

STUDENT CONFERENCE ON SUSTAINABLE FUTURES

2017

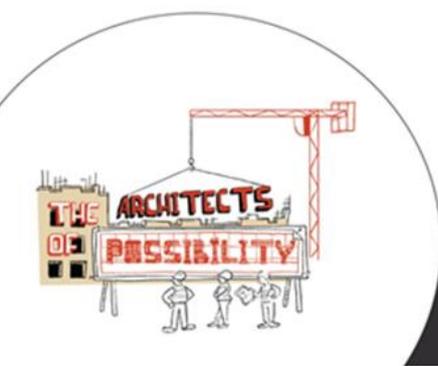


PROGRAMME

9:30-10:00	Registration	Great Hall - UG.09
10:00 - 10:20	Welcome Address - Professor Tom Ward: Deputy Vice Chancellor for Student Education	Great Hall - UG.09
10:20 - 11:00	Poster Exhibition	Parkinson Court
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11:00 - 12:20	Student presentations begin	Breakout rooms
12:30 - 13:00	Lunch, posters and networking	Baines Wing & Parkinson Court
13:00 - 13:45	Conversations & Workshops	Parkinson Court and Baines Wing
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13:50 - 16:00	Student presentations continue	Breakout rooms
16:10 - 16:30	Awards and Closing Address	Great Hall - UG.09

Rooms will be sign posted throughout the day. If you need directions to any of the locations please ask a member of the conference team or one of the sustainability volunteers who will be wearing red hoodies.

Please tweet, post, and snap your experiences of the day! #SCSF17



#SCSF17
@uol_sus

ORAL PRESENTATIONS

	Rooms 1	Rooms 2	Rooms 3	Rooms 4
Morning Sessions	Cities Baines Wing 2.10	Communicating Sustainability Baines Wing 3.06	Society and Community Parkinson Court B.10	Biodiversity and Climate Change Great Hall UG.09
11 - 11:20	Leeds: how green?	The role of the arts in catalysing action towards a sustainable future	People and Nature in Harmony? Understanding a consumer ethical dilemma	To tree or not to tree?
11:20 - 11:40	The role of businesses in Amsterdam's transition into a sustainable city	Resources and Education	Investigating the Social Impact of Permaculture Demonstration Projects	Death in the oceans: extinction risk in the marine realm
11:40 - 12:00	Exploring the potential of solar energy for communities in the developing countries of Africa	The use of nostalgia at the ideation stage of permaculture design: opportunities for sustainability?	The Impacts of Improperly Disposed of Waste Over University of Leeds Change over	Better Biosecurity: Stop the Spread of Invasive Non-Native Species
12:00 - 12:20				Will it be a white Christmas in 2017?
12:30	Lunch and Poster Exhibition Conversations - Re(act) on Sustainability (Parkinson Court SR 1.08) / Community Engagement in Curriculum (Baines Wing 1.13) / 'What's it like to do a PhD?' (Baines Wing 1.15)			
Afternoon Sessions	Innovation and Technology Baines Wing 2.37	Communicating Sustainability Baines Wing 1.15	Society and Community Parkinson Court B.10	Food and Agriculture Baines Wing 1.13
13:50- 14:10	Integrated low carbon energy solutions for remote rural areas (ILCERRA)	Investigating sustainability discourse in Ugandan print media	Diva Cup & Co - the role of sustainable menstrual products for female empowerment	Connecting Indian Farmers - present challenges & future Prospects
14:10- 14:30	Carbon savings from thermal pile foundations	Assessing consumers' perceptions of electricity use: Does providing reference points help?	The Church and Fair Trade: The challenge of promoting sustainable livelihoods.	Fool By Food?
14:30- 14:50	Grass to Gas: a Lawn Unto Itself?	What we know affects what we do - Exploring fashion sustainability and it's perception by young consumers	Learning Champions inspiring adult learners	Feed a Friend
Room change				
Afternoon Sessions 2	Innovation and Technology Baines Wing 1.13	Governance and Policy Baines Wing 2.37	Poster Exhibition Parkinson Court	
15:00 - 15:20	Designing with the Living - the future of sustainable textiles	Regaining legitimacy following an environmental disaster: BP and the 2010 Deepwater Horizon oil spill		
15:20 - 15:40	Simulation framework to support sustainable supply network in Indonesia natural rubber industry	Calorington Secession – An application of remedial right only theory & primary right theory		
15:40 - 16:00	Reborn: An eco-friendly app to extend the life of clothes	Urban Green Spaces' Governance: challenges and a way forward to sustainable development		

Room 1 (Baines Wing 2.10) - Morning Session

Cities

11:00 - 11:20 **Callum McIntosh**
Leeds University Business School
Leeds: how green?

Just how sustainable is our city? The answer, is that nobody truly knows.

The primary aim of my project is to discover more about the relationship between some of the main organisations in Leeds and climate change.

Specifically, I will produce case studies of several organisations throughout the Leeds area. In order to obtain relevant information for my case studies, I have requested that organisations fill in tailored questionnaires. Principally I want to obtain figures of CO2 emissions, learn more about the perspectives of firms on accountability and if any companies have or are in the process of introducing any carbon reduction initiatives.

Personally I believe that this project has an underlying theme of accountability. The law in our country needs to be changed, to ensure that it is mandatory for organisations to regularly publish accurate reports on their emissions. The impetus for this project was our city's new, country-first Committee on Climate Change. Ultimately the goal of this project is to help to set a precedent for others to follow, for more accessible education on climate change, more committees to instigate sustainability, more projects to invigorate fervour for this cause, and more accountability for everyone.

