



## Conference Abstracts

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## **Session 1a: Housing crisis, neoliberalism and the right to the city**

Thursday May 4th 11:00-12:30 ORB Room 156

### **Financing and planning the suburbs in post crash Ireland**

Michael Murphy

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International private equity companies, vulture funds and hedge funds have all sought to capitalise on the collapse of Ireland's residential and commercial property markets by purchasing cheap and distressed loans and then developing them. This paper seeks to examine the impact and influence of these global financial actors on the suburban landscape. To that end, this paper will draw upon a master planned development called Cherrywood in South Dublin, Ireland, the first new Irish urban centre initiated in the post-crash era. This paper will illustrate how these global financial actors in conjunction with national financial and development actors have been facilitated by the local and national state through special planning zones namely strategic development zones which create an inherently pro development planning environment thereby giving a significant comparative advantage to the financial and property development sector.

### **Post-crisis financialisation and the Right to the City in Dublin**

Rory Hearne

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This paper traces the evolution of post-crisis and 'recovery' financialisation of housing in Ireland. It provides an overview of a number of the mechanisms and process by which post-crisis economic and housing policy in Ireland promoted and facilitated the financialisation (and 'accumulation through disspossion') of housing and urban space in Dublin such as the development of a new form of PPP using public land on three estates (two of which were failed PPPs previously), NAMA, Real Estate Investment Trusts, the marketisation of social housing through the private rental sector and also through what was not done – such as the construction of social housing through exchequer or new de-commodified housing models (rather than tax breaks), the introduction of rent control and tenant security in the private rented sector. Drawing on research being undertaken as part of the Horizon 2020 funded Re-Invest project it focuses on the trends in relation to the financialisation, marketisation and commodification of social housing and their impacts on the human rights of homeless families in Dublin. It also explores how the financialisation of housing is being shaped and challenged by new forms of grassroots housing activism. It thus contributes to understanding how the Right to the City is being affected by on-going forms of particularly placed neoliberalism and being re-imagined and struggled for through movements for social and spatial justice.

### **Spaces of the looming ghetto: O'Devaney Gardens and the marginalisation of public housing**

Eoin O'Mahony

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European cities are being reshaped by financialisation. This decades-long process of accumulation is now deeply embedded in the everyday life of millions of people through specific socio-spatial formations. Using the example of O'Devaney Gardens in Dublin, this paper shows how urban and suburban spaces are being reshaped by set of ideas reflective of and useful to this process of accumulation.

Housing in Dublin city, under severe strain at the far end of a prolonged economic crisis, is being drawn further into global networks of finance. At the same time multinational funds are being facilitated into place as a resolution for this crisis. The provision of public housing in particular is being made infeasible through a set of discursive formations about ghettoization. The paper examines the deployment of a discourse of 'public housing as ghetto' as a way to politically marginalise the provision of public housing.

## **Respecting the traditional use of gathering places in 'Place Making'**

Mary Broe

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The terms 'urban renewal' and 'urban regeneration' are used to refer to the imagined improvement of a city. Dublin's south inner city has seen pockets of massive regeneration. The old industrial areas are now the site of new foreign technical companies such as Google, Facebook and Airbnb. A social housing complex, 'Pearse House' (1930's) with 345 units is 'the largest municipal housing structure in Ireland' (Dublin City Council, 2016). At present, approximately 60 percent of the residents of Pearse House are the third and fourth generation to live in the complex. In 2006 Pearse House was given an outdoor face lift costing €7.5 million as part of a south inner city regeneration project.

I argue, providing evidence through interviews, newspaper reports, online and social media sources, that this regeneration did not consider the traditional gathering opportunities of the playground and common court yards. The changing of these gathering places and the loss of community control that the locals had of the common areas, changed the mental 'mazeways' of the local population and caused elements of 'root shock'.

## **Session 1c: Regimes of energy citizenship: Thinking beyond market driven paradigms**

Thursday May 4th 11:00-12:30 ORB Room 255

### **Empowering the Energy Citizen? Experience and Perspective at the Interface of the Energy Transition**

Breffni Lennon, Niall Dunphy

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While it is widely accepted that we are witnessing an ongoing and profound technological transformation of the European energy system, to date there has been a tendency towards what can only be described as rather top-down, technocratic solutions. Usually, initiatives designed to promote this transition have incorporated human expectations and experiences in rather superficial ways, emphasising a need to change people's behaviours to specific technologies over addressing the very real and fundamental challenges that are required. Since people are essential to the energy transition, this diversion in focus presents a significant potential weakness to those efforts. Therefore, this paper will explore how ideas of citizenship inform local people's responses to the energy transition and how their experiences do not always coincide with the narratives from those driving the transition. It presents the perspectives of people living in six quite different communities from across Europe, with each community facing its own considerable challenges as they embark on their energy-transition pathways. The intersectional experiences of individuals within those communities, as they negotiate those very same challenges, are also considered. In reality, local people often occupy more (re)active, participatory and sometimes conflicted spaces than the over-simplistic, neoliberal and consumerist paradigm would suggest. The "energy citizens" within these communities have expressed contested notions of agency in individual decision making, a deeper understanding of the efficacy of public policy than one would otherwise presume, and the socio-environmental parameters that are thrown up by these dynamic interfaces.

