

LONG HORIZONS: AN
EXPLORATION OF
ART + CLIMATE
EXCHANGE

A collection of personal reflections about art, artists and climate change. Commissioned by the British Council and curated by Julie's Bicycle featuring contributions from Antony Gormley, Jay Griffiths, Professor Tim Jackson, Professor Diana Liverman and KT Tunstall.

a snapshot of artists and organisations currently addressing environmental impacts in their work

Aardvark Records Aaron Wolf AC/DC Academy Music Group Adriane Colburn Aerosmith
Aggelos Kovatsos Agnes Denes Aimee Mann Alan Boldon Alanis Morissette Alessandro Marianantoni
Alex Hartley Alex Uncapher Alice Cooper Alice Oswald Allen Fisher Allman Brothers Band Almeida
Projects Alphonso Arambula Robles Ambassador Theatre Group American Association of Independent Music
Aminatu Goumar Amir Berbic Amy Balkin Amy Sharrocks Ana Cecilia Gonzales Vigil Andrea Polli & Chuck
Varga Andrej Zdravic Andrew Bird Andrew Dodds Andrew Merritt Andy Goldsworthy Andy Goodman
Angela Palmer Ant Farm Anthony Santoro Anthony Utkin Antony Gormley Antti Laitinen Archie Randolph
Ammons Architecture for Humanity Arcola Theatre Arnolfini Art Organic Art Smith Artists Project
Earth (APE) Arts Admin Arts Northwest ASCAP - American Society of Composers, Authors & Publisher
Ashden Trust Atlanta Jazz Festival Aurora Robson Avril Laigne Ayreen Anastas B.H. Yael Bad Religion
Band Shell Music Summit Banker White Barbican Theatre Barenaked Ladies Basement Jaxx Bash
Beastie Boys Beatrice Bolleta Beck Beggars Ben Folds Ben Kweller Benicassim Bestival Beth Derbyshire
Big Chill Big Session Festival Big Tent Bill Woodrow Bloc Party Blue Man Group Bluesfest BoDeans
Bon Jovi Bonnaroo Bonnie Raitt Boris Bally Bournemouth Symphony Orchestra BPI Brad Pitt
Brandi Carlile Brenndan McGuire Brett Dennen Brian Chippendale Brian Jungen Bright Ugochukwu
Brit Awards British Council Britten Sinfonia Broadway Green Alliance Bruce Hornsby Bush Bush Theatre
Cake Cambridge Folk Festival Cameron Diaz Camp Bestival Candlebox Cape Farewell Carbon Planet Carrie
Marrill Cascade Engineering Cate Blanchett Catherine Prose Catherine Slessor City of Birmingham Symphony
Orchestra Central School of Speech and Drama Chloe Hanks Chris Drury Chris Jordan Chris Levine
Chris Wainwright Christina Aguilera Christine Dhein Christine Lee Circus Kinetica Clare Patey
Clare Twomey Cloud Cult Club4Climate Coldcut Coldplay Colin Firth Copenhagen Playhouse
Cornelia Parker Counting Crows Crockett Bodelson Croissant Neuf Crowded House Dallas Murphy
Dan Grettton Dan Harvey Dan Peterman Daniel B Gold & Judith Helfand Daniel Weddle Danny Seo
Daro Montag Darren Almond Das Fest Dave Matthews Band David Bowie David Buckland David Cottrell
David Cross David Gilmour David Haley David Hinton David Lan David Nash David W Orr Dennis Lee
Dirk Fleishmann Doll Don McKay Download EAG - Green Books Eco Indie Tour Ecoartspace
Ecorazzi.com Ed Gillespie Eduardo Kac Edward Burtynsky (Canada) Edward Norton Elisabeth Buecher
Elizabeth-Jane Burnett Environmental Media Association (EMA) Emergency Exit Arts EMI Music
Emily Hinshelwood Emma Wieslander Eolica ExtInked EXYZT Faber FACT Fall out Boy Feist
Fiona Apple Firegathering Foreigner Fran Crowe Francesca Galeazzi Franny Armstrong Frieze
Furtherfield.Org Future Sonic 2009: Urban Festival of Art, Music & Ideas, Manchester Environment 2.0
Exhibition Garrett Brennan Gary Gulman Gary Hume Gary Snyder Gautier Deblonde Gesche Wuerfel
Glastonbury Festival Global America Today Global Exchange Global Inheritance Glyndebourne Gomez
Goo Goo Dolls Grace Grateful Dead Green Day Green Drinks Green Hands USA Green Music Alliance
Green Notes Green Owl Green Thumb Theatre Green TV Greener Summer Sustainable Music Festivals
Gretel Ehrlich Grizedale Arts Groove Armada Guillermo Calzadilla Gurtenfestival Gustav Metzger Guster
Guyneth Paltrow Hans Haacke Harriete Estel Hasse Wester Heath Bunting Heather & Ian Morison
Heather Ackroyd Helen Mayer Harrison Henrick Hakanson Himay Rivera Hindu Kush Hinterland Symposium
Hootie & The Blowfish Hot Buttered Rum String Band Hot Chip Howard Theatre Huang Zhijian
Hultfred Festival Hyde Park Calling Ian Connacher Ian L McHarg Ian McEwan IFEA - International
Festivals and Event Association Illosairrock Incubus Indigo Girls Inform (Organisation) Isle of Wight
Festival ITC (Independent Theatre Council) J William Thompson Jack Johnson Jackie Eco Jackson Browne
Jacques Nimki Jake Gyllenhaal James Corbett James Marriott James Taylor Jan Zwicky Jane Langley
Jarvis Cocker Jason Griffiths Jason Mraz Jay Griffiths Jennifer Allora Jeremy Deller Jess Brass
Jimmy Buffett Jimmy Fike Joanna Callaghan Joe Gerhardt John Butler Trio John Dewey John Jordan
John Kinsella John Legend John Linden John Mayer John Newling John Ruskin Johnny Hines
Jonathan Dove Jools Johnson Jose Gonzalez Joseph Beuys Josh Ritter Jude Kelly Julia Goodman
Julian H Scaff Julian Stair Justin Timberlake Kaiser Chiefs Karen Michel Kasia Ozga & Valentina Loi
Kate Rich Kate Thompson Kathleen Egan Kathy Barber Kayle Brandon Keith Tyson Kelley Stoltz
Kelly Clarkson Kevin Richardson Kew Kim Sorvig Klaus Weber Klaxons Koekoek Kris Martin Krisanne Baker
KT Tunstall Kylie Minogue Lara Almarcegui Latitude Laurie Anderson Lemn Sissay Leonardo DiCaprio
Les Recontres Transmusicales de Rennes Les Trans Musicales de Rennes Liam Frost Linda Ronstadt
Linda Weintraub Live Nation Liverpool Everyman Playhouse Liz Jensen London Symphony Orchestra
Lou McCurdy Louis Fox Lovebox Lowlands Luc Besson Luca Morino Lucy & Jorge Orta
Ludacris & Tommy Lee Luke Bullen Maggie O'Sullivan Maná Manchester Evening News Arena (cont. page 41) >>

foreword

british council

The purpose of the British Council, the UK's international organisation for cultural relations, is to build engagement and trust for Britain through the exchange of knowledge and ideas between people worldwide. Climate change is one of the defining issues of the age, with far-reaching impacts on all aspects of our lives as well as upon the natural environment. It will affect everyone on the planet, though differences in infrastructure and locality will profoundly influence vulnerability. Impacts will be social and cultural as well as environmental and economic, and solutions need to be social and cultural as well as technical and scientific.

We believe that cultural relations, which works by bringing people together to find common purpose beyond the range of traditional government-to-government diplomacy, has an important contribution to make in the fight against climate change. In challenging times, relationships of trust between citizens and their governments may waver and the less formal networks of shared interest and understanding to which we can all contribute become even more crucial. It is via these links with colleagues and peers across the world that accurate information can be disseminated, potential solutions debated and collective commitments made. The British Council works with partners in order to develop shared trust and values and to remove the barriers that currently prevent finding a global solution to this crisis. We want to promote a mutual understanding of the need for joint action and for innovative responses.

Working with art and artists in order to build relationships of mutual understanding is one of the British Council's core activities. In addition to the inspiration that they can offer, artists are frequently at the forefront of cultural change. Their work and the way they work may often articulate, in an extraordinarily effective way, Britain's

preoccupations: our humour, our fears, our sense of ourselves. Arts makes our society more comprehensible to those outside it and as such is a powerful addition to any cultural relations work. It seems appropriate that the work of many British artists is already reflecting a growing concern about climate change and the need for solutions. The museum and music sectors particularly are already changing the way that they make and present their work but artists from all disciplines are beginning to frame the climate change crisis in powerful and moving ways through their art. Art and artists can help move the climate change agenda from intellectual understanding to emotional engagement, and then on to action. We want to encourage artists to take their part in demystifying and energising the debate.

The challenge of climate change is international and inter-connected in nature, and any attempt to create change needs to happen regardless of national boundaries, and on a global scale. The British Council, with its extensive networks, is one of a small number of agencies able to develop dialogues and communities of interest around this subject worldwide. We will continue to work with partners who can in turn disseminate information and ideas through their own networks, and by doing so reach far greater numbers of people than single actions ever could. Together we can strengthen understanding of the need for action, of the role that artists can play in the fight against climate change, and of the need to support and encourage that role.

Sally Cowling
David Viner



contents

introduction 3
julie's bicycle

the far-seers of art 5
jay griffiths

sound and vision 9
kt tunstall

art in the time of global warming 13
antony gormley

keeping out the giraffes 17
professor tim jackson

**seeking inspiration:
a scientist turns to the cultural sector** 21
professor diana liverman

contributors 26

appendices

i) **overview of UK cultural policy and climate change** 29

ii) **resources and tools** 37

iii) **glossary** 39

introduction

julie's bicycle

The pressing issues of climate change and sustainability, shaping our present and future, are permeating every corner of our business, through legislation, markets, artistic voice and industrial infrastructure. It has always been my primary ambition to support the best in new music and we have spent many years understanding the opportunities and challenges posed by the digital age while maintaining that commitment to excellence. Now another epoch has arrived, a much more profound age which requires a total and rapid market transformation that puts sustainability and environmental respect at its core. We must help our creative businesses shift and adapt so that we can all continue to support the best and finest in the arts.

Tony Wadsworth Chairman, Julie's Bicycle

It is an extraordinary collective consciousness that many of us inhabit today. We live comfortably with deeply uncomfortable information irritating the edge of our thoughts. This information, drawn from the rich evidence of thousands of scientists, tells us that the earth's climate is warming inexorably, ecosystems and species are in crisis, and we have finite time and resources left to deal with it. In a rational account of this dilemma disaster would be averted, the narrative would conclude with humanity restored. Common sense and heroes would prevail. But common sense isn't functioning as it should and our global crisis cannot be solved with the effort of even several heroic individuals. It needs much stronger intervention.

At the heart of our necessary metamorphosis is the removal of greenhouse gases from the planet's stifled biosphere. This requires reconfiguring our resource consumption, deploying technology, and adjusting our lifestyles in order to achieve a substantial reduction in carbon emissions. We need to do this now if we want to preserve some choice and flexibility in shaping our destiny.

The arts should have a pivotal role in this metamorphosis. Art can shape and shift perceptions; it is a form of dialogue, it creates languages between people unbounded by nationality, ethnicity, religion or class. Art has the capacity to transcend any particular issue or moment; it reflects and reviews the experience of being human. Art does not require voracious

material consumption for its health. When politicians disappoint and science is not enough, artistic engagement with climate change can invigorate the issue from a new angle. Above all art distils for us our common humanity; it questions and puzzles and challenges. The arts can feel and express what Jay Griffiths describes as 'long horizons', views of the world that take in the time-scales of climate change but offer deeper and wider perspectives than science alone can bring.

The last five years has seen a proliferation of creative responses to the environment; art and artists who are inspired to think, create and act. But often the arts infrastructure does not put climate change and sustainability at its heart. It is inherently problematic if, say, an artist is releasing an album inspired by climate change without paying attention to generating as little carbon as possible in the production.

This collection of essays, commissioned by the British Council and curated by Julie's Bicycle, offers the perspectives of scientists and artists, their questions and a few answers. Each contributor has engaged profoundly with climate change – they live by it. Each contributor has interpreted the relationship between art and sustainability personally, so that science and art, both calling on creativity of the highest order, blur as disciplines. For all these contributors the quest for sustainability in their life and their work has become a source of inspiration, a vital defining force within their lives.

Jay Griffiths' piece calls for high culture to ground itself in its roots, in cultivating care for the natural world. She describes art's potent ability to remind us of our place within nature and to give visceral power to the reality of climate change. Her writing is imbued with hope, joy and conviction in the ultimately redeeming power of art to express intrinsic meanings about humanity and the opportunity we have to determine our future. Antony Gormley sees that climate change challenges some of our dearest-held beliefs: technologically-driven progress and endless growth. He questions art's complicity in these cultural assumptions and calls us to fundamentally re-examine the role of art and the artist in relation to climate change and the natural world. KT Tunstall is joyously pragmatic and urges all those

involved in the business of art to sort out their own environmental impacts. Professor Diana Liverman, a climate scientist for many years, asks for more support from the cultural sector, both to address its own operations and also – crucially – to support the scientific community's attempts to communicate. And Professor Tim Jackson muses on the complex but transformative role that art has in relation to sustainability and our future. He suggests that it is through the artistic process itself that society will place sustainability at its heart, drawing upon art's ability to articulate a vision of the future, a resolution of conflicts and a consolation for our failures.

We should not have to live with the apparent paradox whereby we want the arts to actively campaign for action on climate change, whilst also understanding that art is not forced. This paradox is effortlessly solved when we assign responsibilities appropriately: actors must play in low energy theatres, musicians should record in solar powered studios, film sets should be sourced from sustainable forest and audiences should know it. Then it's up to the artists to do their work. Much of that work will have nothing to do with climate change; some of it might inspire millions to think in a new way about the planet. The choice of subject is up to the artists but scientists and policymakers can at least make them aware of the choices.

Perhaps we should start by recognising that the arts share an industrial base with other sectors in the global economy. We heat and cool, lighten and darken, open and close our buildings, manufacture spectacle. We create, display and reproduce art and artefacts. We tour and travel and our audiences follow in huge numbers. All this requires energy – significant amounts of it – and most of it is drawn from fossil fuels. Art has a real carbon footprint. We need to find out what our environmental impact is and how we can manage it. Then we could examine our expectations of

artists as communicators. Climate scientists, struggling to communicate the dangers of complacency, are calling on the arts community to help out. But too prescriptive an application of the arts to climate change is fraught with tension. Artists will not want their work to be propaganda.

Climate change cannot be resolved through the celebration of a single individual's efforts or the gallant actions of a few, but through the collective efforts of many. This effort must extend beyond borders. The framework for climate negotiations takes national obligation and interest as its starting point: can the arts' sinuous movements across the globe help us understand the shared implications of our choices? This collection has five different and valuable perspectives each of which is contributing to a bigger whole. And as such it challenges the focus on the individual, the celebrity icon, as the holder of truth and influence. All these responses to climate change and sustainability are different and nuanced; they will speak to different people and perspectives.

We should start now and build a knowledge base that will mandate cultural leaders to act. We must understand what resources (knowledge and financial), mechanisms (guidance and standards) and future expectations of transparency and accountability will be required. That means a shared international ambition, with the vision and processes that can embed sustainability deeply into culture.

The power of change lies in knowledge and collaborative action.

It also lies within the experience of art itself. We cannot ask artists to 'do' climate change but we can engage with, help, encourage and respond to those artists who choose to make climate change a key part of their work, and perhaps they will inspire the rest of us to action. All of the contributors are writing as artists or as scientists – we need to listen to what they have to say.

