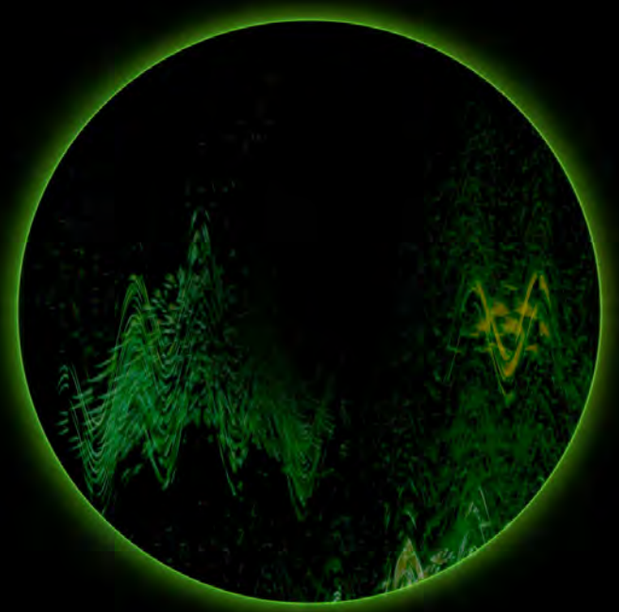
Children sometimes activate it but their attention spans are short and generally it's in default mode. Except for some afternoons, when a dishevelled young man comes to exorcise his demons through its song.

Sometimes people stop and watch, even drop credit chips at his feet, but he doesn't seem to care or notice, lost as he is, in the trance of his private chromasonic dance.

~ ~ ~ ~ ~







On a park bench, near the fountain, sits a woman. She's not just listening to the sounds of park but also seeing them — as waveform, spectrum, grain and texture — virtual visual overlays of audio frequencies.

Long ago the audiophiles lost the battle with visuality. Everything is visual now. Over a century of screen mediation means nothing has value unless it's visible.

As she notices the rustling of leaves on the trees she sees a stream of glittering particles in semi-transparent overlay swirling from the source. The dogs on the far side of the park, barking and wrestling each other, are haloed by jagged rays in a brownish-grey. And the dishevelled young man approaching from the far gate has beautiful curlicues of icy blue and lilac. Perhaps he's talking, or humming to himself.

Of course those seeking a more intense intertwining of sound and sight opt for Chromasonics, but for those not ready for deep neural intervention, the Sonic Aura sees sounds just fine.

~ ~ ~ ~ ~

On the far side of the park, in shadow of the cathedral, there is a little haven of defiance and rebellion. A virtual wall requires virtual graffiti and Sono-graff is a rare cultural manifestation that eschews the all-pervasiveness of image.

With every Aug-Life subscription stream come inevitable advertisements, GPS triggered and highly personalised via data-harvesting feeds.
A Sono-graff artist chooses certain hotspots and overwrites the adverts with their own soundbombs — hackpunk poetry, rip up-collage parody, sonic-clash conceptualism, hardcore philosophy — each artist their own tag style.

Adverts are comparatively constant, while Sono-graffs must keep moving their wares to avoid litigation. What's here today will be gone tomorrow. But maybe you'll walk through it again somewhere soon. And actually most secretly enjoy these small moments of back-talk in their streamlined world.

~ ~ ~ ~ ~

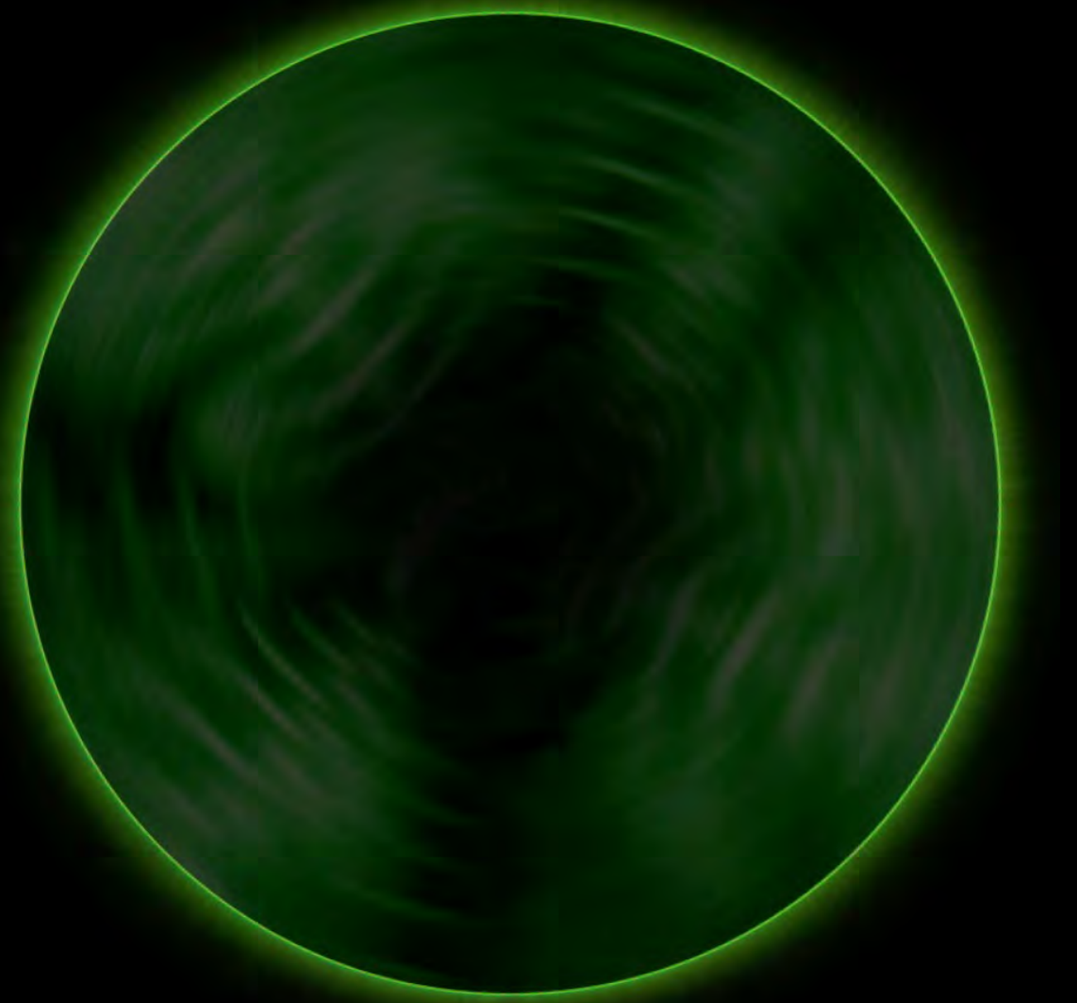
But perhaps the ultimate act of rebellion is happening over by the playground.

On a seat by the swings, a young woman sits, perfectly still, her eyes closed. On another bench, a man in similar pose. And right over by the hedge another, middle-aged, seeming asleep.

They have turned off all augmentations, all sensory enhancements, all information feeds, all emergency call access and are as naked and vulnerable and unprepared as you can be.

And they are listening, now, together, to sound waves travelling through air via crests and troughs, unmediated, with no tweaking of the moment or recording for later.

As it happens, when it happens, they listen. And share the world around them.



