

Creative Carbon Scotland

51 Shades of Green: Action in the Arts

Conference Report



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Introduction

The 51 Shades of Green: Action in the Arts conference took place on Thursday 27th October 2016 at the Pearce Institute in Govan, Glasgow. It was the second of Creative Carbon Scotland's annual conferences for green arts organisations.

Spanning a whole day, the event focused on sharing the innovative and constructive actions the Scottish arts community has taken to reduce their environmental impact, and to consider environmental sustainability creatively within their work.

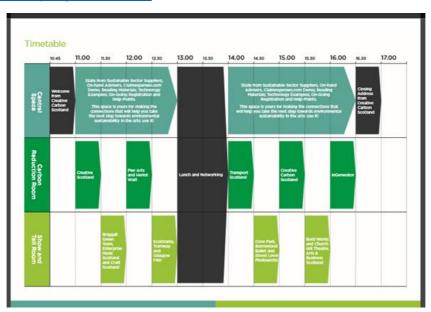
The conference had several key aims:

- To facilitate knowledge exchange, networking and connection on sustainability issues between the green champions of arts organisations in Scotland.
- To encourage Scottish arts organisations to take realistic actions which reduce their carbon emissions.
- To provide access to key sustainability support and expertise relevant to the arts sector.

Over 110 people attended the conference (<u>you can find the delegate list here</u>), from as far away as Stornoway and Wigtown, with a range of organisational roles and art forms represented.

During the day, we heard from 17 different speakers across two spaces, with 9 sustainable suppliers and support organisations hosting stalls throughout the event. Talks concentrated on everything from energy reduction to transport policy; staff engagement to the UN's Sustainable Development Goals (all of which you can read about below). Time was also scheduled for attendees to meet and interact more informally: to share their experiences, ideas, and commonalities with their equivalent green champions working in different arts forms or geographical locations.

You can see the full programme here.



The Green Arts Initiative, and our annual conference, is supported by climate-neutral printing company PR Print and Design, and an Arts & Business Scotland New Arts Sponsorship Grant. You can <u>find out more about their support here.</u>





The Carbon Reduction Room

Our CO₂ room highlighted the big changes in policy and technology around carbon reduction.

Creative Scotland

Kenneth Fowler, Director of Communications at Creative Scotland, opened the day by giving an overview of Creative Scotland's commitments under the Scotlish Climate Change Act of 2009, and remarking on how strongly the sector had embraced environmental sustainability.

Creative Scotland is required as a Public Body to act in such a way as to deliver the aims of the climate change act, not just to reduce carbon emissions itself but to contribute to a more sustainable society and help Scotland adapt to a climate already affected by climate change. It is implementing internal policies to make its own staff and business travel more sustainable and reduce energy use in its buildings. However much of its budget is granted to the various organisations it supports.

He said that the requirement for Regular Funded Organisations to report carbon emissions would continue, but more importantly how the arts, screen and creative industries responded to climate change, communicated about their work on climate change and used their role to influence wider society would grow in importance in Creative Scotland's eyes. He argued we need to find ways of 'increasing the volume' in our communication – both in terms of amount and 'audibility'.

Kenneth noted there were parallels between how people value creativity and how they value nature and he referred to some useful work by the communications agency Futerra.

Looking towards the forthcoming Regular Funding application process, Kenneth said that the Environment Connecting Theme would be an important element of the assessment process, focusing not only operational elements such as carbon reporting but also the presence of environmental champions at senior management and Board level and the organisation's contribution to influencing wider society in relation to climate change, and that the reduced funding climate will not affect the importance Creative Scotland places on this area of work.





the formula





what to say







Pier Arts and Heriot Watt

Shona Flanagan, Business & Finance Officer at Pier Arts in Orkney, and Calum Henderson, a final year undergraduate student in Architectural Engineering, Heriot-Watt University presented together on a joint research project they had recently undertaken. Shona gave us a quick introduction to Pier Arts, and their new building, which was completed in 2007. While the building was an overall improvement, electricity costs were unsustainable (the refurbishment had come perhaps a bit before environmental sustainability became a major element in arts refurbishments). Shona contacted Creative Carbon Scotland for advice which resulted in a joint project with Heriot Watt University: Calum had subsequently taken up the opportunity as a final year project – he was keen to work on a practical project, and to see Orkney!