Alison Tickell

JULIE'S BICYCLE ****

the far-seers of art

jay griffiths

‘IT IS IN ART THAT SOCIETY FINDS ITS LONG HORIZONS, ITS SWEEP OF AGES. ART DANCES A WALTZ WITH TIME; THE THREE STEPS OF PAST, PRESENT AND FUTURE WHICH CAN SWING TOMORROW INTO THE ARMS OF TODAY, SHOWING SOCIETY WHERE IT IS GOING, AND CAN TAKE A TURN WITH YESTERDAY TO SHOW SOCIETY WHERE IT HAS COME FROM. WITH CLIMATE CHANGE, THE FAR-SEERS OF ART ARE A REQUISITE.’

Picture this. The audience is watching a performance of *She Stoops to Conquer*, dressed to kill, in feathers and pearls, bowties and waistcoats. Floodwater, meanwhile, is lapping around the paving stones outside. By Act Two the water has risen, up through the foyer and along the hallways and corridors, and by Act Four it has reached the front rows. The audience stares rigidly at the stage, ignoring the water, not stooping to notice mere nature and necessity seeping into their shoes.

There is an absolute, irrefutable reality to climate change, as real as wet shoes and rotting carpet. It is larger than politics, as wide as ocean currents, and its effects are the realities of survival and life. Artists – writers, sculptors, musicians and poets – have responded to this, turning reality into artwork, because so many artists have a political compass magnetised towards common humanity.

Distilling an image to one drop of pure turquoise, and with this one drop colouring the waters of society, artists effect a sea-change. It is their role to do this, to illustrate, to cast light on subjects, the light by which society sees more truly and more richly. Artists are messengers across boundaries, for art transcends the confines of nationality – it is an emissary of kind universality. Climate change forces the need for a greater intercultural communication than ever before, and artists – those with the keenest hearing and perfect pitch – can tell the stories of things unimagined, making immediate the experience of people unknown. Art can do this, collapsing distance, creating the empathy of nearness, art so close that it leaves its eyelash on your cheek as it passes.

The climate is a commons – a shared, equal and invaluable source of life, both international and intercultural – and all nations hold it in common. The effects of climate change will bring Lear's storms and hurricanes to the heath: 'Blow, winds, and crack your cheeks!' and these things need good messengers on the heath of common humanity.

Art can speak in sudden language, with the temerity of a howl in the restaurant: electric, implacable and now. Artists transport significance through metaphor, literally a 'carrying across'. There is a shamanic aspect to this and artists are, like shamans, movers between worlds, between the visible world and the invisible one, able to heal individuals and society. Art can work above-ground, in the heightened, precise super-realism of social portraiture, but also below-ground, working different and deeper spells of restitution on the invisible realm of symbolism.

Rebalancing the relationship between human communities and the natural world is a feature of shamanism, and artists play that same role, a role which needs and deserves public support through policy priorities, through funding and through recognition that this rebalancing role at the core of deep art is now urgent in response to the unbalanced chaos of climate. 'The spring, the summer, the childing autumn, angry winter, change their wonted liveries; and the mazed world, by their increase, now knows not which is which,' wrote Shakespeare, to describe human dissension written into the very seasons. His work is rooted in a sense of balance between humanity and nature.

It is in art that society finds its long horizons, its sweep of ages. Art dances a waltz with time; the three steps of past, present and future which can swing tomorrow into the arms of today, showing society where it is going, and can take a turn with yesterday to show society where it has come from. With climate change, the far-seers of art are a requisite.

Society has a long relationship with artists, a tryst of ages, trusting artists to act as its collective conscience; medieval Welsh bards were legislators – judges as well as poets. But science can be terrified of taking a moral position, as if that would undermine its authority (although arguably this abnegation is a corruption of its authority). There has been an enormous shift within academia recently as climate scientists, in desperation at the devastation they foresee, break their own rules in order to speak truth to those in power. It is an act of courage for them to do so, but it is a role they would rather not play; and they need the voices of poets to speak those truths as well. For writers and artists have a duty of care to society, musicians and poets are legislators of the soul-world. Good translators are required, not to translate from one actual language into another, but to translate between worlds, from the world of science to the world of imagination, rendering scientific realities of statistics and graphs into warm and human parables, paintings and plays.

Artists are shape-shifters and in this there is a perennial, ferocious hope; the hope which transforms, which whispers of possibility, of vision, of change and radical healing. Existing art about climate change has this characteristic, acknowledging the truth and severity of the issue but also affirming within it something of grace, seeing the starlight within the night.

When the rhetoric of climate change concentrates on the catastrophic, the result is a freezing-over of the psyche, a paralysis of the will. All ice-axe and question marks, art tilts and urges on, on, finds a

new tense, the future-possible, for its verbs. Art can be playful, splitting the moment, jumping the line, burgling predictability. Art can offer the juxtaposition from which springs movement, some russet meaning or winter resonance, some dawn of unequivocal urgency. Climate change involves textures of complexity (political, environmental, social, legal) which art can comprehend, for the best of art draws maps of difficult landscapes.

Art's job is not propaganda. Propaganda aims for the cliché and, in attempting to speak to everyone, speaks in fact to no one. Art takes an idiosyncratic line; the more surely enoiced the artist becomes, the stronger the response to their work. You can see agit-prop coming a mile away, barging along the street towards you, giving you time to turn the other way or shake it warmly by the hand. Art can steal up more quietly, coming alongside, maybe with a scent of jasmine or rum, speaking intrigue.

The issue of climate change needs persuasion rather than propaganda and art understands the psychology of persuasion. It is hard to allow oneself to be drawn by overt dogma, which is delivered in the daylight areas of the mind. Art works in the shuttered twilights where darkness bestows a tenderness and protection, a secret place where the psyche feels safe enough to alter. It is always easier to change one's mind in the dark.

Artists know their place is the edge, fertile, enigmatic, tricksterish. And the edge is not the same as a limit. A limit is the place of absolute finiteness or of wise cessation; the limits of natural law or, in terms of climate change, the necessary and just limiting of emissions. An edge, by contrast, is a place of maximum tension, a place of paradox, creative by its own geometry; a place of apparent contradictions which art explores and transcends.

The distinction between the Edge and the Limit can be related to the distinction between Freedom and Licence. Claiming they are acting in the name of 'freedom', modern states, allowing uncurbed carbon emissions, actually promote licence, the licence for individuals to use more than their carbon quota, the licence of industries to provoke climate change, the licence of wealthy nations to take more than their fair share, the licence of corporations to bully governments and lie to the media. More licence is not needed. But more freedom is. The freedom which art knows, the freedom which results in a transcendence of vision and a change of heart.

It is, of course, notoriously hard to tell artists what to do. I know, as a writer, the fiendishly

disobedient streak which my art demands: I can't even tell myself what to do. For artists with a sense of responsibility, a sense of politics, it can be very hard to demand of themselves that they create a work 'about' an 'issue'. While the political part of oneself is outlining the imperative, the creative aspect of oneself is untameable, off the leash, gainsaying. Yet work on climate change is perhaps produced so readily because we, as human beings, are coming to dwell with the knowledge of it, coming to know it in our bones. Compared to any other issue, climate change has a seismic and ineluctable enormity, and we inhabit this knowledge because we must. One thing it will cause is a change of climate within.

This isn't a verbal sleight of hand, it isn't a gently punning metaphor, it is a description written right at the edge of the future fact. We need a change in the climate of art. The situation which we face as humans demands to be matched at every level; philosophical, political, pragmatic and personal. The role of art institutions is now truly cultural; to create the culture which nurtures nature, not only human nature but all forms of nature. This is neither a hobby nor a luxury. It is not a Status-Impact Event. It is an exigency which affects everything, from the blunt demand for emissions-reductions within institutions to the tenor of our language and the cast of our thought.

But there is a narrow strand of aesthetics which suggests that art should not stoop to this actual world of nature and environmental event, as if leaning towards this earthy world would undermine art's tantalising artifice or soil the spangly fascinator. This sour cast of thought suggests that art should be 'above' moral issues, as if art should never dirty itself with matter, as if the artist should stand at one remove, should never treat as equals the cabinet members of the Maldives in suits and oxygen tanks, six metres underwater, holding their cabinet meeting amongst the fish in the turquoise seas, to demonstrate their nation's vulnerability to climate change.

According to that way of thinking, 'culture' is the opposite of 'nature', the rise of artifice has firmly defeated the pastoral, and art is in a position of enmity towards the real, natural world. But for most of human history culture has been rooted in nature, as language tells. In its classical sense, culture was effectively the honouring of the cultivation of nature, from '*cultus*' meaning cultivation, tending, care and respectful treatment.

We humans are part of nature. We are animal before we are human and our embodiment in the world is our primal truth. The sour strand in

aesthetics dislikes this fact and hides it, making it a great Unsaid in the halls of art, insisting instead on art's superiority to nature, scorning the ineluctability of climate change by the self-deceit of exclusivity. Humanity deserves better. Climate change demands more, requires looking beyond the narrow confines of space and time.

The culture of high culture has to shift, has to stoop to the floodwater and dare to touch the earth itself. The unexamined prejudice against nature within aesthetics will come to seem as vacuous and cruel as racism or sexism for, despite the pretence that culture is antagonistic to nature, it never really has been. If you watch carefully, you'll catch them glancing at each other, a look of shy recognition of a relationship never truly sundered. Take the Forest of Arden out of Shakespeare, shake the linnets from the leaf, snatch the moon from Neruda, silence the Rite of Spring, take, in other words, all nature out of culture, and what do you have left? A few shoddy catalogues and a tax return.

So, yes, we need a change in this kind of climate, which involves culture going not 'back' to its roots but 'down' to its roots, profound in the deep earth, in the root of the word *cultus*: nurturing care and respect, and offering truths to humanity.

In its evidence and reliable data, science offers its truths, but from art we need truths of a different order: Protean, yes, unpredictable, yes, disobedient, yes, but truths nonetheless; metaphoric, spiral truths, because we are not wholly rational creatures. It is not knowledge that we lack but parables to embody it and ethics to sustain the implementation of that knowledge. It is through stooping that art conquers, Lear on the heath, finding his common humanity on the common ground. This is the profound task of art, to find seeds of transcendence deep in the dark and minding earth.

sound and vision

kt tunstall

**‘IF THE MUSIC BUSINESS
CREATES A SUPPORTIVE
OPERATING FRAMEWORK
FOR THE ARTIST IT WILL
MAKE IT EASIER FOR US
TO TAKE ON THE ROLE
OF COMMUNICATING
WITH OUR AUDIENCES.
FROM THIS POSITION
OUR ART WILL HAVE
INTRINSIC INTEGRITY SO
THAT WE AS ARTISTS
CAN SPEAK OUT WITH
CONFIDENCE AND
STRENGTH.’**

As a touring musician, I see that for the duration of a show it is possible to create a brand new community. It can be of any size, any nationality, and any creed; and providing I act as a positive force towards the audience, there can be moments of genuine, meaningful collective euphoria. These thousands of strangers have shared something. People often remember such moments for the rest of their lives. I know I do.

I feel deeply that these instances of collective positivity are breeding grounds for meaningful change. If you feel good, it is possible to imagine better things.

Music for me is a necessity in life; I am imbued with an intrinsic feeling that I couldn't and shouldn't ever give it up, regardless of any attached success. Part of the reason for believing this is that I recognise that in some very deep way, music can transcend language, can communicate beyond explicit meaning, and therefore has the power to capture imagination, bring people together, and draw attention to any issue. After seeing an artist I love, I feel cracked like an egg. I am opened. A significant part of my motivation to be a musician comes from the knowledge that I am able to provide that experience for others; it is an incredibly fulfilling transaction.

In light of all this, do I have a responsibility as an artist to communicate my feelings on important issues? After all, here I am, on stage in a room full of grinning people who feel connected to each other - open. The importance of climate change overwhelms all other issues and encapsulates so much – our environment, our sense of humanity across continents and cultures, our responsibility to social justice and global equity, our value systems, our futures and our self-respect. We would be mad not to talk about it.

So yes, I feel I have a responsibility to get involved and push for change.

But for the artist, acting as a messenger on climate change can be fraught with risks of a media and fan storm and we find ourselves almost invariably ducking charges of hypocrisy. Increasingly I see artists hesitate, aware of a virulent press that is keen to identify the smallest mistake. If we get it wrong we risk spectacular public exposure. I must point out that if artists have a responsibility, so too does the media. We all need to move to a more supportive mindset and understand that every positive effort is significant, including ours as artists.

In this difficult terrain it becomes imperative that we get our facts straight, keep up with new information and look hard at ourselves. I myself

hate being preached at on any subject and it's horrific if the preacher is a phoney. We must approach our messaging from a place of honesty and humility. I believe this boils down to making simple, strong, practical choices that, if we decide to speak out, will vindicate our words.

Artists as individuals, and in their work-related communities, can implement meaningful change as well as respectfully invoking their connection with their audiences. An artist has a voice, but more importantly, has an influence in a complex way – through their attitudes and the implicit values in their behaviour as evidenced in their actions, how they live. The integrity of an artist is communicated by combining words with deeds, style with content.

I don't see this as being a pressured decision to do all or nothing; I believe it is about doing something. Admittedly, none of this sounds much like rock and roll, but I don't believe that living a more climate-responsible life need be exclusive of the fun, the escapism or the bohemian lifestyles that music is celebrated for. There seems to be an assumption that a life lived which is environmentally responsible will be a life less fulfilled and, as an artist belonging to an industry justly criticised for excess, I say that from the inside. Without challenging this assumption we are consigning much of our world to uncertain and dangerous prospects.

And for the record, there are many artists doing something. It might not be everything and sometimes we all get it wrong. Our whole-hearted enthusiasm for biofuels blinded us to the consequences for existing agriculture and deforestation. But this is not a good reason to sit back on our haunches and wait for the perfect solution. It will never come. We need to get on and make the difference now.

Music and climate change have this in common: they are universal forces that disregard geographic and cultural boundaries. I spend a lot of time in other countries, as do all successful musicians – it's part of the job. Many in the international artistic community care deeply about the future of our planet. If an artist commits to climate responsible actions, and speaks out on climate change, people will hear and take notice. The capacity of the individual artist to raise awareness is significant; so imagine the force of a united artistic community. We urgently need to come together on this issue, to be unafraid to speak out. The potential knock-on effects of a global community of artists bringing about change in the way things are done could be enormously far-reaching.

It is easy to become disillusioned by the facts and figures, to feel a sense of futility, but consider slavery as an example of cultural transformation. There was huge opposition to abolition but not enough to prevent the eventual transformation. Right now 23 million people across East Africa are facing critical shortages of food and water after successive years of failed rains and worsening drought. Just as was the case in the abolition of slavery, our responsibility as human beings and as artists is to connect with this tragedy. This is compelling; we know that the excesses of the richer nations are responsible for the suffering of the poor. Solutions to climate change must put climate justice at their heart.

The music industry has been working for several years across the supply chain to develop climate responsible initiatives, such as energy management in venues, lower carbon CD packaging, and best practice guides, all of which strengthen the artist's capacity to speak out about climate change. Accurate science is hugely important: for example, knowing that a card CD package as compared to the usual plastic case can produce a staggering 95% less carbon emissions. What's more, research has shown that the majority of music buyers would prefer a card case to an unattractive, easily breakable, plastic one. Many retailers are happy to support the initiative, so why are there still millions of plastic jewel cases entering the marketplace every year? Is it simply because not enough of us are challenging the status quo?

I recently read an article about the knock-on effects of educating children into greener habits at school. Once a child is convinced they nag their parents into green submission, changing the whole family's habits. Just think: one school responsible for an entire community changing attitudes and behaviours. Artists could surely do this; nag until you get what you want. I am going to nag my record label for card CD packaging and hey, if that's what people want to buy, no record label is going to argue.