Future human

Sonic skinning

Future citing

Augmented hearing pt1

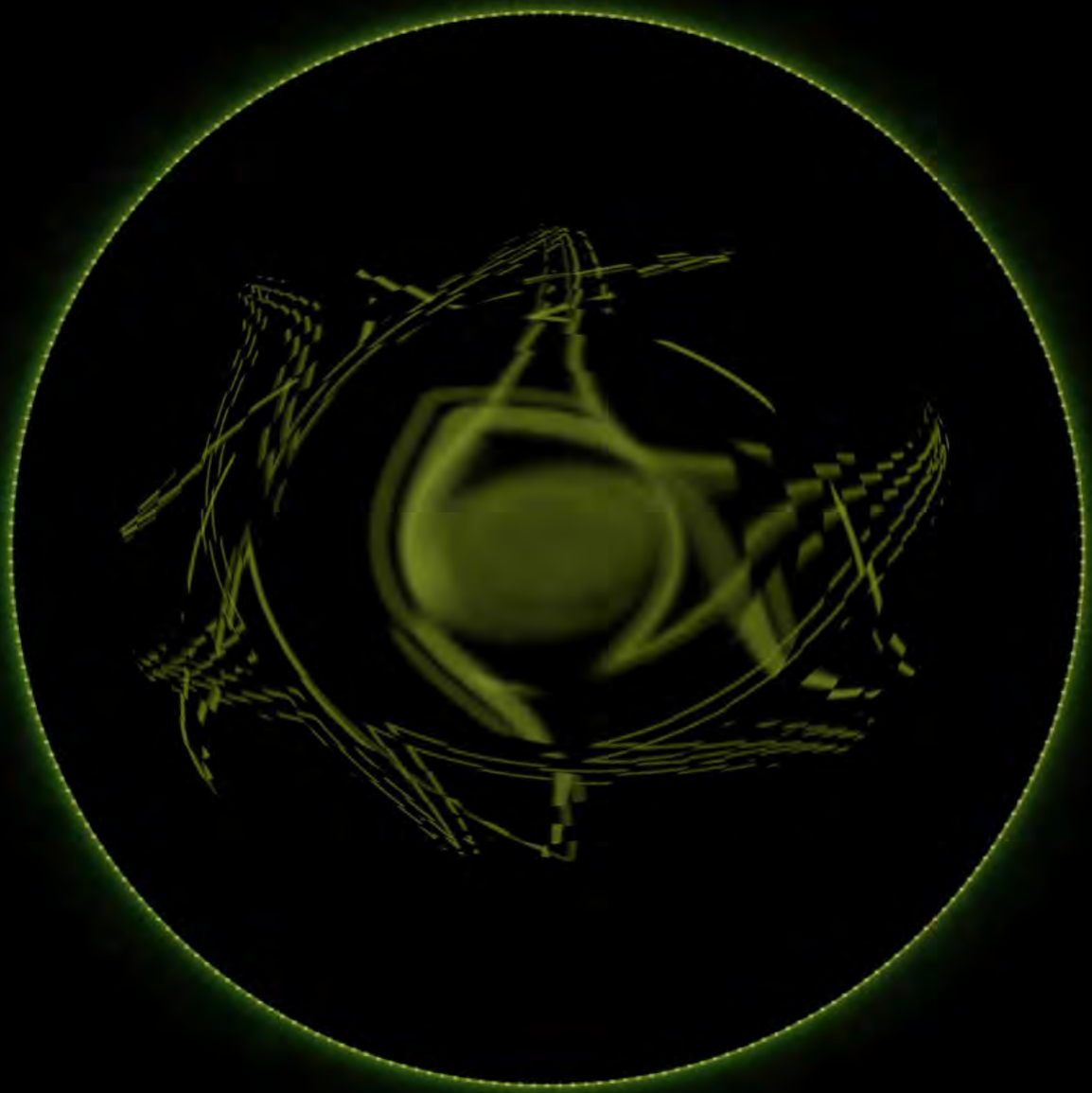
Augmented hearing pt2

Sense-X-linking

Jasmine Guffond

Future city

Sensory stack overflow



5

FUTURE CITING

FUTURE CITING

In the 21st century
there was us
and there was the feed —
an information stream we could sample
but not become.

Now our body and the stream are one.
And we no longer know
our fact from our fictions.

And peddling their wares in the middle
are the artists,
the aspirational aggravators.

The artist's true function?
To translate
the system
back to itself.

Artist interviews

Guy Ben-Ary

Peter Blamey

Michaela Davies

Robin Fox

Jasmine Guffond

Cat Hope

George Khut

Pia van Gelder

Artist speculations

New sounds to be found?

Speculative desires

Sonic hegemonies

Augmented hearing pt1

Sense-X-linking

Sound vs Vision

Sonification

City cacophonies

Future now

Augmented hearing pt2

Transhumanity

The Omega Point

Substrate independence

Population projections

The Unsettled

Oasis cities

We built the future and no one came

Body Sound Art

Vibrational harvesting

Quantum queries

Ultrasonics

ARTIST INTERVIEWS

Guy Ben-Ary (audio)

Growing neural networks, the biotechnological art project, CellF

Guy Ben-Ary explores a number of fundamental themes that underpin the intersection of art and science; namely life and death, cybernetics, and artificial life. Much of Ben-Ary's work is inspired by science and nature. His artworks utilise motion, growth and biological data to investigate technological aspects of today's culture, re-use of biological materials and technologies and the materiality of the human body.

http://guybenary.com

Interviewed August 11, 2015, Perth via Skype

Stream audio track (internet required).

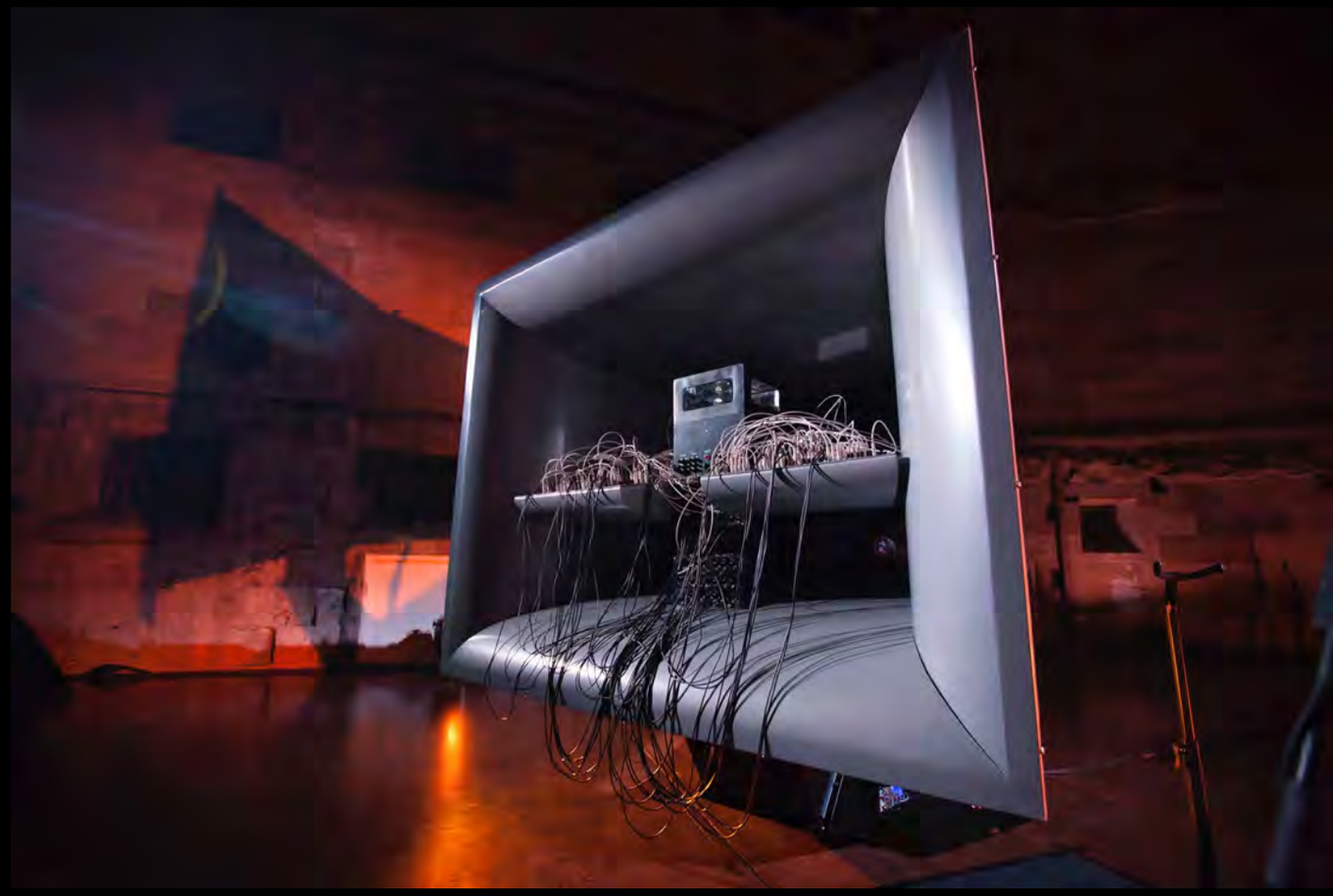


Image: CellF, front view, the neurons are located in the top black box (incubator), part of The Patient, 2016, photo Alex Davies, courtesy the artist

Future human

E.A.R

Omega Point Band

Future citing

Sense X-Linking

Sonification

Future city

ARTIST INTERVIEWS

Peter Blamey (audio)

Materials, signals, flow and obsolescence

Peter Blamey's work explores themes of sound and energy, and the reimagining of technology through questioning accepted notions of connectivity, variability and use. His practice is typically grass roots, establishing interactions between disparate everyday technologies in order to produce performances, artworks and installations that investigate the relationships between people, technologies and their environments.

http://peterblamey.net

Interview July 24, 2015, Sydney

Stream audio track [internet required].

Image: Avantwhatever festival, 3RRR FM Performance Space, Brunswick, 15 Aug 2016, photo Tim Grey

Future human

Sonic skinning

Future citing

Speculative desires

Augmented hearing pt1

Sonic hegemonies

Future city

Welltuned city

ARTIST INTERVIEWS

Michaela Davies (audio)

Electronic Muscle Stimulation (EMS)

Michaela Davies is a cross-disciplinary artist working with sound, performance, installation and video. Michaela's creative practice is informed by an interest in the role of psychological and physical agency in creative processes and performance. Using Electronic Muscle Stimulation she is investigating how obstruction can change the trajectory of individual development and creative outcomes both in and beyond the context of musical performance.

http://www.michaeladavies.net

Interview September 5, 2015, Sydney

Stream audio track (internet required).

