

Policy and Practice Series

WORLD
CITIES
CULTURE
FORUM

CULTURE AND CLIMATE CHANGE



Handbook for City Leaders

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As The World Tipped, Greenwich
Docklands International Festival,
London. Photo © Stu Mayhew,
Courtesy of Greater London Authority





Street Art in Bogotá.
Courtesy of Secretary of
Culture, Leisure and Sport
Department, City of Bogotá

Foreword

The World Cities Culture Forum believes that culture is an essential ingredient in the cities of the 21st century and that no global city can be successful without it. Our member cities have a shared commitment to weaving culture through all aspects of urban policy, like a golden thread, contributing to city reputation, environmental sustainability, economic prosperity and quality of life.

Our influential World Cities Culture Report is the most comprehensive compendium of data available on the subject, a key comparative reference point for urban policy makers. Our annual summit is a chance for city leaders to share experiences and best practice. This Policy and Practice Series is the latest strand in our programme; a series of in-depth investigations focusing on shared challenges and showcasing effective responses and case studies from our city members.

This report focuses on sustainability through the lens of the environment. It examines what cities are already doing and what more could be done in response to the defining global challenge of our time – climate change – by building culture and creativity into policies, programmes and solutions.

It is jointly produced with two partners who are at the forefront of policy and practice in this area. Julie's Bicycle is the leading organisation working across the cultural community, developing research, data, resources and strategy to accelerate cultural action on climate change and environmental sustainability. C40 Cities Climate Leadership Group works with over 80 cities to collaborate effectively, share knowledge and drive meaningful, measurable and sustainable action on climate change.

The Paris Agreement of 2015 resulted in an ambitious agreement to take concerted global action to keep temperatures below 2 degrees of warming. This, alongside the Sustainable Development Goals, is a historic opportunity to mitigate the effects of climate change and build sustainable global infrastructures and economies. And cities are at the centre of these efforts as never before, with the capacity to deliver 40% of the savings in emissions. Our survey of current activity across World Cities shows that there are a variety of ways in which culture is contributing to these efforts. But there is potential for much more to be done. Above all, city governments and city leaders can provide the narratives and incentives for policy frameworks which will bring together the myriad responses across the cultural and creative community to drive positive change, and amplify and celebrate their impact.

Mitigation, of course, is not enough; climate change is a systemic issue which requires systemic solutions, many of which are already transforming our world. But the greatest shift needed is the shift in public engagement, where the risks of climate change inaction are understood and the positive benefits of action are keenly desired. There are only so many levers a Mayor can pull. In the end, without the hearts and minds of the citizens, there is a limit to what can be achieved. Culture, as this report shows, is a powerful way of engaging citizens in this extraordinary and inspirational challenge.

This report, then, surveys the current situation in World Cities and provides practical advice on how city leaders can put culture at the centre of their plans. We hope it will inspire new policies and fresh collaborations across our member cities – and more broadly. It is the starting point in a broader initiative, to be delivered in partnership with Julie's Bicycle, C40 Cities and our member cities, which will advocate for the role of culture, showcase effective practice and co-develop a series of practical toolkits.

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**Liz Carpenter Fountain,
Austin.** Photo © Michael Knox
Courtesy of City of Austin

Introduction

Cities are uniquely positioned to tackle climate change

Cities are on the front line of climate change. They generate over 80% of global GDP and more than 70% of global greenhouse gas emissions.^{1/} Urban areas are already home to over half of the world's population, projected to rise to two thirds by 2050.^{2/} Rapid population growth in cities, coupled with the adverse effects of extreme weather events and sea level rise (with most major urban centres located on eroding coastlines) are putting increasing strain on city infrastructure systems, energy security, and water supply. Urban density also exacerbates challenges such as air pollution and the 'urban heat island effect' (where cities are significantly warmer than the surrounding area), with substantial impacts on the health and wellbeing of residents.

City policymakers can play a central role in shaping our global future. A recent report by the C40 Cities Climate Leadership Group (C40), found that if all cities above 100,000 population adopted 1.5°C action plans, they could deliver around 40% of the carbon emission savings required to limit global temperature rises in line with the Paris Agreement.^{3/}

However this will only be possible by taking an ambitious approach, developing integrated, city-wide policy that focuses on creating more sustainable, liveable, intelligently planned and greener cities, bringing together citizens, businesses, civic organisations, policymakers and investors around a collective vision.

Existing action on climate change needs to be scaled up rapidly. The level of ambition over the next 3 years will determine whether cities play their part in limiting global temperature rises. Without immediate and committed action by cities, this target will not be reached and a historic opportunity to shape our future, and generations to come, will be lost.

Climate change is a cultural challenge

Members of the World Cities Culture Forum (WCCF) understand that creativity and the arts generate financial and social capital: they are vital for the economy, as well as for health and wellbeing, social inclusion, regeneration and, perhaps most importantly, shape city identity.

Now we are recognising that culture is also essential to creating sustainable cities that are resilient, future-proofed, and much better places to live. Climate change is a systemic issue, rooted in global economic, social and cultural systems. The root cause of climate change is greenhouse gas emissions which are generated by value systems locking in unsustainable consumption, inequality and a disconnection from nature.

Climate change is a cultural challenge.

1/

Urban Development Overview. The World Bank. (2017) <http://www.worldbank.org/en/topic/urbandevelopment/overview>

2/

2014 Revision of the World Urbanization Prospects. UN Department of Economic and Social Affairs. <http://www.un.org/en/development/desa/news/population/world-urbanization-prospects-2014.html>

3/

Deadline 2020. C40 Cities and Arup Consulting (2016). http://www.c40.org/other/deadline_2020



4/

New Urban Agenda. Habitat III. <https://habitat3.org/the-new-urban-agenda>

Fruition by Matthew Hardin, Melbourne. Photo © Matthew Stanton

Making cultural policy fit for the future

Climate change is a defining challenge for world cities. Therefore it is essential to create frameworks that explicitly weave climate action into cultural policy. There are also opportunities in embracing cultural policymaking in a way that reflects the urgency and scale of necessary climate change action.

1. As a systemic issue rooted in global systems, climate change requires a fundamental change of our governance structures. Future urban planning and development strategies must be built on principles of sustainable development, as outlined in the 'New Urban Agenda' adopted at the UN Habitat III conference.^{4/} The arts and culture, as catalysts of creativity and channels for public engagement, are in the perfect place to push the trajectory of urban development and citizen wellbeing – but only if they make themselves an essential part of the narrative.
2. C40 estimates that between 2016 and 2050 an investment of over \$1 trillion will be needed for cities to meet the Paris Agreement targets. This investment could come from city administrations, utilities, the private sector, and taxpayers. The Paris Agreement has a target to unlock \$100 billion per year for climate action, and the European Union has agreed that at least 20% of its 2014-2020 budget should be directed towards this purpose. Engagement with climate change in practical, measurable ways could unlock significant new co-funding streams for the arts and culture, and ensure the sector is connected to the emerging economy of the future.
3. Public funding and support for culture is built on the foundations of its social benefit. Demonstrating that culture is addressing climate change, one of the most immediate threats to world cities, can help to ensure future public support for culture.
4. Policy should foster a resilient and future-proof arts infrastructure in cities, one that is ready to respond to climate risks, including the consequences of extreme weather events, volatility in commodity prices (including energy) and the consequent effects on city economies, reputational and economic risks of inaction, and pressure from national and international targets and regulations. If new policies require reductions in greenhouse gas emissions, are cultural organisations ready to respond? Cultural policymaking must address these issues in order to ensure that the sector remains vibrant, relevant and sustainable.

How can cities support cultural action on climate change?

Today, many cities are working to embed environmental sustainability in policy. However, not many have begun integrating culture in practical ways that support and generate creative action on the environment.

This is a missed opportunity: across the world there is an infinitely rich and growing cultural movement acting on climate change which reflects local cultural diversity and environmental contexts. This movement is using the reality of our changing climate to invigorate, inspire, and interrogate everything from creative programming to infrastructure investments to the role of cultural venues and organisations within civic society.

This report contains a selection of case studies illustrating how World Cities Culture Forum member cities and other cities across the globe are taking action, working in partnership with cultural organisations and citizens. These stories provide inspiration and practical lessons in how good cultural policy can create a framework for action, leading to environmental, social, cultural and economic benefits.

The case studies have been grouped into three overlapping and mutually supportive approaches:

1. Greening the cultural sector: providing tools, resources, and practical support (including financial mechanisms and infrastructure investments) to reduce the carbon emissions, and other environmental impacts, of the creative sector. This kind of approach can rapidly shift priorities within the sector, with transformative results across organisations including creative programming and civic engagement, and providing clearly measurable economic and environmental outcomes.
2. Citizen engagement and public awareness: supporting the role of culture and creativity in participatory policy-making and governance, making sure that city climate policy is fit-for-purpose and working with culture to increase understanding and awareness of the issues involved.
3. Cultural involvement in environmentally-led regeneration and urban infrastructure development in response to environmental challenges. This includes projects that emphasize the role of the arts and culture as laboratories to test and develop new infrastructure approaches, and policies that recognise the unique skillset that creative professionals have in devising new solutions.

Many of these initiatives are local, isolated, and small in scale. By itself, this small scale is not a problem. As Martin Boucher and Philip Loring note:

for place-based solutions, the question of scalability is somewhat different than it is for technological fixes: Place-based strategies are rarely intended to scale in a uniform or industrial way. Rather, they scale in a more cultural sense, to create a heterogeneous landscape of solutions that are similar in philosophy but often quite different in implementation.^{5/}

Good policy creates the conditions and framework for action. Through policy initiatives, cities can legitimize, structure, and support cultural action on climate change, helping to multiply initiatives, amplify outcomes, and (when necessary) create the necessary partnerships and resources for scaling up projects so that they are proportionate to the scale of the challenge.

How successful cities are over the next few years in catalysing action through their policy frameworks will influence whether or not they manage to get on the emissions reductions pathways needed to limit temperature rise to 1.5 degrees.

5/

Martin Boucher and Philip Loring, *Climate change is more than a tech problem, so we need more than a tech solution*. Ensia. <https://ensia.com/voices/climate-change-social-fix/>



14th Istanbul Biennial,
Anna Boghigian, *The Salt
Traders*, 2015. Photo © Sahir
Ugur Eren, Courtesy of IKS



6/

A United Nations framework that aims to 'end all forms of poverty, fight inequalities and tackle climate change.' <http://www.un.org/sustainabledevelopment/>

Calder – Piknic Électronik Montréal. Photo © Michel Legault, Courtesy of Ville de Montréal

Putting theory into practice

How can cities integrate environmental sustainability into cultural policymaking? Here are seven key recommendations.