Pier Arts provided Calum with lots of information- floorplans, tech specifications, electricity bills – and the project aim of discovering whether the energy bill was appropriate for the building, or if there was something responsible for making them higher than they should have been. Since, all energy use is highly carbon-intensive electricity, any reduction would result in significant cost and carbon savings.

Calum gathered information on the building from several sources to build a picture of the energy use.

- He benchmarked Pier by comparing their energy use/m2 with similar buildings (although the centre is quite unique in its location). The gallery came out quite well in energy terms, the dependence on electricity for heating led to a higher than usual carbon footprint.
- He used environmental modelling software IES-V to simulate the building in relation to its environment (cold, northern, windy, damp) and to understand how the building should operate. The model suggested that Pier was not over consuming energy for heating, but highlighted that their lighting was using a surprising amount of energy.
- Next, he looked at energy consumption data as it related to outdoor conditions though degree day analysis. He was able to see that the underfloor heating was not operating correctly and identified potential cost savings of up to £130/wk!
- To pinpoint the problem areas, he used a thermal imaging camera to identify internal and external areas of leakage and energy loss (such as through areas of poor insulation). imaging identified some clear problems, from single glazed windows to an inefficient heater behind the reception desk, as it is just outside the area covered by the underfloor heating!

Overall, the research project had some very tangible outcomes around lowering energy consumption, cost and carbon emissions. The air conditioning, lighting, glazing, Building Management System and underfloor heating of Pier Arts Centre were all adjusted as a result, with the research underpinning the business decisions.

Academically too, Calum produced a successful dissertation, a conference paper, and a journal article and the data has been used by a further student at Heriot Watt University, and to inform other art galleries around humidity issues.

Both Shona and Calum also reported that the success of the project established good relationships for future studies between the organisations!







Transport Scotland

Archie Stoddart, head of the Sustainable Transport division of Transport Scotland (the national agency which delivers the Scottish Government's vision for transport), opened the session by giving a strategic overview of what Transport Scotland does, and what it is responsible for. In particular, he highlighted that much of their support from small and medium-sized enterprises (SMEs, as many arts organisations are), is delivered through other, connected, organisations, such as the Energy Savings Trust and Paths for All.

Archie focussed on the upcoming policy changes which were likely to affect those present. He discussed the Scottish Government's Report on Policies & Proposals (RPP3): now to be known as the Climate Change Plan, the January 2017 publication includes all the plans for the Government to achieve its climate change targets, the ongoing strategy for national travel and transport policy, and the mandate for Transport Scotland's ongoing work. Suggesting that more testing targets may be more likely in future, he explained that the targets of the 2009 Climate Change (Scotland) Bill have already been met, and that the UN's COP21 Paris Agreement would require deeper commitment.

He discussed the three ways of decarbonising transport that arts organisations could adopt:

- Exploiting new technologies: more efficient and electric vehicles; Electric vehicle market is growing and offers great potential for grid storage as well.
- Maximising efficiency: eco driving courses can lead to immediate 10 or 20% fuel reductions and well as increased safety, and are available for free through the Energy Saving Trust;
- Shifting mode: to cycling, walking and public transport forms, in conjunction with reducing journeys through increased video conferencing and improved freight logistics.

Moving towards the business of travel and transport by SMEs, he pointed out the difficulty of change, because travel is built up of lots of small decisions: whether to go by train; whether to walk, bus, cycle or drive to the station; how to get from the station to the venue. Due to the number of points of intervention, there are lots of points of opportunistic failure, and rather a systemic change is required to ensure success.