I am leading the establishment of 'GreenmyBand', a partnership of artists looking at the measures within our control. We are working to address our own operations – how do we “green” tours, gigs, merchandise, CDs, and put into practice carbon reduction as recording and touring musicians. The

information, advice, and experience will be shared between as many artists as possible and hopefully can become a go-to resource for any artist wishing to get involved with climate change.

So it isn't just about speaking out, though that is always really helpful. We can only succeed if we can rely on our artistic infrastructure to support us. It requires the entire artistic community – not just the artists, but the managers, funders, policy-makers, agents, studios and venues, the tours and productions as well as the audiences – to heed climate change and reduce the negative impacts of our own making. We need to come together as a creative community and understand that we are responsible, today, now, as well as in the future, for untold suffering when we needlessly waste precious resources. We are much bigger as a community of shared interest; our sum is much greater than our parts.

If the music business creates a supportive operating framework for the artist it will make it easier for us to take on the role of communicating with our audiences. From this position our art will have intrinsic integrity so that we as artists can speak out with confidence and strength.

We can all live within the planet's miraculous natural supply of resources if we are fair, intelligent, and treat all its inhabitants with care. We could catapult over all the apocalyptic warnings and make with our art a positive, sustainable vision of the future. I'm so blessed to be part of this creative community and I'm very aware of my responsibility as an artist to the people who are enriched by my songs, as I am enriched by others. The creative force of the arts demolishes petty differences and national boundaries and brings us together in memorable shared experiences. It is possible to imagine a global community that has sustainability and fairness as core values and we, as artists, can help turn those thoughts into lifetime habits. I'm excited about what's to come.



'Another Place' Antony Gormley, 1997. Photograph by Helmut Kunde, Kiel. © the artist.

**art in the time of
global warming**
antony gormley

**‘THERE IS A STRONG
CONNECTION BETWEEN
THE DESIRE FOR
SURVIVAL AND THE
ART OF A PEOPLE AND
A TIME.’**

I have just driven through the Hatfield Tunnel.

Above it are factory outlet shops that sell overproduced goods at reduced prices to bargain hunters. The tunnel is long and I imagine that the shops are plenty. These out-of-town malls are satellites of emergent in-town superstores, like the new Westfield at Shepherds Bush and the newer one that will be at Stratford East on the Olympic site. Art is similarly involved in a system of exchange and distribution that involves in-town and out-of-town franchises which might, as with the Guggenheim Museum in New York, first spread downtown, then to Bilbao, then to Berlin and finally to Abu Dhabi; or the Tate making outposts in Liverpool and St. Ives, then expanding itself into Bankside and now expanding again. Art has seemingly become enmeshed in the same processes of expansion and growth that have characterised late capitalism everywhere with its system of exchange, communication and distribution.

But of course this bland comparison does not really wash. Shops are there to satisfy inflated desires. Art galleries contain forms and experiences that inspire, question and extend human experience. Art is the way that life tests and expresses itself, without which we are already dead.

But what happens to your enthusiasm in belonging and contributing to this system of distribution when you are told that we have ninety six months before we reach the tipping point whereby the feedback systems of man-made global warming take over – probably resulting in tens of millions of climate-change refugees displaced and homeless by the end of this century?

In facing the challenges of global climate crisis in a culture which encourages us to do more, produce more, be seen more – my initial response is paralysing fear; I want to shrink, to go into a hibernating state with minimum muscular effort and put minimal demand on any kind of fuel.

This position is not helpful but perhaps is a good place to start to rethink one's place in the world.

The carbon crisis calls for a re-examination of our faith in the technological basis of Western progress. A change in belief is a cultural change; art and artists are implicated. As Paul Ehrlich and others have pointed out human evolution has been driven by cultural rather than biological change; our brain size, synaptic activity, physical characteristics have not changed much in the last million or so years. What has changed has been the material culture that we have made and which has in turn made us, from stone tool-making,

language, farming, printing, the industrial revolution, the information revolution and now, maybe, the most critical and difficult revolution of all: a complete reversal of many of the values that we have held dear. We can no longer assume that more is better. We have to change our cultural heroes from generals and captains of industry to meditators and mediators, from Rambo and Terminator to Ghandi and the Dalai Lama.

Our tool systems, no longer stone, having separated us from the rest of the planet and biosphere, are now what will, without this revolution, destroy both. The notion that human life was going to be improved by an empirical march of tool-making that would make life stronger, longer and safer is challenged by the fall-out effects of this very technology. Technology that was in some senses made to make life better has now become the problem.

But of course art is not technology, it is useless but vital; it is through art that we communicate what it feels like to be alive. When you ask 'what is the point of art?' you could reformulate the question to 'what is the point of human beings?'

At the British Museum is a carving of two reindeer crafted from a mammoth tusk made twelve thousand years ago. The artist's depiction of the antlers pressed against the flanks of the female in front and stag at the rear, the winter markings of the coat and the rendering of the eyes are the result of acute observation and enormous empathy with the life of these animals. It was by following the seasonal migrations of reindeer that modern Europeans survived between ice ages. When swimming across a glacial melt river the deer were easily hunted. The making of this object was an expression of connection, identification with the continuation of life, its interconnectivity both in sex and in death and by inference the human position within a chain of being.

What is the basis of art? There is a strong connection between the desire for survival and the art of a people and a time. We have a task in hand. Culture in the developed western world has always positioned itself in distinction to nature: now we have to discover our nature within nature.

A Constable cloud study at the V&A: a small sketch in oil and pigment on board captures that most fleeting of things, the effect of sunlight on water vapour in our atmosphere. Here are ever-changing forms that evoke time, space and the act of being itself, but also an invitation to empathise with the exchange systems in our atmosphere. Single dry brush strokes capture high cirrus against the thin cold high air while rotating brush strokes evoke

the lower nimbus clouds that form hovering masses of white just above our heads. This sketch is another object that locates us within the scheme of things evoking our ability to engage in elemental exchanges.

I feel powerless, locked into a system and infrastructure that I cannot control, built on the basis on infinite growth that is unsustainable both in terms of demography and resources; people, air, water and food. How can I avoid making situations worse? How do I justify my life or indeed this culture as a whole? This was the problem keenly felt and left unsolved at the recent climate negotiations in Copenhagen. How can there be a consensus on resource use when half of the developing world wants to experience the same level of modern living as us and wants to undergo the last three hundred years of Western development in a sixth of the time?

An overcast sky, a dark river and a distant town. A naked woman sits on the ground and suckles a baby under a stunted holm-oak, sheltered by bushes. Opposite her on a low brick plinth capped by stone rise two broken pillars. To the side and front of this altar a fully clothed man stands nonchalantly holding a staff in his right hand. He is smartly dressed with slashed breaches and a fine linen shirt with white and red leggings. He looks over to the naked woman, she looks at us. We are involved in this scene that is as engaging and enigmatic as when it was painted nearly half a millennium ago. It's Giorgione's *The Tempest* and hangs at the Academia in Venice. Here we are held by an atmosphere partly meteorological, partly psychological. Lightning is striking in the distance behind the town where the sky is blackest. The effect of the work envelops us in that moment in the storm before the rain where the world and everything in it is waiting to change: continuity, future, life, love, nature – everything hangs in the balance.

Has our confidence in human continuity undermined our ability to make art at all? Art, certainly Western art, has been an expression of and dependent on confidence: confidence in a culture's lifestyle and in its continuity in the future. Now art undermines and investigates systems of power and, rather than projecting stable traditional values into the future, questions the viability of any kind of future at all. We have to re-evaluate the function of art within the frame of a sustainable lifestyle best exemplified by those societies that have had little technological advance.

Ever since Joseph Banks visited Tahiti and wrote in 1770 of the Tahitians:

... thus live these – I had almost said happy – people, content with little nay almost nothing. Far enough removed from the anxieties attending upon riches or even the possession of what we Europeans call common necessities. . . From them appear how small are the real wants of human nature, which we Europeans have increased to an excess which would certainly appear incredible to these people could they be told it. Nor shall we cease to increase them as long as luxuries have been invented and riches found. . .

Rising sea levels are destroying the homelands of Kiribati, Tuvalu and the Solomon Islands (amongst others) as a result of too much CO₂ in the atmosphere put there by us and yet they are furthest away from the benefits and excesses through which our industrialised world has enjoyed itself. Yeats said that it was suffering that transforms intelligence into a soul but how many tornadoes in Tottenham or floods in Cumbria will it take to create a soul brave enough to change? It is a cruel fact that the people of Tuvalu are the ones who are suffering for our sins and they are too far away for their soul to have influence on our intelligence.

Is it possible to re-think art and take it from this finished-object status and make it into a verb, a participatory, open space, a place of transformation and the exchange of ideas and reflection on our state and status? Can we use art as a way of investigating this perilous time? Can we change from our obsession with production values? Instead of the perfection of an Asprey's catalogue or the gloss of the desirable branded object can we accept that art has to find its own raw and direct way of existing? It was great to see an old bleached-out photograph in a recent article on Boltanski – art needs to have its own genuine patina, communicating its journey into the world.

In the turbine hall at Tate Modern the light is strange, the air is thick, it is summer but cool. Adjusting to the orange, yellow, modern frequency light coming from a great disc in the ceiling, people are moving slowly. Some lie on the ground. I had a distant impression that there were bats hanging from the ceiling, they moved, black silhouettes scuttling. Looking carefully at the golden light source I realised it was a half disc pressed against a mirrored ceiling and that the mirror stretched the entire length of the turbine hall. The disk was mirrored so that it became circular and complete, we were mirrored, I was mirrored in the ceiling, these were not bats, they were us. Passing under the bridge I laid down amongst others who were in the picture on the

ceiling: we could change it. I waved to myself, someone waved back. I was in a picture that was unfolding, I was inside an artificial world that was unfolding through and with us as participants. This was Olafur Eliasson's *Weather Project* at the Tate Modern in 2003.

I can think of many artists who can do this. Beuys and Smithson, Long and De Maria showed the way of direct working with site, making a place to be in ways that art had only pictured before. Kounellis, by investigating the materials of trade across Europe continually in smell, texture and arrangement, underscores the relation between man and matter. Simon Starling investigates the subtle inversions and interdependencies of energy and made structures. Following the lead of Lothar Baumgarten, Francis Alys investigates the tribal relations of the city's forest floor dwellers and celebrates them. Cornelia Parker re-stages meteoric events asking how humans can participate in the telluric and teleological. All of these artists' work makes you feel more alive, more aware, both of the human predicament and of our material and elemental surroundings. There are more – so many more – that are using their lives to make balance between thought, matter and feeling in a way that has never existed before.

Last summer I was up in Scotland in a wood just west of the Pentland Hills and came upon a robust hut, its thick walls made of large lumps of the local dark igneous stone. It is slate roofed and there is a single door. Stepping in, down, and getting used to the low light entering from two unglazed windows from each gable end, I recognised that the floor was uneven and in the half light, that I am actually standing on bedrock. This surface revealed the surface of our earth, unadorned, bruised, cracked, wedged open by roots, smoothed by ice, pitted by water, laid by sedimentation. This revealing of the underneath of things, the hidden support that lies beneath trees, homes, buildings was both shocking and engaging. Here was a useless building in which we could encounter our dependency: a brilliant work by Andy Goldsworthy.

So what I am asking for is a re-assessment of what art is and how it works. I am questioning the linear trajectory of art history as part of the Western development of history recognising that all art exists in the sense of a continuous present. We are now in a position to acknowledge that those stages in an evolutionary past that would, in previous times, have been thought of as primitive, are co-existing in this era and are not superseded – and actually the use of the fetish and the totem as reference points for a model of art are enormously useful.

How do I justify the work and life of this studio with its ten thousand square feet of heated space and seventeen daily assistants? In the final analysis I do not have to justify what we do; this workshop is part of cultural evolution, part of an attempt to define my own belief systems and those of my colleagues. I can only hope that this is a creative community, a place where people can share skills, ideas and energy. I hope that it can be a fulcrum of change and exchange in which the idea of an inclusive culture can be born. We create situations and objects that can become catalysts for a form of reflexivity that allows the viewing subject not simply to be a passive consumer of an already tested experience but for the experience of art itself to be testing ground for both the model of art and the model of the human subject. We have in making art a specialisation and its exchange as a matter of high monetary worth lost its central subject – the human being. In the art of the 20th century the Duchampian breakthrough was the examination of human labour and mass production in the 'found object'. I would like art to re-focus on the lost subject.

But it is also my responsibility to make sure that I can deal with my own impacts, including the carbon footprint of the studio and all its activities. I have had the carbon footprint of the studio assessed, minimised my flights, the studio is insulated and we will install solar panels on the roof (it is wide and relatively flat). We must recycle more of our materials and investigate the viability of a wind turbine. I must also decide whether carbon offsetting is a conscience salver or a real benefit.

Having done all of this my greatest responsibility is to make work in the most direct way that I can, and interpret this time and place in a way that makes people more aware of themselves and it.

keeping out the giraffes

professor tim jackson

‘THE BIGGEST DANGER OF ALL LIES IN SUBJUGATING ARTISTIC ENDEAVOUR TO REASON. BECAUSE DOING SO RISKS ROBBING ART OF MEANING. AND MEANING IS SOMETHING, I SUSPECT, WE’LL BADLY NEED IN TIMES TO COME.’

When the moon rises, said Lorca, the sea covers the land and the heart feels like an island in the infinite. Children understand this feeling. Look! It's the moon, they cry, turning their own moon faces up towards you, delight and trepidation finely balanced there. Who are these kids, you ask yourself? Where do they come from? The truth is they're strangers. Visiting us from another country. It's called the future. Your children are not your children, said Kahlil Gibran. You may house their bodies but not their souls. For their souls dwell in the house of tomorrow, which you cannot visit, not even in your dreams.

A few years ago I was installing some insulation in our home on a Sunday afternoon. My then five year old daughter was helping me. We were pressing thin strips of adhesive-backed foam into the corners of windows and doors to keep out the drafts. At least, that's what I was doing. She was doing something else. Will this really keep out the giraffes? she said. You can hear the five year old mind at work. How did they get into our garden? Can this tiny strip of plastic really keep them out? Everyone knows how tall and thin they are. They can probably squeeze through the tiniest cracks. And what will happen if they do? Will they tangle us up in gangly limbs at breakfast time?

My daughter was a millennium baby. She has a certificate from the Queen to prove it. Her age will always track the passing years of the twenty-first century. How old will you be in 2050? She will be 50. It's her century. The one in which the climate (and many other ecological battles) will be won or lost. It's our planet! What does it look like? How will we get there? Will there still be giraffes in it? These are her questions. And mine.

I've thought a lot about those giraffes. At first I mistook them for a childish interpretation of a weekend chore. But now I see I was mistaken. The giraffes are there. They really are in the garden. The task is real. Keeping out the giraffes matters.

There are lots of puzzles in our failure to combat climate change. One of them is the many easy things we routinely fail to do about it. Like draft-stripping, for example. Insulating our homes makes unassailable sense. It reduces our energy bill, saves us money, lowers our carbon footprint and makes our lives more comfortable. And yet they don't get done, these simple things. Time and time again. The technologies work, the economics are favourable, the results are demonstrable. But our attention is missing. Our priorities are elsewhere. Climate is bottom of our list. Rainforests are a long way from here.

Our lives instead are taken up with daily tasks.

Putting the kids on the bus. Getting to work on time. Surviving shopfloor politics and email overload. Foraging for groceries. Throwing together meals. Escaping for a few hours into primetime TV. Watching the late night weather forecast. Collapsing into bed. Making it somehow from one end of the day to another. Locked in routine. Lost in anxiety. Striving for status. Keeping out the giraffes. For everyone knows (and instinctively fears) the chaos that long-necked creatures wreak when they slip through the cracks in our lives.