11:20 - 11:40 **Rebecca Ewan**
School of Earth and Environment
The role of businesses in Amsterdam's transition into a sustainable city

It has been suggested that Amsterdam is a front-runner of sustainability, embarking on a 40% reduction in CO2 emissions by 2025. It is largely agreed that it is essential to involve local stakeholders in the effort to stabilise atmospheric CO2 concentrations, with communication between government and businesses being crucial for environmental stewardship.

This study focuses on the energy practices of businesses in Amsterdam, in particular if companies are faced with barriers when attempting to be energy efficient, and if they receive support from the municipality. It comprised of an interview with ten businesses, ranging from small independent establishments to large international corporations, focused in both the city centre and at the NDSM Shipyard.

11:40 - 12:00 **Grigory Grebennikov**
School of Chemical and Process Engineering
Exploring the potential of solar energy for communities in developing countries of Africa

The bid for green futures in the world has created a drive for developing renewable energy systems that can supply reliable and sustainable electricity. The growing demand for clean energy in the developing countries calls for exploration of alternative energy sources. A particular area of interest in the counties of subtropical region is Solar Energy due to its abundance.

This project explores the electricity demand of individual households by analysing field survey data, collected by fellow researchers from the Department of Energy at Leeds University. The aim is to create synthetic electricity demand profiles which can predict the future demand for electricity by the hour. By comparing these curves to solar generation curves we can state whether solar installations is a viable option for these homes. Knowing this information is useful in identifying the potential solar energy installations can have.

Room 2 (Baines Wing 3.06) - Morning Session

Communicating Sustainability

11:00 - 11:20

Claire Martynski

Faculty of Arts, Humanities and Cultures

The role of the arts in catalysing action towards a sustainable future

The looming challenge of climate change is becoming ever more central to global debate, as we begin to experience some of the physical impacts of higher temperatures. According to analysis by Carbon Brief, we have just five years left at current emissions levels if we want a 66% chance of staying within this 1.5°C limit (Carbon Brief, 2014), leaving us very little time to make significant shifts required. To have a chance of achieving this, and to tackle the broader range of environmental issues, we will need the active engagement of citizens and institutions across the globe.

Much has been done to set out the facts and figures, the analytical science-based arguments that call for action. However, beyond local weather events that temporarily capture the media headlines, climate change and many other environmental issues remain abstract concepts. Is this where the arts and cultural industries can play a significant role?

11:20 - 11:40

Isabella Petersen-Adams

School of Earth and Environment

Resources and Education

This talk explores the subject of geology and whether it is or can be sustainable. Often geology is associated with oil and gas in the hydrocarbon industry which is very much reflected in the modules and teaching style a lot of student these days experience. Considering the subject focusses on earth processes and resource management, it is often overlooked when considering sustainable solutions to issues globally. Can geology be sustainable?

11:40 - 12:00

Mary Loveday Edwards

School of Design

The use of nostalgia at the ideation stage of permaculture design: opportunities for sustainability?

Permaculture is a form of systems design that mimics natural systems to produce ethical, closed loop, intelligent design interventions. As a contributory strategy to sustainability it is not well known. This paper aims to provide evidence of how permaculture frameworks can be aligned with evidence from frameworks of sustainability to add support for permaculture design consideration when designing sustainable urban spaces.

It is at the design ideation stage – when design is being conceptually considered in terms of a contextual application – that the use of nostalgia can be usefully employed. Nostalgia is a longing for or wistful emotional relationship with the past. Boym (2001) distinguishes between two types or tendencies of nostalgia. Restorative nostalgia is a desire to rebuild the past in its entirety, as it was. This is the kind of nostalgia often invoked in rhetorics of nationalism. Although nostalgia is a psychological “meaning-making resource” (Routledge et al, 2012), when it is not examined but is invoked for consumer (Cross, 2015) or ideological (Samuel, 1994) purposes only it loses the potential for future-making for which it is valued in this study. Reflective nostalgia, however, is a way of critically engaging with nostalgia, emotionally - but without the distancing tools of irony and cynicism - while staying wary of meta-narratives which are employed to legitimate mechanisms of social control. Permaculture is a strategy implicitly designed for self-actualisation and increasing individual and group agency, essential elements in discourses on sustainability.

Room 3 (Parkinson Court B.10) - Morning Session

Society and Community

11:00 - 11:20

Katie Thomas

School of Earth and Environment

People and Nature in Harmony? Understanding the Consumer Ethical Dilemma

With growing interest in ethical consumption, understanding how consumers make ethical purchases is becoming increasingly important. This research addresses a critical knowledge gap in understanding how consumers respond to ethical dilemmas in purchasing decisions, which occur when consumers' ethical concerns conflict. This study provides a novel approach to investigating consumer ethical dilemmas by drawing upon a case study of a social enterprise in the Eastern Usambara mountains of Tanzania, involving a cooperative of women producing handmade jewellery using butterflies sourced from a local cooperative of butterfly farmers. The project aims to significantly improve the livelihoods of those involved (beneficial consequences), however, the production of the jewellery involves killing butterflies (harmful consequences). Thus considering the beneficial and harmful consequences of producing the jewellery may cause consumers to experience an ethical dilemma. Amani Art is currently seeking to sell their jewellery to a UK market, and hence this research intends to identify whether the jewellery is a suitable 'ethical' product for UK consumers.

11:20 - 11:40

Alexander Dennis James

School of Chemistry

Investigating the social impact of permaculture demonstration projects

Feedback in the form of directed questionnaires or visitors' book entries have been collected from three projects across the UK. These data have been analysed for key themes and mapped onto the 5 ways to wellbeing framework (Connect, Be Active, Take Notice, Keep Learning and Give) using the narrative evaluation method. The aim of this study is to investigate the wellbeing impacts of experiencing a permaculture project first hand. Permaculture is a global sustainability movement based on a shared set of ethics and principles, implemented using a wide range of design tools.