Archie highlighted that there are often many stakeholders involved in transport planning and usage and we discussed TheatreBus project in Aberdeen, where His Majesty's Theatre, which triggers nearly 1m journeys per year by audience members, hadn't previously seen itself as involved in transport, but now is working with Stagecoach and Aberdeenshire Council to think about its role. In effect, the potential influence of arts organisations on travel is much larger than just the travel they undertake themselves.









Creative Carbon Scotland

Creative Carbon Scotland have been running the Carbon Reduction Project for a couple of years now and have run many workshops and meetings, and dispensed lots of advice, with waste reduction a common point of discussion.

With this in mind, we decided to follow our own advice and took up the challenge of trying to address some of the feedback from last year's conference about our use of plastic cutlery for the lunchtime catering. What started out as a 'simple' procurement exercise turned into a voyage of discovery with the realisation of the many factors involved in the whole lifecycle of a simple cup, plate, spoon etc. We decided we would share our findings in this talk by Fiona MacLennan, our Carbon Reduction Project Officer.

When the whole lifecycle is considered, the most sustainable tableware by a large margin is the traditional washable variety which is typically used thousands of times. However, we had no kitchen facilities at our venue and so believed this was not an option. We later discovered that for a slightly higher cost than buying disposables, it's possible to hire a wide range of crockery and cutlery and for a small extra charge the service even includes washing up. It's not always possible for every event (as was not possible with the timescales and resources we had this year) but it's worth consideration for many.

The first step when looking at alternatives was to do a bit of paper based research. A previous project to try and identify the most sustainable 'disposable' cup to use for promotional purposes gave us a starting point but worryingly the results hadn't been conclusive:

- Should we use (low manufacturing Carbon footprint) recyclable plastic?
- What plastic is recyclable?
- What about (medium manufacturing Carbon footprint) compostable materials)?
- Perhaps use a less disposable (high manufacturing Carbon footprint) material like steel and hope that it will be reused many times?
- How do we balance embodied carbon due to manufacture against energy used for recycling and disposal?

The research on plastic recycling highlighted that only a few plastics can reliably be recycled, some almost never could and many were in the 'check with your waste contractor' category. So, that's exactly what we did. We can highly recommend a visit to a recycling plant. It turned out to be an interesting experience with surprising lessons!

Before the visit we had been on the point of pressing the 'order' button on a delivery of compostable tableware (as a convenient and highly-visible form of sustainable procurement) but the news that few contractors can provide the conditions to allow the breakdown of the materials used gave us pause for thought. However, a bit more research revealed that the compostable items could be used as feedstock for the Anaerobic Digestion plant in Fife which is Fiona's local area. The downside was that this added travel emissions in to the mix as the bags of used compostables had to be transported by car between Glasgow and Fife. Although not ideal, we were under time pressure (and since the car was coming to the conference anyway) and so we went ahead and ordered Vegware.

We've learned just how complicated sustainable procurement can be. The best solutions may need to take several factors into account and it can take time to get it right but we think it's worth it.







InGenerator

Andrew Coulton of Ingenerator gave us some insight into why he became involved in developing ClaimExpenses.com, his online travel recording tool and gave a very clear and thorough account of its development.

Andrew began by explaining that he has spent a large part of his professional career dealing with finance, including with the Edinburgh International Book Festival, and that he was very aware that expenses is the messiest part of finance. Travel is the messiest bit of carbon management, particularly in the arts we are having to deal with lots of different sources of information, from lots of different people, many of whom may be with an organisation for only a brief spell.





ClaimExpenses.com was developed to provide users and organisations with an intuitive but comprehensive means of claiming back both travel and non-travel expenses while painlessly calculating travel emissions at the same time. As well as making the job of dealing with expenses easier, the automatic display of carbon emissions associated with each journey helps users to become aware of the different impact of using various modes of transport.