That isn't all there is, of course. Our lives routinely rise above routine. Relationships matter. Family matters. Hope for the future matters. And we constantly strive to keep those hopes alive. The daily grind is lifted from obscurity by the colour of our dreams. Our aspirations soar on rainbow wings. We continually crave a better life for ourselves and our children. Occasionally, we escape into moments of unadulterated pleasure. And from the loose fabric of fantasy and the radiant colours of desire we create and maintain a sense of meaning and purpose in our lives.

What is the objective of the consumer? asked the anthropologist Mary Douglas in an essay on poverty written over forty years ago. It is to help create the social world, she said, and find a credible place in it. This deeply humanising vision of consumer lives is also a forgiving one. We would like to condemn materialism as greed and damn consumerism to hell. But we are locked into its social logic by our own symbolic attachment to stuff. Matter matters to us. And not just in functional ways. Beyond the immediacy of material sustenance – food, clothing, shelter – consumer goods provide a kind of language through which we communicate. We tell each other stories through material things. And with these stories we create the narratives that sustain our lives.

This task – and I am coming to the point now – is a fundamentally artistic endeavour. Technology is important to its functionality. Science provides the understanding. Artefacts provide a language. Goods and services provide what Amartya Sen called our capabilities for flourishing. But the task itself is an act of creation. A creative gesture. It calls on our imagination, our hopes, our vision. It engages our values, our identity, our sense of a shared humanity. Society hangs on the gossamer thread of collective dreams. It always has done.

Living is an artistic endeavour. That's my point. Art doesn't portray life. Life doesn't imitate art. Life and art play swing-ball in each other's back yard. The uniquely human adaptation of artistic expression is as strong a force in our shared

history as were the steam engine, the semi-conductor and the internet. Infinitely more so. The stories we told, the visions we saw, the dreams we shared: these were the building blocks of civilisation, the harbingers of progress, the bringers of hope.

In making this claim, I'm not attempting to privilege artists. Art and celebrity are crudely intertwined in the modern mind. But celebrity isn't the essence of art; only its expression in a confused culture, adrift from its moorings in shared meaning. Nor am I trying to suggest that art can rise above our culpability for ecological change. That would be ridiculous. The lifestyle of a successful pop star can beggar the carbon footprint of a sub-Saharan nation.

The hands of the artist are stained with the pigment of empire. Art mis-catalogued too many abuses and stood silent through too many atrocities. But it also suffered these atrocities. It bore witness to the cruelty that people inflict on one another. It gave voice to the oppressed. Spoke up for the dispossessed. Understood our joy and commiserated in our sorrow. Whispered to us in our own language. The heart has reasons, reason does not know at all, said Pascal. Art speaks to and from the heart. In its purest form, the artistic endeavour is a form of creation. One that we're all engaged in.

It's clear that any attempt to change people's lives must recognise this. It must speak a language people understand. Science can sketch the nature of the problem. Technology can facilitate the solutions. Economics can point out the costs and the benefits. Art engages the soul. It speaks to the moon-struck child in us. It whispers to the giraffes. Art looks like the perfect addition to our instruments of change.

And yet I want to resist the call to think of art this way. Perhaps art can succeed where policy signally failed. Perhaps we can sketch and compose and sculpt our way towards a lasting climate treaty. Perhaps celebrity artists can lead us by example towards sustainability. But this line of thinking falls into too many traps. That art has traction in politics. That art speaks truth to power. That art is instrumental at all. Some of these things may be partially true. But the biggest danger of all lies in subjugating artistic endeavour to reason. Because doing so risks robbing art of meaning. And meaning is something, I suspect, we'll badly need in times to come.

Instead I believe we need to keep art free to play a far more vital role in the emotional fabric of our lives. Three roles in fact: vision, resolution,

consolation. Let me finish by speaking briefly about each.

I'm fascinated by the proliferation of post-apocalyptic visions of the world. From Russell Hoban's *Riddley Walker* to David Mitchell's *Cloud Atlas*; from Saci Lloyd's *Carbon Diaries* to Will Self's *Book of Dave*. And perhaps most poignant of all, Cormack McCarthy's elegiac *The Road*. Literature is replete with memories of the future. And the astonishing thing is that, even for someone like me who has worked for over two decades in the science of the future, these stories have an extraordinary and unexpected power. They connect me to the future in a way that scenario models somehow fail to do.

Perhaps even more striking are the visions of our inner world. I think for instance of Rembrandt's allegories, Chopin's nocturnes, Rodin's sculpture. In Rembrandt's iconic *Return of the Prodigal Son* the father's strangely feminine hands rest on the shoulders of the returning son, whose torn and tattered garments somehow radiate a golden light. In an amazing early sketch of the roadside scene in the parable of the Good Samaritan, he offers an extraordinarily intimate portrait of the altruist within. Beneath the noise of human strife, Rembrandt reminds us, lies a fragile interior space worth knowing about, worth protecting.

These visions are not always comfortable.

They're not without conflict and suffering. But here is another of art's lessons. As an environmentalist, I'm struck by our tendency to flatten the conflict landscape. To want to rush immediately to the promised land. But as a playwright, I'm acutely aware of the rules of the game. The essence of drama is conflict. The arc of the story requires a protagonist, a call to arms, a quest, a series of trials, a reversal, transformation, a journey home. Resolution through conflict. Art pays homage to the nature of the journey, its sense of struggle. The power (and partiality) of resolution: not as an instant, a comfortable future, but as a goal hard-earned, easily lost and almost always temporary. There are lessons here for climate activists. For all of us.

When the moon rises, said Lorca, the bells hang silent and pathways appear impenetrable. The way ahead is gone. Our children turn to us and ask: where now? Which way do we go? What would it take for us to admit that we don't know the answer? That we're lost. That our best attempts to combat climate change have failed. That our economies are bankrupt. That our technologies are broken. That our politicians have let us down. That restraint lost its fight with desire, justice its struggle against inequity. What would it take for us

to admit that our vision of progress was an illusion. A dream we once had. A story we told our children to stop them getting frightened by the moon.

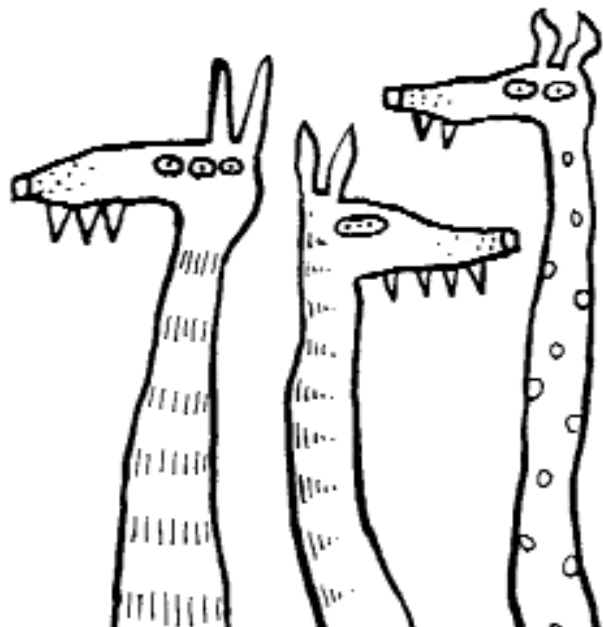
This is where we need the consolation of art. Its understanding of sorrow, failure, and loss. And its intimations of transcendence. Nobody eats oranges under the full moon, said Lorca. One must eat fruit that is green and cold. You're not alone in fear, he says. And in the same breath intimates: the time for oranges will come again. Loss is only part of the arc of the story. Reversal is only temporary. Art teaches us to look beyond the glitter of triumph and the shadow of disaster. And to detect beneath the echoes of immortality.

Vision, resolution, consolation. These are the tools from which to build a different future. Our ability to live well, to flourish in less materialistic ways, is in essence an artistic endeavour. Sustainability is the art of living well, within the ecological limits of a finite planet. Art is more than an instrument in this process. It's the nature of it.

My son asked for a telescope on his eleventh birthday and I was pleased – another battle won against DS this or X-box that. Your children are not your children; but still it gives you hope when their desire for understanding overcomes the forces lined up against them. He pointed his precious telescope determinedly at the three quarter moon. I'm going there one day, he said, looking up at me solemnly. His moon-eyes wide and knowing.

Take me with you, I said. Knowing that he cannot.

He just smiled.



seeking inspiration: a scientist turns to the cultural sector

professor diana liverman

**‘OUR DISMAL
PREDICTIONS AND
TECHNICAL DISCUSSION
OF UNCERTAINTIES SEEM
DISTANT AND
INTANGIBLE FROM
EVERYDAY LIVES;
PERHAPS WE HAVE
EXHAUSTED PUBLIC
WILLINGNESS TO LISTEN
TO OUR WARNINGS AND
OUR IDEAS FOR
ALTERNATIVE LOWER
CARBON FUTURES.’**

I have been studying climate change for thirty years. During that time the community I belong to has expanded in every dimension: size, scale, depth, scope and academic discipline. We have gathered ourselves into a global community of scholars and offered our insights to decision makers through the United Nations and national academies of sciences. The Intergovernmental Panel on Climate Change (IPCC) is an extraordinary concentration of thousands of minds focusing on a common purpose, to gather the best evidence of the physics, impacts, adaptation and mitigation of climate change. What we have discovered over a series of four major studies since 1990 is the certainty and impending risk of a warming earth caused by a rapid increase in the concentrations of greenhouse gas emissions. Yet despite all our collective brains, commitment, passion and creativity, climate science is still failing to prompt change on anything like the scale required.

Effective communication of the risks and relevance of climate change to people's lives remains elusive. As scientific evidence has accumulated scientists have found themselves in the precarious position of being the primary communicators to politicians, business, journalists and citizens. Scientists gather evidence, undertake analysis and present the results. We are not always the best communicators of complex ideas, especially to lay audiences. The language and methods of science are easily lost in translation and as a result climate science can sometimes seem deliberately arcane, beset with jargon and caveats. We often hand over information without checking to see if it is what decision makers need or presented in a form accessible to the intended audience.

Furthermore our dismal predictions and technical discussion of uncertainties seem distant and intangible from everyday lives; perhaps we have exhausted public willingness to listen to our warnings and our ideas for alternative lower carbon futures. Within science there has sometimes been a tendency for natural scientists to see social scientists as their public relations consultants to help the public better understand what scientists are telling them. But social science can be just as academic in its efforts to explain how human actions are changing the natural environment, how human vulnerabilities exacerbate environmental impacts, and how human choices can move us towards sustainability.

In the last five years progress has been made in raising public awareness of climate change, but popular support for action, and knowledge about impacts, responsibilities and solutions is worryingly low in many countries. Even in countries with a well informed and mainly committed media, enthusiasm for change is rare, patchy and prey to fashion. Furthermore, any modest progress towards raising public awareness is undermined by dissent from a small number of climate science sceptics, which does not reflect the majority view of scientific experts that climate change is a real threat. We clearly need help communicating the basic principles of climate change and in explaining what it means for societies around the world.

What is the message the climate science community are trying to convey? Simply, the evidence produced by thousands of scientists shows overwhelmingly that the earth's climate is rapidly changing and that this is almost certainly due to human activity. Concentrations of heat-trapping gases, such as carbon dioxide and methane, are increasing in the atmosphere predominantly from the burning of fossil fuels and industrial agricultural practices. These increased concentrations of gases are causing global mean temperatures to rise, changing patterns of precipitation and wind as well as acidifying the oceans. The Earth's natural processes are intimately – and marvellously – connected: a change in one area triggers a reaction somewhere else, which in turn triggers another, and another.

Although the world came together in 1992 to create the UN Framework Convention on Climate Change (UNFCCC), the efforts so far to reduce greenhouse gases have been completely inadequate, with emissions increasing by 2-3% a year. Hopes of keeping atmospheric concentrations of gases below 450 parts per million (ppm) – a level that might keep warming around 2°C – are receding as we have already reached a level equivalent to about 430ppm. Last September I helped organise a conference at Oxford University to discuss what a world might look like if we do not control emissions and by the end of the conference I was feeling very pessimistic. We heard that within a lifetime the world may be 4°C warmer with glaciers and arctic sea ice significantly receding, and more regions of the world suffering searing heat waves, severe droughts, and intense, frequent storms with devastating impacts for people and ecosystems.

Climate scientists Steve Schneider and John Schellnhuber¹ - my friends and my role models for communicating climate science - helped develop the 'burning embers' diagram to try and convey the serious risks of climate change². John has also captured imagination through his research on 'tipping points' – places where warming may flip the earth system into rapid and irreversible changes such as the collapse of ice sheets or the loss of the Amazon forest. As Steve wrote recently,

...many unique or rare systems would probably be lost, including Arctic sea ice, mountain-top glaciers, most threatened and endangered species, coral-reef communities, and many high-latitude and high-altitude indigenous human cultures. People would be vulnerable in other ways too: Asian mega-delta cities would face rising sea levels and rapidly intensifying tropical cyclones, creating hundreds of millions of refugees; valuable infrastructure such as the London or New York underground systems could be damaged or lost; the elderly would be at risk from unprecedented heat waves; and children, who are especially vulnerable to malnutrition in poor areas, would face food shortages.³

Aside from communicating the reality of climate change impacts and therefore urgency to act, the scientific community wants to communicate that we have the ingenuity and ability to reverse the pathway that humanity is currently on. We are by no means consigned to impending doom. There are many technological, political and social choices available to us from the simple action of insulating our homes to reconfiguring our power generation. However, for us to create a future in balance with the world around us we must agree shared values and responsibilities as well as the political and economic framework and mechanisms for change to happen.

I wonder how many readers have acted on this knowledge and shifted their lives, necessitating sometimes awkward, limiting and lonely lifestyle decisions. Why haven't I done more myself to reduce my travel or invest in making my house more sustainable? The broad base of support which translates into lifestyle change fails to materialise. It needs to be a good choice, a happier offer. And for this we need good governance and substantial finance, sure, but we also need new ideas, shared values and visionary leadership.

This is where arts and culture

come into their own. The arts have much to offer in catalysing understanding, dialogue and vision for a world that will live within its ecological limits. Art has global reach and can open conversations between generations, nations, and communities. Art can tell stories and give us a language through which to express our emotional experiences. In an era when travel, media and the internet connect us internationally, the arts can rapidly communicate their messages to global audiences in ways that erase national boundaries and create communities of common interest. Artistic endeavours can provoke us to question our humanity, create connections with others and with the natural world, and offer us a vision for alternative futures. The arts spring from creativity and we need that human quality not just to produce art but also to develop the future visions for engineers, designers, businesses, technologists and scientists alike.

In my own life I have often turned to literature and music for solace and hope, as well as to better understand other cultures and to escape from the daily grind of teaching and research. But over the last few years I have realised that arts and culture can be partners in my climate change work and can play an important role in galvanising a serious response to the threat of climate change. Until recently I was the Director of the Environmental Change Institute (ECI) at Oxford University. During my time there we formally partnered with UK arts organisations Cape Farewell, Tipping Point, Julie's Bicycle and Red Redemption as well as supporting a number of artistic projects. Each organisation's contribution to the climate change agenda is different, but in complementary ways they are catalysing a coherent approach by the creative community – and their audiences – in the climate challenge. I see several important functions of this connection which is reflected in the organisations and people I have had the privilege to work with. These are: open dialogue between scientists and artists; establishing exemplary practice and leadership; and creativity and creative works.