Image: Michaela Davies, A New Musical Masochism, Musify+Gamify 2015, video still

Future human

In the wolf thickets

Future citing

Transhumanity

Sonification

Future city

ARTIST INTERVIEWS

Robin Fox (audio)

Robin Fox is an audiovisual artist working across live performance, exhibitions, public art projects and designs for contemporary dance. His laser works, which synchronise sound and visual electricity in hyper-amplified 3D space, have been performed in over 50 cities worldwide. Public art projects include designing and building a seven-metre tall Giant Theremin for the City of Melbourne and the White Beam project commissioned by Dark Mofo. He is also the co-founder of MESS (Melbourne Electronic Sound Studio) which houses one of the most unique and extensive collections of electronic musical instruments in the world.

http://robinfox.com.au

Interview August 7, 2015, Melbourne

Stream audio track (internet required).

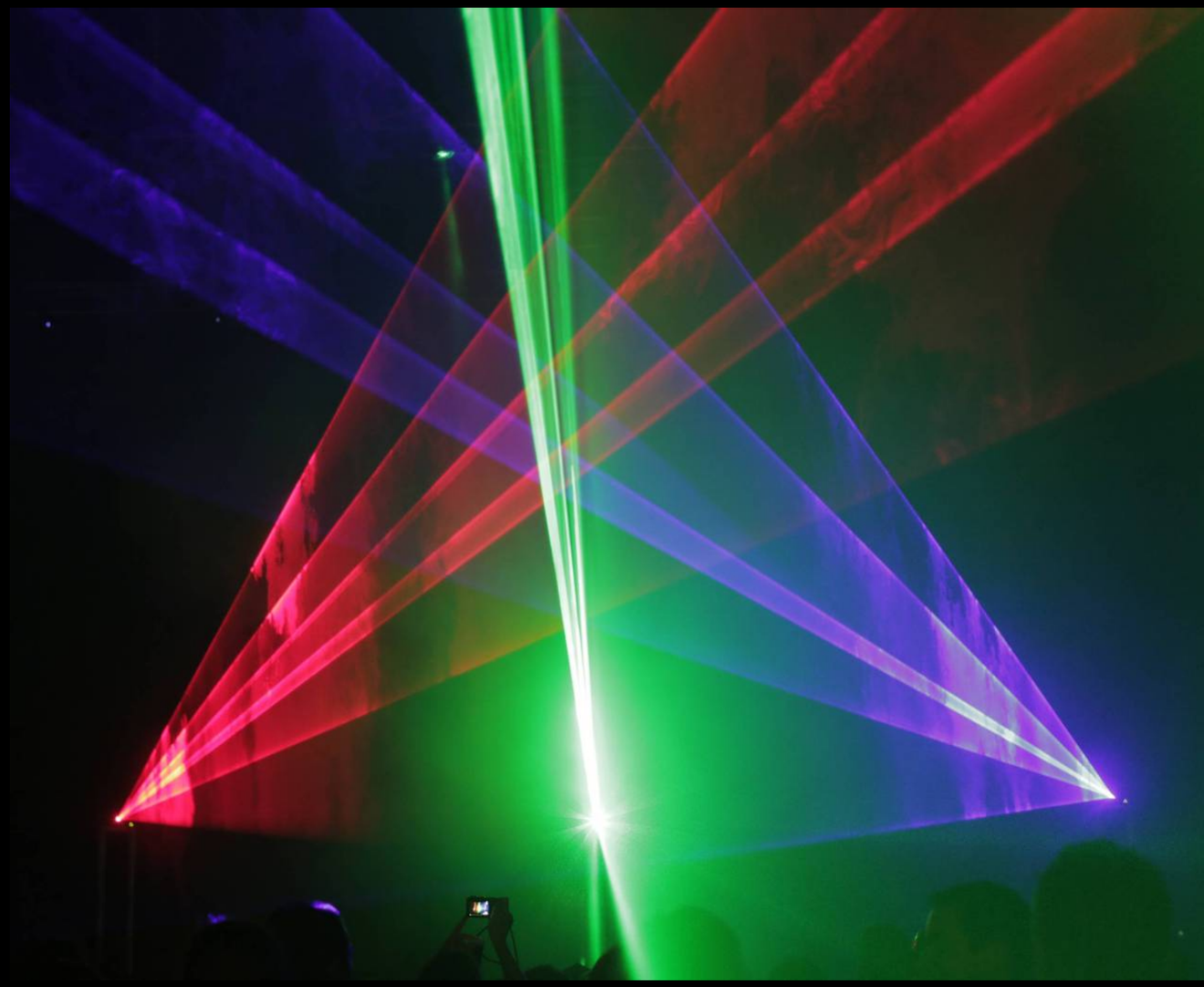


Image: Robin Fox, RGB Laser, Mona FOMA 2014, photo Sam James

Future human

Sound shot

Future citing

New sounds to be found

Sound vs Vision

Speculative desires

Future city

ARTIST INTERVIEWS

Jasmine Guffond (audio)

Sonification & surveillance

Jasmine Guffond is a sound artist and composer from Sydney, Australia, living and working in Berlin, Germany. She is interested in providing a presence for phenomena that usually lie beyond human perception. Via the sonification of facial recognition algorithms or intangible global infrastructures, she questions what it means for our activities to be traceable, and for our identities, choices and personalities to be reduced to streams of data. She has performed live internationally, exhibited sound installations and released music through Sigma Editions, Staubgold, Monika Enterprise and Sonic Pieces.

http://jasmineguffond.com

Interview April 28, 2016, Sydney

Stream audio track (internet required).

Image: Jasmine Guffond, Anywhere, all the time, a permanent soundtrack to your life, top photo Keelan O'Hehir, courtesy the artist

Future human

Sonic skinning

Future citing

Sonification

Sonic hegemonies

Augmented hearing pt2

Future city

Park life

ARTIST INTERVIEWS

Cat Hope (audio)

New notations

Cat Hope has an interdisciplinary practice that spans film, video, performance and installation. Cat is a classically trained flautist, a vocalist, improviser, experimental bassist and composer. She is an active researcher in the area of music archiving, digital art, graphic scores and electronic music performance. She has founded a number of groups, most recently Decibel new music ensemble and the Australian Bass Orchestra. She is also part of groups Candied Limbs and Hz Hz Hz.

http://www.cathope.com

Interview August 20, 2015, Perth via Skype

Stream audio track (internet required).

Image: Cat Hope, Pretty Gritty #7, photo Orlando Sydney

Future human

In the wolf thickets

Future citing

New sounds to be found

Sonic hegemonies

Augmented hearing pt1

Future city

Park life

ARTIST INTERVIEWS

George Poonkhin Khut (audio)

Biofeedback & body-focused interactive artworks

George Khut is an artist, academic and interaction-designer working across the fields of electronic art, design and health, at UNSW Australia, Art & Design. For the past 12 years he has been working with biofeedback technologies, creating intimate, body-focused interactive artworks that re-frame our experiences of embodiment and presence.

http://georgekhut.com

Interview August 11, 2015, Sydney

Stream audio track [internet required].