The tool was developed in by Ingenerator in cooperation with Creative Carbon Scotland and with funding from Ambition so in its current form, accounts are free for all arts organisations in Scotland.

Andrew briefly went through the detail of entering travel information from selecting start and end points to selecting modes of transport and passengers. The tool provides a range of functionality:

- An account can be created for an organisation and a finance administrator appointed;
- The finance administrator can then add any number of individual users to their organisational accounts:
- Administrators can create project and budget types, mileage claim rates and also add 'generic' traveller types to allow for group travel;
- Passengers may be entered as individual account holders or as a group of generic travellers:
- All entered travel data is collated into a reports page which provide a breakdown of emissions, miles and costs by mode, project and budget and also provides a total travel footprint;
- Reports can created for any selected date range;
- All data can be downloaded into a spreadsheet compatible file.

Finally, the feedback tab at the right-hand side of the screen allows users to request new functionality or support. In Generator are keen to receive suggestions and have implemented many received in the past!







The Show and Tell Room

Our Show and Tell Room showcased leading organisations from the green arts community.

The Briggait Green Team

Four members of the dedicated Briggait Green team (Louise Allan, Lois Green, Emily Reid and Denise McLeod) described the development and form of the group based in the Merchant City. Meeting four times and year, and comprising of a mixture of both WASPS studios staff and building tenants, they shared their success in working to build guidance on environmental sustainability into studio holder welcome packs, leading to the embedding of such behaviour within the running of building.

They also talked of the challenges they have faced to date, particularly how to manage and affect the energy consumption of a huge range of tenants (particularly as hire and energy costs are combined into rent prices at present) and their ambitions for the future. With big plans around breaking down energy costs and installing indoor bike storage to encourage more sustainable travel among building users, they may even harness the design skills of tenants through a design brief open call!



Enterprise Music Scotland

Paul Tracey of Enterprise Music Scotland talked of the organisation as being at the beginning of their journey into thinking about how sustainability can be built into their working processes, and the recent session with their Board at which Ben Twist (from Creative Carbon Scotland) had facilitated some sustainability planning.

Paul also spoke of their 'Chamber Music Miles' report, which calculated the difference in CO2 emissions saved by touring chamber music acts to rural locations (in contract to encouraging audiences to travel to the Central Belt), a piece of research which exemplifies how individual organisations can examine the choices and impacts around their own activities.

They see their next main sustainability focus in acting in an influencing role with the 75 voluntary organisations which they currently work with, as well as all the musicians and local promotors working at a national level.







Craft Scotland

As another organisation with a focus on influencing others working professionally in the cultural sector, Veronique Lapeyre spoke about how she used her marketing role at Craft Scotland to create and share content for their 2016 'MakeitGreen' series. Craft Scotland partners with Creative Scotland on the Green Crafts Initiative: encouraging Scottish makers to reduce their environmental impact and share their commitment to sustainability.

Veronique worked with existing and new Green Crafts Initiative members to commission blogs of their sustainable practice, and sourcing 'Buzzfeed-type' articles on material use, etc. You can read these blogs here:

Getting Started in Sustainability

Make it Green with Ruth Hollywood

4 Reasons to Consider Sustainability as a Maker

Make it Green with Andy Stirling Robertson

A 6-Point Checklist for Makers Materials

Make it Green with Jo Pudelko

<u>6 Places to Find Sustainable Materials in Scotland</u>

Do Not Dump It - Recycle It!

EcoDrama

Emily Reid from theatre company EcoDrama spoke of their philosophy that the way in which they make their work is as important as the content.

This idea is exemplified in their 'Magic Van' which runs entirely on recycled vegetable fat (sourced via Apple Fuel), which uses the waste products of take away restaurants around Glasgow. Key motivations for this have been to engage the children in the schools which they visit, but also to trial out the running of an ethically sourced biofuel van for others to learn from (as we have often found out, case studies tend to be the most useful way for arts organisations to see how sustainability actions can work in practice).