1. Build interdepartmental dialogue between culture and environment departments in your city to jointly design and implement policies that align culture and environmental sustainability. Within this dialogue, explore ways in which existing city policy frameworks such as zoning, licensing, regeneration areas, green innovation hubs, and business support for carbon reduction might be adapted to encourage and support climate action in the cultural sector.
2. Integrate environmental sustainability into cultural policy statements, create action plans, and develop methods for measuring impact that can be used to evaluate and celebrate achievements.
3. Build a comprehensive dataset that makes the business case for climate action in the cultural sector.
4. Develop funding opportunities for arts and cultural organisations to develop environmentally sustainable businesses and artistic practice, and shape funding to encourage cultural organisations to participate in climate and environment related activities.
5. Work with the cultural community to find existing initiatives that can be supported and scaled up, and to co-create policy that speaks to the sector.
6. Create opportunities to exchange knowledge and skills between cities to share best practice and develop learning.
7. Actively promote culture as essential to achieving both the Paris Agreement targets and the Sustainable Development Goals.^{6/}



Seoul Street Performance. Courtesy of Seoul Foundation for Arts & Culture

WCCF Culture and Climate Change Programme

In 2017-18, the WCCF will:

- Publish a toolkit to help cities drive cultural action on climate change and environmental sustainability
- Run a dedicated policy workshop at the annual summit
- Develop a new dataset that makes the business case for climate action in the cultural sector

This research programme will be delivered in partnership with:

- Julie's Bicycle: A leading global charity bridging the gap between environmental sustainability and the creative industries <http://www.juliesbicycle.com/>
- C40: A network of the world's megacities committed to addressing climate change <http://www.c40.org/>

CASE STUDIES

APPROACH: Greening the cultural sector

Festival Fukushima! @Ikebukuro
Nishiguchi Park. Photo © Ryosuke
Kikuchi, Courtesy of Tokyo



An acrobatic dancer performing
at the Edinburgh Festival Fringe.
Photo © Janeanne Gildchrist,
Courtesy of Edinburgh Festival
Fringe Society

Green Arts Initiative

Edinburgh

Driving a low-carbon future through Scotland's cultural community

- The Green Arts Initiative is a community of organisations in Scotland committed to growing the environmental sustainability of the arts and reducing their own environmental impact.
- Coping with the diversity of the arts sector has proved to be a challenge. Peer-to-peer knowledge exchange is one way to address this.

What was the challenge?

For many arts organisations, environmental sustainability has not been a core focus in the past – but the changing funding, legislative and social environment has made it a new imperative. Climate change and our responses to it are increasingly important in our lives. In order to stay relevant, arts organisations must now become a part of the shift to a sustainable Scotland, promote sustainable change, and make it an essential part of the way they operate.

What is the project?

The Green Arts Initiative (GAI) was created by Creative Carbon Scotland and Festivals Edinburgh. It is a community of organisations in Scotland committed to growing the environmental sustainability of the arts and reducing their own environmental impact. It supports the sharing of relevant knowledge, ideas and experiences, and enhances the sustainability competencies of arts organisations across the country.

The initiative developed out of the sustainability efforts of Edinburgh Festivals, which work in partnership with the City of Edinburgh Council's Sustainable Development Unit. In 2011, Festivals Edinburgh came together with the Federation of Scottish Theatre and the Scottish Contemporary Art Network to found Creative Carbon Scotland, now the main agency for sustainability in the arts in Scotland. Creative Carbon Scotland believes arts and culture have an essential role to play in achieving the transition to a low carbon future.

In its first year, Creative Carbon Scotland came together with Edinburgh Festivals to create a Green Venue Guide, aimed at Edinburgh venues participating in the festivals. The guide successively expanded its reach to other arts companies, individual artists, agencies and organisations – leading to the creation of the Scotland-wide Green Arts Initiative (GAI) in 2013.

GAI members are recruited through a year-round open call and word-of-mouth. Any arts organisation based in Scotland is eligible to become a part of the GAI. Members are expected to commit to monitoring and reporting on their environmental impact and their approach to sustainability.

As a national body, GAI does not connect with city-specific emissions targets. However, GAI does support its member organisations to achieve their individual goals, which may



Green Arts Initiative, 51
Shades of Green Action in
the Arts. Photo courtesy of
Creative Carbon Scotland.

include engagement with the sustainability targets of their city or local authority. For example, participation in the GAI is one of the actions in Edinburgh's *Climate Change Adaptation Action Plan* for 2016-2020.

How does it work?

Members of the GAI are required to complete an annual online form surveying the sustainability activities they have undertaken. This information is then collated, analysed and shared with the community in an annual report. GAI reporting does not focus directly on carbon emissions, as carbon emissions reporting is mandated and managed by Creative Scotland, the country's major cultural funder. Instead, GAI focuses on measurement and reporting of energy and water usage, waste generation, and travel by staff and artists. It also reports on measures of conceptual engagement, including the creation of environmental policies, engagement of staff through the creation of "green teams," engagement with artists and programming artistic content relating to sustainability.

GAI members have access to one-to-one advice, regular updates on relevant events and digital branding to highlight their membership to external audiences. They also have access to online resources including:

- Guides for reporting on environmental sustainability to funders, government and other stakeholders
- Specific advice on energy monitoring and measuring for artistic tenants in larger buildings
- Over 60 case studies from other Scottish arts organisations

An annual conference is now held each autumn, facilitating face-to-face exchange among the 'green champions' of arts organisations to build the sector's capacity in the area of sustainability.

What issues has it faced? How were they addressed?

One of the main challenges has been the diversity of the arts sector. Art organisations vary dramatically in terms of their circumstances, their structures and their audiences. This makes a 'one-size-fits-all' approach impossible.

Promoting peer-to-peer knowledge exchange among organisations of a similar size, location and activity type has helped to address this challenge. Methods have included case study sharing, 'Show and Tell' conference sessions and an open-access members' map.

The long-term support and commitment of leading arts organisations have promoted and shaped the development of the initiative, and annual feedback from all members contributes to continual improvement.

What are the results?

GAI membership is becoming the Scottish industry standard for evidenced commitment to environmental sustainability. In 2013 the GAI had only 20 members. In 2015, the community doubled in size. As of 2017, it has over 170 members, working on everything from carbon emissions reduction to creating Green Teams within their staff.

Members are committed to measuring and monitoring the core environmental impacts of their work: in 2015, 69% measured energy, 86% measured waste, and 64% measured staff travel. They are also increasingly engaging in other environmental activities. These include: running staff engagement sessions; hosting themed events and programming with explicit themes of environmental sustainability; communicating sustainable travel and behaviour advice to visitors in the city; mandating low-carbon travel for artist bookings; and sustainable procurement policies.

Increasing engagement in environmental sustainability activities with artists, audiences, staff and suppliers is also becoming a higher priority.

LESSONS FOR OTHER PROJECTS

Culture organisations are diverse in size and structure. Any support to the sector must strike a balance between a few core shared principles (in this instance, measuring and monitoring) while leaving sufficient flexibility to allow organisations to create their own tailored responses.



Materials for the
Arts. Photo courtesy of
Materials for the Arts

Materials for the Arts

New York City

Reimagining waste materials as art supplies

- New York City produces more than 6 million tonnes of waste per year – and by 2030 it aims to send zero waste to landfills
- Materials for the Arts takes materials that would otherwise have gone to landfill, and provides them free of charge to arts organisations, state schools, and city agencies.
- It serves over 4700 members and collects over 1 million pounds of material per year

What was the challenge?

New York City produces more than 6 million tonnes of waste annually, making high demands on scarce landfill space. Much of the waste that is generated can be ‘creatively re-used,’ but only if re-purposed and connected with people who are interested in re-using it. Reuse is essential if the city is to meet its 0x30 goal, which is to send zero waste to landfill by 2030. This is a key component of One New York: The Plan for a Strong and Just City (OneNYC), a city plan for environmental and economic sustainability launched in 2015.

The project is also a good example of additionality: both arts organisations and state schools are often in need of materials for art projects. Arts education in particular depends on a steady supply of art materials, which are often costly. Materials for the Arts solves two problems and generates additional value.

What is the project?

Since 1978, Materials for the Arts (MFTA) has been a leader in creative reuse practices. It redirects material from New York City’s waste stream and provides it free of charge to arts organisations, state schools, and city agencies. Its dual mission is to reduce waste and to increase access to affordable arts programming across New York City.

Materials for the Arts was founded in 1978 by an employee of the City’s Department of Cultural Affairs, who put out a call on a local radio station for a refrigerator much needed by the Central Park Zoo to store medicine for their animals. Offers flooded in, and MFTA was born. It began to receive funding from the City’s Department of Sanitation in the late 1980s and became a partner of the Department of Education in 1997, expanding its services to city schools.

Today it remains a programme of the New York City Department of Cultural Affairs, with support from the Departments of Sanitation and Education. Friends of Materials for the Arts, founded in 2002, is the charitable partner that has allowed MFTA to expand operations (including its warehouse and educational programmes) through private fundraising. Friends of Materials for the Arts encompasses grants (foundation, corporate and government); earned income through fees for professional development classes, field trips and in-school work; fundraising from individuals; and fees from businesses



Materials for the Arts.
Photo © Hallie Bahn,
courtesy of Material for the
Arts

corporations for volunteering as part of corporate ‘Give Back’ days and Corporate Social Responsibility programmes.

How does it work?

Today, MFTA collects over 1 million pounds of reusable materials annually from businesses and individuals. An online donation system helps to streamline the process. MFTA has a 35,000 square foot warehouse in Long Island City, Queens, which it uses for storing donations. Rent for the warehouse is paid by the Department of Cultural Affairs.

Member organisations can visit the warehouse to pick up supplies twice weekly, on what are termed “shopping days”. Accepted donations include paper, paint, fabric, other art supplies, office supplies, computers, cameras and other electronics. MFTA also runs a Direct Donations system, which functions as a ‘Craigslist’ for member organisations.

What issues has it faced? How were they addressed?

One of the greatest challenges has been low awareness of the programme – among both donors and recipients – and low understanding of creative reuse as a practice.

To address the challenge of promoting creative reuse amongst educators and practitioners, MFTA runs a number of engagement programs through its Education Centre, Artist-in-Residence programmes, Gallery, and free monthly creative reuse workshops, MFTA engages teaching professionals and the public at large. It communicates how to reuse materials and on the importance of creative reuse to achieving the city’s OX30 goal.

What are the results?

The longevity of Materials for the Arts – it will be forty years old in 2018 – is perhaps the greatest sign of its success. Today it has over 4,700 member organisations spread across the five boroughs of New York City. In 2015, its members made more than 6,000 visits to the warehouse, collecting supplies valued at more than \$9million. It is the single largest provider of supplies to the City’s school system, having distributed \$2.66million worth of materials to schools during the 2015 financial year.

LESSONS FOR OTHER PROJECTS

Most cities are likely to have existing initiatives or programmes working at the intersection between culture and the environment. It may be more effective for policymakers to invest in and scale up an existing programme that already has buy-in from the creative community and matches broader city environmental objectives (in this case, OX30) than to attempt to create something from scratch.

Its innovative model has inspired similar programs around the globe, supporting creative communities and arts education by reducing waste.



Ecoprod

Paris

Reducing the carbon footprint of the film industry

- The film and television sector has a significant carbon footprint, but producers often don't know the environmental impact of their projects
- Ecoprod offers a carbon calculator tool and best practice guidelines to make sustainability easier to achieve
- Fifty companies have signed up to the Ecoprod Charter and the tool is used by as many as 150 projects per year

What was the challenge?

The film and television sector in France generates around 250,000 tonnes of carbon dioxide per year, based on estimates using the Ecoprod tool. Yet producers often don't know the environmental impact of their projects, or feel the need to become more environmentally sustainable in their working practices. Even if they do consider this a priority, they may not have the knowledge and tools necessary to know how well they are doing.

Making change in the film and television sector is not just a matter of persuading a few big companies to change their working practices. The European film sector – and France in particular – is fragmented and diversified, made up predominantly of SMEs. There are 7000 French production companies, of which 2000 are located in the Île-de-France.

What is the project?

Ecoprod gives film and television producers the necessary tools to become aware of – and then to reduce – the carbon footprint of their productions. In the long term, its ambition is to help the sector transition to a new carbon-neutral approach to filmmaking.

It is a partnership between six organisations: the Île-de-France Film Commission; two television broadcasters (France Télévisions and TF1); Audiens, a trade group for culture and media workers; the Agency for Environment and Energy Management; and Le Pôle Media Grand Paris, a Parisian audiovisual cluster.

How does the project work?