The projects included were The Red Shed (a North hardy plant nursery and forest garden in the Scottish borders) Hyde Park Source (an urban community and environment charity based in Leeds) and The Grange (a rest and support sanctuary for refugees and others in Norfolk). These projects are all members of the Learning and Network Demonstration (LaND) initiative of the Permaculture Association UK, and were chosen to cover a range of rural, urban, agricultural and social projects.

11:40 - 12:00

Lewis Mitchell

School of Earth and Environment

The impacts of improperly disposed of waste during University of Leeds changeover

Waste is a key issue in sustainability, it features as a target in the 11th and 12th Sustainable Development Goals, recently set by the United Nations. Within Leeds the student population is approximately 9% of the total population and their waste habits have an obvious impact. At no time is this more obvious than from the 22nd of June to the 6th of July, where in 2016 186 tonnes of additional waste was collected from the streets of Leeds. Most of the waste collected is either avoidable and/or recyclable or reusable.

This sharp increase is a result of the mass movement of students as private housing contracts end, and new ones begin. The aim of the research was to evaluate the economic, social and environmental impacts of the changeover period and work with students and other key stakeholders to formulate recommendations on how we can reduce these impacts in the future.

Room 4 (Great Hall UG.09) - Morning Session

Biodiversity and Climate Change

11:00 - 11:20

Vishnu Sunil Kumar

School of Chemical and Process Engineering

To tree or not to tree?

Carbon Dioxide is sequestered by trees, but in a tropical forest at high altitudes, it varies across an elevation gradient due to a wide variety of natural and anthropogenic reasons. Estimating and understanding the variation of carbon stock with elevation, will help isolate certain 'zones' or areas of high carbon sequestration potential. With the identification of such zones, Governments can focus their limited finances and manpower onto conservation efforts for better rewards (Carbon storage) and higher participation for the protection of biodiversity.

This study used altitudinal gradients at the Silent Valley National Park, Kerala, India, covering an altitudinal variance of 700m.

11:20 - 11:40

Adam Woodhouse

School of Earth and Environment

Death in the oceans: extinction risk in the marine realm

Extinction rates are currently at their highest for 65 million years and are rising at an unprecedented rate. Oceanic ecosystems are particularly vulnerable to rapid environmental change, which is compounded by our lack of knowledge regarding the evolutionary history of many marine groups.

This project aims to provide the most detailed and comprehensive analysis of extinction risk in a marine group to date, and subsequently provide a means to determine which present-day species and marine ecosystems are under the highest risk of extinction through anthropogenic climate change.

11:40 - 12:00

Stephanie Bradbeer

Faculty of Biological Sciences

Better Biosecurity: stop the spread of invasive non-native species

Non-Native species are animals or plants that have been introduced outside of their natural range, whether deliberately or accidentally. Many Non-Native species are harmless or even beneficial, however some Non-Native Species are able to spread and cause damage to our environment, the economy, or to human-health. These are termed Invasive Non-Native Species (INNS). One of the most concerning aspects of INNS spread is once introduced, populations are often impossible to remove. Therefore, efforts to stop introductions are often seen as more economically viable than retroactively managing populations. The University of Leeds, along with other agencies has sought to raise biosecurity awareness through e-Learning and improve protocols in hope that this will limit INNS spread.

12:00 - 12:20

James Norman

School of Earth and Environment

Will it be a white Christmas in 2017?

As has become something of a tradition, in the weeks running up to Christmas the UK Met Office issues a long-term forecast as to the likelihood of a 'White Christmas' – that is snowfall somewhere in the United Kingdom on the 25th of December.

Recent developments in meteorological research hint at the possibility of extending this prediction window out to twelve months or more. And although the ability to resolve a single day's weather-outcome so far in advance remains an impossible feat, long-term predictions of average conditions for a season or year can indicate which way 'the dice are weighted'. So, with one of these experimental forecasts in hand, would you bet on a white Christmas in 2017?

Conversation sessions

13:00 - 13:45

Benno Zenker

School of Performance and Cultural Studies

Re(act) on Sustainability Parkinson Court SR 1.08

Trying to get new insights about the complexities of sustainability? In this workshop session you will try to look literally from different angles on the big issue(s) of sustainability, the ones that bother you! Put yourself in the shoes of someone else, jump in place and time - and engage with all of your body. We will use creative techniques, embody perspectives and have fun in this session. Influenced by process based theatre work and critical education the workshop puts you into debate and gives the chance to try out new approaches. On the basis of social ecology a special interest is on the dimension of human interactions as a parameter of change, which we want to discover.

13:00 - 13:45

Amy Parsons

School of Earth and Environment

Community Engagement within the Curriculum - Baines Wing 1.13

The University of Leeds has a continuing commitment to be a positive partner in society and create mutually beneficial relationships with the wider Leeds community. In line with this commitment, we have developed a second year undergraduate 'Community Engagement Project' module as part of the Creating Sustainable Futures Discovery Theme. The module involves students working closely with a third sector host organisation to scope, prepare for, deliver and evaluate a practical project. The end result will both benefit the host organization and provide students with the first-hand knowledge, skills and experience of working within the third sector.

This interactive session explores the benefits and challenges of the module for students, host organisations and the University more broadly, as well as student experiences of the module so far: what we've learnt, the challenges faced and the exciting prospects of the placements to come!

13:00 - 13:45

University of Leeds Researchers

What's it like to do a PhD? - Baines Wing 1.15

Ever wondered what it's like to do a PhD in sustainability? Come along to this informal drop-in session to meet current PhD students, ask questions and find out what their experiences have been.