Emily also spoke about their more recent purchase of Nissan Leaf electric car, and the goo reliability it offers, but the careful forward planning necessary to ensure adequate charging points along the way (Zap-Map is a good tool for this!)

Tramway Arts Venue / Glasgow Life

Green Champion Stefan Strzelecki presented on the 'Green Declaration' which he has developed for Tramway's operations and staff. In its creating as a working document, the Declaration can also able to be provided to visiting artists and companies who are using the building for hire, and the Declaration ensures the continued commitment of all those operating in the venue space.

Stefan also talked about Tramway's longer term ambitions to aim for a Green Tourism Gold Award, after being inspired by the excellent sustainability work of the People's Palace in Glasgow, with their ultimate intention to become an example within the group of Glasgow Life venues, and provide an inspirational path to follow!

Glasgow Film

Caroline Rice discussed how the green duties are shared widely amongst staff at Glasgow Film Theatre, including among voluntary and permanent staff, whilst she (as Green Champion) plays a role in collating data together (something she enjoys doing!) She remarked on how helpful it is to





have the support and endorsement of Chief Executive when making decisions and engaging other staff members in sustainability efforts.

Glasgow Film have also been making significant environmental achievements across many different areas of their organisation's operations, including reducing the size of their overall print run, working with their cleaners to switch to a more sustainable supplier as recommended by Resource Efficient Scotland and using ClaimExpenses.com across their staff team to monitor business travel. Caroline also highlighted their preference for local supplier and sustainable supply chains: at present, around 60% of their suppliers are based Scotland (and 40% in the Rest of the UK), but they are keen to become more and more local in their approach.

Cove Park

Catrin Kemp shared some of the details of the capital development of their new Artist Centre – including the incorporation of variously more sustainable initiates such as having woodchip boiler and recycling rain water collected on-site. The also aligned the new build with the Passivhaus Principles: a low-energy building performance standard that aim for "excellent thermal performance, exceptional airtightness with mechanical ventilation".

She explained that now the new centre is complete, their focus is turning to considering how they use their 50-acre site in a way which addresses local sustainability and climate change concerns.

Catrin also shared some details around Cove Park's hosting of the Creative Carbon Scotland 2016 Arts & Sustainability residency (more details here). She noted it was interesting to learn about deep time and to consider how their site has developed over time, and expressed they now had an interest in thinking about how sustainability could be built into their programme in the longer term.

Street Level Photoworks

Iseult Timmermans, one of the Green Champions at Street Level Photoworks, began by explaining the main challenges they face as a small team working in their field: they have experienced cuts to funding and a reduction in their number of staff, as well as a lack of control of their energy (and thus their energy bills) as a tenant in a larger building.

She explained their journey of discovery around their sustainability activities that began with marking the number of rubbish bags leaving the building, and which has resulted in Iseult learning about the associated costs and carbon of having their toxic chemistry collected for poor-quality processing. As a result, they are now looking into options for recycling the chemistry themselves on-site which would save on transportation costs and carbon!

Having initially seen this monitoring as a burden, Iseult explained how she now sees it as a creative process by which she can understand more about the systems within which they work, and how to improve it for their benefit.

Church Hill Theatre

J-P, the Green Champion and Bar Manager talked about how the UN's Sustainable Development Goals had influenced his thinking focusing on the sustainability activities of Edinburgh's Assembly Rooms and the Church Hill Theatre. His involvement in the 2015 ArtCOP Scotland Lifecycle of Stuff had focussed work on the 'Responsible consumption and production' goal.







He talked about sustainability as an ongoing review process rather than an end target, with a focus on continuous improvement. Now that the organisation is recycling at a rate of 95%, he is looking into how they improve the quality of their recycling, as follows from the recommendations of the Scottish's Government's waste hierarchy.

Staff engagement has been a big focus for J-P: finding different routes of appealing engagement, with everything from competitions and awards, to highlighting cost savings and asking other, external, organisations to support their work (e.g. asking recycling or waste companies to come in and talk to staff or lead site visits to recycling plants.).