Both Tipping Point and Cape Farewell focus on the dialogue and the relationships between art and science: Cape Farewell organises inspirational encounters with the immediate effects of climate change – field trips to the Arctic and the Amazon for small groups of artists to join scientists

¹ Steve Schneider has been involved in the Rothbury Music Festival, a festival creating interaction between scientists, musicians and audiences on issues of sustainability. John Schellnhuber helped develop Tipping Point workshops and conferences between scientists and artists in the UK and Germany. In addition, the Potsdam Institute is the research partner of the Green Music Initiative, Thema1, in Germany.

² pik-potsdam.de

³ Steve Schneider, *Nature* 30 April 2009, 458:1104-5

monitoring the impacts of climate change in some of the world's most vulnerable ecosystems. Tipping Point runs specialised workshops in which the latest science is explained and explored by artists and arts organisations. ECI has been involved with Tipping Point since its inception and is excited to see this dialogue between scientists and artists being extended internationally. It is through these opportunities for interactions that ideas for joint collaboration can emerge.

Both of these experiential responses have moved minds and opened hearts – I have seen it with my own eyes and felt it change my own perceptions.

Of course, we must be careful not to cast artistic communities only as skilled communicators or marketers of climate change science and solutions. We also need to ask them to share their experience of business practices that can help better manage the planet. Our collaboration with Julie's Bicycle is an illustration of how the cultural sector can demonstrate leadership by doing, not talking. We have been able to help the music industry understand how the issue of climate change directly relates to their business activities. Although the carbon footprint of the music industry is low compared to many other economic sectors, it has an impact potentially far beyond its immediate operations because of the power of its artists to influence their audiences, especially young people. And Julie's Bicycle is extending its work beyond music and beyond the UK – there is no shortage of appetite from creative people to get on and do something, of that I am certain.

Our work with arts and culture also extends to video gaming: Red Redemption is creating games that connect players with climate change issues. Scientists provide the data, models and decision rules for simulating climate change impacts and negotiations and the company develops an engaging interface that invites players to destroy or save the planet – hopefully learning more about climate change and its solutions in the process. An early version of the game – Climate Challenge – was played by thousands of people on the BBC website⁴.

It is interesting to note that all the contributors to this collection of essays have been inspired by one or more of these organisations but have moved forward in many different directions. Which is precisely the point. None of these organisations are overly prescriptive; they are all introducing information about the realities of climate change and its consequences to the creative community and hoping that this very creativity will respond in

exciting ways that produce some shifts in art and in practice.

Traces of the encounters between climate science and arts and culture were evident at the recent climate summit in Copenhagen especially in the side events around the city that included or presented artists and their work and in the announcements of the UK music industry to international leaders about their commitments to reduce emissions. Although Copenhagen produced a weaker agreement than many had hoped for I remain optimistic that the world can rise to the challenge of creating a safe climate. The negotiations will continue over coming months. The consequences of inaction do not bear thinking about: so we must remain hopeful and energetic.

Nick Stern, a distinguished economist who convinced many that acting now on climate change will be much less costly than dealing with the damages later, has also remained positive, writing that international agreement

...will allow us to avoid the profound risks of climate change, to overcome poverty worldwide and to usher in an exciting new era of prosperity based on sustainable low-carbon growth. Through innovation and investment in new greener and more energy efficient technologies in the next two or three decades, we can create the most dynamic period of growth in economic history. And what is more, a low-carbon world will also be quieter, cleaner, more energy-secure and more biologically diverse. Let us not allow mistrust, pessimism and lack of ambition to prevent us from achieving these aims. Instead let us have real vision and leadership in both developing and developed countries which seize the opportunities... for us, our children and future generations.

The commitment of governments, businesses and individuals is growing daily. The vulnerable island country of the Maldives is going carbon neutral, Mexico and other developing countries are limiting their growth in emissions, Wal-Mart and Tesco say they will reduce emissions in their supply chains, the finance community is seeking climate friendly investments and thousands of people in the UK have promised to cut their emissions by 10% in 2010. Although we are still some considerable way from a legally binding international agreement to combat climate change, governments are developing regulations and incentives to drive forward a low carbon society. Businesses, especially large businesses, are increasingly pre-emptive of regulation and are

⁴ <http://makesyouthink.net/games/climate-challenge/>

making concerted efforts to cut emissions. And citizen movements, such as Transition Towns in the UK that put sustainability at the core of communities, are gaining momentum.

Stern has noted climate change is the ultimate collective action problem because the solutions require many to act. So given the challenges of communicating the issues, the search for creative solutions, and the need to broaden the scope of business responses to climate change there are powerful reasons to engage the arts and the cultural sector. We need arts and culture more than ever to be a hugely contributing voice: commenting on, shaping, consolidating and magnifying the positive responses of governments, business and citizens.

From my perspective as a scientist the arts seem able to provoke and inspire reactions, values and practices that could move global society to a more sustainable future. The arts have the potential to lead a response to climate change through both creativity and exemplary practice. The arts bring together those individuals who live for the practice of creativity, inspiration and ideas – and who often challenge the status quo through critique and alternative visions. The arts have begun their own efforts to catalyse the cultural shift of consciousness that will put sustainability at the heart of society. Now the early arts adopters need to scale up internationally, and perhaps then their audiences will begin to perceive what scientists have failed to express.

Scientists can listen to our colleagues in the arts to better understand their audiences, know what is useful information and research, and to make sure communication is not one way. We must be careful not to cast the arts and cultural sectors only as skilled communicators and marketers of climate change science and solutions, but also to share their insights into human emotions, cultures, technologies and business practices that can help better manage the planet. And getting out a message on climate change is not simply down to the artists or art. We all need the active support of international cultural structures and institutions that support the arts, foster cultural relations and have global reach.

Building the trust to collaborate takes time, as well as financial support for what may sometimes appear to be risky scientific, creative or business initiatives, but the immediacy with which deep action is needed means that we do not have time to lose.

contributors

antony gormley

Over the last 25 years Antony Gormley has revitalised the human image in sculpture through a radical investigation of the body as a place of memory and transformation, using his own body as subject, tool and material. Since 1990 Gormley has expanded his concern with the human condition to explore the collective body and the relationship between self and other in large-scale installations. He has created some of the most ambitious and iconic works of contemporary British sculpture, including *Field*, *Angel of the North* at Gateshead, *Quantum Cloud* on the Thames in London, and *Another Place*, now permanently sited on Crosby Beach near Liverpool. His work has been exhibited extensively at major international galleries and museums including the Tate, Hayward, Whitechapel and Serpentine galleries in the UK; the Museum of Modern Art in New York; the Los Angeles County Museum of Art; the Louisiana Museum in Humlebaek and the Irish Museum of Modern Art in Dublin. Antony Gormley was born in London in 1950.

british council

The British Council is the United Kingdom's organisation for international cultural relations and educational opportunities. While fostering inter-cultural understanding, positive social change and supporting the UK's creative and knowledge economy, the British Council has also made climate change a strategic priority; assisting the UK Government's international objectives to lead a faster transition to sustainable, low carbon economies.

jay griffiths

Jay Griffiths is the author of *Pip Pip: A Sideways Look at Time* which won her the Barnes & Noble Discover award for the best new non-fiction writer published in the USA. Her second book, *Wild: An Elemental Journey* was shortlisted for both the Orwell prize and for the World Book Day award. It was the winner of the inaugural 2007 Orion Book Award in the USA. She has recently completed a short novel to be published in 2010, and written articles and columns for publications including The Guardian, the London Review of Books and The Idler. She has broadcast on Radio 4 and the World Service. She lives in Wales.

julie's bicycle

Julie's Bicycle is a not for profit company committed to tackling climate change in the creative industries. The organisation is a broad coalition of industry, science and energy experts who have come together to find the most effective ways of reducing carbon emissions and promoting environmental sustainability. Julie's Bicycle researches priority areas which have a significant impact, including recording, touring, venues and events. The team provide advice and support, audits and tools to help companies develop more climate responsible businesses.

kt tunstall

A singer-songwriter and guitarist born in Scotland, KT burst into the public eye with a live solo performance of her song "Black Horse and the Cherry Tree" on Later...with Jools Holland. Her debut album was released in late 2004 and reached Number 3 in the Album charts. The album also scooped a nomination for the Mercury Music Prize in 2005, and 2006 she received three BRIT nominations, successfully winning the award for Best British Female Solo Artist. KT won the coveted Ivor Novello Award for Best Song, for "Suddenly I See", and a Q Award for Track of the Year for "Black Horse and the Cherry Tree".

KT's home has undergone an eco-transformation – her new studio and loft extension uses reclaimed wood, sheep's wool wall insulation, spray taps and solar panels. KT was invited to journey to the arctic with Cape Farewell in September 2008, a UK based arts organisation bringing artists, scientists and communicators together to instigate a cultural response to climate change. She is leading 'GreenmyBand' which will offer advice and support to artists acting on climate change working with Julie's Bicycle.

professor diana liverman

Professor Diana Liverman (*PhD UCLA, MA Toronto, BA London*) Diana Liverman holds appointments at Oxford University and the University of Arizona. At Oxford she is visiting Professor of Environmental Policy and Development and affiliated with the Environmental Change Institute (ECI), the School of Geography and Environment and Linacre College. She is the former director of ECI. At the University of Arizona she is Professor of Geography and Development and Co-director of a new university-wide Institute of the Environment. Her leadership roles include co-chairing the U.S. National Academies Panel on Informing America's Climate Choices, chairing the scientific advisory committee of the International Global Environmental Change and Food Security project and editing the Annual Review of Environment and Resources.

Her main research interests include climate impacts, vulnerability and adaptation, and climate policy especially the role of business, NGOs and the developing world in both mitigation and adaptation. She also works on the political economy and political ecology of environmental management in the Americas, especially in Mexico. She has made substantial contributions to our understanding of vulnerability to climate change and to developing larger research agendas on the social sciences of global change. Diana sits on the boards of Cape Farewell, Julie's Bicycle and Tipping Point.

professor tim jackson

Tim Jackson is Professor of Sustainable Development at the University of Surrey and Director of the Research group on Lifestyles, Values and Environment (RESOLVE). Funded by the Economic and Social Research Council, RESOLVE explores the links between lifestyles, societal values and the environment. In particular, RESOLVE aims to provide evidence-based advice to policy-makers in the UK and elsewhere who are seeking to understand and to influence people's energy-related behaviours and practices. Since 2004 Tim has been Economics Commissioner on the UK Sustainable Development Commission and is the author of their report, now updated and expanded in the book *Prosperity Without Growth: Economics for a Finite Planet* (Earthscan 2009). In addition to his academic work he is an award-winning playwright with numerous radio-writing credits for the BBC.

appendices

i) overview of UK cultural policy and climate change 29

ii) resources and tools 37

iii) glossary 39

sir nick serota
director of tate

**‘WE SHOULD ALL NOTE
OUR RESPONSIBILITY TO
HAND OVER OUR
INSTITUTIONS IN A
SUSTAINABLE SHAPE,
WHETHER THAT IS ABOUT
ENERGY CONSUMPTION
OR THE WAY OUR
INSTITUTIONS ARE RUN;
AND UNLESS WE
RECOGNISE THAT CLIMATE
CHANGE IS A MAJOR
INTEREST FOR OUR
PUBLIC, ESPECIALLY
YOUNG PEOPLE, WE WILL
FORFEIT OUR RESPECT IN
RELATION TO THAT
PUBLIC.’**

State of the Arts conference, London, January 2010

appendix i) overview of UK cultural policy and climate change

This overview has focused on UK cultural bodies to provide a context for British Council policy thinking and to look at one country in depth. The UK is the first country to adopt a Climate Change Act and legally binding carbon budgets; this survey reveals how such national policy is beginning to work its way through to the sector-specific level.

The starting point is the government Department for Culture, Media and Sport (DCMS). The DCMS will be responsible for achieving emissions reductions within their sectors, in line with targets set out in the five yearly carbon budgets. A carbon reduction plan is expected in Spring 2010 and DCMS have produced a sustainable development action plan (published in 2008). More than 60 bodies receive funding from the DCMS. We highlight those that are responsible for providing funding, setting policy or guidance. Therefore we do not discuss in any detail the practices undertaken by arts and cultural institutions that are directly sponsored as non-departmental public bodies (NDPBs).

Climate change policy and practice within the cultural sector focuses largely on process (DCMS, UK Film Council (UKFC)), the built environment (Arts Council England (ACE), Commission for Architecture and the Built Environment (CABE), English Heritage, Heritage Lottery Fund (HLF)), procurement (CABE) and artistic programming (UKFC, ACE, Design Council).

Most initiatives are still voluntary, or 'for guidance' rather than mandatory. The DCMS and the cultural bodies it funds directly are now required to internally reduce emissions but this requirement is not yet being passed on more broadly.

The sector's special capacity to engage and influence the public is also acknowledged. CABE argues that arts buildings should be required to go beyond minimum standards as they are in a position to showcase their actions. More than many other economic sectors, the steps taken in the cultural and creative industries are on display.

Climate change mitigation and adaptation require a collective shift in consciousness and behaviour. The cultural sector is a primary means by which to reflect, comment on and encourage this shift.

National (UK)

Department for Culture, Media & Sport (DCMS)

DCMS is the central government department responsible for arts, culture, sport, museums, galleries, libraries, creative industries, film, the historic environment, Royal Parks and the 2012 Olympic Games & Paralympic Games. It oversees 55 public bodies, including 46 non-departmental public bodies (NDPBs) responsible for delivering its aims and objectives. *DCMS Sustainable Development Action Plan 2008-11 sets out the department's response to climate change and other aspects of environmental, social and economic sustainability.*

Internally, DCMS is taking steps to reduce the carbon impact of its operations. Like all government departments, it must meet targets set out in *Sustainable Operations on the Government Estate (SOGE)*, and participate in the Carbon Reduction Commitment (CRC). DCMS property is benchmarked and must meet Energy Performance Certificate (EPC) and Display Energy Certificate (DEC) standards. Management information and data systems have been established in order to comply with ISO 14001 and the Carbon Trust Standard (formerly the Energy Efficiency Accreditation Scheme). Environmental champions have been appointed to raise staff awareness. *DCMS Sustainable Development Action Plan 2008-11 (Aug '08)*

Research was commissioned in 2007/08 to inform the Action Plan, including a review of existing literature on the effect of climate change on cultural and sporting assets, and a carbon footprint assessment of DCMS and 18 of its sponsored bodies and cultural institutions. These indicated that the evidence base was relatively

limited, and that many of the DCMS bodies were unable to provide adequate information (within the research timeframe) to assess carbon impacts. A conference on climate change was also organised in early 2008 to raise awareness and build consensus among 'DCMS family' organisations.

Full Review of the Literature Consisting of 10 Matrices on the Effect of Climate Change on Cultural and Sporting Assets. (March 08), DCMS Group Carbon Footprint Assessment (April 08), DCMS Family Climate Change Conference Report (Jan 08)

As a result of these initiatives, the DCMS Sustainable Development Forum and Museums and Galleries Energy Forum were established, with representatives of sponsored bodies and institutions, to share information and best practice. A 'Pathways to Sustainability' section hosts information links on the DCMS website, including a carbon management guidance tool. <http://bit.ly/400Vap>

NDPBs are responsible for developing their own action plans and targets, and conducting their own reporting – including with regard to energy and utilities. As outlined below, the extent to which different bodies are achieving these aims is variable. Technically, many sponsored bodies (with larger buildings, estates, energy use) should also meet the same government targets as DCMS under SOGE, EPD, DEC etc. It is not clear to what extent all are currently engaged.

Most of these measures relate primarily to internal processes and operations of NDPBs and institutions.

Climate Change does not feature prominently in the major DCMS policy documents which set out the Government's strategic aims and objectives for the cultural sector and creative industries in the UK. For instance, the *McMaster Review* of arts policy and funding was published in 2008 after an extensive consultation, and warmly welcomed by many in the cultural sector, but it makes no mention of climate change. Similarly, climate

change is barely mentioned in either the *Creative Britain* report of 2008 or in 2009's *Digital Britain* report. Emissions associated with digital information are significant.