At the centre of Ecoprod is the 'Carbon Clap', a software tool that allows producers to easily calculate the carbon footprint of a production, broken down into the multitude of activities that go into the making of film and television (hotels, transportation, lighting, sound, catering, electricity, post-production, and more.) It also gives a cost based on the choices that producers have made, which is important for a cost-conscious industry.



Ecoprod. Photo ©
Gaumont, Courtesy of
IAU Ile-de-France

Raising awareness of environmental impact is only half of the battle. Ecoprod also offers a Best Practice Guide, based on the example of the Unified Best Practices Guide created by the Producers Guild of America. This offers detailed guidelines on how to make each step of the filmmaking process more sustainable.

There is also a directory of 'green' suppliers who meet Ecoprod's standards for sustainability, making it easier for producers to make the right choices.

The Ecoprod Charter has been signed by around 50 companies in the film and television sector, committing to work towards achieving sustainability. Ecoprod offers short best practice practical workshops for its signatories on topics such as Green IT and Waste Management.

What issues has it faced? How were they addressed?

Ecoprod has had a mixed reception from the sector. It has a great deal of support from film technicians and from the associations for set decorators and line producers. But producers have been slower to join in, because of their focus on choosing the lowest-cost options for a production.

One solution to this cost-focused mindset is to offer solutions that are both ecologically friendly and lower cost. Another solution is to create external incentives for producers to consider their environmental impact. For example, the French broadcaster TF1, one of the partners on Ecoprod, has now set environmental standards for the productions that it commissions externally – which represent 80% of its total output.

Policy can also be a powerful lever. Subsidies are important to the film and television sector in France. Ecoprod is lobbying for producers to be required to calculate the carbon footprint of their project when they submit an application for subsidy.

What are the results?

Around 240 projects per year experiment with the Ecoprod tools, of whom between 100 and 150 go through the full process of calculating their carbon emissions. Around 50 companies have signed up to the Ecoprod charter.

For productions that fully commit to the Ecoprod approach, the impact can be very significant. For example, the children's film *Minuscule: Les Mandibules du Bout du Monde* managed to reduce its carbon footprint from 380 tonnes to 51 tonnes after using Carbon Clap.

LESSONS FOR OTHER PROJECTS

- Participation in this type of project is not guaranteed. Programmes should include engagement strategies and realistic timelines for engagement. Where possible, interventions should be tied to key levers of policy change such as subsidies and funding to maximise participation.
- Tools that are specialised for a sector will create greater interest and uptake as people and organisations are able to relate their impacts directly to their operations and specific context.



Diver, Ron Haselden, Lumiere London 2016.
Photo © Matthew Andrews, courtesy of Artichoke.

Green Guides for Culture

London

Integrating the creative industries into the City's Climate Action Plan

- London's 2007 Climate Change Action Plan did not include the creative sector.
- A series of Green Guides was commissioned by the City to connect civic climate policy to action on climate change in the creative community.
- The London Theatre Consortium aimed to align their emissions with London's city target. The London Green Guides also helped to catalyse a national policy programme.

What was the challenge?

In 2007 London launched the London Climate Change Action Plan with an ambitious target to cut carbon emissions by 60% by 2025 and outlining a 10-point plan for London. A detailed framework with sector-specific targets, investment scenarios and stakeholder engagement was launched. The creative sector was not part of this plan.

What is the project?

To align the music, theatre, film, fashion and visual arts sectors to the London Climate Change Action Plan, the City commissioned a series of Green Guides in partnership with culture and environmental charity Julie's Bicycle, outlining the ambition of the creative industries and providing a pathway for emissions reductions in each sector in line with the London Climate Change Action Plan. This was a clear example of connecting City climate policy to action on climate change in the creative community, focusing on shaping the future agenda for London.

The Green Guides offer a 'how-to' for organisations and individuals interested in greening their activities. The Green Music Guide, for example, includes environmental advice on touring, offices, recording studios and festivals. In addition to practical advice, the guides include case studies of some of the many green initiatives already taking place.

What issues has it faced? How were they addressed?

One of the main challenges was initial sector engagement. Each guide required an industry-specific steering group, and therefore senior-level buy-in, to preside over its scoping. These relationships were leveraged through working with other trusted industry-leaders who had already demonstrated commitment toward the environmental agenda and were sufficiently engaged.



Here East. Photo © Rory Gardiner, courtesy of Here East.

Gaining meaningful data from organisations also proved to be challenging. In order to align the Green Guides to the targets and ambitions of the London Climate Change Action Plan, they needed sector datasets that were clean and robust. This was achieved through a resourced member of Julie's Bicycle staff, who visited organisations, collated and reviewed the available data.

The continuing challenge - which is experienced across many programmes – is how you use data to prompt action and maintain momentum.

What are the results?

Sector engagement with the Green Guides consisted of sector leadership steering groups followed by high profile launches, though commitment to stick to the plan was voluntary. The most engaged sectors were theatre and visual arts.

For example, the London Theatre Consortium, a group of 14 leading London theatres created a self-organised network to keep their emissions in line with London's city target. Meeting regularly, the London Theatre Consortium have achieved a 15% reduction in absolute emissions from energy use between 2010 and 2015 (in line with the mayor's target of a 60% carbon reduction target by 2025). The Consortium has made the environment a core, collective value, involving everything from capital investments to campaigns, energy supply to procurement, commissioning to cultural programming. This is cultural transformation in action.

By galvanising a fledgling community of cultural organisations who wanted to take action on climate change and providing a blueprint for action, the London Green Guides also helped to catalyse a national policy programme led by Arts Council England (see next page: *Arts Council England Programme*).

LESSONS FOR OTHER PROJECTS

- Participation in this type of project will not be guaranteed. Frameworks should therefore make allowances for engagement strategies and realistic timelines for bringing on board key people. Where possible, interventions should be tied to key levers of policy change such as subsidies and funding to maximise participation.
- Tools that are specialised for a sector will create greater interest and uptake as people and organisations are able to relate their impacts directly to their operations and specific contexts.

Arts Council England Programme

Incentivising organisations to adopt sustainable arts practices

In 2010, Julie's Bicycle was awarded a grant by Arts Council England to support translating London's Green Theatre Guide into action in collaboration with London's theatre community. This grew into a programme of senior stakeholder advocacy; carbon audits; theatre-specific resources (on productions, audience engagement, travel, etc.); and regular events to build up the community and the conversation.

The programme swiftly expanded into a national, cross-disciplinary movement and in 2012, just two years later, Arts Council England made it a funding requirement for all their National Portfolio Organisations and Major Museums Partners to report on their environmental impacts and have an organisational environmental policy and action plan.

As the first cultural funding body in the world to ask its organisations to act on their environmental impact, Arts Council England's unique programme has become an internationally recognised demonstration of successful policy intervention. As part of its 2010-20 strategic goal of resilient, environmentally sustainable arts, museums and libraries, Arts Council England has shown extraordinary leadership in its decision to make environmental reporting a funding obligation for its grant holders – as a result, this approach is now being considered and adapted by other arts funding bodies around the world.

What is the project?

Supported by environmental experts Julie's Bicycle, Arts Council England's grant holders are required to annually submit environmental impact data, policies and action plans using the Creative IG Tools – an online carbon calculator designed by Julie's Bicycle to allow organisations to measure their impacts and enable them to develop effective reduction strategies.

Arts Council England has invested substantially into its environmental programme, realising and maximising environmental and economic returns and positive impact. Working in partnership with Julie's Bicycle, this light-touch policy adoption has been supported and accelerated by an extensive programme of workshops, webinars, tools, resources and customer support. The programme also captured the imagination of many and inspired new ways of thinking and doing, with sustainable arts practices taking root and environmental themes increasingly reflected in productions, programmes and curation.

In the first phase of the environmental programme (from 2012 - 2015), Arts Council England established a critical mass of engaged organisations, empowered with the skills and knowledge to collate data and report via the Creative IG Tools. All organisations were required to report their energy and water consumption, creating a common environmental baseline, as well produce environmental policies and action plans to support improvement. In the second phase (2015 - 2018) reporting requirements were individually tailored to account for organisations' size, scope and activities, and available impacts included: touring, production, waste and business travel. In addition, the second phase of the programme aimed to raise ambition and support the flourishing leadership within the cohort, facilitating best practice exchange and peer mentoring.

To support the development of environmental literacy, inspire action and galvanise the community, Arts Council England contracted Julie's Bicycle to develop a range of resources to support organisations on their journey to sustainability. The sector specific practical guides and factsheets take organisations through the practicalities in "greening" their organisational operations, governance and artistic work. Inspiring stories and case studies are also collated and communicated to showcase the ideas and actions that organisations are using to make the way they present, produce, and tour art more environmentally sustainable.

A rich programme of leadership dialogues, events, one-to-one meetings and bespoke webinars offer training and inspiration on specific topics with the opportunity for discussion and Q&A with Julie's Bicycle and other expert colleagues across the artistic and environmental sectors. Julie's Bicycle's facilitation of knowledge-sharing and community building has enabled organisations to connect and learn about collaborative approaches to tackling sustainability, supporting change at scale.

In addition to advocating and championing the sector's sustainable development, the partnership with Julie's Bicycle has supported Arts Council England's internal approach to environmental sustainability at operational, planning and policy development levels.

What are the results?

The environmental programme has generated the largest dataset of cultural environmental impacts in the world and the efforts of arts organisations across England have been an inspiration to the arts globally. The year-on-year increasing levels of engagement and improved environmental performance have resulted in significant savings of £9.6 million in energy costs, and 47,000 tonnes CO₂e (2013 – 2015).

The success of the programme demonstrates the relationship between economic and environmental sustainability, which mutually reinforce each other to produce a resilient arts community. The 2015 – 2016 evaluation survey showed that 56% of organisations reported financial benefits from taking environmental action, and that environmental policies and action plans are supporting business development through funding applications and improved partnership working. Going "green" is also demonstrating positive values to audiences and stakeholders with 38% of organisations reporting reputational and audience development benefits, and 71% reporting improvements to team morale and wellbeing.

The programmes also has a cultural resonance beyond the technicalities of data and accountability: more engaged than ever before, arts organisations are more literate, more imaginative, more active, more ambitious, and joining the dots across activities, purpose and mission. The theme of environmental sustainability is producing diverse and inspired creative programming with 37% of Arts Council England organisations producing or curating work on environmental themes, and a further 28% planning to do so.

These statistics demonstrate the ongoing success of light-touch policy to prompt environmental understanding and meaningful actions that reinforce national and international climate targets. All of this is contributing to Arts Council England's strategic goal to support sector resilience, demonstrating the inseparability of economic, social, cultural and environmental sustainability.

LESSONS FOR OTHER PROJECTS

- Initiatives tied to funding are necessarily emotive in an industry where finances are limited. The most successful projects in this area are not unduly punitive, but instead use the link to funding or subsidy as a method to unlock engagement – and are underpinned by an extensive programme of support, professional development, and training on topics such as carbon literacy.
- Tools that are specialised for a sector will create greater interest and uptake as people and organisations are able to relate their impacts directly to their operations and specific context.
- Far-reaching policy interventions are most successful if supported by members of the creative community affected by the policy – industry advocates.

MAST & Manchester A Certain Future

Establishing a city-wide culture and sustainability task force

What is the project?

The city of Manchester has one of the most developed and ambitious climate strategies in the UK. In 2009 hundreds of residents and businesses came together to produce the city's first ever climate change strategy, Manchester: A Certain Future (MACF), aiming for a 41% reduction in CO2 emissions by 2020, from 2005 levels. In January 2016, just one month after the Paris Agreement, the city published its commitment to become a zero carbon city by 2050 as part of the Our Manchester Strategy for 2016-25. At the end of 2016, following a consultation process led by the Manchester Climate Change Agency, the Manchester Climate Change Strategy 2017-50 was launched.