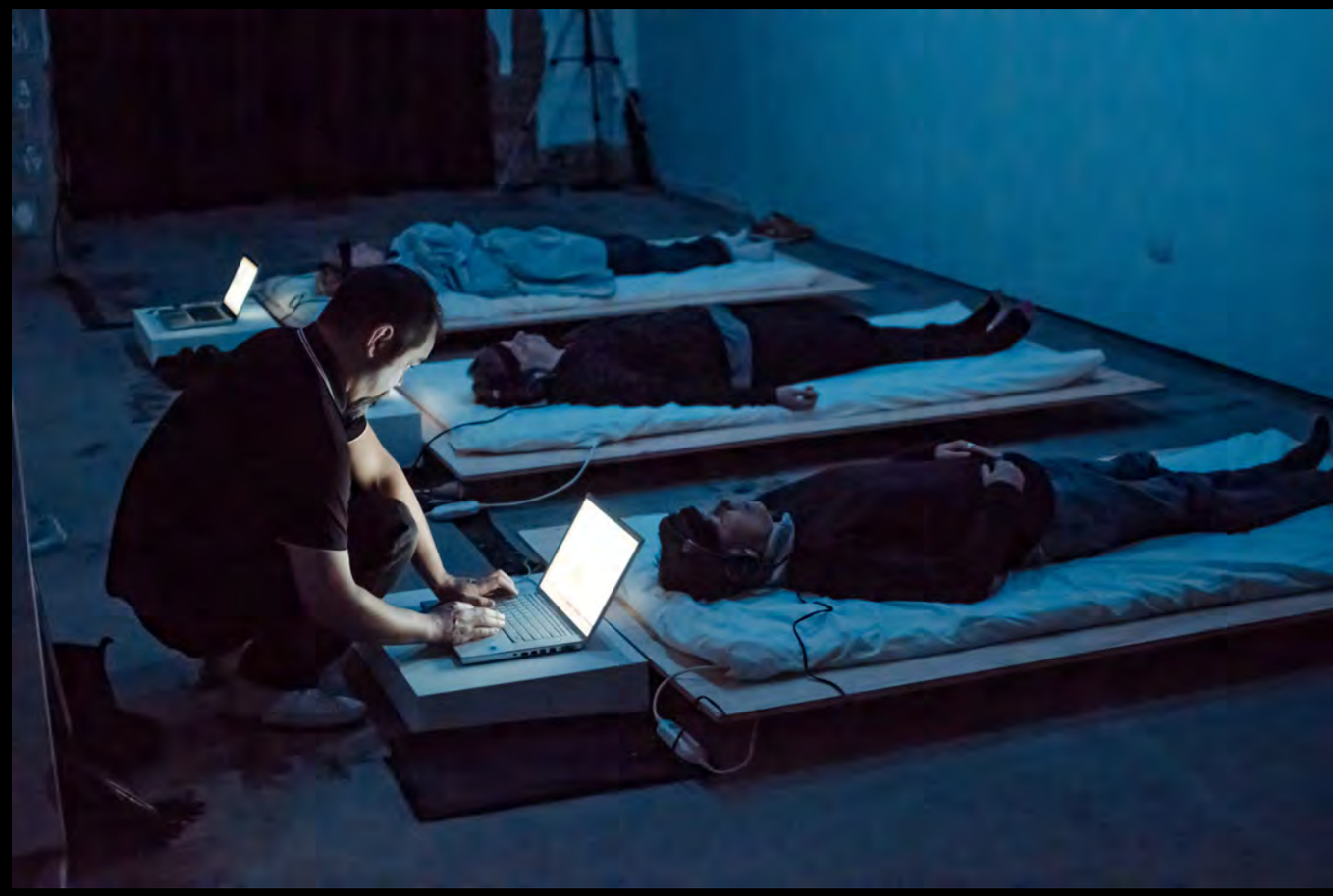


Image: George Khut (with James Brown), Alpha Lab , 2013, photo James Brown

Future human

Battery life

In the wolf thickets

Future citing

New sounds to be found

Body Sound Art

Sonification

Future city

ARTIST INTERVIEWS

Pia van Gelder (audio)

Esoteric philosophy, technology, science

Pia van Gelder is an artist, researcher and teacher in Sydney, Australia. Her practice often takes shape as interactive and participatory installations and performance that explore contemporary and historical understandings of technology, energy and the body.

http://piavangelder.com

Interview September 19, 2015, via Skype

Stream audio track [internet required].

Image: Pia van Gelder, Relaxation Circuit, Underbelly Arts, 2015, photo Ash Berdebes

Future human

Battery life

Future citing

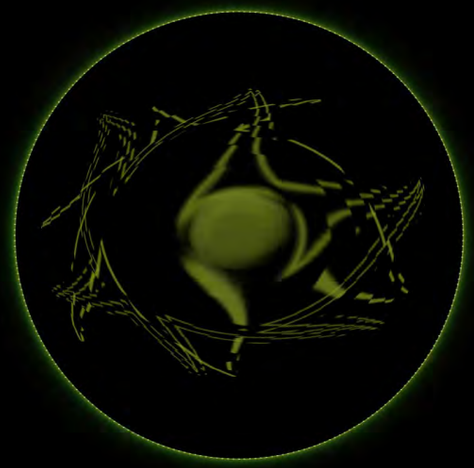
New sounds to be found

Speculative desires

Augmented hearing pt 1

Future city

Park life



ARTIST SPECULATIONS

New sounds to be found? (Audio)

In the following audio a number of artists discuss whether they think there are any new sounds we haven't yet come across that might make up the soundscape of the future. You will hear from:

George Poonkhin Khut (AU), artist, academic and interaction-designer in electronic art, design and health.
Interview August 11, 2015, Sydney
http://georgekhut.com

Robin Fox (AU), audiovisual artist working across live performance, exhibitions and contemporary dance.
Interview August 7, 2015, Melbourne
http://robinfox.com.au

Mamoru (JP), artist working with text and sound both real and imagined.
Interview July 24, 2015, Netherlands, via Skype
http://www.afewnotes.com

Stream audio track (internet required).

Cat Hope (AU), musician, composer, songwriter, sound and performance artist.
Interview August 20, 2015, Perth via Skype
http://www.cathope.com

Jin Sangtae (KR), musician working with the sounds of discarded hard drives, curator of dotolim.
Interview June 8, 2015, Seoul, South Korea
http://popmusic25.com/

Peter Blamey (AU), artist working with sound, energy and reimagining technology.
Interview July 24, 2015, Sydney
http://peterblamey.net

Future human

Sound shot

Future citing

Speculative desires

Augmented hearing pt1

Guy Ben-Ary interview

Future city

Sensory stack overflow

ARTIST SPECULATIONS

Speculative desires (Audio)

The following artists discuss what they hope the future might hold sonically and what this implies socially.

Robin Fox (AU), audiovisual artist working across live performance, exhibitions and contemporary dance..
Interview August 7, 2015, Melbourne
http://robinfox.com.au

George Poonkhin Khut (AU), artist, academic and interaction-designer in electronic art, design and health.
Interview August 11, 2015, Sydney
http://georgekhut.com

Peter Hollo (AU), musician, composer, science fiction connoisseur, aka raven and cellist in Four Play.
Interview August 25, 2015, Sydney
http://celloraven.com

Stream audio track (interent required).

Pia van Gelder (AU), electronic media artist, curator and teacher, researching art, technology and science.
Interview Sept 19, 2015, via Skype
http://piavangelder.com

Peter Blamey (AU), artist working with sound, energy and reimagining technology.
Interview July 24, 2015, Sydney
http://peterblamey.net

Mamoru (JP), artist working with text and sound both real and imagined.
Interview July 24, 2015, Netherlands, via Skype
http://www.afewnotes.com

Future human

Sound shot

Sonic skinning

Future citing

Augmented hearing pt1

Augmented hearing pt2

New sounds to be found

Future city

Park life

ARTIST SPECULATIONS

Augmented hearing part 1 (Audio)

In the following, artists were asked if they could imagine a future where hearing is technologically augmented, and if this is a development they look forward to.

Cat Hope (AU), musician, composer, songwriter, sound and performance artist.
Interview August 20, 2015, Perth via Skype
http://www.cathope.com

Peter Hollo (AU), musician, composer, science fiction connoisseur, aka raven and cellist in Four Play.
Interview August 25, 2015, Sydney
http://celloraven.com

Matt Cornell (AU), choreographer, composer, dancer.
Interview July 27, 2015, Sydney
http://mattcornell.com

Stream audio track [internet required].

George Poonkhin Khut (AU), artist, academic and interaction-designer in electronic art, design and health.
Interview August 11, 2015, Sydney
http://georgekhut.com

Peter Blamey (AU), artist working with sound, energy and reimagining technology.
Interview July 24, 2015, Sydney
http://peterblamey.net

Pia van Gelder (AU), electronic media artist, curator and teacher, researching art, technology and science.
Interview Sept 19, 2015, via Skype
http://piavangelder.com

Future human

Sonic skinning

Future citing

Augmented hearing pt2

New sounds to be found

Pia van Gelder interview

Jasmine Guffond interview

Future city

Park life

ARTIST SPECULATIONS

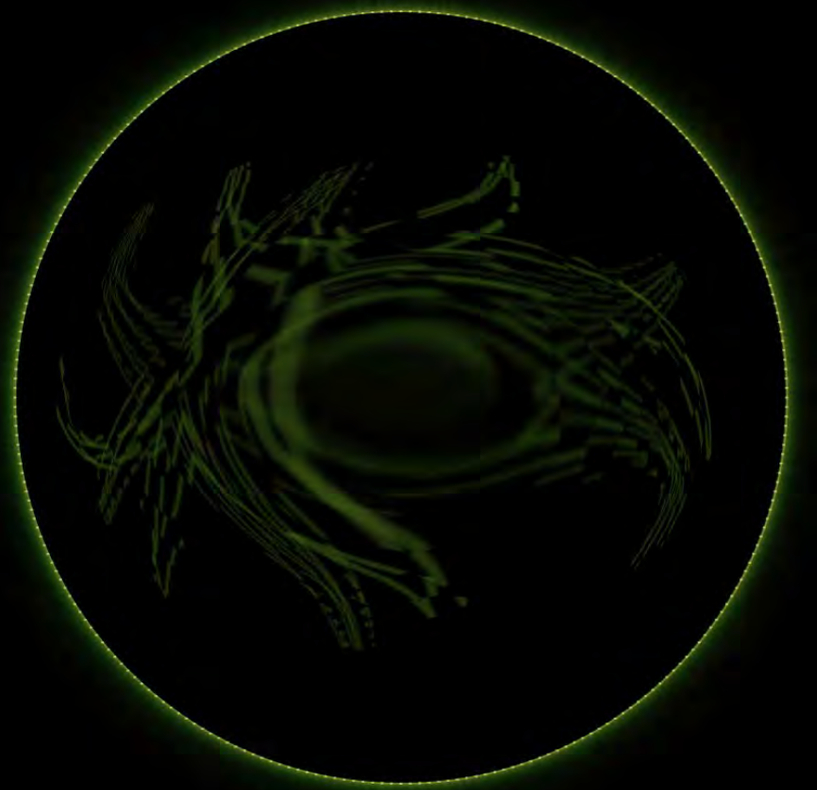
Sonic hegemonies (Audio)

In this audio segment Cat Hope and Peter Blamey ponder the political and philosophical ramifications of the control and regulation of sounds.