Supporting Excellence in the Arts (2008), Creative Britain: New Talents for the New Economy (2008), Digital Britain: Final Report (2009)

DCMS has published an action plan for sustainable tourism which includes a short section outlining tourism's impact on climate change. This encourages the tourism sector to engage more fully with sustainability agendas, and provides information on a range of relevant resources and initiatives, such as the Adapting to Climate Change Programme (ACC) and UK Climate Impacts Programme. The action plan advocates voluntary rather than mandatory action, except where tourism is already governed by existing laws (e.g. Climate Change Act).

Sustainable Tourism in England: A framework for action - Meeting the key challenges (2009), <http://bit.ly/MjK0I>

Department of Energy and Climate Change (DECC)

DECC is the central government department responsible for energy and climate change mitigation policy.

DECC have recently undertaken an investigation of climate change and the cultural and creative sector. Undertaken by artist Keith Khan it investigates the role the arts can play in communicating climate change to the public.

The report will identify where DECC should work more closely with the cultural and creative industries to help its climate change objectives, in particular where DECC can leverage leadership, partnerships, expertise, and funds to support the sector's response to climate change.

Climate Change and the Cultural and Creative Sector, internal publication only, January 2010

DECC's Act on Copenhagen campaign in the lead-up to COP15 included a 'culture' strand, acknowledging the role the arts, culture and creative industries can play in reaching out to society and

"mainstreaming the climate change message." The campaign launched at the Isle of Wight Festival 2009. acton copenhagen.decc.gov.uk/

Arts Council England (ACE)

ACE is the national development agency for the arts in England. It is a government sponsored non-departmental public body with a national headquarters and nine regional offices. It supports visual arts, music, theatre, dance, literature, carnival and digital art, and is responsible for distributing National Lottery funded grants to artists and organisations.

In January 2010 ACE launched its consultation Achieving Great Art for Everyone which builds on previous work to define how it will work with artists and arts organisations to create positive change for the arts over the next ten years. The consultation's vision for the future includes an arts sector that is sustainable, resilient and innovative.

artscouncil.org.uk/consultation

This will be a period for which, it acknowledges, climate change will be central to all our thinking. "Artists and organisations are playing an inspiring role as society prepares to meet the challenge of a low-carbon economy – now viewed by many as the single biggest issue humankind faces. However, the need to adapt capital infrastructure and to evolve new approaches to touring and international work are challenges that are only beginning to be addressed."

Consultation preface, Dame Liz Forgan artscouncil.org.uk/consultation/preface

In parallel with the launch of its consultation, Arts Council England has recognised the significance of environmental sustainability for itself and the arts in England. ACE is committed to working with others to develop sustainable practice within the arts; the sustainable operation of its own buildings and processes; supporting and championing the arts' role in communicating and exploring the issue

ACE has funded arts organisations and

individual projects focused on climate, e.g. Tipping Point, Cape Farewell, Julie's Bicycle and Arcola Theatre. It provides the online resource Arts Energy, a self-assessment efficiency toolkit for arts organisations. The RSA Arts & Ecology centre is a partnership with Arts Council England.

artsenergy.org.uk

rsaartsandecology.org.uk

Internally ACE is improving its energy management procedures and submitted a carbon footprint measurement of 1400 tonnes (t) of Carbon Dioxide (CO₂), equivalent to 2.18t per full-time equivalent for the OGC property benchmarking exercise 2008/2009.

ACE measures and reduces energy, consumables, water, waste, travel and staff engagement in all its offices, utilising video conferencing to reduce travel. Offices over 1000 m² have Display Energy Certificates (DECs). In 2009 Arts Council England's Yorkshire office was awarded two Green Business Awards. ACE has signed up to the 10:10 campaign.

OGC Property Benchmarking Service 2008/2009 Performance Statement Prepared by IPD

ACE Trustees and Management also address 'Responsibility Towards the Environment and Sustainable Development' in the Annual Review 2009.

'Best practice in the management of energy use' has been introduced as a criteria in grant assessments for regularly funded organisations (RFOs).

With Commission for Architecture and the Built Environment, (CABE), ACE has published a practical guide to developing capital projects for the cultural sector that are sustainable and energy efficient in every respect (see below).

Guidance for Arts Council England lead officers on funding agreement 2009/10 –2010/11

On an individual, project-by-project basis, ACE regional offices have supported a range of environmentally-themed art works, and continue to do so.

British Council

The British Council is the United Kingdom's organisation for international cultural relations and educational opportunities. While fostering inter-cultural understanding, positive social change and supporting the UK's creative and knowledge economy, the British Council has also made climate change a strategic priority; assisting the UK Government's international objectives to lead a faster transition to sustainable, low carbon economies.

To support this priority the British Council is developing a new programme, Arts, Climate Change and Sustainability, which aims to harness and extend the interest in environmental sustainability shown by the UK arts communities and promote best practice internationally. Support for an international series of Tipping Point conferences for artists and scientists, and Julie's Bicycle research into the carbon impacts of UK theatre touring are early examples of this. The programme will include support for artistic work that inspires and demystifies the climate change debate, dissemination of industry best practice and the development of international strategy to support this work in collaboration with other funding agencies.

britishcouncil.org/climatechange.htm

At the operational level the British Council have developed and maintain a formal certified environmental management system for its three largest UK premises. The principles of environmental management and the objectives of the British Council will be applied to all other UK premises and a framework for environmental management (Environmental Framework Tool) has been rolled out to their global overseas estate.

Commission for Architecture and the Built Environment (CABE)

CABE is the UK government's adviser on architecture, urban design and public space.

Sustainability is one of CABE's nine core areas of work. It aims to 'embed

sustainable design' in all of its work, including its Design Review function (e.g. assessing plans for 2012 Olympic venues). Much of its other work around energy and sustainability centres on research, disseminating best practice and information resources. Sustainability is also central to several main programme strands, including sustainable cities, public spaces, better public buildings, schools, home-building and eco-towns.

Internally, CABE has a particularly advanced environmental strategy. Rigorous and detailed sustainability audits (carbon footprint and wider ecological impacts) carried out in 2006 and 2008 also took into account its influence on stakeholders, for example through procurement. CABE aims to be carbon neutral by 2012 through a combination of emissions reductions and compensation via funds for UK-based, building and energy-focused projects.

cabe.org.uk/corporate/sustainability-plan

It published a briefing on *Sustainable Design, Climate Change and the Built Environment* in 2007 – stating that the “aim is to frame everything we do within the context of sustainable design and climate change.” The briefing set 8 objectives designed to promote this stance for 2007-2009, and called on government to extend legislation, build more stringent sustainability criteria into public contracts, demand better monitoring data, local authority planning and joint working with the private sector. CABE also co-organised the first Climate Change Festival in 2008.

Sustainable Design, Climate Change and the Built Environment (2007). <http://bit.ly/3lpV0P> climatechange-festival.org.uk/

CABE produced *Building Excellence in the Arts* with ACE, a guide to developing sustainable cultural buildings. The guide stresses the need for sustainability to be integral to every aspect of building design, materials, life-long energy requirements, usage, management etc. It argues that arts buildings should meet higher standards than minimum building regulations in

order to showcase best practice. *Building Excellence in the Arts* (2009) <http://bit.ly/2af6Dr>

Design Council

The Design Council is the national strategic body for design in the UK. Joint responsibility of Department for Business Information and Skills (BIS) and DCMS.

Although climate change is mentioned in the foreword of the current Design Council delivery plan, it is not referenced as a major element of the organisation's five main objectives. However, Design Council believes that 'good design is sustainable design', and this should have a role in broader concerns, such as the role of design in meeting the UK's social and economic challenges.

Good Design Plan: National design strategy and Design Council delivery plan 2008-11

Some sustainable design resources and case studies are provided on the Design Council website, and it has funded sustainable design projects in the past (for example this was an aspect of the 'Designs of The Time' programme)

designcouncil.org.uk dott07.com

English Heritage

English Heritage is the UK government's statutory adviser on the historic environment (in England).

Along with CABE, English Heritage is substantially addressing climate change.

Climate Change and the Historic Environment (2008) outlines the potential risks to the historic environment (e.g. from coastal flooding), and advocates strong action. It aims to use its own sites to trial mitigation technologies and strategies and demonstrate these to the public (for example alternative energy). English Heritage advises on optimising efficiency of old buildings without compromising historic significance. *Climate Change & The Historic Environment* (2008) <http://bit.ly/1zOLRJ>

In addition the English Heritage website provides more detailed research and guidance on specific issues, such as micro-generation and solar thermal energy.

<http://bit.ly/12F7vE>

English Heritage delivers the Historic Environment Local Management (HELM) programme, providing advice on the management of local historic environments by local authorities and others, including on energy efficiency and environmental sustainability. It provides information and advice on energy efficiency in older homes and historic buildings through a web resource with energy provider E-On. helm.org.uk

English Heritage works closely with the Heritage Lottery Fund (see below) and National Trust on climate change and environmental sustainability. climatechangeandyourhome.org.uk

Heritage Lottery Fund (HLF)

The Heritage Lottery Fund distributes National Lottery funded grants to local, regional and national heritage projects in the UK, including those relating to historic buildings and monuments.

Sustainable development is one of fifteen 'policy directions' set for the lottery distributor by government. Climate change is identified as one of the key challenges for the heritage sector, and environmental impact and use of resources have recently been strengthened as assessment criteria in funding applications.

Business Plan 2009, Annual Report 2008-09

Planning Greener Heritage Projects outlines a range of factors that capital projects funded by HLF should address long-term, including energy efficiency, renewable energy, water, building materials, construction waste, soil, timber, biodiversity and visitor transport. There are no minimum required standards for buildings in conservation areas but grant applicants must address these issues in detail. Larger capital projects must prepare management and maintenance plans,

including environmental monitoring and control. All new build projects must exceed minimum statutory Building Regulations for energy efficiency; refurbishment projects should aim to meet at least minimum Building Regulations for energy efficiency, unless these pose an overriding threat to the building's cultural significance. *Planning Greener Heritage Projects (2009)* <http://bit.ly/9sAZU>

HLF will consider funding up-front costs for more sustainable options (e.g. energy) even if there are cheaper alternatives.

Museums Associations

An independent membership association for sector professionals, institutions and corporates working in UK museums, galleries and heritage. *Sustainability and museums, Report on consultation (2009)* <http://bit.ly/5KQTE3>

In summer 2008 the Museums Association ran a consultation about sustainability and museums. The consultation focused on sustainability in its broadest economic, social and environmental sense. Discussions with over 600 individuals led to the development of 11 key sustainability principles for museums, a sustainability checklist from which museums can build an action plan, and the development of ongoing resources.

The Museums Association has also developed an internal action plan, formed a staff group to champion sustainability, and senior managers are looking in detail at energy use, print, paper and waste.

Museums, Libraries and Archives Council (MLA)

The MLA is the UK government's strategic body for museums, galleries, libraries and archives. *Corporate Plan 2008-11*

Sustainability is central to much of the MLA's work with a strong emphasis on social and economic sustainability. Its strategic priorities are 'Learning & Skills', 'Communities' and 'Excellence'.

MLA co-funds an online resource 'Designing Libraries', which includes links (mostly external) to information about energy efficiency and sustainable design. designinglibraries.org.uk

Although MLA does not provide strong strategic leadership on the subject, many individual museums, galleries and libraries are responding to the climate change and energy efficiency agendas. These include many of the major national institutions, which are funded directly by DCMS, such as the Science Museum, National Portrait Gallery, Imperial War Museum, V&A and Tate. The South Kensington Low Carbon Futures initiative aims to reduce carbon emissions by 10% between 2005 and 2009 across the 35 hectare South Kensington cultural and museum site including the Natural History Museum, Science Museum, V&A and Imperial College as well as the Royal Albert Hall.

National Museum Directors' Conference

The NMDC represents the leaders of the UK's national collections and major regional museums. These comprise the national museums in England, Scotland, Wales and Northern Ireland, four leading regional museums, the British Library, National Library of Scotland, and the National Archives. While its members are funded by government, the NMDC is an independent, nongovernmental organisation.

In responding to climate change, NMDC has focused on the unique challenge museums face addressing sustainability while maintaining optimal environmental conditions for collections. One of the main obstacles is the requirement to adhere to international standards, which do not reflect the realities of different climatic conditions or needs of different objects. To achieve real change, this issue calls for not just national, but international cooperation. To address this the NMDC convened a group of conservators from across its membership to identify issues and areas for concern and to set out how an international group of conservators

might liaise. NMDC has developed a set of interim guiding principles for rethinking policy and practice which members have adopted, signaling a move towards a less energy intensive approach to collections care. The need for further research was also identified, and priorities set out at a series of discussions conducted with the National Archives, with funding from the Arts and Humanities Research Council. A report is expected in 2010 from the National Archives.
<http://tinyurl.com/ygfmof4>

RSA (The Royal Society for the Encouragement of Arts, Manufacture and Commerce)

The RSA develops and promotes new ways of thinking about human fulfilment and social progress through research, projects and providing platforms for leading experts to share new ideas on contemporary issues.

The RSA established the RSA Arts & Ecology Centre in 2005 to catalyse, publicise, challenge and support artists who are responding to the unprecedented environmental challenges of our era.
artsandecology.org.uk

Between 2006 and 2008 the RSA developed Carbon Limited. The project explored the role personal carbon trading could play in stimulating the behaviour change necessary to reduce the UK's carbon consumption. It has since been handed over to the Local Government Information Unit (LGIU).
A persuasive climate: Personal trading and changing lifestyles (2008)
<http://bit.ly/8xdh90>

The RSA Arts & Ecology Centre is working with Peterborough's Citizens of the Future project, where a particularly forward-thinking administration, working with Arts Council East, is setting itself the goal of transforming itself into a flagship of sustainability. The RSA Arts & Ecology Centre will facilitate an understanding of how art can help people re-envision a place, and transform people's fundamental relationships within it.

Sport England

Sport England distributes government and National Lottery funding to support participation in sport in local communities.

Sport England states that it 'supports environmental objectives and have strengthened the environmental advice in our published design guidance'.
Sport England Annual Review 2008-09

One of Sport England's roles is to provide advice to local authorities and others on the development of new sports facilities and infrastructure. Environmental sustainability is one of the principles informing how Sport England engages with the spatial planning system. It works with partners and advises them on how to build environmental sustainability goals (among other aims) into regional spatial strategies.
Spatial Planning for Sport and Active Recreation (2005)

Sport England provides design advice to those planning new sports facilities, including guidance on environmentally sustainable buildings, taking into account issues such as design, materials, energy, heating, management and transport.
Environmental Sustainability: Promoting Sustainable Design for Sport (2007)
<http://bit.ly/1JhDjQ>

2012 London Olympic and Paralympic Games

The Government Olympic Executive (GOE) is part of the DCMS and exists to provide oversight and assurance of the entire Olympic and Paralympic Programme. A commitment to sustainability was a key element of London's Olympic bid, inspired by the WWF/BioRegional concept of 'One Planet Living'. The *London 2012 Sustainability Plan* sets out the organisers' objectives across a number of cross-cutting themes, including climate change, waste and biodiversity, as well as inclusion and healthy living. These are applied to every aspect of the Games – design and build of the Olympic park, procurement and

materials, transport, venue operations, catering, legacy planning etc. and success will be measured by an independent Commission for a Sustainable London 2012 – the first body of its kind in the history of the Games.