Room 1 (Baines Wing 2.37) - Afternoon Session 1

Innovation and Technology

13:50 - 14:10 **Andrew Price-Allison and Aaron Carvell**

School of Chemical and Process Engineering

Integrated low carbon energy solutions for remote rural areas

The ILCERRA project is a pump priming project that aims to gather together 20 representatives from Official Development Assistance (ODA) eligible countries. It will debate with the low carbon energy group in the school of chemical and process engineering, as well as additional co-investigators in other schools at Leeds University with expertise relevant to low carbon energy, the issues with providing integrated low carbon energy solutions to remote rural areas. Its outcomes are hoped to form the basis for future research collaborations that will draw on the Global Challenges Research Fund (GCRF) calls and opportunities in the next five years.

It is proposed that this project focusses on ILCERRA projects in Thailand, Indonesia, Pakistan and Nigeria. Each country has been attributed to a different student in the project group. We aim to know as much as possible about our partner countries challenges relevant to low carbon energy.

13:50 - 14:10 **Mumo Mutulili**

School of Civil Engineering

Carbon savings from thermal pile foundations

13:50 - 14:10 **Aaron Brown, Fernando Climent Barba, Judith Ford & Luke Higgins**

School of Chemical and Process Engineering

Grass to gas: a Lawn Unto Itself?

The demand for green energy sources is ever increasing to match government targets to reduce GHG emissions. At the same time, councils across the country are being forced to make stringent cuts to their maintenance budgets. Is there a possible two-bird-one-stone solution to these problems? Grass to gas, has been proposed as such a solution.

Grass to gas involves producing biogas for the energy and transport sector through anaerobic digestion of grass clippings that would otherwise be left to mulch. Road verge biomass has the potential to: move the anaerobic digestion sector away from energy crops that use valuable cropland, produce an economically viable life cycle for expensive road verge maintenance and produce a more diverse ecosystem on the UK's road verge network.

Room 2 (Baines Wing 1.15) - Afternoon Session 1

Communicating Sustainability

13:50 - 14:10 **James Ward**

School of Geography

Investigating sustainability disclosure in Ugandan print media

I am researching the sustainability discourse in Ugandan print media. The idea of discourse is complex and multifaceted, representing a specific subjective reality and the collective conversations and discussions around a certain subject. Uganda is a nation under numerous pressures such as global neoliberalism, climate change, and uneven development, so researching the sustainability discourse is key to discovering alternate views of the world and its most pressing issues.

Through reading an extensive array of newspaper articles regarding sustainability and collecting them in Nvivo, a piece of software utilised in the collection and coding of qualitative data, I have undertaken a critical discourse analysis to discover how sustainability is portrayed by Uganda's two largest newspapers. Whereas in the UK we expect sustainability to be tied to issues such as climate change, generational transition and clean energy, Uganda's discourse is constructed in strikingly different ways. Central to the idea of sustainability was the expansion of Uganda's economy through engaging the youth in new business opportunities and intensifying agriculture, whilst development was based on trickle-down economics and the 2014 Sustainability Development Goals.

13:50 - 14:10 **Vedran Lesic**

Leeds University Business School

Assessing consumers' perceptions of electricity use: does providing reference points help?

Consumers often find it hard to assess how much electricity is used by their household appliances. Providing a 'reference point' (or how much electricity is used by another appliance, such as a single lightbulb) can be a simple yet effective strategy to improve the accuracy of consumers' perceptions of appliances' electricity use. The aim of this study is to test whether the provision of single or multiple reference points improves consumers' perceptions of appliances' electricity use. Participants were randomly assigned into one of five different experimental conditions: (i) no reference point, (ii) a single low reference point (light bulb), (iii) a single high reference point (electric dryer), (iv) two reference points (light bulb and electric dryer) and (v) three reference points (light bulb, washing machine and electric dryer).

13:50 - 14:10 **Ana Perez**

School of Design

What we know affects what we do - exploring fashion sustainability and it's perceptions by young consumers

Fast Fashion is becoming a serious environmental issue. Although fashion is one of the largest factors contributing globally to the economy, the environmental and social impacts of it are vast (Gardetti and Torres, 2013). Ethical issues and fast-fashion consuming habits have been widely reported in the media, such as the fire at the Tazreen factory in 2012 and the collapse of Rana Plaza in 2013 when the clothing factory building collapsed killing over 1000 people (Clean Clothes Campaign, 2013).

The purpose of this research is to examine the relationship of young consumers to fashion sustainability and their understanding of its terms of reference. The result of the study will make possible increased understanding of the factors behind young consumer behaviour in relation to sustainable fashion, and will point to opportunities for challenging and changing their purchasing habits where sustainable fashion is concerned.

Room 3 (Parkinson Court B.10) - Afternoon Session 1

Society and Community

13:50 - 14:10

Gloria Koepke

School of Mathematics

Diva Cup & Co - the role of sustainable menstrual products for female empowerment

Education and health improvements are believed to be the key drivers for sustainable economic development in growing economies. A successful approach to increase schooling among girls will be presented.

The finding that girls drop out of school when entering puberty if they do not have access to affordable menstrual products will be discussed in detail. A successful solution have shown to be the distribution of re-usable menstruation cups and sanitary pads. Not only they lead to increased body awareness and confidence but they enable school attendance. In the presentation menstrual cups and their functionality will be introduced as a zero waste and therefore sustainable alternative to expensive disposable menstrual products.

A stigma around female menstruation is very evident in western cultures as well, as an analysis of advertisement and virtual censorship of menstrual blood in social media will show. The empowering nature of menstrual Cups for woman in the developed world as will be discussed as well. Access to sustainable menstrual products is a promising and uniting tool for female empowerment all over the world.