Cat Hope (AU), musician, composer, songwriter, sound and performance artist.
Interview August 20, 2015, Perth via Skype
http://www.cathope.com

Peter Blamey (AU), artist working with sound, energy and reimagining technology.
Interview July 24, 2015, Sydney
http://peterblamey.net

Stream audio track (internet requred).



Future human

Future citing

Oasis cities

Peter Blamey interview

Cat Hope interview

Future city

Welltuned city

Stasis shift

ARTIST SPECULATIONS

Sound vs Vision

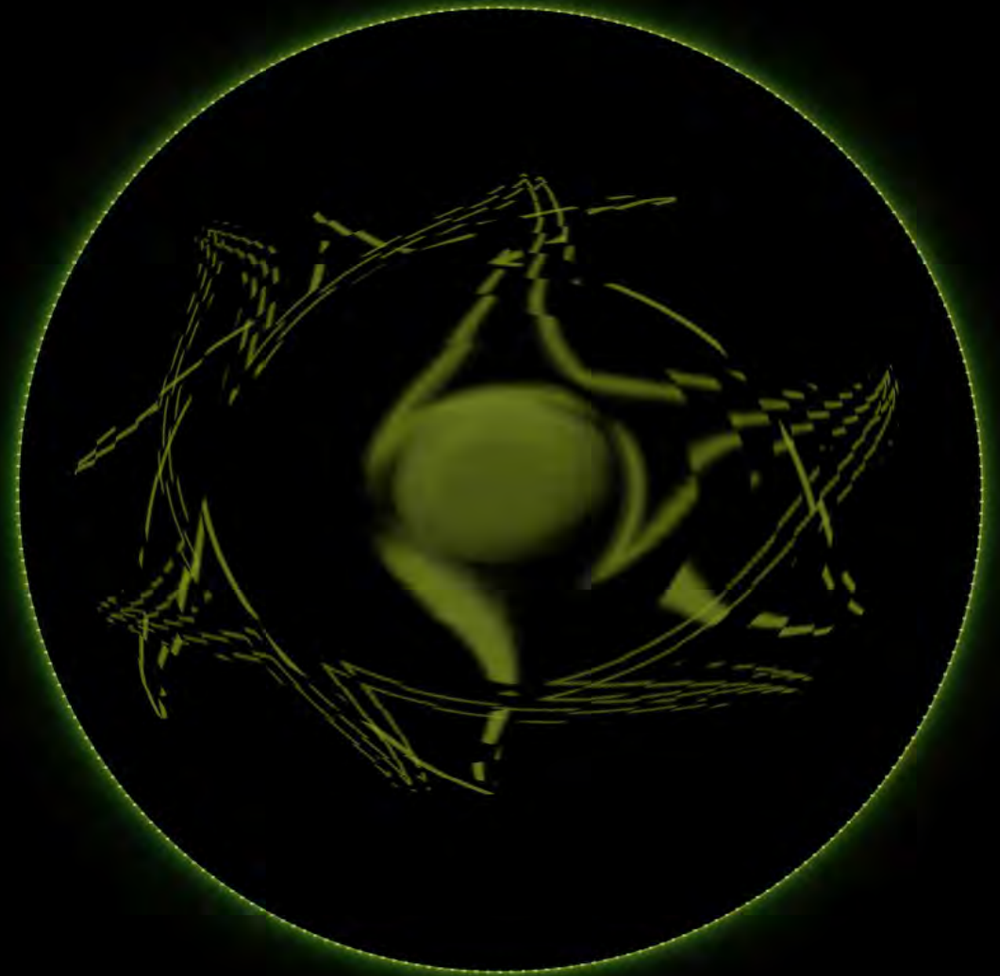
Speed of light 299 792 458 m/s
Speed of sound 340.29 m/s
(variable according to propagating medium)

Sound is slower than light. But is hearing slower than vision?

Robin Fox (AU), audiovisual artist working across live performance, exhibitions and contemporary dance, discusses the interrelation of time, sound and light with Gail Priest.

GP: Do you think there will ever be a time when the sensory ratio [between sound and vision] that is still very visually dominated will actually flip?

RF: I don't think so, for me. Unless something happens to the visual sense, or something happens to the nature of sunlight. If something happened that made the visual sense less amazing as a source of information... I worked on a project years ago that tried to look at 'ear-cons' and how can we make sound more information-rich, from a computer desktop point of view. Like if you click on a folder it sounds full, or empty, and it kind of just didn't work, because it's annoying. It's like the information you get from sonic sense is incredibly rich but it's not cognizant — you're not thinking about it. And in a way you



shouldn't have to think about it. It's the fastest sense. It's much quicker than vision. Vision is like a ¼ second delay in processing time. It's actually quite a big delay when you think about it. So everything that I'm experiencing is fractionally in the past visually, but sonically it's immediate. Which is why when you hear a loud noise, you're startled. You don't do that when you see a bright light because you've had a second to go, that's coming from there. But your sonic sense is super fast. And that's what I love about it. Coming back to your original question, why do you work with sound: because it's fast. It's the fastest sense.

~ ~ ~ ~

ARTIST SPECULATIONS

Sound vs Vision cont...

There has also been a theoretical experiment that suggests sound can travel faster than light. The experiment, led by William Robertson at Middle Tennessee State University, broke a sound wave into pulses, which were then rephased using a loop filter made from a simple PVC pipe.

Measuring these spectral components, they observed that the peak of the pulse departed the filter before it had actually entered it. They concluded that the group velocity of the sound had travelled faster than light — it was "superluminal."

Sources:
Interview, Robin Fox (AU), August 7, 2015, Melbourne

Charles Q. Choi, "Sound Pulses Exceed Speed of Light," Live Science, January 12, 2007, http://www.livescience.com/1212-sound-pulses-exceed-speed-light.html, accessed July 12, 2017

Lisa Zyga, "'Mach c'? Scientists observe sound travelling faster than the speed of light," PhysOrg.com, January 17, 2007, http://phys.org/news88249076.html, accessed July 12, 2017

Future human

Sonic skinning

Future citing

Robin Fox interview

Augmented hearing pt1

Augmented hearing pt2

Future city

Sensory stack overflow

ARTIST SPECULATIONS

Sense X-linking

Synaesthesia — from the Greek, a "together sensation" — a triggering of one sense from another. One of the more common forms is chromesthesia, the connection of musical elements with colours.

Artist/musician Neil Harbisson, born with monochromatic colour blindness, has implanted an aerial in his head which allows him to translate colour into microtonal vibrations.

Harbisson now "hears" colours, creating musical compositions based on his new way of processing this sensory information. He is the world's first legally recognised cyborg.

Guy Ben-Ary, artist, researcher and creator of biotechnological art project, CellF, discusses Neil Harbisson's project:

"This is a really interesting suggestion of the future, about hearing what you see — a kind of intermingling of the senses of seeing and hearing, and merging them together in a really weird way. [Harbisson] can really now hear ultraviolet, he can hear/see infrared. Sound is actually extending his capabilities as a human — he's a cyborg — and it's all through sound.

"Sound in the future? It's going to be exactly the same. Sound is not going to change. Sound is sound, physics is physics. How we perceive sound, what are we going to do with sound, what are we going to use sound for, maybe that will change. And Neil [Harbisson] is showing a really good suggestion of actually seeing colours with sound.

"I think the more that we use sound, the more our hearing will develop. You know I think that our eyes are going to go down because of screens. I believe that there is something fundamentally wrong with how we live and how we treat our eyes. But I think we're not harming our ears as such and I think they will become more prominent, more important, we will depend more on sound in the future."

Sources:

Liam Hunt, Coded Colour: interview with Neil Harbisson, Tn2 Magazine, November 19, 2014, http://www.tn2magazine.ie, accessed August 2015

Interview Guy Ben-Ary, August 11, 2015, Perth, via Skype

Future human

Sonic skinning

Future citing

Guy Ben-Ary interview

Augmented hearing pt1

Augmented hearing pt2

Sound vs Vision

Future city

Park life

Sensory stack overflow

ARTIST SPECULATIONS

City cacophonies

Jin Sangtae (KR) (musician working with the sounds of discarded hard drives and curator of dotolim) talks about city noise:

"Seoul is a very special city. I think Seoul is the loudest city [louder than] any other big city. You can see various advertisements in the centre of the city and the sound is super loud. 90% are advertisements: sometimes they want to sell powder, sometimes they want to sell cellphones. I think this sound is [louder] than my music... I believe that this is a competition... fighting against other people. Sometimes I think this is a very dangerous sign for our society. If they have to make [even louder sounds] our society will explode."

Hamish Innes-Brown, Research Fellow at the Bionics Institute (Melb), undertook a placement at KU Leuven, Belgium to conduct a study into a particular hearing condition that is appearing in older railway workers.

Their hearing mechanism tests as undamaged, yet the person has difficulty understanding speech. Innes-Browne describes it as similar to being in a reverberant room — "the signal feeds back and gets smeared in time."

Early research suggests they have developed damage "upstream" from the physical hearing organs — in the auditory nerve — due to prolonged noise exposure.

Innes-Brown suggests that treatment may involve signal processing via hearing aids increasing not so much the volume but the depth modulation of the sounds.