Towards One Planet: London 2012 Sustainability Plan (2007)

The Cultural Olympiad is a programme of cultural performances, activities and events throughout the UK to celebrate the Olympics, taking place between 2008 and 2012. All projects must embrace the Cultural Olympiad values, and adopt three of its six themes, one of which is to 'raise environmental sustainability, health & well-being issues through culture and sport'.
<http://bit.ly/91rqBI>

Some projects selected for 'Artists Taking the Lead' (part of the 2012 Cultural Olympiad) reflect climate change and environmental issues, notably *nowhereisland* by Alex Hartley and *Flow* by The Owl Project/Ed Carter.
artiststakingthelead.org.uk/

The Theatres Trust

The National Advisory Body for Theatres in the UK, the Theatres Trust works to protect theatre buildings by promoting their importance and providing advice on planning, building, restoration, development and use for the benefit of the nation.

The Theatres Trust is responsible for ensuring the theatres sector's compliance with EU legislation on the Energy Performance of Buildings (Display Energy Certificates and Energy Performance Certificates).

A conference on Building Sustainable Theatres in 2008 was followed by participation in the Green Theatres programme supported by the Mayor of London. With funding from the European Regional Development Fund (ERDF) via the London Development Agency (LDA), the Theatres Trust has also developed ECOVENUE, a theatre-specific, environmental business support project for 48 theatre and performing arts venues across London.

It aims to achieve quantifiable improvements in the environmental performance of London's theatres. Theatres will be provided with advice to develop Environmental Policies and achieve Display Energy Certificates (DECs). Savings made will help to deliver the Mayor of London's Green Theatre Plan, which aims to help theatres achieve reductions in carbon emissions by 60% from 1990 levels by 2025.

ECOVENUE <http://bit.ly/8uoITN>

UK Film Council (UKFC)

The UK Film Council is the Government backed lead agency for film in the UK ensuring that the economic, cultural and educational aspects of film are effectively represented at home and abroad.

UKFC website states that 'as a Non-Departmental Public Body, the UKFC is required by its sponsoring department in government, the DCMS, to put in place policies to reduce its own reliance on energy from fossil-fuel sources and to reduce its waste as part of its contribution to the Government's Sustainable Development Action Plan.'

As with other lottery distributors, UKFC must take into account policy directions defined by the Secretary of State for Culture, Media and Sport. These were updated in 2008 and include 'the need to further the objectives of sustainable development'. UKFC states that it is supporting digital technology, and that 'on location filming of any Lottery-funded film, producers are expected to be sensitive to the needs of the environment and the use of natural resources'.

UK Film Council Group and Lottery Annual Report and Financial Statements 2008/09 (2009)

The UKFC commissioned research in 2007, which focused on the implications of climate change and made recommendations for an environmental strategy for UK film. These included: adopting internal UKFC environmental management system with long-term goals; working with the film industry to define a strategy for

environmental sustainability, with targets; identifying best practice and knowledge base – e.g. green filming guides; providing training – e.g. to all UKFC-funded productions; developing a BSI standard for film.

UK Film Council Group and Lottery Annual Report and Financial Statements 2008/09 (2009)

Since then, UKFC has carried out an internal audit and formed industry working groups for each part of the supply chain. Links to useful resources are provided on its website, plus a short 3-page briefing note, *Change the Way You Work*. An official Environmental Strategy for UK Film is yet to emerge, and environmental considerations do not appear to be built into funding criteria.

Change the Way You Work
ukfilmcouncil.org.uk/14347

UKFC has funded productions that address climate change. For example, in 2008/09, it awarded £99,360 to Dogwoof distributors towards Franny Armstrong's *The Age of Stupid*.

UK Sport

UK Sport works in partnership with the home country sports councils and other agencies to lead sport in the UK to world-class success. UK Sport is responsible for managing and distributing public investment and is a statutory distributor of funds raised by the National Lottery.

UK Sport produced *Practical Environmental Guidelines* for venue managers and event organisers on how to stage a 'green' event, drawing from UK Sport's experience supporting the staging of numerous Commonwealth, European and World Championships on UK soil over the last few years. *Practical Environmental Guidelines Published 2002 (hard copy only)*

UK Sport has undertaken various pieces of research to evaluate the impact of major sporting events at a regional and national level. The next report will include a consideration of environmental issues alongside the economic and social impacts.

Visual Arts and Galleries Association (VAGA)

VAGA is a leading independent body and UK-wide professional network promoting the visual arts and representing the interests of organisations and individuals working in all aspects of the presentation and development of the visual arts.

<http://bit.ly/8Vplim>

VAGA has committed to addressing climate change with its members and its own day to day practices. It established a Climate Change and the Visual Arts Working Party in late 2009 and is developing a programme of practical seminars for its members. It is also working with Julie's Bicycle to review sustainable practice within the visual arts sector.

VisitBritain

VisitBritain is Britain's national tourism agency, responsible for marketing Britain overseas and within the UK itself.

Sustainability is a key policy area for VisitBritain. It has partnered with DCMS and VisitLondon in the development of a new sustainable tourism framework which encompasses economic, social and environmental considerations. *Winning: A tourism strategy for 2012 and beyond* published the results of the consultation on the new framework.

The framework itself includes an update to the National Sustainable Tourism Indicators first published in 2006, which include carbon emissions, energy efficiency and transport. Targets may be considered when the indicators are next reviewed in 2012. *Winning: A tourism strategy for 2012 and beyond (2009)* <http://bit.ly/6Z9CEC>

Sustainable Tourism in England: A framework for action - Meeting the key challenges (2009) <http://bit.ly/MjK0I>

Devolved Nations – Scotland

Scottish Arts Council (SAC)

The lead body for the funding, development and advocacy of the arts in Scotland.

SAC is due to become part of the new body Creative Scotland in 2010.

SAC and the planned Creative Scotland have aligned their priorities to five of the National Outcomes in the Scottish Government's National Performance Framework. One of these is to 'reduce the local and global environmental impact of our consumption and production'. SAC is working with the cultural sector in 2009/10 to 'develop meaningful measures, indicators and baselines'. SAC is also developing internal environmental policy and reviewing energy consumption in 2009/10.

Scottish Arts Council Business Plan 2009

Scottish Screen

The national development agency for the screen industries in Scotland.

As with SAC, Scottish Screen is due to become part of Creative Scotland in 2010. Future policy towards climate change and film will therefore be set by Creative Scotland when it becomes fully operational. Like SAC, Scottish Screen is committed to meeting Scottish Government National Outcome to 'reduce the local and global environmental impact of our consumption and production'.

Scottish Screen Corporate Plan 2009/10 to 2010/11

Scottish Screen currently states that it 'is committed to the continual improvement of its environmental performance recognising the contribution that this will make to the wider sustainability agenda in Scotland'. It aims to conform with legislation and principles of the 'greening government' agenda, to adopt energy and resource efficient practices internally (e.g. travel), to calculate its carbon footprint

and reduce it annually, and to encourage and influence those it works with.

Historic Scotland

Historic Scotland is an executive agency of the Scottish Government charged with safeguarding the nation's historic environment and promoting its understanding and enjoyment.

As part of the Scottish Government, it aims to contribute to the 'Greener Scotland' agenda, although commitment does not yet appear to be reflected in measurable targets. It aims to increase support to technical and conservation research regarding climate change to increase awareness in the sector.

Historic Scotland Corporate Plan 2008-11

Devolved Nations – Wales

Arts Council of Wales (ACW)

The lead body for the funding, development and advocacy of the arts in Wales.

Under its agreement with the Welsh Assembly Government (WAG), activities of ACW are expected to contribute to commitments of the national One Wales strategic agenda. These include promoting a sustainable environment. ACW must also meet the targets of WAG's Sustainable Procurement Assessment Framework and Sustainable Development Action Plan.

ACW Remit Letter 2008-09

ACW is reviewing its internal environmental policy 2009/10, and developing targets and actions. ACW will also address how to engage funded organisations and stakeholders in implementing and monitoring sustainable development goals, and hold workshops to communicate policy.

Operational Plan 2009/10

Film Agency for Wales

The sole agency to support and promote film in Wales. Film Agency for Wales does not appear to have any major policy or strategic commitments to address climate change and environmental sustainability.

Devolved Nations – Northern Ireland

Arts Council of Northern Ireland

The funding and development agency for the arts in Northern Ireland.

In its current five year plan, Arts Council of Northern Ireland states that it will actively support the principles set out in the Northern Ireland Executive government's sustainable development strategy, although this aim is not linked to specific measures.

Creative Connections: a 5 year plan for developing the arts 2007-2012

Regional

Greater London Authority (GLA)

The Greater London Authority is the executive body of the Mayor of London, with strategic responsibility for transport, planning, economic development and the environment in the city.

The Greater London Authority Act of 1999, gave the Mayor powers and responsibilities relating to the environment and climate change. This was strengthened in the 2007 revision to the Act by obliging the Mayor to produce statutory strategies around mitigating and adapting to climate change in London.

Whether as a direct consequence of this or not, both the previous and existing Mayoral administrations have explicitly developed work programmes around culture and the creative industries and climate change. The London Climate Change Action Plan aims to reduce the overall footprint of London's CO₂e emissions by 60% by 2025. This applies to arts and culture.

The GLA has now published three best-practice 'green guidebooks', for the theatre, music and screen industries, providing advice and case studies as to how these industries can minimise their carbon footprint. In each instance, steering groups composed of leading industry figures were established in order to ensure that analysis of how and where carbon emissions were taking place in the sector supply chains were understood and most effectively addressed. A fourth guidebook for the Visual Arts sector has now been commissioned.

greeningtheatres.com/about

juliesbicycle.com/resources/green-music-guide

filmlondon.org.uk/greenscreen

English Regional Development Agencies (RDAs)

Several of the RDAs have made considerable investment in supporting and growing creative industries since they were created in 1998. However, although they were established with a remit to promote 'sustainable economic development', they are not obliged to consider how to address climate change in their investments and interventions. Where they have done, it has tended to be through the promotion of 'green technologies' industries and supporting innovations in the environmental sector (several of them have been active in these areas), rather than as an over-arching theme which would apply to all supported sectors, such as the creative industries.

English Regional Cultural Bodies

The dismantling of the English Regional Cultural Consortia has left no strategic body capable of linking policies across the creative sectors at the regional level to broader issues such as climate change.

Individual regional cultural bodies continue to exist, such as Arts Council England's regional offices and the English Regional Screen Agencies. Regional MLA Councils have been restructured and reabsorbed into a national body; future mergers or restructures in other sectors are a possibility.

English Regional Screen Agencies (RSAs)

The network of nine RSAs has recently been strengthened with the appointment of a Chief Executive and independent Chair, increasing the likelihood of a coordinated response to climate change. Currently, this is not a priority. Activities of the RSAs differ in each region, depending on local priorities, partnerships and levels of funding. Broadly the RSAs are focused on supporting local media production, skills development, creative business support, film location services etc., and responding to government agendas such as Digital Britain.

South West Screen has adopted Green Filmmaking Guidelines, and encourages productions filming in the region to adopt them.

Green Filmmaking Guidelines (2009)
<http://bit.ly/13OtMU>

Film London has also developed the Green Screen guide and carbon calculator for filmmakers, in conjunction with industry and public sector partners, and with support from the GLA.

filmlondon.org.uk/greenscreen

Individual RSAs have also funded specific productions with ecological themes. For example, Screen South supported the documentaries *Garbage Warrior* and *The End of the Line*.

Arts Council England (ACE) Regional Offices

See the main ACE entry above.

Local Government and Culture

Local authorities are no longer obliged to produce cultural strategies. Many still do, but these tend to be aligned with local priorities around education, young people, tackling social exclusion, wellbeing, employment, business growth and regeneration. Climate change is rarely a key issue, although sustainable development in the broader sense (social, economic and environmental) may be a priority.

However, energy, climate change and the environment are becoming increasingly important issues for local authorities at the corporate level including a number of national indicators of environmental sustainability introduced in 2007 as part of a new performance framework for local government. As a result, locally-funded cultural venues and events may find themselves under pressure to improve energy efficiency and reduce emissions, while new buildings will be expected to conform to more stringent standards.

National Indicators for Local Authorities and Local Authority Partnerships: Handbook of Definitions (2008)
<http://bit.ly/4ZO3K>

Some local authorities, such as Westminster, are taking a proactive role. Launched in February 2009, the Westminster Carbon Alliance is a borough wide partnership of organisations and projects aiming to deliver carbon reduction and energy efficiency projects in Westminster. The Alliance is working with partners in the local government estate, creative industries, the voluntary sector, housing, commercial landlords and small and medium sized enterprises.

In 2008 the Leader of the Council stated that Westminster is aiming to become carbon neutral by 2012

Individual local authority cultural officers fund a wide range of small-scale and community arts projects, many of which explore environmental themes (e.g. projects with schools).

appendix ii) resources and tools

A brief guide to environmental measuring and reporting systems for the UK cultural and creative sector

Responding practically to climate change requires that arts organisations address their management of staff, systems, assets, and ways of working. One of the first steps an organisation should undertake is an audit identifying their greenhouse gas (GHG) emissions, and steps to reduce this impact. This should in turn feed into an action plan for ongoing engagement probably sitting alongside or within the organisation's environmental policy. Implementing an environmental management system that supports the action plan and environmental policy is critical to success. Therefore organisations will need to identify technical data (actual emissions sources and results, i.e. the 'carbon footprint'), practical actions and management systems to ensure a comprehensive response.

It is likely that an organisation may engage at a number of levels:

Regulatory schemes

- **Energy Performance Certificates (EPCs) and Display Energy Certificates (DECs).** Mandatory for any building being built, sold or rented, the EPC includes an A-G rating of the energy efficiency and carbon emissions of the building. DECs are required of buildings occupied by a public authority or institution and buildings more than 1,000m² in floor area
- The **Carbon Reduction Commitment (CRC)** is an emissions trading scheme that will achieve reductions and affects all government departments and large businesses whose annual half-hourly metered electricity use is above 6,000 megawatt-hours (MWh).
- **Sustainable Operations on the Government Estate (SOGE)** sets sustainability targets and reporting requirements for all central Government Departments and their

Executive Agencies, including buildings and land managed.

Voluntary, sector-specific initiatives or awards schemes

- **BSI** (British Standards Institute) and **ISO** (International Organisation for Standardisation) provide both guidance for implementing an environmental management system (see below) and a standard against which organisations can be certified by a third party assessor.
- **BREEAM** (The Building Research Establishment's Environmental Assessment Methodology) can be applied to all non-residential building refurbishments and new builds.
- The **Carbon Reduction Label** can be awarded to products or services that have undergone a life cycle analysis of their embodied emissions.
- **Carbon Disclosure Project** operates the only global climate change reporting system for any organisation wishing, or requested, to publicly report their greenhouse gas emissions and climate change strategies.
- The **Carbon Trust Standard** is awarded to organisations that measure, manage and reduce their carbon footprint.
- **EMAS** - the Eco-Management and Audit Scheme is a voluntary initiative established by European regulation to improve companies' environmental performance.
- **Industry Green** is a certification scheme tailored to the creative industries managed by Julie's Bicycle. Industry Green provides a framework for ongoing GHG emissions reductions.
- The **Greener Festival Award** scheme is based around the twin aims of promoting greener practices and promoting sustainability.
- The **Green Tourism Business Scheme** is the national sustainable tourism certification scheme for the UK.

Guidance for sustainability reporting

• GRI: Sustainability reporting guidelines

The Global Reporting Initiative (GRI) is a network-based organisation that has pioneered the development of a widely used sustainability reporting framework. They are committed to its continuous improvement and application worldwide. This framework sets out the principles and indicators that organisations can use to measure and report their economic, environmental, and social performance.

Carbon measurement methodologies

Note: these sources of guidance form the basis for many of the schemes listed above.