### **Home is where the energy citizen lives**

Christine Gaffney, Niall Dunphy

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Citizenship is indelibly connected to place. It is by virtue of our location in, or connection to, a nation or state that our right to citizenship there is established. Yet, despite the intimate connection between citizenship and place, the place that we call home – that every day space where we live our every day lives – remains a place apart from citizenship, both literally and conceptually.

Home is at a remove from the public sphere – the space where citizenship is enacted. Home has always been a place apart — the private domain to which the citizen can withdraw. But it is in this space – home – that the everyday practices that produce home take place. It is here where we carry on the intimacies of living, the work that makes our lives liveable, and, ultimately, enables our participation in the public sphere; indeed, home is necessary for there to be a public sphere. Home is the place where we enact the every day practices that facilitate our participation in both private and public spheres. And it is these practices that deeply enmesh us within the energy system. How then do we bring home into energy citizenship, and energy citizenship into home? How do we reconcile the centuries long disconnect between citizenship and home in order to make energy citizenship meaningful? How do we conceptualise an energy citizenship that brings rights and responsibilities to all?

### **Community energy: case study research of Comharchumann Fuinnimh Oileáin Árann**

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Community energy is being heralded as a solution to Ireland's energy transition; but what logic underpins community energy co-ops and what implications does this have for relations between society, environment and economy in Ireland? Through case study research of Comharchumann Fuinnimh Oileáin Árann (Aran Islands Energy Co-Op) I find that energy co-operatives can indeed be a way of 'embedding' economic decisions around renewable energies (particularly wind) in society. Through a deliberative process, collective values (social, environmental and economic) can be weighed up and the 'common good' can be decided upon. Taking social acceptance (as socially

negotiated values) as the starting point rather than something to be achieved ex-post has advantages in terms of fairness, democracy and uptake of renewables. However, it has limitations at the community level in terms of extent of community engagement and at regional and national levels with the need for coordination and joint-up thinking. My research provides some recommendations for addressing these.

Lastly, there is a danger of what Jamie Peck calls the 'parasitic' nature of neoliberal logic infiltrating energy co-ops. This involves the assumption of rational, selfish subjects who are instrumentalised for achieving the goal of decarbonisation by offering economic returns. Indeed, this logic presented itself at times during my fieldwork. Although this might help to achieve decarbonisation, it risks depoliticising and neutering any ethical questions surrounding climate change mitigation. My research then offers a warning that the constitution of 'energy citizens' is an ongoing process that reflects broader battles between competing ideologies and logics.

### **Low Carbon Energy Communities in Irish Islands: A Transdisciplinary Approach**

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At the community level, there are different understandings of, and attitudes to, sustainability and energy use. Demand and perceptions of energy are place-based, thus island situated energy knowledges and community knowledge networks differ epistemologically from the typically ubiquitous approaches of technology and policy. This paper discusses how predominant technical approaches to community energy planning further marginalise periphery or island communities where, typically, local knowledge is highly valued. These findings were developed through an island-based case study analysis of Inis Oírr Island, in the Aran Islands, in the West of Ireland. Drawing on a social-constructivist perspective embedded in a post-normal science approach this research examines how current generic approaches to community consultation can be redefined to be inclusive of all knowledge in the complex energy issue. This research further argues that the complex issue of community low carbon energy transitions requires investigation from multiple disciplinary perspectives. The innovative transdisciplinary methodology developed, applied and analysed in this research enabled a holistic investigation of the role of situated energy knowledges and community knowledge networks in successful community low carbon energy transitions. Overall the research aims to create new knowledge of the role of situated energy knowledges and community knowledge networks through the application of a transdisciplinary methodology that combines social scientific and engineering techniques to create a holistic picture of appropriate low carbon energy transitions for Inis Oírr island. The innovative methodological approach developed for this research revealed the participants' capacities to engage successfully in designing their own low carbon energy future.

## **Session 1d: Trespasses: Disruptive religious-spiritual movements and spaces**

Thursday May 4th 11:00-12:30 ORB Room 132

### **Geography and The Quest for Paradise**

Gerry O'Reilly

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The Judaeo-Christian and Islamic prophetic traditions and narratives, and key activists serving as agents of social, political and cultural disruption and change, or becoming established with institutional certitude have left lasting geographical and historical legacies. Included in these heritages are concepts of paradise and hell, good versus evil, 'god's word' and where Utopian ideals can foster positive change and progress, or engender greater negative conflict and dystopias as can be witnessed with fundamentalisms. Transitivity between root-religious cultures and secular ideologies is a recurring phenomenon necessitating socio-political and cultural accommodations, and especially in liberal democracies. Here, Ireland's geographical relationships with the Islamic world and more recently, Muslim migration into Ireland will be explored.