Sources:
Interview, Jin Sangtae (KR), June 8, 2015, Seoul, South Korea
Interview (skype), Hamish Innes-Brown, May 12, 2015

Future human

Sonic skinning

Future citing

Augmented hearing pt1

Augmented hearing pt2

Sound vs Vision

Future city

Sensory stack overflow

ARTIST SPECULATIONS

Sonification

Sonification — the use of audio to represent and understand data.

A mechanical clock which issues ticks for each second and chimes for accumulated time is perhaps the simplest example of sonified information.

A Geiger Counter is another, measuring ionised radiation by issuing clicks for each particle detected. Sonification is also frequently used in medical monitoring and analysis.

In his project CellF, Guy Ben-Ary is using analogue synthesisers interacting with live musicians in a feedback loop, to play the sound of his "new" brain — an external neural network "grown" from his own cells. Here he discusses the history of sonification.

"Sound was always used in electrophysiology. Sound was a scientific tool to hear changes in activity, and that was taken over by computer technology and visualisation.

"Now the question is: can we hear things that we can't see? Or can we see things that we can't hear? Why are we image biased now? The resolution of hearing is much higher than seeing. So I feel that CellF is also referencing the history of electrophysiology.

"So I was actually looking at the sound, treating the sound like a robotic embodiment of those neural networks. The word 'robotic' there is used in a very loose way, but in this piece the sound is definitely 'embodying.' It all started with the question: what do they do? What do those neurons do in those neural networks? And the embodiment for me was a necessity."

Source:
Sonification, Wikipedia, en.wikipedia.org/wiki/Sonification accessed July 12, 2017

Interview Guy Ben-Ary, August 11, 2015, Perth, via Skype

Future human

E.A.R

Sonic skinning

Future citing

Jasmine Guffond interview

George Khut interview

Guy Ben-Ary Interview

Future city

Sensory stack overflow

FUTURE NOW

Augmented hearing (part 2)

"The ears are always open and available to signals of all sorts and there are all kinds of signals which we can't even think of now which could augment our experience of the world," says Bionic hearing researcher Dr Hamish Innes-Brown. In order to tap these unknown potentials he says "companies are rushing to get to our ears."

An example is "Here," developed by Doppler Labs. These earbuds allow you not only to turn down the world but to tune out specific sounds via algorithms that modify frequencies in realtime.

Sound removal is but one option, there's also enhancement. Frank Swain (a person with progressive hearing loss) and sound artist Daniel Jones have created the Phantom Terrains project. Using Swain's Bluetooth enabled hearing aids and a smartphone app, they can manifest the sound of WIFI networks.

Swain, talking to New Scientist Magazine, says his hearing aids offer "a computer's interpretation of the soundscape, heavily tailored to what it thinks I need to hear... If I have to spend my life listening to an interpretative version of the world, what elements could I add?"

With high-end hearing aids now including Bluetooth, Swain suggests the potential of "continuous connectivity elevates hearing aids to something similar to Google Glass — an always-on, networked tool that can seamlessly stream data and audio into your world."

In terms of actual biological implantation — a direct neural feed — bionic specialist Dr Innes-Brown is sceptical: "At the moment augmentation through actual electrical stimulation of the nerves, is just so crude that it's hard to see how augmentation might be better than normal hearing."

Soundscapes to read by.
Stream audio track (internet required).

Sources:
Skype interview with Hamish Innes-Brown, May 12, 2015

Nathan Maclone, Business Insider, July 10, 2015, www.businessinsider.com.au

Frank Swain, "The man who can hear Wi-Fi," New Scientist Magazine, Issue 2995, November 15, 2014, www.newscientist.com, accessed July 12, 2017

Future human

Sonic skinning

Future citing

Augmented hearing pt1

Speculative desires

Transhumanity

Future city

Park life

FUTURE NOW

Transhumanity

"Transhumanization proposes an intervention of biology in modifying corporeality, extending the biological lifespan, and preserving the brain by transfer onto non-biological platforms."
Natasha Vita-More

"Transhumanists regard human nature not as an end in itself, not as perfect, and not as having any claim on our allegiance. Rather, it is just one point along an evolutionary pathway and we can learn to reshape our own nature in ways we deem desirable and valuable...

"By thoughtfully, carefully, and yet boldly applying technology to ourselves, we can become something no longer accurately described as human – we can become posthuman."
Max More

Transhumanism, also referred to as Humanity+ has grown from ideas from a range of thinkers including philosopher Nietzsche, British geneticist J. B. S. Haldane, and radical thinker FM-2030. However as a self-proclaimed movement it is driven by the king and queen of Transhumanism, Max More (UK) and Natasha Vita-More (US).

A key principle in Transhumanism is "extropy." More defines this as a process of perpetual progress. The transhumanist pursuit is not about achieving perfection but about the desire to constantly evolve.

Soundscapes to read by.
Stream audio track (internet required).

Perpetual progress seeks "more intelligence, wisdom, and effectiveness, an open-ended lifespan, and the removal of political, cultural, biological, and psychological limits to continuing development."

Source:
Max More, Natasha Vita-More (eds), 2013, The Transhumanist Reader, Wiley Blackwell, West Sussex, UK; http://au.wiley.com

Future human

E.A.R

The Omega Point Band

Future citing

Augmented hearing pt1

Augmented hearing pt2

Substrate independence

Future city

Park life

FUTURE NOW

The Omega Point

The Omega Point was first proposed by paleontologist, geologist and Jesuit Priest, Pierre Teilhard de Chardin (1881-1995). He suggested that matter becomes more complex over time, eventually reaching a state of consciousness.

He saw evolution as happening in three stages: the geosphere, the biosphere, and the noosphere, the latter of which encapsulates the realm of human thought.

The Omega Point occurs when humanity has evolved to the ultimate point of complex consciousness and it breaks free rupturing space-time as we know it.

The Omega Point has been taken up by mathematical physicist Frank Tipler: "I deduce that life at the end of the universe is omnipresent, omnipotent and omniscient...

"Do you see what happens in the far future?... God is the end of time, pulling the whole of reality into Himself... God is the sum total of all information processing over all history."

In Tipler's vision, humans eventually colonise the universe but not in our biological form. He classifies a living being as "any entity which codes information."

Tipler believes that at the time when the universe starts to collapse, these posthuman entities will have spread throughout all the galaxies and will have the combined intelligence to guide the collapse to such a point that it will implode in only two directions.

Soundscapes to read by.
Stream audio track (internet required).

Our ascendants dwelling in the third zone will harness an unlimited energy source to control all matter. It is at this point we will have the processing power to recreate all that has ever been, resurrected, Tipler proposes, as "sub-programs within God."

Sources:
Nick Marinello (1997), "The Omega Man," Transit Lounge, Ashley Crawford & Ray Edgar (eds), Craftsman House, Sydney

Pierre Teilhard de Chardin (1959), The Phenomenon of Man [English edition], Perennial, New York
https://en.wikipedia.org, accessed August 2015

Future human

The Omega Point Band

Sonic skinning

Future citing

Substrate independence

Transhumanity

Future city

FUTURE NOW

Substrate independence

Substrate Independent Minds (SIM): a version of the "mind" that can exist outside of the biological body, housed or stored in some other technological construct. Thus it may easily be copied and transferred across media.

There are currently two main proposals as to how this may come about:

• gradual replacement — neurons swapped for technology, bit by bit

• destructive scan-and-copy: the brain scanned after death and compiled into a whole brain emulation (WBE)

The first can be seen as a transfer, the second as a copy, however the overall aim remains to preserve some definition of "identity."

Randal A Koene, a leading scientist in this area suggests: "Your identity, your memories can then be embodied physically in many ways. They can also be backed up and operate robustly on fault-tolerant hardware with redundancy schemes... Achieving substrate independence will allow us to optimize the operational framework, the hardware, to challenges posed by novel circumstances and different environments... Instead of sending extremophile bacteria to slowly terraform another world into a habitat, we ourselves can be extremophiles."

Soundscapes to read by.
Stream audio track (internet required).

Sources:

Randal A Koene (2012) "Substrate-Independent Minds", http://www.issuesmagazine.com.au/article/issue-march-2012/substrate-independent-minds.html, accessed July 11, 2017

Randal A Koene (2013) "Uploading to substrate-independent minds", Transhumanist Reader, Wiley Blackwell, West Sussex, UK, http://au.wiley.com

Keith B. Wiley, Randal A. Koene (2015), "The Fallacy of Favoring Gradual Replacement Mind Uploading Over Scan-and-Copy," IEET, https://ieet.org/index.php/IEET2/more/wiley20150502, accessed July 11, 2017

Future human

The Omega Point Band

Sonic skinning

E.A.R

Future citing

Transhumanity

The Omega Point

Future city

FUTURE NOW

Population projections

2015: 7.3 billion
2017: 7.6 billion
2030: 8.6 billion
2050: 9.8 billion
2100: 11.2 billion

Currently the global population increases by 83 million per year. The population will continue to increase until 2100, however the rate of this increase is falling.

Africa will account for over half the population growth up until 2050 with an addition of 1.3 billion, followed by Asia with an increase of 0.9 billion. Northern America, Latin America/Caribbean and Oceania will have smaller increases.