Inspired by the MACF strategy, cultural organisations from across the city have been working together under the banner of the Manchester Art Sustainability Team (MAST) since 2011. MAST is a network of cultural organisations committed to working together to reduce their environmental impacts and foster a collaborative learning ethos that unites art forms, voluntary and civic bodies in a shared commitment to a sustainable and equitable future. This network has collectively achieved great progress towards the city's carbon reduction target, whilst positively contributing to Manchester's ecology, resilience and creative economy.

Their model is to meet every quarter to share knowledge and explore common interests (such as shared storage and joint procurement of sustainable goods and services), and to quantify the impact of their environmental action via the Creative IG Tools carbon calculator and through an annual strategic report. Current projects include setting up Carbon Literacy Training specifically designed for the cultural sector and exploring how the network might collectively procure energy from renewable sources.

The network was originally facilitated by Julie's Bicycle, who supported members to understand their impacts and identify targets and savings and for future action. It is now a self-organising network, chaired by members on a revolving basis and operating on an annual subscription which funds small projects and annual reporting.

How does the project work?

MAST members are committed to the following activities:

- Understanding and measuring environmental and carbon impacts and sharing information on impacts and performance with the MAST group and relevant stakeholders.
- Working toward achieving an average annual 7% reduction in CO2e (absolute greenhouse gas emissions generated by energy use), a target that is in line with Manchester: A Certain Future (MACF) ambitions.
- Taking action to become more environmentally sustainable and resilient businesses and to reduce carbon impacts, with the key areas of focus on:
 - reducing energy use and using energy more efficiently
 - moving to low or zero carbon energy sources
 - reducing water use and avoiding water pollution

- reducing, reusing and recycling waste
- reducing the impacts of travel and transport
- Greening procurement and purchasing decisions and working collaboratively with suppliers and contractors on reducing environmental impacts.
- Involving and engaging staff on environmental issues.
- Communicating with and engaging audiences, visitors, artists and other relevant groups locally, regionally and nationally on environmental issues.
- Developing joint environmental initiatives for mutual benefit.

What are the results?

An engaged and increasingly carbon-literate cultural community is monitoring and addressing the environmental impacts of its work. An average annual CO₂e reduction of 5% was achieved across 13 MAST members who have been reporting since 2012/13. This represents a total carbon reduction of 16% and 1,400 tonnes between 2012/13 and 2015/16.

Overall emissions savings have resulted from a 19% reduction in electricity use and a 9% reduction in gas use. Energy savings have resulted in a £305,000 cost saving, from a combined energy spend of £1.8 million on 2012/13 to £1.5 million in 2015/16.

Organisational highlights include investment in sustainability-led technical improvements such as: Whitworth Art Gallery's £15 million capital development, HOME Manchester's £25 million new building; Manchester Art Gallery's lighting and environmental controls programme which has helped them reduce emissions by a third; and major LED lighting programmes at the Royal Exchange, Contact Theatre and the Lowry. Nine organisations are now either generating or purchasing clean energy.

Other initiatives aimed at promoting behavioural change include: HOME Manchester's staff-wide carbon literacy awareness and training programme; Band on the Wall's extensive recycling programme; Walk the Plank's ethical procurement policy; and the Whitworth's beekeeping and community gardening projects. Cultural responses went further than good organisational practice, influencing cultural programming exemplified by Manchester Museum's wide range of permanent and special temporary exhibitions addressing sustainability themes including "Climate Control", a six-month long series of exhibitions and events inviting people to reimagine Manchester and contribute to the city's new climate change strategy.

The work of MAST is recognised by the city and mentioned in the MACF 2016 annual report. The implementation plan for the new Manchester Climate Strategy, published in 2016, has 'Culture Change' as one of its enabling principles (to underpin all other activities) and makes explicit reference to the pioneering work of MAST. Additionally, the chair of MAST, Simon Curtis from the Royal Exchange theatre, has been a part of the Manchester: A Certain Future steering group since 2015.

LESSONS FOR OTHER PROJECTS

- City climate strategies that are structured in a way to allow and encourage citizen participation in shaping the city's plans and ambitions also provide openings for the local cultural and creative sector to engage at every level of the plan.
- Policymakers and creative professionals have different ways of working and often speak different languages – it takes time and effort to build trust and collaboration, however once established this can be hugely fruitful and allow for culture to be written into policy in a way that can be translated on the ground.



The Concertgebouw,
Amsterdam. Photo © Bas Uterw,
Courtesy of City of Amsterdam

Cultural Venue Sustainability Action Plan

Amsterdam

Supporting individual arts organisations to become more sustainable

- The City of Amsterdam aims to achieve a 20% reduction in energy use by 2020
- Cultural organisations are often interested in becoming more sustainable but lack the knowledge and financial capacity to achieve their goals
- The Amsterdam Cultural Venue Sustainability Action Plan aims to help them audit their environmental impact, set concrete goals that make sustainability part of their policy, and create implementation plans

What was the challenge?

The City of Amsterdam set citywide sustainability targets in 2015. By 2020 it aims to achieve, per capita, a 20% reduction in energy use and a 20% increase in sustainable energy generation. In order to achieve these targets it must enable rapid, creative and committed responses to the sustainability challenge across all sectors of the economy.

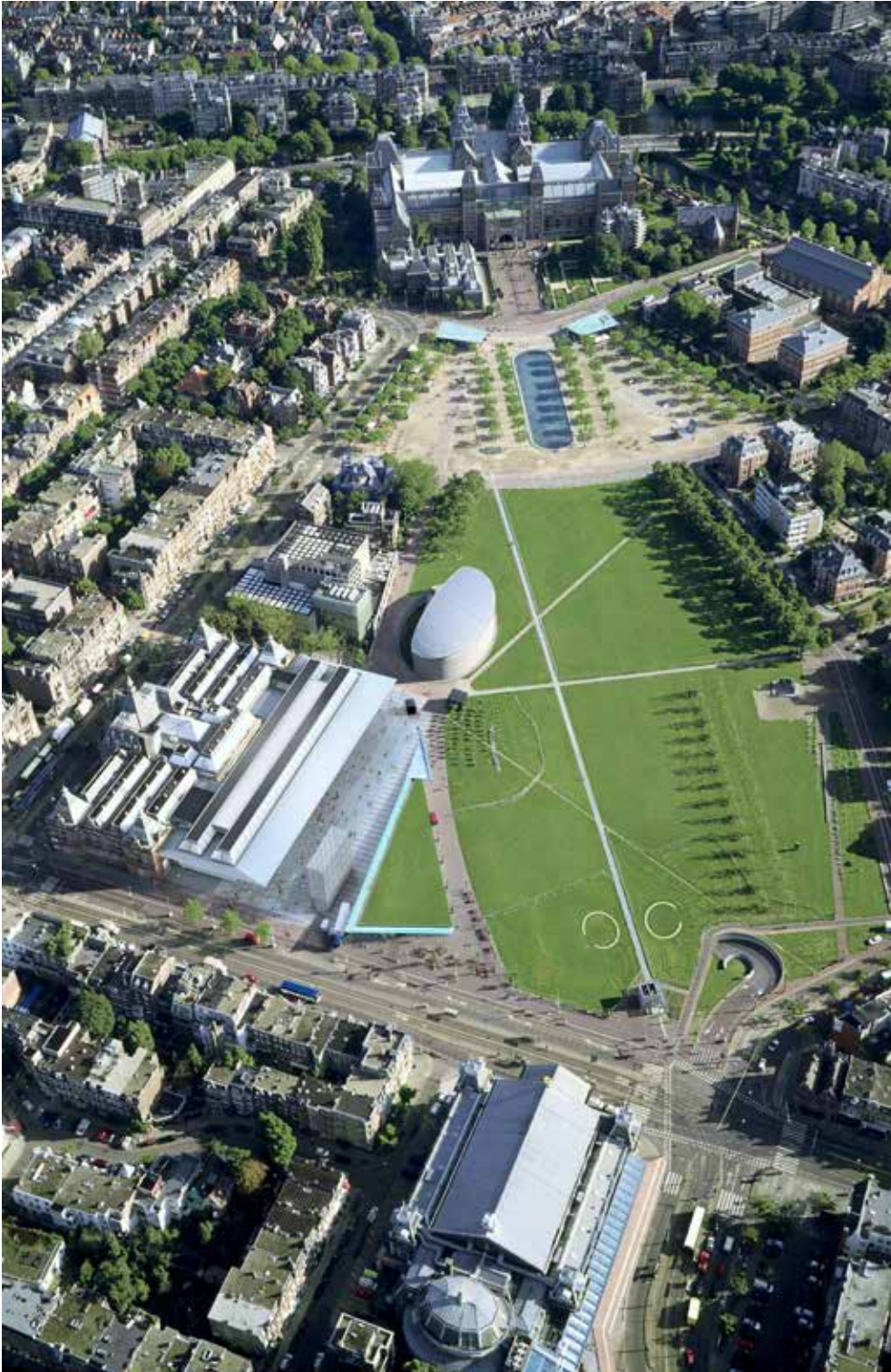
In recent years, more and more cultural organisations have shown interest in becoming environmentally sustainable, but only a few currently have the tools and the financial capacity to achieve success. This was the conclusion reached by a working group set up by the City to develop the action plan, which included representatives of the Amsterdam cultural sector.

What is the project?

In 2017 the City of Amsterdam will launch a two-year pilot to address sustainability in the arts and culture sector, building upon the work already going on within the sector.

The pilot has four main objectives:

- Support individual cultural organisations to become more sustainable by offering tools, tailored advice and knowledge exchange about best practice and innovation.
- Improve the ability of the cultural sector to develop environmental solutions and initiatives as a group, going beyond the capacity of any single organisation.



Museumplein (Museum Square). Photo © KLM Carto, courtesy of City of Amsterdam

- Develop quality benchmarks for environmental performance in the cultural sector through the aggregation of data. Map needs for further engagement and develop realistic goals for the future.
- Support the arts and culture sector to formulate its environmental goals and ambitions in the form of a manifesto.

How will the project work?

All cultural institutions in Amsterdam will be offered a free “energy scan”, including advice on quick efficiency wins, solar energy, and financing options. Additionally, the City has earmarked funding for a comprehensive review of approximately 20 cultural venues that are expected to achieve major environmental benefits. The environmental audit offered to these venues through the pilot will have a specific focus on reducing energy emissions, but will also include other aspects of sustainability, such as water, waste and catering. It will be delivered by Amsterdam-based auditors with experience advising the cultural sector.

The 20 pilot participants and other organisations that are established sustainability frontrunners will be supported in setting sustainability targets that they aim to achieve within the lifetime of the pilot and beyond. Together, these institutions and the City will define common goals for the future – both within the two-year pilot and beyond. These goals will be set out in a manifesto signed by both the participants and the City.

Organisations will be offered concrete, tailored implementation plans and financial advice that will help them to achieve their targets during the pilot phase. They will also receive a small amount of additional support for implementation from the sustainability consultant responsible for the plan.

Although individual organisations will be responsible for funding and realising their proposed measures, the City will offer loans through its Sustainability Fund, a broader initiative with a total of 40 million euros in funding. Participants in the pilot will receive support to apply for loans, which are offered at a 2% interest rate with a maximum fifteen-year term. They will also be offered access to temporary special grants from the City’s Culture Department, focused on sustainable maintenance of buildings that cannot be financed through a loan. As part of the pilot, the City will investigate whether collective procurement is a solution for cultural institutions in Amsterdam.