### **Layout and L(Attitude): Reformed Church Evolution in Nineteenth Century Ireland**

David Butler

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The paper aims to provide insights, through the lens of historical geography and architectural history, into the continuing importance of faith-based innovation and application to the (re)structuring of the layout of various Reformed Christian (Protestant) churches in Ireland. Protestants have always placed a special emphasis on a dignified order, which can often be interpreted as austere at first glance but which, upon closer investigation, may hide often quite elaborate detailing. This is equally true of architecture and form: from ceremonial furnishings - ranging from pew and gallery format – to the location and provision of pipe organs and choir stalls, to the presence (or absence) of optional add-on structures such as vestries, apses and ambulatories.

In Ireland, there was (some would contend, still is) the added complication of 'Self' and 'Other' or, more familiarly, 'Them' and 'Us', whereby these communities, particularly the Church of Ireland (Episcopal), went to great lengths, as late as the final quarter of the twentieth century, to downplay the catholic elements in its ritual and liturgy, for fear of being categorised as overly (Roman) Catholic. Architecture and ceremony open to similar denominations in a majority population context – such as the Church of England, or the Lutheran Church in areas of Europe – was not an option in Ireland. It is hoped that this illustrated paper will assist understanding of the complexities of Protestant faith dynamics in the Irish urban context.

### **Pro-life Pilgrimages: the intersection of politics and religion at Irish pilgrimage sites**

Richard Scriven

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This paper examines how the pilgrimage spaces of Croagh Patrick and Knock are mobilised as sites of pro-life activity. In response to increased discussion of constitutional restrictions surrounding abortion in Ireland, Roman Catholic and other pro-life groups are running active campaigns to prevent any liberalisation of laws concerning medical terminations. Pilgrimages, as one of the more prominent and well-attended aspects of religious life in contemporary Ireland, are being utilised to promote this message. I draw on recent disciplinary discussions that examine pilgrimage as a multi-faceted practice that is both sacred and profane by highlighting how contemporary political agendas and religious concerns intermix at devotional sites. Using the examples of Croagh Patrick and Knock, Co. Mayo, I discuss how through organised ceremonies and events a distinct political dimension is being added to the pilgrimages by casting them as pro-life spaces. Moreover, I consider how these movements reinforce social Church teachings, especially around gender and sexuality.

## **Session 2a: Temporality in the city**

Thursday May 4th 13:40-15:10 ORB Room 156

### **Temporality and emergencies**

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The term 'emergency' is simultaneously a term of crisis and hope, a vehicle for action and change and a mechanism of governing and response. This paper will argue that although emergencies are usually temporary, they have permanent consequences on the urban, political and infrastructural environment and how the city is governed. The very dichotomy between temporary and permanent is put into question in this paper. Two short but differing case studies will be offered as a way of understanding this. The first case study is responding to the traditional idea of an emergency being temporary. The Irish Emergency Management system responds to traditional emergencies, contextualised within a continuous shift between temporary policy, governance and technological solutions and maintained through permanent institutional memory. The second case study explores the idea of an untraditional "emergency" that is permanent but deemed temporary. Apollo House, as a response to the homelessness emergency, is a temporary solution to a more permanent problem. These two case studies problematize the term "emergency" twisting what we already know about the permanency and temporariness of these events to highlight a need for new understandings of how we use and understand emergencies in urban spaces.

### **The temporalities of solidarity: London and the 1984-5 British miners' strike**

Diarmaid Kelliher

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In 1984 over 150,000 British miners went on strike to protest against plans for widespread pit closures. Alongside the year long dispute developed a large and diverse solidarity campaign. Building upon recent work in social movement and labour geography (Antentas 2015; Cumbers et al 2010; Mott 2016), this paper will think about the temporalities of translocal solidarity in the context of the miners' support movement in London. David Roediger has borrowed the concept of 'revolutionary time' from historians of the French revolution to explain periods when 'the pace of change and the possibility of freedom accelerated the very experience of time' (2014:9). The coming together through the solidarity campaign of London and coalfield activists during a period of intense industrial struggle allowed people, according to Yorkshire miner Dave Douglass, 'to think unthinkable things, to embrace impossible ideas, to overcome the most entrenched of stereotypical notions and cautions' (Douglass 2010:484). The solidarity between city and coalfields was in this sense a generative and transformative relationship (Featherstone 2012). Yet this process of accelerated change depended upon networks and cultures of mutual solidarity between London and the coalfields developed over decades, from the 1926 General Strike to the Grunwick dispute of 1976-8. This paper will explore how such histories of common struggle were memorialised and invoked in 1984-5 to catalyse the support movement. Further, it will consider the process by which the 1984-5 strike and the solidarity campaign itself has been constructed as a 'usable past' to inspire activism up to the present.