13:50 - 14:10

Mark Dawson

School of Philosophy, Religion and History of Science

The Church and Fair Trade: the challenge of promoting sustainable livelihoods

Fair Trade is a widely known concept which aims to create and promote sustainable livelihoods. Despite the shift in Fair Trade towards greater levels of engagement with large corporations, Church involvement in the Fair Trade movement remains remarkably resilient. My research examines Church action for Fair Trade by means of qualitative interviews with churchgoers involved in the promotion of the concept. My findings indicate that the churchgoers regard the original ideals of the Fair Trade movement as being of primary importance and are concerned about aspects of the mainstreaming of the concept. This need to keep hold of the ideals of Fair Trade is expressed in support for Fair Trade projects which go beyond Fair Trade certification standards in their promotion of sustainable livelihoods. A notable example being the work of the Christian Fair Trade Organisation, Traidcraft.

13:50 - 14:10

Lianne Asbury

School of Earth and Environment

Learning Champions inspiring adult learners

This project tackles social inequality and access to higher education. Learning champions are mature and part-time student volunteers, who use their experience to inspire adults into further and higher education. The project relies on volunteers getting out into their local communities and sharing information through a social, peer-led system.

As a Learning Champion, I like to show people that if I, as a mature student and parent can attend university, so can they. University is not just an opportunity for the advantaged few, but for the whole of society should they want to take that step. Through the learning champion project; I have shared my education journey to many adults, who were unsure of the challenges they may face and have relatable worries. The response from adult learners has been a positive one. Many have said that hearing form a current student, who has already been through similar situations has inspired them to apply for further education.

Room 4 (Baines Wing 1.13) - Afternoon Session 1

Food and Agriculture

13:50 - 14:10 **Akshay Deoras and Mikolaj Swiderski**

School of Earth and Environment

Connecting Indian Farmers - present challenges and future prospects

A very high percentage of India's population is dependent on agriculture and allied sectors for their livelihood which is extremely weather dependent. Since last couple of years, there has been a

marked increase in the occurrences of High Impact Weather events (HIW) such as hailstorms during harvesting seasons, droughts and extreme rainfall which have caused damages costing billions of dollars. The extent of such damages is amplified because very few farmers receive timely warnings and agro-weather advisories thus leaving most of them unprepared from these weather outbreaks. In this report, we have discussed the present challenges in connecting the Indian farmers to such fast track advisory dissemination services. Our analysis suggests that improper policy, lack of co-ordination between central and state governments are some of the main impedances in enhancing the connectivity. Given growing concerns of increasing HIW, climate change and their impacts on India's food security, we also have discussed the future prospects and solutions to address this problem.

13:50 - 14:10 **Yeuk-nam NG**

School of Sociology and Social Policy

Fool by Food?

This project is about turning food waste into fertilizers for university use. If possible, the product can be further applied to Leeds. It is worth noting those rotten or food residues are valuable resources for farming or gardening. Not only maximizing the value of the agricultural products and food residue such as coffee grounds, such application further achieves environmentally and economically sustainability.

This programme demands the collaboration with the Faculty of Engineering, accommodation, offices and school-based societies such as the Green Action. In order to handle the raw material efficiently, the food waste processor is required. Given the extravagant price of one composter machine (~£200) but with limited capacity in handling the vast amount of food waste, it seems to be better if the university tailor-made several processors for its own use. This process is expected to take several years. Only with the active engagement of students, the project will proceed to the next stage involving the participation of the Faculty of Engineering.

13:50 - 14:10 **Cruz Glynka**

School of Mathematics

Feed a Friend

Feed a Friend, provides a space to cook food that would have otherwise been wasted. The project focuses on young people getting that increased knowledge within reducing food waste, good nutrition and meals they can do at home. In addition to combating the local food waste issue, it brings young people in the community together with the hope that they can make a friend in the process. The kitchen is run by young people and for the young, meaning the chefs in the kitchen are young people who are keen on cooking.

Feed a Friend is here to change social attitudes within the young because the youth are the future. In the UK around 15 million tonnes of food is wasted, not only is this detrimental to planet as we straining our planet to the brink of extinction with a non-sustainable food habits but it's shocking as, a third of UK adults struggle to afford healthy food. This is where the project hopes to step in with good nutrition, easy meals and giving place to get food that would otherwise be wasted. What makes my idea new is its putting youth in the centre seat of food waste reduction, asking them how we can tap into that food and working together doing it. My project aims to educate as well show you what can be done with all the food wasted.

Room 1 (Baines Wing 1.13) - Afternoon Session 2

Innovation and Technology

15:00 - 15:20

Emma Weaver

School of Design

Designing with the Living - the future of sustainable textiles

A design project which explores the potential of utilising nature as a sustainable design tool. The project explores biomimicry, (imitation of nature to solve human problems) in relation to the coloration of textiles. Core focus will be on structural colour, which is the variable, iridescent colours achieved within some forms of nature such as butterfly wings and bird's feathers. The potential of applying this engineering mechanism from nature to textiles will be practiced and experimented with in the lab. Results will be displayed in exhibition form in the conference.

With the knowledge that the textile industry is one of the most damaging to the environment, change is absolutely necessary. A personal concern and awareness drove the desire to investigate new sustainable possibilities. This project suggests that instead of damaging nature's resources we can learn and evolve with nature. The introduction of cross disciplinary, has been investigated as one of the leading factors to the biomimicry revolution. Moreover, the combination of science, design and technology will be practiced in laboratory to form a personal investigation generating new knowledge. Investigating the potential of utilising a biological process to form variable coloured textiles, which replicate the appearance of structural colours in nature.

15:00 - 15:20

Muhammad Haikal Sitepu

School of Mechanical Engineering

Simulation framework to support sustainable supply network in Indonesia's natural rubber industry

Indonesia is one of the main producers of natural rubber, producing around 30% of the world's supply. The natural rubber industry has an important position in Indonesia's economy, providing income to the Government and its citizens. However, in recent years, there has been a reduction in rubber supply from some districts in Indonesia. Early discussions with Indonesian natural rubber stakeholders suggest the reduction of natural rubber supply is caused by too many rubber plantations entering non-productive phases and switching to other crops.