During the pilot, the City will facilitate meetings and workshops in order to share knowledge, raise awareness and develop skills and expertise on how to tackle the challenges the sector is facing. The aim of the pilot project is to support the creation of a collaborative cross-sectoral network of cultural institutions that can extend the capacity of the sector beyond that of individual organisations.

What issues has the project faced? How were they addressed?

The biggest challenge will be to bridge the gap between the ambition and the financial capability of many cultural organisations. The City is making grant funding available (see above) and offering advice including financial planning.

What are the results?

The project aim is to support 20 cultural organisations to develop sustainability strategies and take concrete action, as well as to win participation from other organisations that have already taken action on sustainability. It also aims to develop an overview of needs, challenges and potential solutions in the cultural sector. The data generated by the free energy scans and the exchange events organised through the project will be used to map sustainability needs to help the City of Amsterdam shape future projects.



Concert at Museum Geelvinck-Hinlopen Huis. Photo courtesy of City of Amsterdam.

CASE STUDIES

APPROACH: Citizen Engagement and Public Awareness



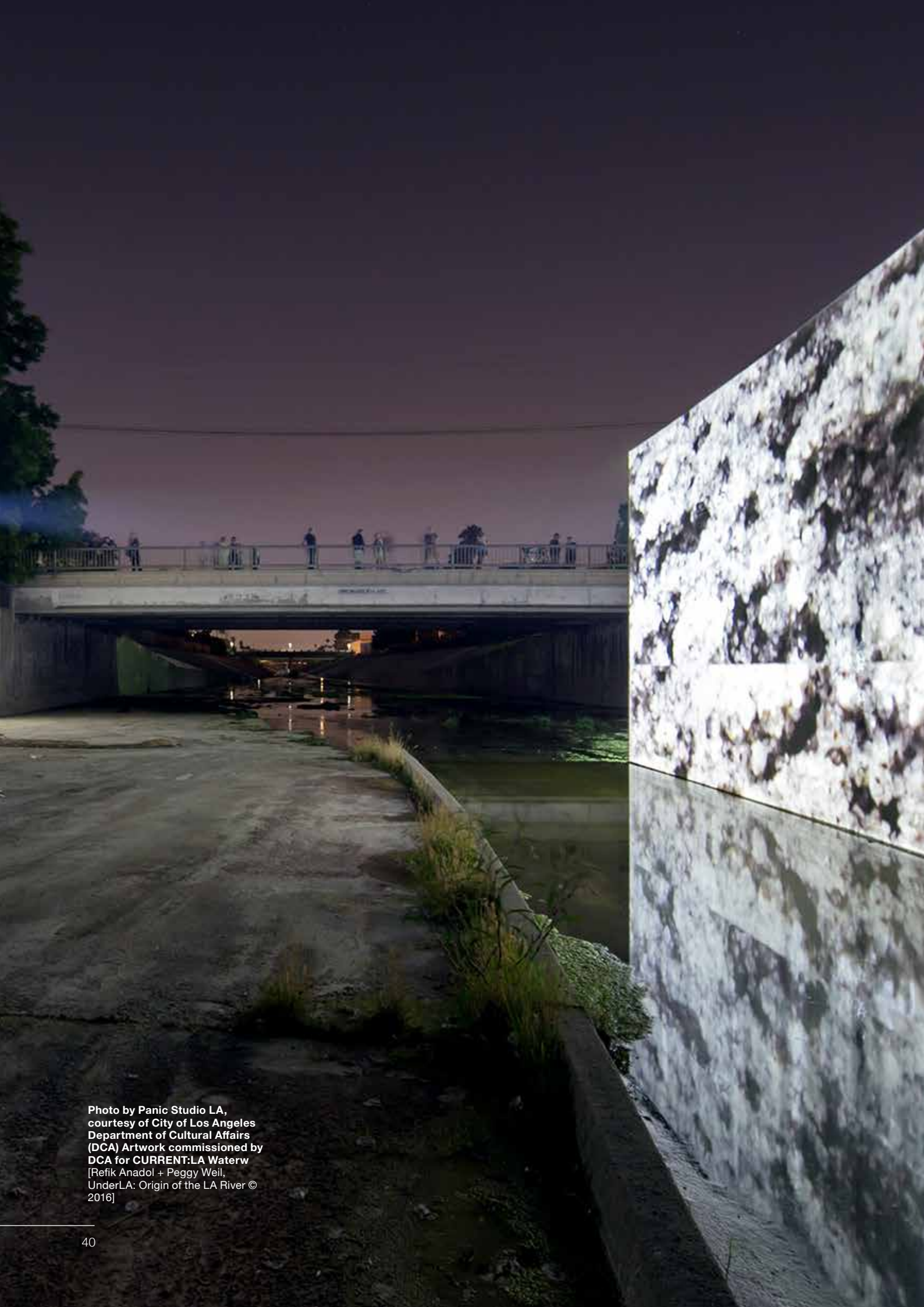


Photo by Panic Studio LA,
courtesy of City of Los Angeles
Department of Cultural Affairs
(DCA) Artwork commissioned by
DCA for CURRENT:LA Waterw
[Refik Anadol + Peggy Weil,
UnderLA: Origin of the LA River ©
2016]

CURRENT: LA Water

Los Angeles

Raising awareness about water issues through public art

- With climate change leading to drought and water shortages, there is a need for greater public awareness of water issues in Los Angeles
- CURRENT:LA Water, the first instalment of a new Public Art Biennial, included temporary outdoor installations at 15 sites across the city
- It succeeded in creating civic dialogue and generating social capital, although some sites and programmes could have been more effective in raising awareness of water as a global issue

What was the challenge?

Climate change means that drought, water shortages and the need for water conservation are becoming urgent issues across the globe. They are particularly acute in Los Angeles, which suffered from an extreme, California-wide drought between 2011 and 2017. This led to over a year of state-imposed restrictions on water use in urban areas, requiring a 25% decrease in consumption. Although these restrictions have now been lifted, there remains a need for greater public awareness of water issues. Los Angeles depends on water from increasingly overused sources such as the Colorado River, and climate change is likely to bring even more severe droughts in the future.

What is the project?

CURRENT:LA Water was the first instalment of a new Public Art Biennial presented by the City of Los Angeles Department of Cultural Affairs (DCA). It included temporary outdoor installations at 15 sites across the city, providing a range of free summertime cultural experiences. Seeking to generate, in the words of the DCA, “*dialogue around water-based issues*” and “*civic discourse on the issue of water and allied topics such as infrastructure, drought, ecology, and conservation*,” the project set out to elevate awareness of water as a global issue.

The Biennial aims to establish a new paradigm for public art in LA, one that is transformative and contributes to the creation of social capital and public discourse locally, nationally, and globally. It seeks to maximise the potential for public art to create dialogue, encourage the exchange of ideas, and inspire civic discourse about issues affecting LA and other global cities.

CURRENT:LA Water was established with a grant from the Bloomberg Philanthropies Public Art Challenge. Funding for the project also came from a match from DCA's Arts Development Fee Program and a grant from The Ralph M. Parsons Foundation. It was made possible through a number of partnerships with other City agencies as well as county, state, and federal agencies.



Photo by Panic Studio
LA, courtesy of
City of Los Angeles
Department of Cultural
Affairs (DCA) Artwork
commissioned by DCA
for CURRENT:LA Water
[Chris Kallmyer,
New Weather Station ©
2016]

How does it work?

CURRENT:LA Water took place at 15 sites across LA – one in each of the city’s districts – which were selected by the Department of Cultural Affairs to help develop a narrative about our relationship to water and its allied systems. Each site had a specific connection to water: either located along the LA River channel, along an original tributary of the historic LA River, or adjacent to a manmade body of water.

Thirteen international and local artists or artist teams (ten individuals and three teams of two) were chosen by an independent curatorial commission and awarded site-specific, temporary public art commissions. Each artist/team was asked to incorporate strategic public engagement as part of their project (for example, an artist talk or workshop). Although DCA selected the theme of “water” for the first CURRENT:LA biennial, it did not specify how artists should respond to the theme.

In addition, DCA awarded financial grants to 13 non-profit organisations to programme activities around the art installations in order to increase audience engagement, including mobile museums, performances, and workshops on subjects including foraging, printmaking, and drought tolerant landscaping.

In total, 153 funded events, all free and open to the public, took place over 30 days. Of these, 102 were coordinated and led by CURRENT:LA artists/teams, and 51 were developed and presented as CURRENT:LA public programmes.

What issues has it faced? How were they addressed?

Physical distance and wayfinding (information systems that guide people through a physical environment and enhance their understanding and experience of the space) were the main issues facing the project, which was spread across 15 sites in a city covering 469 square miles. Visitors sometimes had difficulty finding artworks and public programmes

due to lack of clearly visible onsite signage. CURRENT:LA created physical and digital maps, used location pinpointing on navigation applications such as Google Maps, and offered detailed notes for drivers and cyclists on its website. A visitor and volunteer centre called the HUB was also created at an additional site where people could pick up maps and find out about programmes.

Maximising visitor attendance was a priority for CURRENT:LA Water. Marketing focused on using media outlets and the project's network of arts organisations and artists. However, future CURRENT:LA biennials will focus on developing a grassroots campaign, reaching out directly to local arts organisations, community groups, and neighbourhood councils that can amplify information to their constituents.

Initial results from the project evaluation team indicate that some sites and programmes failed to raise awareness of water as a global issue. This was because they did not feature reasonably explicit connections to the theme, either through the artwork itself, or through related content or instruction. As one visitor wryly noted about an installation: "There's no water in it, so it will make you think about water." Although the need for water conservation was acute in LA, none of the art projects responded to this issue in particular. If CURRENT:LA is to succeed at contributing meaningfully to conversations about pressing global issues, future artworks and programmes will need to be shaped more actively towards that end.

Over the course of the project, DCA's core biennial team received an extensive immersion in issues around water. In future CURRENT:LA projects, they intend to replicate this immersive education for the entire project team by building an educational component into the early, pre-production work. Most likely this will be a one- or two-day symposium that all team members will attend. Through this symposium, all members of the team – including artists, art students, and curators from some of LA's most prestigious cultural institutions – will have the opportunity to gain a knowledge and fluency in the specific issue of focus that will equip them both for CURRENT:LA and for their future work.

What are the results?

CURRENT:LA Water attracted over 33,000 visitors to its 15 sites, produced 1,137,238 digital impressions, and appeared in over 80 news items in the local, national, and international press.

In-depth evaluative research found that it was effective in sustaining civic dialogues and creating social capital in open, green spaces across the metropolis of Los Angeles, facilitating participation, connections, and new relationships. It also appears to have prompted in some visitors a sense of belonging as citizens and Los Angeles residents.

The research also showed that CURRENT:LA Water had some success in producing changes in public perceptions, attitudes and behaviours to water, although there was room for improvement in raising awareness of water as a global issue.

LESSONS FOR OTHER PROJECTS

- For interventions supported by policymakers and designed to create public awareness, full-team integration and formalised information-sharing opportunities should be developed for a project's early phases, in order to develop a core, networked "diplomatic corps" before, during, and after the project.
- The impact of these kinds of public awareness interventions can be maximised for policymakers by ensuring they also serve citizen engagement in the policymaking process and create opportunities for feedback to the city.
- Funding for creative/cultural projects may not need to come directly or wholly from city budgets – it may be possible to fundraise for this from other sources.



Refuge Project, Melbourne.
Photo © Bryony Jackson,
Courtesy of City of Melbourne.