Soundscapes to read by.
Stream audio track (internet required).

Even though Europe's fertility rate is currently increasing from 1.4 births per woman in 2000-2005 to 1.6 in 2010-2015, and factoring in an expected influx of 32 million migrants, its population is expected to shrink by 25 million by 2050.

Despite declining birthrates Africa will be the only significant contributor to population growth after 2050 with its global share reaching 40% by 2100, while Asia's share will drop from its current 60% to 43%.

Source:

United Nations Department of Economic and Social Affairs/Population Division, World Population Prospects: The 2017 Revision, Key Findings and Advance Tables, https://esa.un.org/unpd/wpp/Publications/Files/WPP2017_KeyFindings.pdf, accessed July 11, 2017

Future human

Future citing

Oasis cities

The Unsettled

Future city

Welltuned city

Stasis shift

FUTURE NOW

The Unsettled

"The city is an edifice at the centre of human centredness; thus to take responsibility for the city is equally to take responsibility for our anthropocentric being." Tony Fry

Design theorist Tony Fry tells us that the history of "settlement" is relatively short. Humans are believed to have existed for 160,000 years, with settling starting only around 10,000 years ago and the presence of cities developing a mere 7,000 years ago.

However Fry challenges the very notion of cities, believing they encapsulate the essence of all that is flawed in our current mode of living.

He says we have created a "world within a world" based on unsustainable levels of production and consumption and an expectation of immediacy, independent from our environment.

Fry predicts the nature of cities will need to change to cope with the forces of displacement that are developing — war, famine and environmental destruction. Projections suggest that there will be 150 million Environmentally Displaced Persons (EDPS) by 2050.

He cites the first city of Petra as inspiration for a radical rethink. Built by the Nebatean pastoral nomads it was "a place of passage" rather than settlement — a way station for supplies and worship.

Soundscapes to read by.
Stream audio track (internet required).

Fry suggests that its function was "predominantly infrastructural" and that this poses an interesting city of the future — "the city as a resource with only a service population supporting a community of movement (neo-nomads)."

Fry says, "The city, its culture, its life and the political process of the polis [is] deemed to epitomise civil(ised) life. To think the future of the city is to think beyond this condition of limitation... How do we know a city is needed?"

Source:
Tony Fry (2015) City Futures in the Age of a Changing Climate, Routledge, London/New York

Future human

Future citing

Oasis cities

Population projections

We built the future and no one came

Future city

Welltuned city

Stasis shift

FUTURE NOW

Oasis cities

Masdar, just outside of Abu Dhabi, was to be the world's first zero carbon, zero waste city. Designed by UK firm Foster & Partners, buildings and their placement draws on ancient models that allow for natural temperature regulation.

Cars were initially to be banned from Masdar with transport provided by Personal Rapid Transport Pods. This has since been revised. Private vehicles must be parked outside the city, but public transport will use a mix of electric and clean energy car types.

While it has not quite achieved its stringent environmental goals its innovative systems have reduced energy usage by 50%. Its energy comes from 22 hectares of solar panels supplemented by a photovoltaic system.

Masdar is being built by the Masdar Corporation, a subsidiary of the government-owned Mubadala Development Company. Completion of all phases is estimated for 2030.

In Egypt, The Gate Residence is slated for development from 2014-19. Designed by Vincent Callebaut (FR), it illustrates his signature "green architecture" or "archibiotique" principles integrating plant life and hard structures.

In Tapei, Callebaut has designed the 20-storey Agora Building, a residential tower, made from recycled or recyclable materials. Its unique double-helix twist allows for a series of suspended gardens.

Moving further into the speculative is the yet unrealised proposal by Polish Collective BOMP. Winning the eVolo Skyscraper 2015 Award, their design, Essence, is a multi-storey structure that houses 11 different natural environments...

Soundscapes to read by.
Stream audio track (internet required).

"Overlapping landscapes like an ocean, a jungle, a cave, a waterfall... to stimulate a diverse and complex range of sensual experiences – not only visual, but also acoustic, thermal, olfactory, kinaesthetic." (BOMP)

Sources:

Tafline Laylin, Abu Dhabi's Energy-Plus Masdar City. Inhabit, inhabitat.com, accessed July 12, 2017

Masdar City - en.wikipedia.org/wiki/Masdar_City, accessed July 12, 2017

Vincent Callebaut vincent.callebaut.org, accessed July 12, 2017

BOMP www.bomp.eu, accessed August 2015

Future human

Future citing

Population projections

The Unsettled

We built the future and no one came

Future city

Park life

Welltuned city

FUTURE NOW

We built the future & no one came

"The default mode of urban development is autocatalytic, driven by the economic logic of proximity and supply and demand...Urban centers are evolving organisms, not engineering problems."
Benjamin de la Peña

An hour out of Seoul, we are standing in the middle of a six-lane highway — not a car in sight. Evenly spaced in the near distance are at least a dozen glitteringly new high-rise developments and to the right an edifice that looks like a spaceship — locked-up and uninhabited.

This is Songdo Future City, part of the massive redevelopment of the Incheon Free Economic Zone of South Korea, including the islands of Yeongjong and Cheongna. But it's a ghost town.

Urban planning specialist Benjamin de la Peña suggests: "We must avoid confusing aesthetic order with actual order. We must recognize the native intelligence and resilience of autocatalytic communities and not suffocate them with our push for the logic of efficiency...

"Our plans should be additive rather than destructive and should respect and imitate the incremental (and fundamental) forces at play."

However he concedes the limitations of the organic growth model: "While optimized for the small grain and the economics of proximity, it is blind to larger-scale challenges and longer-term threats, such as earthquakes or climate change... This city can build its own streets but cannot build mass transit. It can build a local economy, but not protect a local ecology. City leaders will have to find the balance. We all stand to gain, but only if we are prepared to give up control."

Soundscapes to read by.
Stream audio track [internet required].

Source:
Benjamin de la Peña (2013) "The autocatalytic city," City 2.0. The Habitat of the future and how to get there, TED Books 31, TED Conference LLC, New York; http://blog.ted.com/new-ted-book-the-city-2-0/

Sounds: Namdaemun Market, Seoul;
Songdo Future City, South Korea;
Ueno Market, Tokyo, Japan

Future human

Future citing

Oasis cities

The Unsettled

City cacophonies

Future city

Stasis shift

Welltuned city

FUTURE NOW

Body Sound Art

In the centre of the space is a body, naked except for heavy black boots, leather strapping and an appendage of tendrils protruding from the pubis. As this device is stroked it stimulates grating ripples of noise.

This body rises and moves towards another, lying motionless, as if paralysed. The first proceeds to pierce the supine body, the long needles sunk into flesh and wired up to an electrical circuit.

Now, when the first body touches, teases, slaps and pinches the second body, it produces noises — electronic hum, sputter and buzz.

This is the performance SEXUS 3 AKA THE VIOLINIST by the collective Quimera Rosa. In their words, they are turning their bodies into "sexo-sounding instruments through electronic prosthesis."

Rather than tapping the body for sound, mixed-media artist and industrial designer, Naomi Kizhner, proposes to tap the body for energy.

In her project Energy Addict she has designed a series of jewellery pieces that imply the ability to harvest energy from the body's movements and processes.

The Blood Bridge taps into a vein on the lower arm, the flow of blood turning a wheel that could be converted into energy, while the E-pulse Conductor, plugged into the spinal cord, might be able to draw energy from neurological activity.

Soundscapes to read by.
Stream audio track [internet required].

While these devices are speculative, the answer to energy problems in the future may need to come from an array of small-scale sources rather than one big solution.

Sources:
Quimera Rosa, live performance, at Rencrontres Bandits-Mages, Nov 2014

Quimera Rosa, quimerarosa.net

Naomi Kizhner, www.naomikizhner.com, accessed August 2015 [link no longer active]

Naomi Kizhner's jewellery collection harvests energy from the human body, De Zeen, August 6, 2014, www.dezeen.com, accessed July 12, 2017

Future human

In the wolf thickets

Battery life

Future citing

Michaela Davies interview

Vibrational harvesting

Transhumanity

Future city

FUTURE NOW

Vibrational harvesting

"The great thing about vibrations is that they are everywhere...”
Dr Steven Dunn, QMUL

At Queen Mary University London's School of Engineering and Materials Science, Dr Steve Dunn is developing nano-generators made from an array of zinc quartzite nano-rods which when flexed and bent generate electrical charge. In a QMUL in-house interview he says:

"I’d like to see it moving from the laboratory into some application...perhaps in tube trains for video advertising...where we use the vibrational energy to drive a display.

"So it's finding applications where we can reduce the load of a battery or remove a battery altogether.”

Nanowerk magazine tells of the progress of South Korean researchers, Dr. Jong Min Kim, (Samsung Advanced Institute of Technology) and Sang-Woo Kim (Sungkyunkwan University), who are working specifically with sound vibrations.

Sound vibrations are a very low powered source however the team are developing a piezoelectric nano-material — zinc oxide nano-wires — in an attempt to increase efficiency.

Possible applications include cellular phones that recharge themselves via their conversational usage, or power generating highways in which sound insulating walls harvest energy from the traffic.