To address this problem, a rubber replanting programme is being exercised by the Indonesian Government. One of the challenges of this programme is determining appropriate allocations of rubber replanting for several areas or districts in Indonesia. It is necessary to define the right direction for allocation because current and future rubber supply mainly depend on this.

15:00 - 15:20

Yu Huang

School of Design

Reborn: An eco-friendly app to extend the life of clothes

An estimated £140 million worth (350,000 tones) of used clothing goes to landfill every year. The average UK household owns around £4,000 worth of clothes. Around 30% of clothing in the average wardrobe has not been worn for at least a year, most commonly because it no longer fits. The real reason behind this is fast fashion phenomenon identified as 'Cheap, easy and quantities' in the 21st century. Consumers keep purchasing new products in short period of time to catch up with the latest trend. 95% textile thrown away could get a second life. Extension the cloth life longevity is the best solution for this problem.

Reborn is an Eco-friendly app to help users to extend the life of clothes while save money. More research are still being conducted.

Room 2 (Baines Wing 2.37) - Afternoon Session 2

Governance and Policy

15:00 - 15:20

Matthew Morton

School of Earth and Environment

Regaining legitimacy following an environmental disaster: BP and the 2010 Deepwater Horizon oil spill

This research evaluated the effect of the largest peacetime offshore oil spill in history on BP's communication in its annual and sustainability reports. The study adopted a mixed methods design that incorporated quantitative and qualitative content analysis in order to provide a more comprehensive view of the communication strategies employed by BP. Ultimately, the results revealed that BP utilised its annual and sustainability reports in order to manipulate public perceptions and legitimise itself following the Deepwater Horizon oil spill. The findings support the notion that organisations use annual reports as a legitimacy tool following environmental disasters as opposed to a genuine effort to become a transparent and accountable corporate citizen.

15:00 - 15:20

Muhammad Aiman Bin Zulkifli

School of Law

Calorington Secession - an application of remedial right only theory and primary right theory

In the year 2016, with the secession idea is apparent in Scotland, Catalonia, Quebec and other region, this illustrates how citizens in some countries are embracing the idea that states do have the right to secede. Should all states in any countries has this right and could they invoke them at any time for any reason? Then, the right to secede is a threat towards the idea of nationhood and the principle of territorial integrity. A changing and unfixed world map is surely a challenge in governance sustainability! The idea of secession does not escape the United States of America (USA), especially with the General Election 2016 outcome.

This research will examine the idea of California, Oregon and Washington (Calorington) seceding from the USA by using Allen Buchanan's Secession Theories; Remedial Right Only Theory and Primary Right Theory. This research aims to identify the moral rights and the constitutional rights of the states to secede (should it become reality). The fundamental concept of Remedial Right Only Theory is states have the rights to secede only if there is injustice towards the states. While, Primary Right Theory proposed that states could secede with the absence of injustice. This research will explore which theory suits the states call for secession.

15:00 - 15:20

Rizwana Alam

School of Geography

Urban Green Spaces Governance: challenges and a way forward to sustainable development

Green spaces play a vital role in cities by providing social, environmental and economic benefits to enhance residents' quality of life. However, these urban green spaces are declining all over the world due to rapid urbanisation thereby, making it a huge challenge given the increasing pressure on space, resources and development. It is now widely recognised that besides government, local communities, enterprises and other non-governmental stakeholders also need to be involved in urban policies and practices to improved urban sustainability and resilience. This study seeks to assess the governance arrangements and practices for urban green spaces in Lahore, Pakistan. The study's main objective is to identify the key issues, challenges and potential improvements of urban green space planning and development in Lahore. A mix method approach is being employed whilst governmental and non-governmental actors associated with green spaces constituted the study population.

ADDITIONAL POSTER SUBMISSIONS

Andrea Aiello

School of Civil Engineering

Bio filtration systems for optimized storm water management in urban areas

Urbanisation and poor water management has been associated with negative impacts on human and environmental health. A more holistic approach to urban water cycle management has been proposed to restore pre-development condition at source. Sustainable Drainage Systems (SuDS) like biofilters are part of this approach. A biofilter is a green infrastructure based on soil and plants that can retain water, enhance water quality and provide other ecosystem services. The focus of my research is to intercept and treat urban stormwater runoff on-site through an improved biofilter configuration. The project will assess the capacity of a biofilter to adsorb dissolved pollutants that are of major concern for water quality because their bioavailability and the difficulty in their treatment. Laboratory based experiments will provide preliminary information on the configuration that will undergo a field experiment that will treat stormwater runoff from a real car park in Leeds.

The retrofit of this system in cities could improve landscape amenity, provide ecological niches for plants and animals, mitigate the heat island effect.

Annabel Miller

Faculty of Mathematics and Physical Sciences

United Nations Sustainable Development Goals 2030: ideas and perspectives on tackling sustainable development goal 2 'Zero Hunger'

The United Nations Sustainable Development Goal 2 focuses on ending hunger and malnutrition, through supplying worldwide access to a safe, nutritious and sustainable food supply all year round. In 2016 11% of the world's population suffered from hunger, while one third of all food produced was wasted and more than 50% of the adult population was thought to be overweight or obese. The main aims of the goal are to increase the sustainability of the food production system, through tackling the physical, economic and political barriers that lead to food insecurity.

Over the next 7 months I will be working on a project with 20 other young people from across the world to produce a provisional strategy that tackles Sustainable Development Goal 2. At the end of the project we will be disseminating our strategy to the United Nations in New York. During the Conference I will be presenting the ideas that I will be bringing forward to the project as a Nutrition student, on tackling food poverty and creating a more sustainable food supply.