Refuge

Melbourne

Exploring the role of culture in building climate-related disaster preparedness

- Climate-related disasters are placing new demands on emergency responders and local communities
- Refuge is a five-year interdisciplinary project within the Resilient Melbourne Strategy that explores the role of cultural centres and artists in preparing for the impact of disasters
- The 2016 pilot demonstrated that arts and culture can help develop resilience in an urban context

What was the challenge?

Climate-related disasters are an increasing threat to Melbourne and to world cities globally, demanding ever more sophisticated emergency management responses. Emergency decision-making processes are often put in the hands of a select few. But true resilience will require more: understanding and empowered participation from local communities. Residents must be prepared for the possibility of disasters. They must also be engaged in responding to them as communities, rather than simply as individuals.

What is the project?

Refuge is a key project within the Resilient Melbourne Strategy and has the backing of the Municipal Emergency Management Planning Committee, which represents the municipal response across 19 Local Governments in Victoria.

It is a five-year interdisciplinary project that explores the role of cultural centres and artists in preparing for the impacts of climate related disasters. The project uniquely brings together artists, community members and emergency services to investigate the role of arts and culture in developing preparedness and building community resilience. It is a longitudinal research-action project.

The project is managed by Arts House, a city-run contemporary arts venue which develops contemporary performance and interdisciplinary arts practice with a national and international reach. An important goal for Arts House is to develop artists' ability to contribute to a broad spectrum of public debate and policy development and Refuge is a key initiative in this area.

How does the project work?

Refuge has a diverse and complex set of partner relationships, which aim to ensure deep stakeholder engagement and legitimacy. Its intended outcomes are equally complex.



**Refuge Project,
Melbourne.** Photo ©
Bryony Jackson, Courtesy
of City of Melbourne.

These include developing:

- Knowledge and capacity in both artists and cultural centre staff around emergency response,
- Engagement with the diverse communities surrounding relief centres, including raising awareness of the impact of climate change,
- Clarity on how the cultural sector can contribute to local and state government policy around the use of cultural centres as relief centres,
- Case studies on how the cultural sector and city government can practice, prepare, connect and build resilience with local, regional and international communities impacted by climatic catastrophes.

In July 2016, Arts House successfully launched the pilot project, a 24-hour artist-led emergency management exercise supported by emergency service organisations that turned the North Melbourne Town Hall into a Relief Centre in response to a scenario of local flooding. This was not a wholly imaginative scenario – the North Melbourne Town Hall, the home of Arts House, is in fact a designated Relief Centre.

Artworks encouraged participants to reflect on the availability of food in a disaster; creating shelter; and the meaning of sleeping, even in a Relief Centre, on ‘unceded’ land (Aboriginal land that was never granted by treaty to colonial settlers). The project’s aim was to have tangible, practical outcomes as well as valuing experiential and process-driven art making.

The next four years of the project will be exercises run annually from 2017-2020. The interdisciplinary model comprising artists, service providers and communities will remain consistent over changing events and invited focus communities. In 2017, the exercise will be a prolonged heat related scenario and will focus on residents of local community housing. Between 2018 and 2020, the exercises will use cultural exchange to examine climactic impact on regional communities and communities in the Pacific region.

What issues has it faced? How were they addressed?

Key challenges facing the project include the scale of external fundraising required across a multi-year project, and the need to remain responsive within an interdisciplinary model that allows continued innovation and experimentation. Financial challenges are addressed through stakeholder management and fundraising.

What are the results?

As a result of the pilot project, participants gained practical preparation tools for disasters, exchanged knowledge and built new community connections. Arts House worked with Melbourne University’s Research Unit Public Cultures to evaluate the pilot and found that arts and culture can impact and assist the development and nurturing of resilience in an urban context, and “that the goals of urban and emergency planners can be achieved to a much higher degree when created and delivered in collaboration with artists.”

Recommendations for the development of Refuge over the following four years included:

- Increasing access and inclusiveness through clear, multilingual signage; availability of translators; provision of queer or culturally-specific spaces; and ensuring that participatory art considered potential triggers
- Providing marginalised communities with an opportunity to share what would be useful for them at such an exercise, rather than simply inviting them to participate
- Allowing artists to work together in a short, intensive residency and to share their practice with emergency planners

LESSONS FOR OTHER PROJECTS

- Cultural spaces can be valuable testing grounds for key city policies if they are given permission to engage with key city or regional policy frameworks or committees.
- Arts and culture can help to develop community resilience in the face of climate-related disasters
- Projects need to actively consider the participation needs of hard-to-reach and marginalised communities in order to maximise opportunities for citizen engagement across all communities affected by certain policies.

LabGov: the Laboratory for the Governance of the Commons

Designing urban commons for green governance

LabGov, the Laboratory for the Governance of the Commons, is a pioneering institutional innovation in Italian cities. In Bologna, the 'Regulation for the Care and Regeneration of Urban Commons' guidebook has facilitated a unique approach which is fast-tracking citizen engagement with city policy. LabGov looks at the commons as an 'infrastructure for experimentation, a space where new institutions and new economic ventures are born' – a place that is neither private nor 'public', complementing the state and the market rather than replacing either.

The aim is to explore the way governance mechanisms are linked to and can be changed by the commons to create a citizen-centered approach and a regulatory framework built on sharing and collaboration. The 'Bologna Regulation' effectively helps to recognise grassroots projects or collaborations within the city's governance framework. The city facilitates conversation with the community, bringing together groups of the cultural community and city residents to propose improvements to their neighbourhoods, building collective agency and accountability for actions.

It acts as a public collaboration to create innovations in public policy, with a focus on green governance. The regulation gives grassroots 'city-makers' who are running projects (such as maker-spaces, urban gardening, or FabLabs) the right to do so and provides spaces for them to interact with city policy. More than 30 projects have been approved and Italian cities are increasingly adopting this regulation. Co-Mantova is a pilot to run cities as collaborative commons, or 'co-cities', convening a cross-sector of the community to co-manage and create city projects together. With backing from the city administration, local Chamber of Commerce, the Province, local NGOs, SMEs and the Mantua University, the project has included an open call for ideas, a co-design lab, a governance camp, and the launch of a public consultation.

With the success of the project, LabGov's have been developed in Milan, Florence, Rome, Naples, Battipaglia and Palermo.

CASE STUDIES

APPROACH: Regeneration and cultural involvement in urban infrastructure development

Spy for Paisaje Tetuán, 2013. Photo
courtesy of Ayuntamiento de Madrid.
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Pedestrianising Brussels. Photo © Vincent Peal, Courtesy of City of Brussels

Pedestrianisation

Brussels

Reclaiming the city for pedestrians by creating car-free zones

- The centre of Brussels had become polluted and unwelcoming because of traffic on its wide boulevards
- In 2015, the City of Brussels banned motor vehicles from a large part of the centre, creating one of the largest pedestrian areas in Europe
- Culture has been one of the main tools used to ensure the popularity and diversity of these new public spaces

What was the challenge?

The wide boulevards in the city centre of Brussels were created in the 1870s, but after World War II they became motorways used to cross the city by car, rather than destinations in their own right. The air was polluted, with Brussels in violation of EU limits on carbon dioxide. The city centre became an unpleasant place to visit – with noisy traffic and unattractive sidewalks – and cultural venues and their audiences had begun to move away from the city centre.

From the beginning of the twenty-first century, there was a growing awareness that this had to change. Starting in 2012, the civil disobedience movement ‘Pic Nic the Street’ organised large urban picnics in the middle of the boulevards, aiming to draw attention to the urgency of the issue.

Brussels is a very diverse city. To counter social, cultural and ethnic segregation, and the growing polarisation of urban space, the city considers it of the utmost importance that the city centre is a public space that is accessible and welcoming to all residents regardless of their social and cultural background.

What is the project?

On 1 July 2015, the City of Brussels pedestrianised a large part of the Brussels city centre, including its wide boulevards. This created one of the largest car-free areas in Europe.

Objectives of the project included:

- Improve health by improving air quality
- Reduce traffic congestion across the city by encouraging a shift away from car journeys
- Reduce noise pollution and make the city centre more liveable
- Increase the commercial attractiveness of the city centre, encouraging specialist shops and shops catering to local residents



**Pedestrianising
Brussels.** Photo ©
Vincent Peal, Courtesy of
City of Brussels

- Avoid the city centre becoming a 'Disneyland' that only attracted tourists
- Allow Brussels residents to reclaim their city as a living space

How does it work?

Pedestrianising the city centre was only the beginning of the project, not the end. The need for diverse public spaces that ensure harmonious coexistence is a major social issue, and the city recognised that it could not leave this issue to resolve itself.

Culture was the main tool used for ensuring that these new public spaces were accepted by citizens and used. There was already a great deal of cultural infrastructure in the vicinity of the pedestrianised area: music venues, record stores, comic book shops, museums, cinemas, libraries, art schools, and a number of performing arts venues including the Beursschouwburg (theatre), Ancienne Belgique (a concert hall), the National Theatre of Belgium, and La Monnaie (the national opera).

Unsurprisingly the cultural sector took the lead in adopting the new pedestrian area. A number of institutions quickly took advantage of the space to propose cultural projects outside their walls. In order to encourage people to adopt the space as their own, the City of Brussels has offered free cultural and sports activities, including parades, a mobile library, evening open-air cinema, multidisciplinary festivals ('Place au Piéton' and 'BXL Love Summer') and the five-week Winter Wonders event. Other organisers have followed, including Gay Pride Week and the Tomorrowland music festival. The City has also established new locations for street performers in the pedestrian area, and sculpture exhibitions are planned for the future.

What issues has it faced? How were they addressed?

In the beginning, media coverage of the project was quite negative, dominated by motorists and by businesses whose customers came to the city centre by car. One of the issues was that it was difficult for people to appreciate the plans for the city centre because of the slow pace of the redevelopment work. Closing the area to cars was only the first step in a process that will take at least three years, if not more. Therefore many people were dissatisfied with the initial results, although media coverage is now becoming more positive.

One of the greatest challenges has been determining how best to share public space, compromising between different uses and priorities including economic development, shopping for tourists, welcoming spaces for ordinary city residents, big headline events, access for motor vehicles, places for children to play, the right amount of greenery, the right amount of police presence. In particular, pedestrianisation has attracted more homeless people, and others on the margins of society. There have been issues around drunkenness, nuisances, cleanliness, and other users of the pedestrian area feeling unsafe.

Some residents of wealthy, outlying neighbourhoods have stopped coming to the city centre. As they used to travel in by car, seeing public transport as dangerous, they believe that the city centre is now inaccessible. They also find it difficult to cohabit in public space with other social groups. Pedestrianisation requires changing the attitudes and the mobility habits of these residents.

In short, creating this pedestrian area demanded a lot of political courage and keeping the project going despite criticisms and issues has continued to demand a lot of political courage.

What are the results?

The impact of the project is clear:

- A 50% increase in the number of cyclists in the Brussels region between May 2015 and May 2016. In the city centre the increase was over 100%
- A decrease in motor vehicle traffic during peak hours
- A 63% decrease in carbon dioxide measurements after 8 months
- Many people – from more socially mixed backgrounds – visiting the pedestrian area than before

After the 2016 terrorist attacks on Brussels, although they did not take place in the city centre, people converged on the Place de la Bourse to leave their tributes to the victims. This symbolises the way that Brussels residents have taken back ownership of their city centre.

LESSONS FOR OTHER PROJECTS

- Involving cultural and artistic experts in potentially controversial regeneration and infrastructure projects can help engage citizens with the aims of the project, create public support, and foster a connection to place.
- To enable cultural participation in these kinds of projects, city policy must support the creation and performance of art in public spaces (e.g. through licensing frameworks, providing infrastructure for larger events such as waste management and policing, etc).
- Making public space welcoming to all, including marginalised groups, is a balancing act that requires political courage.