Bold Works

Jon Clarke used the session talking about the different levels at which outdoor events and festivals can engage with low carbon energy generation: tokenistically, realistically or radically. He emphasised the importance of reducing electricity demand as much as finding technological solutions and described the need to have set one's philosophy based on the following:

- Benchmarking
- Doing the maths
- Buildings associated costs into annual budgets

Jon also spoke of his involvement with NVA and the Speed of Light Project: an internationally touring artwork which combines mass communal movement and bespoke LED light suits – one of which Jon wore to demonstrate! The Speed of Light Project is a great example of how public art can explore themes of energy and connecting to the land, with the project viewing landscape as an 'open canvas' which provokes attitudinal change to sustainability issues.

Arts & Business Scotland

Like Creative Carbon Scotland, Arts & Business Scotland are a sector support organisations, focussed on developing and offering advice to the Scottish cultural sector. Carl Watt explained how environmental sustainability also features within their work, through their integration of sustainability criteria within their funding applications for New Arts Sponsorship grants.

Carl also spoke about some the projects they have supported which have had sustainability elements or design at their core, including: the National Theatre of Scotland's 'The Last of the Polar Bears (a tour conducted entirely on bicycles); Vision Mechanic's 'Giants in the Forest' (which encourages people to interact with their local forest by constructing, seeding and suspending 37 giant heads suspended in trees where they remain, growing and changing with the seasons) and Right Lines' collaboration with the Scottish Environmental Protection Agency 'Rapid Departure' (about freak floods and environmental calamities).







The Central Space

Our Central Space highlighted those sustainable suppliers and support providers that can help arts organisations further reduce their environmental impact.

Our Stallholders

- PR Print and Design: A Glasgow-based carbon neutral printing company (and one that produces over 80% of its energy needs from solar power)
- <u>Black Light</u>: Light, stage, sound and AV suppliers with an efficiency focus and they can undertake free LED appraisals!
- <u>Changeworks</u>: Scottish charity focussing on fuel poverty, waste and carbon reduction.
- EAE: Sustainable print distribution specialist, producing their own renewable energy!
- <u>Energy Savings Trust</u>: Government-backed organisations offering advice, loans and grants around energy, transport and employee engagement.
- NetThings: A smart energy-system company, whose technology can enable savings of up to 20%.
- <u>Plan Bee Ltd:</u> Motherwell-based company offering the establishment and management of beehives for a positive local impact & support one's corporate social and environmental responsibility.
- <u>Skills Development Scotland</u>: Scotland's national skills agency, offering funding for training which equips individuals with carbon reduction knowledge.
- <u>The Scottish Institute for Remanufacture</u>: One of 6 global centres of excellence in remanufacturing, which stimulates and co-funds projects addressing industry sustainability challenges.











Conclusions

We are thrilled with 51 Shades of Green, and the success of our annual gathering for our GAI members and organisations working on environmental sustainability, and we hope it will be a source of useful information, examples and connections for the coming year.

The conference exists to serve the green arts community, and we are constantly aiming to improve the event for future years to make it as useful as possible for attendees. With the feedback from this event, we are working on developing the form and structure of the day, and potential additional events to support our members.

52 Shades of Green?

If you wish to participate in our annual conference, as a speaker, stallholder, or participant, or have ideas about content, location or structure, please get in touch by emailing Catriona.Patterson@creativecarbonscotland.com

Next Steps for the Green Arts Community

The 51 Shades of Green conference is the focal even for the Green Arts Initiative: an interactive, year-round community of practice made up of over 170 arts organisations from across Scotland.

Membership is free, and all members are simply asked to:

- Name a Green Champion
- Commit to reducing their environmental impact over the following year
- Commit to reporting, once a year, on what actions they have taken

To find out more about joining the GAI, to read our past annual reports, or to look at our member case studies, go to www.greenartsinitiative.co.uk