Soundscapes to read by.
Stream audio track (internet required).

Sources:
Interview with Dr Steve Dunn, Queen Mary University London, Youtube channel www.youtube.com/watch?v=nmn3LNAiNBA, accessed July 11, 2017

Michael Berger, "Nanotechnology energy generation using sound,” Nanowerk, Sept 23, 2010, http://www.nanowerk.com/spotlight/spotid=18171.php, accessed July 11, 2017

Future human

Battery life

Future citing

Body Sound Art

Peter Blamey interview

Future city

Stasis shift

FUTURE NOW

Quantum queries

Quantum theories explain things that are inexplicable and render things previously understood mysterious.

Fighting the binaries of classicism, quantum theory allows things to be and not to be at the same time — it's all about possibility — as long as you don't observe it.

So running through these Sounding the Future narratives are partially understood ideas of wave-particle duality — to be a wave or a particle, perhaps that is the question?; uncertainty principles of measurable moments; and superimpositions of multiworlds in whirl. In Sound shot, for example, we dare to imagine quantum leakage — one audio possible to another.

Which led us to wonder about quantum acoustics, sound conforming, as it does so obediently, to the laws of classical physics.

But zooming down to the infinitesimal we find phonons, the vibrational energy equivalent of the electromagnetic photons, behaving as particle and wave. The race is on to find ways to measure and record these minute sounds.

In Science Daily magazine we read that at Chalmers University of Technology in Sweden, a quantum microphone has been developed using a mix of acoustic and electronic systems. Measuring tiny acoustic waves, three micrometres long, they have built an echo chamber to watch the waves bounce around its walls.

Soundscapes to read by.
Stream audio track (internet required).

Though we may not be able to hear this tiny symphony — extremely quiet and at a frequency of almost one gigahertz — the development of this tool is another step towards gauging the unmeasurable.

Source:
Chalmers University of Technology, "Quantum microphone captures extremely weak sound." Science Daily, February 27, 2012, www.sciencedaily.com, accessed July 12, 2017

Future human

Sound shot

Future citing

Sound vs Vision

New sounds to be found

Future city

FUTURE NOW

Ultrasonics

A young human can hear from 20Hz to 20kHz. Sounds above the human hearing range are ultrasonic, those below infrasonic. Bypassing the inner ear, it is possible to hear higher than 20kHz via bone-conduction.

Due to their concentrated physical force, ultrasonic waves can be used in a vast number of applications, from medical imaging, microscopy, to industrial cleaning and welding.

Sonically they are interesting for their ability to act as carrier waves allowing for sound to be projected in a very focused way. Slovenian artist Miha Ciglar has been working with ultrasonics firstly producing his own commercial model of hyper-directional speaker, then redeveloping this as a tactile interface.

The Syntact musical interface uses highly focused ultrasonic waves to create a "force field" — an area of tangible vibration. A musician can literally feel the sound and manipulate it through touch.

It can be coupled with an optical sensor system to further interpret hand movements creating a new approach to gestural musical interaction.

Ultrasounds are also behind the phenomenon known as Sonoluminescence. When a liquid is agitated by ultrasonic vibrations the imploding bubbles can, in some circumstances, generate light.

Soundscapes to read by.
Stream audio track (internet required).

At some frequencies and volumes ultrasound has the ability to disorient and thus offers potential for development as a weapon. Exposure to ultrasound at volumes over 120dB is damaging to the human ear and over 180dB ultrasound is potentially lethal.

Sources:
Miha Ciglar Ultrasonics presentation, Music Tech Fest Paris, Nov, November 21, 2015, www.ultrasonic-audio.com/, accessed July 11, 2017

Ultrasound, en.wikipedia.org/wiki/Ultrasound, accessed July 11, 2017

Future human

Battery life

Future citing

Body Sound Art

Vibrational harvesting

ASMR

Future city

FUTURE NOW

ASMR

Autonomous sensory meridian response — the pleasurable, tingling sensation felt by some people in response to certain, primarily quiet, aural stimuli.

This sensation is not new — most of us have felt it — but it has only recently become "a thing," the name coined by Jennifer Allen in 2010.

Via the unique niche networking that is the internet it has become the focus of a number of groups of amateur enthusiasts, with a growing archive of ASMR videos and recordings.

Most commonly they feature whispering, very small noises like crackling and scratching and are often recorded with binaural microphones for a more intense sense of proximity, spatialisation and intimacy.

The ASMR experience is pleasurable, sometimes referred to as a "brain massage" or a "head orgasm" but is essentially non-sexual. One researcher, David Huron, from Ohio State University School of Music, suggests a connection between the sensation and the grooming behaviour of primates.

Robin Fox (AU) audiovisual artist says of ASMR: "Can you imagine a music that eventually can just constantly induce that feeling — would you die? What would happen to you? It's like those rats with electrodes attached to the pleasure centre and they keep orgasming until they die. Is that what would happen with a music that could induce that tingle constantly?"

Soundscapes to read by.
Stream audio track (internet required).

Sources:
ASMR, Wikipedia
https://en.wikipedia.org/wiki/Autonomous_sensory_meridian_response, accessed August 2015

Interview with Robin Fox, August 7, 2015

Future human

In the wolf thickets

Future citing

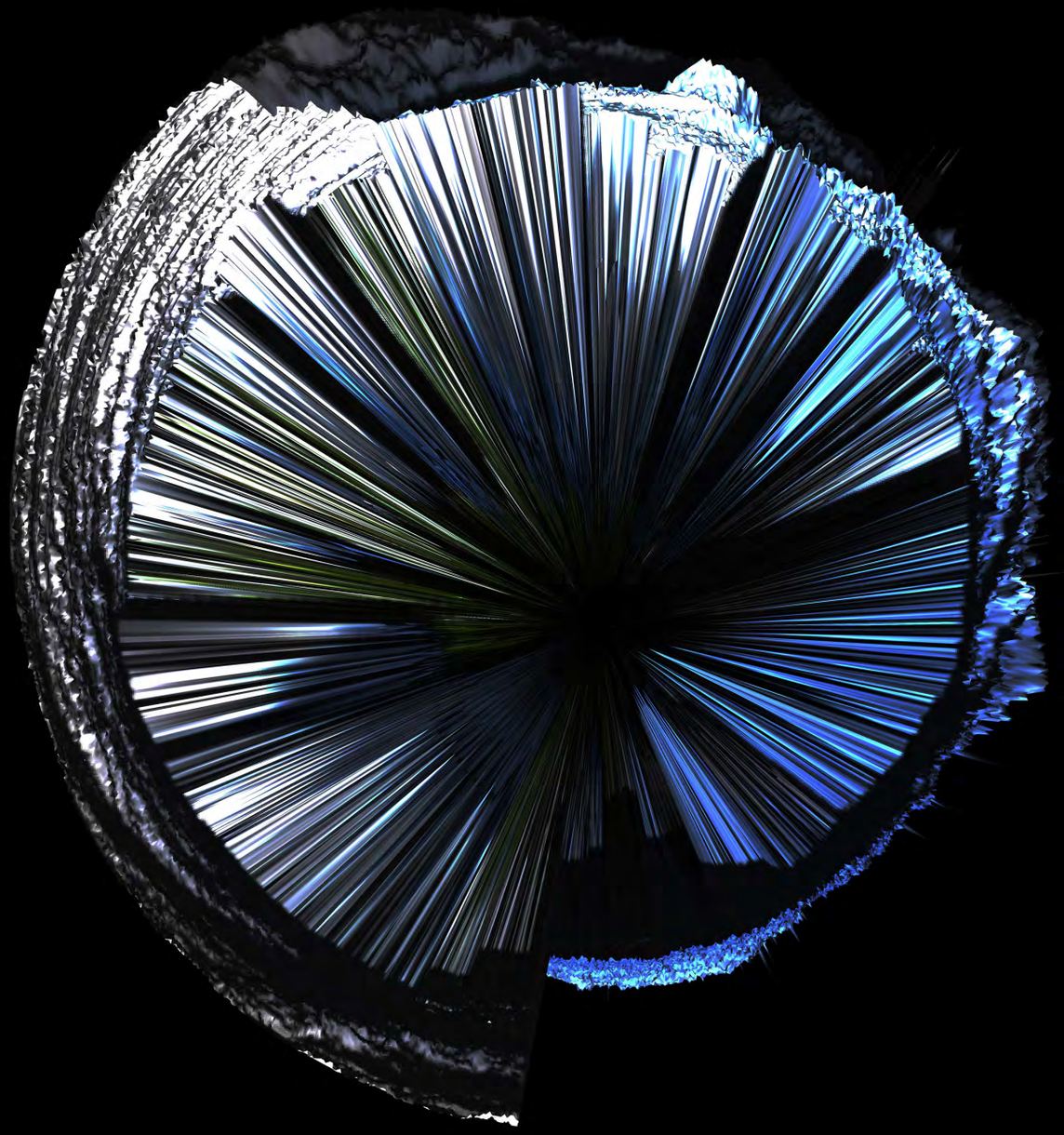
Speculative desires

New sounds to be found

Augmented hearing pt1

Future city

Sensory stack overflow



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