Fete BIO @ TOHU. Photo ©
ECOTerre, Courtesy of TOHU

TOHU

Montréal

Rehabilitating a formerly polluted landfill site into a leading cultural attraction

- Building a performing arts centre in an environmentally damaged and socially deprived area required attention to the environmental and social context
- TOHU serves as the gateway to the Saint-Michel Environmental Complex, a former landfill now being rehabilitated as a public park

What was the challenge?

How do you create a new performing arts centre in an area that faces severe environmental and social challenges? By 1999 North-east Montréal was developing a circus cluster, as the home of the Cirque du Soleil and future home of the National Circus School. The city of Montréal, the Government of Quebec and the main actors of Quebec's circus industry decided to build a new circus performance venue within this cluster in order to showcase local artists in a professional context.

The proposed site was located on the doorstep of the Saint-Michel Environmental Complex (SMEC). A former limestone quarry, SMEC spent decades as a major landfill which exposed residents to pollution and toxins.

St-Michel is also one of the most deprived neighbourhoods in Canada. It has a high unemployment rate, high crime rate, and low education, with about 50% of its residents born outside of Canada. It is separated from the rest of the city by a major metropolitan highway and lacks transportation, social and cultural infrastructure.

These specific interlinked environmental and social justice challenges created a need for environmental and social impact to become an integral part of the project. It was clear that the project would need to engage residents to fulfil its environmental and cultural goals.

What is the project?

TOHU, which opened in 2004, is a circus venue that defines its mission in three equal parts: Circus + Earth + Human. This mission was developed in collaboration with the City of Montréal, the government of Quebec, and local partners including Cirque du Soleil.

Its most recent four-year plan reaffirmed its commitment to using the arts as a lever for economic, environmental and community development, meaning sustainable development through culture. A particular priority is solidifying its role at the centre of the Saint-Michel Environmental Complex by developing a rich programme of cultural and environmental activities.



TOHU. Photo © Ville de Montréal

How does the project work?

When the City of Montréal acquired the SMEC site in the late 1980s it embarked upon a major programme of environmental rehabilitation, planting trees over the former landfill and slowly turning SMEC into Montréal's second-largest park.

TOHU's building is a leading example of 'green architecture,' the first LEED Gold certified building in Quebec. It was built using recycled elements from dismantled buildings in Montréal, including a former train factory and former amusement park. It incorporates rainwater recovery, a low-energy lighting system, green roofs, geothermal heating and cooling, and a partnership with the neighbouring biogas plant. There is also a beehive and a vegetable garden onsite, part of which serves as a public garden for the local community. Visitors are educated about the environment every time they visit for a show.

TOHU serves as the gateway to SMEC, which will be partly open in 2017 and fully open in 2023. Since 2004 TOHU has offered daily visits and tours so that the public can understand and appreciate the process of converting a landfill into a public park.

Symbioz, a large-scale, interactive screen in the TOHU building, helps visitors to discover the history of the area and the evolution of SMEC. TOHU also runs activities in the park's public spaces, which will be developed into a full artistic and leisure programme once the park is fully open.

TOHU also educates visitors on environmental issues through a full schedule of activities including a cooperation project between schools in Montréal and Haiti on the responsible use of plastic bags; workshops for children on creating toys from recycled items; helping teenagers to plan, film and screen a collaborative movie on climate change; and a crowdfunding campaign around the beehives hosted by TOHU.

What issues has it faced? How were they addressed?

Financial challenges have been acute. Presenting any performing arts is an expensive business, but circus is a particularly expensive discipline, requiring a large investment in heavy equipment. Beyond this, TOHU's social and environmental mission imposes additional costs.

Its hybrid nature means that TOHU often falls between funding sources. Because it is mostly categorised as a cultural organisation, it has little access to public funding aimed at the environmental sector (for example, from the Ministry of the Environment).

It receives contributions from some private foundations, such as the TD Friends of the Environment Foundation, Gaz Metro, and Cirque du Soleil but these are limited. It receives \$850,000 per year from the City of Montréal, \$200,000 of which is dedicated to the costs of being the official gateway to SMEC. The rest is mostly used to finance free cultural and educational activities. Over the years, TOHU has accumulated an operational deficit.

What are the results?

Since it opened in 2004, TOHU has had over 1.3 million visitors, and taken over 125,000 people including pupils, students, engineers, and international researchers on guided tours of the Saint-Michel Environmental Complex. Over 10,000 people have participated in its educational activities. Over 50 young local residents, often neither in school nor in work, benefit from employment programmes each year. A recent study made by Concordia University showed a \$1.85 return for every dollar invested in these programmes by TOHU.

TOHU has managed to position itself as the leading venue for contemporary circus in North America, and also as a pioneer of the integration of culture, environment and local economic development. Its operating model has won attention from Seoul, Mexico and Buenos Aires, all of which are interested in adapting the concept for their own deprived areas.

LESSONS FOR OTHER PROJECTS

- Cultural venues and organisations can offer significant support for city environmental initiatives if they are made a part of regeneration projects.
- Cities should examine their funding strategies and objectives to foster greater interdisciplinary approaches. This includes ensuring that funding streams are not punitive towards activities that might intersect multiple different areas. Flexibility around funding would allow cultural organisations to maximise positive impact across multiple departmental objectives (such as projects that address both culture and the environment goals).
- Where culture is integrated into environmental projects, the governance objectives for a partnership need to be clearly articulated and written into official policies and guidance. This minimises the risks associated with key personnel change (both within city departments and at cultural organisations), where incoming personnel may not fully understand the purpose of the partnership.



Evergreen Brick Works, Toronto.
Photo courtesy of City of Toronto

Evergreen Brick Works

Toronto

Adapting heritage to create Canada's first large-scale community environmental centre

- Cities need to generate and prototype solutions to the environmental issues facing them
- Toronto has revitalized a former brick works to create Canada's first large-scale community environmental centre, a laboratory for green design and urban sustainability
- It has an extensive public programme, drawing over 450,000 visitors per year

What was the challenge?

Cities around the world are grappling with issues of water and air quality, decaying industrial infrastructure, and the degradation of our natural environments. The City of Toronto, in partnership with green charity Evergreen, wanted to create a place that generated and prototyped solutions to these issues.

What is the project?

The Evergreen Brick Works is Canada's first large-scale community environmental centre, a living laboratory for green design and urban sustainability. The development of the centre involved the adaptation and reuse of a former brick-making factory, the Don Valley Brick Works, through a partnership between the City of Toronto, the Toronto and Region Conservation Authority, and Evergreen, a charity whose mission is to create greener, more sustainable cities.

The Evergreen Brick Works is a showcase for adaptive reuse of heritage buildings, low-energy design, and building in harmony with local ecology. It acts as a hub for Evergreen's work exploring green ideas, technologies, and sustainable city-building; and as an educational venue where the public can engage in and learn about environmental activities.

From a municipal perspective, the Evergreen Brick Works project is aligned with the City Council approved 2013 – 2018 Strategic Plan with strategic goals related to the themes of city building; economic vitality; social development and environmental sustainability.

How does the project work?

Located in the Don Valley, about four miles northeast of Toronto's waterfront and financial district, the site consists of 16 buildings along with a 16.5 hectare park and natural



**Evergreen Brick Works,
Toronto.** Photo courtesy
of City of Toronto



heritage area created from the quarry that supplied the clay for the Brick Works.

The Don Valley Brick Works closed in the 1980s and remained derelict for some years afterwards. After closure, the site was intended for a new housing development, and plans were drawn up by a developer. However, due to the risk of flooding, the City decided that housing was an inappropriate use. Instead they accepted a proposal from Evergreen to adapt the buildings for creative – and sustainable – reuse.

The City of Toronto helped to facilitate the development of the Brick Works. It negotiated a lease with Evergreen for the former factory buildings (12 acres) at nominal rent. It implemented a programme of soil and groundwater remediation, and also provided Evergreen with a \$40 million (USD) capital loan guarantee so that construction financing could be secured.

Development took seven years, and was largely complete by the end of 2010. Evergreen adapted the shells of existing industrial buildings, maintaining heritage assets while making them suitable for modern use. Through energy retrofits and redesign, they created the LEED-Platinum certified Centre for Green Cities, which includes office space for their national headquarters, other sustainability-minded organisations, and meeting and conference rooms. Other Brick Works buildings are used as laboratories, exhibition halls, and event spaces.

Besides providing a base for Evergreen – a new Centre for Green Cities – the Brick Works have an extensive public program, pursuing Evergreen’s mission of promoting more sustainable ways of living. It hosts weekly farmers’ markets, regular festivals and events, conferences, workshops, community engagement activities, and have a skating rink in the winter. Evergreen Brick Works is also home to a dynamic outdoor play and learning space for children that serves as an example for the school ground greening work Evergreen does across Canada.

What issues has it faced? How were they addressed?

One of Evergreen Brick Works’ greatest assets is also one of its greatest challenges. It is located in the Don Valley floodplain, which gets up to 4 metres of water during flash floods and major storms. This makes extreme weather a seasonal threat. To manage this challenge, Evergreen employs features like ‘bioswales’ (landscaping elements to absorb storm water), well-maintained drainage lines – and, of course, sandbags. A site evacuation plan is in place.

It is also a challenge to manage and maintain the sixteen-building campus, especially as the social enterprises on site make it difficult to generate funds for reinvestment. Evergreen relies on fundraising, philanthropy, and operating grants from foundations and government.

What are the results?

Evergreen Brick Works has been a success since it opened in 2010. National Geographic named the Evergreen Brick Works one of the world’s top five destinations for geo-tourism. It annually draws nearly 450,000 visitors to the site. Their social enterprise, which includes a garden market, events business, and restaurant, generates \$3.5 million CAD each year, nearly all of which is fed back into the local economy. Through camps, summer programs, and schools partnerships, Evergreen has brought more than 90,000 children to the site for outdoor education. The Brick Works’ success has made Evergreen a national leader in green city design.

LESSONS FOR OTHER PROJECTS

- Cultural venues and organisations can offer significant support for city environmental initiatives if they are made a part of regeneration projects, especially if they hold a permanent stake in the proposed development.
- Significant investment cannot always be expected to yield a sustainable financial business model, though it may result in other significant benefits



Photo courtesy of Taipei City
Government

Park Generation 2.0

Taipei

Engaging citizens in participatory design for public parks

- A new participatory design process aimed to engage the public in revitalising Taipei's parks
- This is the first time such an approach has been used by Taipei's public sector
- A lengthy process of workshops and meetings meant that progress was slow, but this communication has been a key ingredient in project success

What was the challenge?

Were Taipei's residents really happy with their public parks? Civil servants might have had the knowledge and skills to design parks and maintain facilities, but their approach had failed to take into account the needs and desires of the people who used the parks every day. A top-down approach to planning meant that Taipei's parks had become less than user-friendly.

A city-assembled consultation panel of scholars, environmentalists, landscape architects, architects, industrial designers, sociologists and governmental officials suggested that a wide variety of citizen groups and local users should be involved in the design process in order to build more user-friendly parks for the next generation.

What is the project?

Park Generation 2.0 is an experiment that aims to transform the decision-making process in the public sector by testing a more participatory design process for city parks. It is run by the Park and Street Lights Office, part of the Public Works Department in Taipei City Government.

The consultation panel saw this pilot project as a way of disseminating the concept of "social design" to citizens, hoping that the learning from the pilot would benefit future urban planning projects. The Park and Street Lights Office hoped that this interactive process would involve as many citizens as possible, and potentially empower local communities in some aspects of civic life.

How does the project work?