Laura Trace

School of Education, Social Sciences and Law

Investigating the motivational dynamics of Indonesian teenagers learning English

With English functioning as a global lingua franca and contemporary technological innovations offering new means of communication both within and across borders, never more has English language learning been more accessible, nor proficiency more desirable. With the foci of much research tending towards Western cultures, there is at present little literature on how such aspects affect learner motivation and the resultant informal learning practices of those living in areas where direct exposure to spoken English varieties is rare, if at all present. This research is part of a work-in-progress, longitudinal study at the School of Education, which aims to gain insight into the Motivational Dynamics of Indonesian Teenagers Learning English. Working with six junior high school students from varying socioeconomic backgrounds in a provincial town in Sumatra, the researcher - after conducting the first phase of interviews and observations in Indonesia during August 2015 - has maintained contact with participants through social media over the course of an academic year. This presentation aims to highlight some initial observations into the attitudes and emotions of the participants and the way that such might determine the types and intensities of autonomous learning activities. It is hoped that findings will contribute to our growing understanding of the motivation of 'persons-in-context' [Ushioda, 2009], in particular those competing for resources to gain the valuable symbolic capital of English in more marginal global contexts.

Phellecitus Nokuthula Montana

School of Earth and Environment

What does loss and damage mean to youth in informal settlements of Cape Town, South Africa?

The impacts of climate change are notably affecting vulnerable communities and resulting in the loss and damage of basic survival necessities. Loss and damage (L&D) is described as a newcomer in the climate change talks, and it can be broadly referred to as the negative effects of climate change materializing in developing countries after mitigation and adaptation efforts have been undertaken. Marginalised groups in society are particularly vulnerable, much of the L&D they experience is non-material and often difficult to document and measure. Non-material elements of life (e.g. culture, agency, health, social relations, identity) are not traded within markets and thus remain neglected within climate change negotiations. While the United Nations Framework Convention on Climate Change (UNFCCC) remains inconclusive on approaches to address L&D, this project communicates the outcomes of a study that explored how youth in informal settlements of Cape Town, South Africa experience and articulate non-material L&D in relation to experienced flood risk. This project relates to the conference theme "sustainable Perspectives on Future Challenges" because it sheds light on youth perspectives; an understudied and vulnerable group to climate change whose engagement and participation is vital for overcoming and addressing the complexities of transformative adaptation to avoid L&D and achieve long-term sustainable development.

Rachel Harcourt

LUBS and School of Earth and Environment

What impact does the media coverage of climate change and extreme weather events have on people's likelihood of taking climate action?

A changing global climate is a long-running, slow moving process, the day-to-day impacts of which can be hard to detect for non-experts, especially those living in economically developed and temperate weather countries such as the UK. In comparison, local extreme weather events such as flooding or heatwaves provide short lived, fast paced dramatic events which the public are likely to be at least informed about or possibly involved in. These are two very different types of events which produce two very different types of media coverage. This research will focus on how the coverage of increasingly frequent extreme weather events here in the UK impacts on the broader narrative of global climate change, and consequently how a more conscious telling of extreme weather events might be used in the future to the benefit of greater engagement in the closely related climate change discussion.

Rhiann Holloway

School of English

The female body in conflict: a case study of the female combatants of the Tamil Tigers and the gendered implications of their role in the Sri Lankan civil war.

This will be an exploration of women and their bodies in conflict, using the female fighters of the Tamil Tigers as a case study. Their participation as combatants was essential in the fight for Tamil freedom but often their recruitment into the Tigers involved violent physical abuse and abduction. Despite this, there are also accounts of ex-fighters who willingly volunteered and fully believed in the Tamil cause. Considering the generally inferior social positioning of women in Sri Lanka, were female fighters victims of an oppressive patriarchal regime, as the forced recruitment suggests, or were they empowered combatants working as equals to men? My research will explore this question in relation to theories of masculinities in conflict as well as female agency within a male-dominated environment.

Furthermore, how does the use of women's bodies in the conflict compare to their lives post-conflict? I will investigate how the female role in Tamil society has changed as a result of their participation in the LTTE, since multiple accounts of ex-fighters have shown frustration that they can no longer use the 'masculine' physical skills they acquired in combat. Is there now a discord between how society expects these women to use their bodies and what the women expect of themselves?

Sandi Darniadi

Faculty of Mathematics and Physical Sciences

Keeping the goodstuff: drying techniques to increase antioxidants.

Dehydration is a mature method of food processing to extend the shelf-life of food products. However, the drying process has several drawbacks such as loss of weight, vitamins and other vital compounds in foods. In the present study, two drying methods (foam-mat freeze-drying and spray-drying) were employed to convert blueberry juice into a powder product. The main challenge was to recover the anthocyanins compounds, which are recognised as antioxidants and responsible for the blue or purple colour of the powder. The application of food polymers, such as proteins, was performed to decrease the anthocyanins loss during drying. Our analysis suggests that the addition of proteins into the blueberry juice before drying recovered the anthocyanins by 80-90% (foam-mat freeze-drying) and 55-65% (spray-drying). The blueberry powders were also found to overcome a stickiness problem as the food polymers can increase the transition temperatures (from liquid to solid state). We conclude that the food polymers application successfully reduced the anthocyanins loss during drying.