- **Greenhouse Gas Protocol:** The GHG Protocol is the internationally recognised standard for corporate accounting and reporting of greenhouse gas emissions developed jointly by the World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD).
- **ISO14064-1** – Greenhouse gases: A specification with guidance at the organisation level for quantification and reporting of greenhouse gas emissions and removals.
- **Department of Environment, Food and Rural Affairs/Department of Energy and Climate Change:** In line with the UK Climate Change Act 2008, DEFRA/DECC have published guidance on emissions reporting for businesses including guidance on what conversion factors to apply to the activities included within the carbon footprint.

Guidance for GHG “life cycle assessment” of a key product or service

- **PAS 2050 – Publicly Available Specification for the assessment of the life cycle greenhouse gas emissions of goods and services.**

Developed by BSI for DEFRA and the Carbon Trust, the PAS 2050 approach is different from organisational reporting as it involves assessing emissions across the “life cycle” of the product, otherwise known as the “embodied emissions”, for example from those associated with the extraction and processing of raw materials right through transport, storage, to use and disposal of the product.

- **ISO 14040 – Environmental management. Life cycle assessment. Principles and framework.**

International standards on life cycle assessment (LCA) are available in ISO14040 and 14044.

Guidance for environmental management systems

- **ISO14001 – Environmental Management System.**

Provides a framework for the development of an environmental management system and the supporting audit programme.

- **BS8555**

Building on BS EN ISO 14001 and the EU Eco-Management and Audit Scheme (EMAS), this British Standard provides guidance to all organisations on the phased implementation, maintenance and improvement of a formal Environmental Management System (EMS).

- **BS8901**

The British Standard that provides requirements for planning and managing sustainable events of all sizes and types.

Free Tools for GHG Measurement

- **Arts Energy Toolkit**

artsenergy.org.uk

Arts Council England has developed a self-assessment web-based toolkit for arts organisations to help them implement an effective energy management programme including an action plan. Measures building energy use only, in kWh but not CO₂

- **Carbon Trust** <http://bit.ly/4yoQ0K>

Web-based calculator that helps organisations calculate their annual carbon footprint using data on fuel and vehicle usage, the company’s electricity bill and employee travel. An indicator tool that uses energy bills and sector type is also available.

- **DCMS Toolkit** <http://bit.ly/5ugUFg>

A downloadable document-based toolkit that provides guidance on how to develop a carbon policy and gather data to produce an annual carbon footprint.

- **Enworks** efficiencytoolkit.net

The web-based ENWORKS Efficiency Toolkit assists businesses to improve their resource efficiency across a number of indicators including GHG emissions.

- **IG (Industry Green) tools**

juliesbicycle.com/industry-green
Web-based tools designed for the specific needs of creative sector organisations to measure and benchmark annual GHG emissions and other environmental impacts resulting from venues, festivals and outdoor events and offices.

- **Green Screen Carbon Calculator**

<http://bit.ly/4Fnocs>

A downloadable excel spreadsheet-based carbon calculator it enables setting a ‘carbon budget’ that can be managed along with the production’s financial budget, thus working towards carbon reductions.

- **Green Theatre Carbon Calculator**

<http://bit.ly/7P110t>

A downloadable excel spreadsheet-based tool that identifies which areas in a given theatre production that are the biggest generators of carbon emissions, enabling the creation of an appropriate action plan.

- **Rural Museums Network Carbon Calculator**

<http://bit.ly/76m7NI>

A downloadable excel spreadsheet-based calculator helps rural museums calculate their carbon footprint.

Free Tools for creating action plans

- **Arts Energy Toolkit** see above

- **DCMS Toolkit** see above

- **Eventberry** eventberry.com

Eventberry is a web-based tool designed to enable sustainable event management and BS8901 compliance.

Free Tool for GHG Emissions and Energy Monitoring

- **SMEasure** smeasure.org.uk

SMEasure is a web-based tool for building energy use analysis and carbon monitoring. Unlike the calculators listed above which are an annual or one-off “snapshot” SMEasure analyses building performance on a weekly basis. Using regular meter readings and incorporating weather-energy analysis, it has been developed specifically for the needs of small and medium-sized businesses.

For more extensive information please see

juliesbicycle.com/resources

britishcouncil.org/climatechange.htm

appendix iii) glossary

Carbon Dioxide. A naturally occurring gas, and a by-product of burning fossil fuels and biomass, as well as land-use changes and other industrial processes. It is the principal anthropogenic greenhouse gas that affects the Earth's radiative balance. It is the reference gas against which other greenhouse gases are measured and therefore has a Global Warming Potential of 1.

Carbon Dioxide Equivalent (CO₂e). The universal unit of measurement used to indicate the global warming potential (GWP) of each of the six Kyoto greenhouse gases. It is used to evaluate the impacts of releasing (or avoiding the release of) different greenhouse gases.

Climate. Climate in a narrow sense is usually defined as the “average weather,” or more rigorously, as the statistical description in terms of the mean and variability of relevant quantities over a period of time ranging from months to thousands of years. The classical period is three decades as defined by the World Meteorological Organization (WMO). These quantities are most often surface variables such as temperature, precipitation, and wind.

Climate change. A change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability over comparable time periods.

Copenhagen Accord. The outcome of the 15th Conference of Parties at the United Nations Conference on Climate Change held in Copenhagen in December 2009. It was hoped the Conference would replace or extend the Kyoto Protocol (see below) which will expire in 2012. However the outcome was an accord reached between the US, China, India, Brazil and South Africa which still has to be endorsed by the 193 countries at the talk in order to become an official UN agreement. Countries have been asked to submit their pledges for curbing carbon emissions by 2020, by February 1st 2010. The Accord recognises limiting temperature rises to less than 2°C above pre-industrial levels.

Direct emissions. Emissions that are produced by organisation-owned

equipment or emissions from organisation-owned premises, such as carbon dioxide from electricity generators, gas boilers and vehicles, or methane from landfill sites.

Emissions. The release of a substance (usually a gas when referring to climate change) into the atmosphere.

Global warming. The continuous gradual rise of the earth's surface temperature thought to be caused by the greenhouse effect and responsible for changes in global climate patterns.

Global Warming Potential (GWP). The GWP is an index that compares the relative potential (to CO₂) of the six greenhouse gases to contribute to global warming i.e. the additional heat/energy which is retained in the Earth's ecosystem through the release of this gas into the atmosphere. The additional heat/energy impact of all other greenhouse gases are compared with the impacts of carbon dioxide (CO₂) and referred to in terms of a CO₂ equivalent (CO₂e) e.g. Carbon dioxide has been designated a GWP of 1, Methane has a GWP of 21.

Greenhouse Effect. Trapping and build-up of heat in the atmosphere (troposphere) near the Earth's surface. Some of the heat flowing back towards space from the Earth's surface is absorbed by water vapour, carbon dioxide, ozone, and several other gases in the atmosphere and then reradiated back toward the Earth's surface. If the atmospheric concentrations of these greenhouse gases rise, the average temperature of the lower atmosphere will gradually increase.

Greenhouse gases. The current IPCC inventory includes six major greenhouse gases. These are Carbon dioxide (CO₂), Methane (CH₄), Nitrous oxide (N₂O), Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), Sulphur hexafluoride (SF₆).

Greenhouse Gas Protocol defines reporting principles and guidelines for auditing the GHG emissions of a company. Developed by the World Business Council for Sustainable Development and the World Resources Institute, it has provided the basis of international guidelines on company reporting of carbon footprints.

www.wri.org/publication/content/7778
www.ghgprotocol.org/

IPCC. The Intergovernmental Panel on Climate Change. A special intergovernmental body established by the United Nations Environment Programme (UNEP) and the World Meteorological Organisation (WMO) to provide assessments of the results of climate change research to policy makers. The Greenhouse Gas Inventory Guidelines are being developed under the auspices of the IPCC and will be recommended for use by parties to the Framework Convention on Climate Change.

Indirect emissions. Emissions that are a consequence of the activities of the reporting company but occur from sources owned or controlled by another organisation or individual. They include all outsourced power generation (e.g. electricity, hot water), outsourced services (e.g. waste disposal, business travel, transport of company-owned goods) and outsourced manufacturing processes. Indirect emissions also cover the activities of franchised companies and the emissions associated with downstream and/or upstream manufacture, transport and disposal of products used by the organisation, referred to as product life-cycle emissions.

Kyoto Protocol. The Kyoto Protocol originated at the 3rd Conference of the Parties (COP) to the United Nations Convention on Climate Change held in Kyoto, Japan in December 1997. It specifies the level of emission reductions, deadlines and methodologies that signatory countries (i.e. countries who have signed the Kyoto Protocol) are to achieve.

United Nations Framework Convention on Climate Change (UNFCCC). The Convention on Climate Change sets an overall framework for intergovernmental efforts to tackle the challenge posed by climate change. It recognizes that the climate system is a shared resource whose stability can be affected by industrial and other emissions of carbon dioxide and other greenhouse gases. The Convention enjoys near universal membership, with 189 countries having ratified.

Julie's Bicycle thanks the following:

Sian Alexander, Penny Andrews, Simon Banks, Catherine Bottrill, Tom Campbell, Sally Cowling, Peter Gingold, John Hartley, Emily Kay, Keith Khan, Colin Kirkpatrick, Catherine Langabeer, Laura McNamara, Judith Nesbitt, Sir Nick Serota, Maurice Walsh

contact details

general.enquiries@britishcouncil.org +44 (0)161 957 7775 britishcouncil.org

This publication is available to download at britishcouncil.org/longhorizons

info@juliesbicycle.com juliesbicycle.com +44 (0)20 7379 6886

>> (cont.) Manchester International Festival Manuela Zanotti Marc Garrett Marcos Lutyens
Marcus Brigstocke Margaret Atwood Maria Thereza Alves Mariele Neudecker Marije De Haas Mario
Petrucci Marjetica Potrc Mark Dion Mark Edwards Mark McGowan Markus & Daniel Freitag Marmaduke
Dando Hutchings Maroon 5 Marta Stysiak Martha Wainwright Martin Sexton Marvin & The Cats
Mary Ann Lazarus Mary Oliver Mary-Chapin Carpenter Mason Jennings Master Shortie Materials for the
Arts (MFTA) Matthew Dalziel & Louise Scullion Mau Mau Max Eastley MCPS-PRS Meadowlands
Entertainment Group Megadeth Melanie Challenger Melissa Etheridge Metal Michael Franti Michael Hopkins
Michael Kerbow Michael Landy Michael Rakowitz Michaela Crimmin Michal Bolton Michele Noach
Miles Epstein Minou Norouzi Missy Higgins Moby moe. Mojisola Adebayo Mona El Mousfy Mona
Hatoum Montreux Jazz Festival Moshi Moshi Music from Another Room Music Wood MusicMatters
My Dad's Strip Club Nathan Gallagher National Portrait Gallery National Theatre National Theatre Scotland
National Theatre Wales Neil Diamond Neil Young Nele Azevedo (Brazil) Newton Harrison Nic Balthazar
Nicholas Grimshaw Nick Cobbing Nick Edwards Nicolas Henninger Nicole Krauss Nils Norman
Nine Inch Nails Ninja Tune No Doubt Norah Jones Norman Foster Northern Stage O.A.R. Okkervil River
Oliver Hodge OpenAir St Gallen Oran Cat Orbital Orlando Bloom Oxegen Oya Festival Ozzy Osbourne
Page and Plant Paléo Festival Nyon Pamel Lastiri Panic At The Disco Paule Constable Paddington
Development Trust (PDT) Pearl Jam Peats Ridge Festival Penelope Cruz Perry Farrell (Jane's Addiction)
Pet Shop Boys Pete Seegar Peter & The Wolf Peter Clegg Peter Fend Peter Frampton Peter Gilbert
Peter L Johnson Pharrell Williams Phil Collins Phil Constable Phil Stebbing Philippe Rahm Phish
Pierce Brosnan Pink Floyd Pinkpop Planet Green Portobello Nu-Jazz Festival PPL Provinssirock
PRS for Music Pukkelpop Queensryche Rachel Whiteread Radical Nature Radiohead Ray Lamontagne
Razorlight Recoup Red Hot Chili Peppers Redell Olsen Reel Green Media REM REO Speedwagon
Respond Reverb Rheinkultur Richard Branson Richard Buckminster Fuller Richard Lerman Richard Long
Richard Mabey Richard Rogers Rip Curl Festival RiverWired Rob Newman Robbie Schoen & Isaac Frankle
Robert Bringhurst Robert Smithson Robyn Hitchcock Rock & Wrap It Up Rock Werchter Rod Dickinson
Rod Stewart Rogue Wave Rolling Stones Roo Borson Roskilde Festival Rothbury Rototom Sunsplash
Royal Albert Hall Royal Court Royal Shakespeare Company (RSC) Royal Scottish National Opera Ruisrock
Rupert Murray Rusted Root Ruth Catlow Ruth Jarman Ruth Little Ruth Tabanca Ryuichi Sakamoto
Saci Lloyd Sage Gateshead Sam Bozzo Sam Collins Samir Srouji Sandra Mendler Santana Sarah Harmer
Sarah Smizz Scenary Salvage Scott Hessels Scott Oliver Sean Bonney Sergio Vega Serj Tankian
Shambala Festival Sheryl Crow Ships & Dip V Shiro Takatani Shlomo Sienna Miller Simon Starling
Siobhan Davies Sisters of the Mona Lisa Skip Schuckmann Smashing Pumpkins SMG Europe Soleil Moon
Sonisphere Sony Music UK Sophie Calle Soul Asylum Soundgarden Southbank Centre Southbound
Festival Spencer Finch Standon Calling Stars State Radio Stella McCartney Stephen Kellogg and the
Sixers Steve Trash Steve Waters Sting Stone Temple Pilots Styx Suba Subramaniam Summer Sundae
Weekender Sunand Prasad Sunrise Celebration Festival Superflex Susan Richardson Sustainability and
Contemporary Art Sustainable Art Sustainable Dance Club Sustainable Fashion Sustainable Style Foundation
Sustainable Theatre Company Suzan-Lori Parks Suzanne Moxhay Swallow Theatre Szegedi Ifjusági Napok
T.R.A.I.L (Trail Recycled Art in Landscape) Tacita Dean Tania Kovats Tate Taubertal Festival Terje
Isungset The Center for Sustainable Practise in the Arts The City of London Festival The Cure
The Dead The Ditty Bops The Duhks The Eagles The Eco Dance The Falls Festival The Fray The Glade
The Green Theater The Junction The Laboratory of Insurrectionary Imagination The Life Poets
The Official Charts Company The Pidgeon Detectives The Presidents of the United States of America
The Roots The Story of Stuff The Swell Season The Three Tenors The Who Theatre Royal Plymouth
Third Ring Out by Metis Arts Thomas Herzog Thomas Ruff Ticketmaster Tim Dey Tim Fitzhigham
Tim Knowles Tim Lilburn T-In-The-Park Tipping Point Tom Petty and the Heartbreakers Tomas Saraceno
Tori Amos Toshifumi Matsushita Tracey Bush Tracey Emin Tracey Rowledge Tracy Moffatt
Trashcatchers' Carnival by Project Phakama UK Truck Tue Greenfort Turtuga Blanka Unicorn
United Visual Artists Universal Music V&A Van Halen Vanessa Carlton Vicky Long Vikram Seth Vince Gill
Volcano Theatre Company Von Gerkan Marg Wallflowers Warner Music Group WATT Waveform Festival
Weekend au bord de l'eau Wembley Arena Wendell Berry Werner Herzog West Beach Festival William Hunt
William McDonough William Odell William Shaw William Stanley Merwin Willie Nelson Wireless
Wolves In The Throne Room WOMADelaide Wood Workhouse Festival Wyclef Jean Wysing Arts
Xavier Rudd Yael Bartana Yann Arthus-Bertrand Yann Martel Yao Lu Yishai Orian Y-Not Young Vic
Zbigniew Kotkiewicz



JULIE'S BICYCLE 