In 2013, the Parks and Street Lights Office introduced academics to community groups. Later it organised twenty-one public workshops on the theme of the "ideal park." Academics gave twenty-seven lectures to audiences on the topic of community empowerment and engagement.



As a result of this brainstorming process, the Parks and Street Lights Office chose four distinctive parks in different areas of the city to implement the project. Government officials ran a procurement process to choose capable design teams (including architectural firms, landscaping firms, and creative organisations) to work on each park. Once the teams were selected, government officials and the design company began the challenging process of working with local communities to envision the transformation of these parks. Each project included between one and three consultation days to enable residents to speak out.

What issues has it faced? How were they addressed?

The greatest challenge was at the core of this project: communication. Because public parks are such an important part of city life, people were keen to express their opinions. In particular there was concern about whether trees would be transplanted during the park renewal process; the Parks and Street Lights Office ended up promising that no trees would be moved.

Both the suggested changes and the consultation process itself received a great deal of criticism in the media, reflecting the opinions of local community groups. There was concern about preserving the original ecosystem of the parks and a great deal of discussion about safety issues, such as sufficient lighting. This criticism became a major source of pressure for civil servants and the agencies involved. As engaging and communicating with community groups is a new approach in Taipei, some civil servants found the experience overwhelming. Nonetheless, most criticisms were taken into account in the final design for the parks.

Because of the need for public engagement through a series of workshops and meetings, the process took much longer than anyone had imagined. Although the project began in 2013, as of early 2017 only one of the four parks have been completed. However, the Parks and Street Lights Office accepts that this lengthy engagement process has also been the key to the project's success.

What are the results?

Wan-Yo Park has been transformed into a safe, green destination for local residents and passers-by. It includes a designated nature reserve for tropical baobab trees that were brought to Taipei from South East Asia 50 years ago. The grey and tired cement pedestrian pavement has been changed into a white and bright walking area, easy for senior citizens to use. More sunlight is reaching the park because leaves and branches have now been properly trimmed. Wan-Yo Park has become a popular hang-out place in this old neighbourhood.

The other three parks that are part of the Park Generation 2.0 project are now in the final stages of their transformation. By the end of 2017, they will become both nature reserves and leisure spaces for local communities. During this time the Parks and Street Lights Office will continue to communicate with local citizen groups.

The Parks and Street Lights Office continues to believe that this experiment has been successful, considering it is the very first time such an approach has been used in Taipei's public sector.

LESSONS FOR OTHER PROJECTS

- Involving cultural and artistic experts in potentially controversial regeneration and infrastructure projects can help engage citizens with the aims of the project, create public support, and foster a connection to place.
- Co-design approaches that engage citizens in a co-creation process require longer timelines than city officials may be used to, due to the larger number of stakeholders involved. City officials may also need support and preparation in dealing with the public debate and criticism resulting from the co-design process, which requires new levels of transparency and a new relationship to the public.



Unisphere, New York City. Photo
© Phil Kline, courtesy of New York
City Department of Cultural Affairs.

ANNEX I:

SETTING THE SCENE OF POLICY

There is a rich background of global policy frameworks on climate change and sustainable development that filter through into national and regional policies, and that cities can draw on to create links between their cultural policies and their climate change (and broader environmental sustainability) policies.

Culture is increasingly recognised as a pivotal actor in sustainable development policy on the world stage – now is the time to seize the opportunity offered by these frameworks to translate this into city-based interventions that celebrate local cultural richness and unlock the transformative power of creative action on climate change.

The Paris Agreement

The Paris Agreement is an unprecedented global agreement committing to tackle climate change. It came into force in 2016.

The Paris Agreement pledges to limit the increase in global average temperature to less than 2°C, aiming for below 1.5°C. It also commits countries to report to each other and to the public on how well they are doing on meeting their targets and review progress every five years. As part of the agreement, governments have agreed to provide international support to developing countries to help them adapt to the impacts of climate change: this includes a goal of making available USD 100 billion per year in support to developing countries.

Countries become parties to the Paris Agreement by incorporating it into their own legal system and submitting their ‘Nationally Determined Contributions’: plans for how much each country is going to reduce their own greenhouse gas emissions. Countries are not legally bound to meet the targets in their NDCs, but they do have to take action “with the aim of achieving” their goals.

In 2018, there will be a ‘facilitative dialogue’ and stocktake of progress to inform the next round of pledges by each country. The collective impact of the published national draft plans of all countries who adopted the Paris Agreement is not currently enough to achieve the 2C goal.

Alongside their NDCs, countries have their own national climate change mitigation and adaptation strategies. Not all countries have specific legal emissions reduction targets, but following the UK’s example (which passed its Climate Change Act in 2008) increasing countries are introducing national climate legislation - including Mexico (2012), Finland (2014), Denmark (2014), and Ireland (2015). Most countries have national mitigation and adaptation strategies that are not directly tied to legislative targets.

The Sustainable Development Goals

The UN's "*Transforming Our World: the 2030 Agenda for Sustainable Development*" which came into force in 2016 sets 17 goals to mobilise countries to end all forms of poverty, fight inequalities, and tackle climate change. The Sustainable Development Goals (SDGs) build on the achievements of the Millennium Development Goals. The SDGs are designed to recognise the way in which social challenges (including poverty, health, education, protection) are interlinked with economic growth as well as taking action on climate change and environmental protection. Crucially, they recognise that sustainable development cannot be achieved without climate action.

The SDGs are not legally binding, but governments are expected to create their own national frameworks on achieving them and track their own progress. There are 169 specific targets distributed among the 17 SDGs, also known as the Global Goals.

'Climate Action' is goal 13, while 'Sustainable Cities and Communities' is goal 11. There are also separate goals for 'Affordable and Clean Energy' (goal 7) and 'Responsible Consumption and Production' (goal 12).

This is the first time that culture is referred to in the context of the Sustainable Development Goals – specifically within education, sustainable cities, food security, the environment, economic growth, sustainable consumption and production patterns, and peaceful and inclusive societies – recognising that culture has a key role to play.

The New Urban Agenda, adopted at UN Habitat III

Adopted at the United Nations Conference on Housing and Sustainable Urban Development in 2016, the New Urban Agenda is a 20-year framework on how cities should be planned and managed to support sustainable urbanisation. It is seen as an extension to the Sustainable Development Goals that recognises the central role that cities and towns will play as they will be home to up to 70% of the world population by 2050.

Point 10 of the Quito Declaration states that:

"The New Urban Agenda acknowledges that culture and cultural diversity are sources of enrichment for humankind and provides an important contribution to the sustainable development of cities, human settlements, and citizens, empowering them to play an active and unique role in development initiatives; and further recognizes that culture should be taken into account in the promotion and implementation of new sustainable consumption and production patterns that contribute to the responsible use of resources and address the adverse impact of climate change."

The New Urban Agenda makes various suggestions for the city of the future, and calls for a 'paradigm shift' in the way cities and human settlements are planned, financed, developed, governed, and managed. Culture is expected to play a central role in this.

C40: Deadline 2020

Produced by C40 and Arup, Deadline 2020 is the first significant roadmap for turning the Paris Agreement from aspiration into action.

Although not a policy document, it is a blueprint reinforcing the urgency of our current position: the scale of action by 2020 (i.e. in the next 3 years) will determine if it is possible for cities to reach the emissions trajectory necessary to be in line with the Paris Agreement.

Deadline 2020 accordingly maps out different pathways for city action from urban planning, transit, energy, buildings, and waste; and outlines the roles that city governments can play in helping to convene different stakeholders towards action.

It does not reference culture specifically – however, cities that are members of the C40 network (and those that are not) can use this framework to understand the most urgent climate issues facing their cities, and where culture might most effectively play a role.

IFACCA/Julie's Bicycle D'Art Report 34b – The Arts and Environmental Sustainability, an International Overview

D'Art 34b provides a snapshot of national cultural policymakers' level of engagement with environmental sustainability, focusing on policies (rather than on artistic content or wider arts practice). It found that while most cultural representatives recognise environmental sustainability as relevant to their work and see environmental stewardship as value that aligns with other cultural values, there are few national arts and cultural policies that explicitly include the environment or climate change. The report makes several recommendations on how we might begin to turn good intentions into actions, supported through practical resources, guidance, and tools for creative practitioners.

UNESCO Global Report on Culture for Sustainable Urban Development

A report on supporting the role of culture for sustainable development in cities. Based on a global survey and insights from NGOs and other stakeholders, it provides an overview of urban heritage conservation as well as promoting the role of the cultural and creative sector in sustainable development.

Report of the Panels of the UNESCO International Conference on Culture for Sustainable Cities, Hangzhou, People's Republic of China, 2015 [PDF]

This international conference was held to address the role of culture in the sustainable development in cities, within the framework of the Sustainable Development Goals.

ANNEX II: MEASUREMENT TOOLS AND RESOURCES

C40 open source reporting, accounting, and forecasting tools and frameworks

These tools and frameworks can help city policymakers understand their city's impacts and identify specific areas for action as well as measure the success and impact of different initiatives. Although they are not all equally relevant to cultural policymakers, they may be useful to inform the most effective areas for cultural and environmental policy collaboration and strategy at city level.

Global Protocol for Community-scale GHG emission inventories (GPC)

The GPC provides a robust framework for accounting and reporting city-wide greenhouse gas emissions. They help cities develop a comprehensive and robust greenhouse gas inventory in order to support climate action planning and to establish a base year emissions inventory, set reduction targets and track city performance. The GPC ensures consistent and transparent measurement and reporting of greenhouse gas emissions between cities, following internationally recognized greenhouse gas accounting and reporting principles. Inventories can be aggregated at subnational and national levels.

City Inventory Reporting and Information System (CIRIS)

CIRIS is an Excel-based reporting tool that has been developed by C40 to support cities in reporting city-wide GHG emissions according to the requirements of the Global Protocol for Community-scale Greenhouse Gas Emission Inventories (GPC). CIRIS includes an emissions factor database and emissions calculators for the waste sector, and enables cities to analyse their inventory and compare it against those of other cities.

Climate action for URBan sustainability (CURB)

CURB is an Excel-based interactive tool that helps cities develop a range of emission forecasts and emission reduction scenarios to identify and prioritise climate sections based on impact, cost and control. The tool comes pre-populated with default data so that any city with a GHG emissions inventory can use it.

Climate Risk Adaptation Framework and Taxonomy (CRAFT)

CRAFT is a reporting framework that is comprised of a questionnaire and integrates a model climate adaptation planning process to enable cities to perform robust and consistent reporting of local climate hazards and impacts, risk and vulnerability assessment, and adaptation planning and implementation as part of their compliance with the Compact of Mayors. CRAFT provides city officials and their partners with the means to assess progress in adaptation planning; identify areas for improvement; advocate for resources to support their adaptation efforts.

C40 and UN Habitat Planning for Climate Change

C40 worked with UN Habitat and other partners to develop guidance to help city planners better understand, assess and take action on climate change at the local level. Specifically targeted to the needs of planners and professionals in low and middle-income countries where the challenges of planning for climate change are particularly high. The guide's strategic planning framework promotes a participatory planning process that integrates local participation and good decision-making; provides practical tools for addressing climate change through different urban planning processes; and supports the “mainstreaming” of climate change actions into other local government policy instruments.

Julie's Bicycle's Creative IG Tools

The Creative IG Tools are a set of free carbon calculators designed specifically for the creative industries. They have sector specific metrics for venues and theatres, offices, festivals and outdoor events, productions, and touring. The IG Tools help organisations to understand and report on the carbon impacts from energy, water, waste, travel and materials. Designed by the arts industry in collaboration with environmental experts, they are providing data that underpins sector-specific benchmarks.

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