Sustainability in Healthcare module

Medical student's Assessment Vlogs on 'Innovative ideas in Healthcare'

Kit Stanford, Timothy Carling, Naomi Oldham and Sarah Wolloff

School of Medicine

electroniCARE - Sustainability in Healthcare Project

Parkinson Court plasma screen

Polly Simpson, Timothy Hird, Matthew Brigham and Wyatt Crossland

School of Medicine

Medicines waste - Sustainability in Healthcare Project

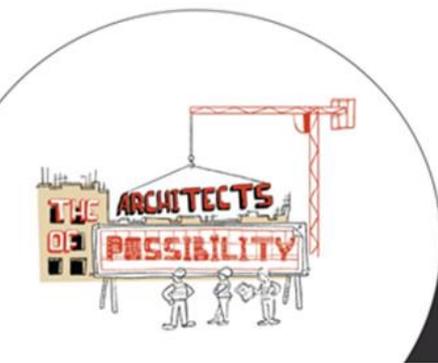
Parkinson Court plasma screen

Adil Iqbal, Gemma Trodd, Brian O'Connor, George Higginbotham

School of Medicine

The Sustainable Hospital - Sustainability in Healthcare Project

Parkinson Court plasma screen



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UNIVERSITY OF LEEDS

ART AND DIGITAL PROJECTS

Oliver Wheeldon

Faculty of Arts, Humanities and Cultures

Antarctic Expedition (A2 B+W Series) and Crystal Ice
Parkinson Court

A2 B+W Series

I first went to Antarctica in 2013, when I participated in Robert Swan's International Antarctic Expedition. Swan is the first person in human history to walk unassisted to both North and South Geographic poles. He has seen the effects of our changing climate with his own eyes after it nearly spelled death for his team on his North Pole expedition when the sea ice beneath them started to break up months early. When we were lucky to survive and return home, Nasa announced the discovery of the hole in the Ozone layer.

Because of Swan's deep love for the polar regions and knowing of their significance as keystones to our climate's stability, he has dedicated his life to the promotion of conservation efforts around the world. His antarctic expeditions are a way of bringing students, teachers and business leaders from around the world together to learn about the environment, our changing climate and sustainability; with Antarctica as the classroom.

Swan's ability to build a planet wide team of inspired individuals who are champions for the environment has been so successful because of his ability to reach people. His expeditions have allowed for the Aboriginal Australians and Women from Bahrain and Saudi Arabia to step foot on Antarctica, representing their nations for the first time. He believes that Antarctica is for us all and belongs to none of us. His organisation is called 2041, named after the year the Antarctic treaty will have its first discussions of renewal or not. The treaty is what currently protects Antarctica from commercial mining and exploitation, reserving it as a land for science and peace. 2041's goal is that by the year 2041, the world will not be so dependant on fossil fuels that the treaty can be reinstated and we can leave one place on earth alone, forever.

The images displayed in the Leeds University - Student Conference On Sustainable Futures tell the story of the expedition. In 2016 I was fortunate to return to Antarctica for a 4th time with Robert Swan and 2041 as the official photographer, capturing and sharing our experiences with the world.

A0 - Crystal Ice

This crystal-like ice is from a glacier on the Antarctic Peninsula, they are some of the fastest warming in the world. It is glaciers from land masses such as Antarctica and Greenland that contribute the most to global sea-level rise. Whilst this ice is beautiful it has a very real message.

For ice to be that clear, it has to contain no air. For glacial ice to have no air within it it has to have been under such immense pressure within the glacier to melt and refreeze continuously. When this happens a bit of air is forced out of the ice every time. This normally occurs in flat lines within fractures of the ice, which is what gives icebergs the occasional blue veins. However for a piece this size to have so much clarity, we know it has to have been within the glacier for at least 10,000 years.

This ice is now finally in the ocean before our very eyes, serving as a stark reminder that these glaciers are melting, and they are retreating faster than they should. I now present this image as a reminder to all, that the man-made effects on

Alexandra Oliver

Faculty of Arts, Humanities and Cultures

Sustainability Crystals

Parkinson Court plasma screen

When we look at a scientific and practical definition of sustainability, it is

'the ultimate purpose of doing, being, becoming' - a process that is never ending; the universe has been making elements and then capturing them in crystalline form. Since the first 'moment'.

Crystal's in their purest form are the ultimate expression of purity in nature, and when nature chooses to mix elements together it creates beautiful colorful strong yet peaceful objects of interest, potential and desire. This has been happening since the dawn of time starting with quasars and neutron stars throwing out the raw elements in purest form, and this will continue to the end of time. this by definition is sustainability at the quantum physical level.

In essence crystallization of the building blocks of all matter (the elements and compounds) is the ultimate natural expression of sustainability. This is the physical linkage, captured in visually stunning and desirable form.

However, another facet of sustainability is religion, belief systems and values which come from an individual's experience and reality which will be different for different people.

In Ancient and Modern cultures, the healing effect and energy from crystals, for some has formed part of their belief structure and religion. This is the metaphysical, non material / spiritual linkage to crystals and their energy.

Perception can become part of the individuals reality, whether or not science or research says otherwise, perhaps it just does not matter, it just is!

Successful sustainability only works if the notion of engaging in the never-ending process of 'doing, being 'becoming ', becomes part of ones belief system and 'DNA' regardless of the physical facts.

There has to be an emotional connection otherwise sustainability can never be authentic to an individual. Finding that emotional connection makes sustainability become part of the belief system, in the same way there are belief systems around crystals powers and energy which we have previous linked back sustainability in its physical form.

So being sustainable only creates positive outcomes when it is embedded in a personal belief system, it's in the same way that healing qualities of crystals can be part of a belief system of positive influence.

A Crystal, a physical object, can link to sustainability in its purest metaphysical form to the scientific form because of what it is and how it has been created.

If we look at energy and the physical and healing properties of crystals the same principles apply to sustainability and you can argue that they become one of the same.

The common misconception is that sustainability can only be represented by biological living objects. Grass, trees, bee's, birds etc. or as an outcome –reduced Carbon footprint reuse and recycling. However, crystals remind us that at the atomic level we are just a collection of carbon, hydrogen and nitrogen atoms with added elements arranged in a slightly different way to, quartz, amethyst , citrine ,diamond etc. and this will continue to the end of time.

This by definition is sustainability.



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