### **The Past is Never Dead: Bloody Sunday after the Inquiry**

Joe Robinson

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In the aftermath of political violence, the questions of how violence will be remembered and inscribed into a spatial landscape are of signal importance. The bodies of the dead are emotive and resonant objects whose memory can transcend chronologic history and interrupt linear temporality. In Northern Ireland, nowhere is this more visible than the case of Bloody Sunday in Derry. Scholars have traced the evolution of Bloody Sunday public memory over time. However, existing analyses do not take into account the temporal disruption of the Report of the Bloody Sunday Inquiry (RBSI) in 2010. In this article, I argue that the 'carefully-controlled' consensual memory of Bloody Sunday has been fractured by the RBSI. I argue that no consensual memory of Bloody Sunday still exists in Derry, rather, the 'partial' justice supplied by the RBSI has diversified control over the public presentation of the dead and the injured. Fundamentally, memory curators in Derry are now

contesting publicly who [still] has the right to speak for the bodies of the dead and the appropriate narratives their deaths should symbolise. I argue that this fracturing illustrates that still-present pasts cannot be easily closed off or resolved in transitional space. Additionally, Bloody Sunday offers a compelling portrait of contested urban temporalities: Whose past can be mobilised and for what purpose? And how is that contestation inscribed into the material and imaginative landscape of Derry?

### **Pop-up Homes: Resident Insights from PLACE/Ladywell, London**

Katherine Brickell

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In the past decade pop-up has taken cities by storm. Pop-ups temporarily occupy vacant sites and are celebrated for their ephemeral, unpredictable 'animation' of the urban landscape. Until recently pop-up has been largely commercial; typified by pop-up bars, restaurants, cinemas and shops. However, in the UK the concept is being extended into the welfare sector in part as a consequence of ongoing and entrenched austerity measures. This extension has included proposals for pop-up legal aid clinics, libraries and courtrooms. Prominent within this emerging landscape is pop-up social housing. Indeed, a report from the Greater London Authority recently pitched pop-up housing as "a London solution". Against this backdrop, this paper examines interview findings from an ongoing research project (2016-2017) examining Lewisham Council's 'pop-up' housing scheme 'PLACE/Ladywell'. The local authority is pioneering pop-up social housing, temporarily housing people on the borough's homelessness register in pre-fabricated units that can be moved around the borough to make use of periods of vacancy that precede regeneration projects. The scheme has been widely celebrated since its launch in summer 2016, winning two awards at the New London Architecture Awards, and largely hailed as a means of mitigating the impacts of London's housing crisis at a time of drastic cuts to local government funding. And yet, there has been little effort to understand the everyday experiences of those living in pop-up housing has on the everyday lives of PLACE/Ladywell's tenants. Addressing this knowledge gap is the focus of the paper.

## **Session 2b: Art and Geography (1): Navigating Spaces of Transgression**

Thursday May 4th 13:40-15:10 ORB Room 101

### **Following the Forgotten Path**

Emma Houlihan

*Independent artist (Centre for Irish Studies, NUI Galway Artist Bursary Recipient)*

During the Summer of 2010 I undertook a Per Cent for Art public art project for Galway County Council. The work took the form of a hike in the Aughty mountains encompassing East Clare and Galway. For the duration of the journey I carried a flag which read RURAL FUTURES. The idea was to open up conversations through chance encounters about what it means to live and work in rural Ireland and how people might think about the future of rural life. It was during this project that I encountered the story of an old mass path that has in recent years become impassable due to Coillte pine forestation. For the Art and Geography conference, I propose to make a new piece of work with the working title: Following The Forgotten Path. The basic premise of the work is to map the aforementioned old mass path linking two villages - one located in East Clare, the other in East Galway. This route has been impassable for last 50 years due to a Collite spruce plantation. For this project I would firstly like to map the path and talk to locals about the path and chart its history in what way I can. Secondly, I propose to gather a small team of skilled navigators/adventurers together and walk the mass path through the Coillte plantation. This will of course be difficult to navigate as due to the type of forestation we will be under the cover of darkness, with no landmarks visible, in a forest that supports little or no life/ vegetation. The journey will be documented using video and photography, writing, perhaps drawing but ideally I would like to film with go-pro helmet cameras. Following the Forgotten Path incorporates notions of pilgrimage (through the mapping and walking of the old mass path), 'disruptive practice' (through digging up old rights of ways, trespassing on Coillte land) for the purpose of drawing our attention to old ways in which two villages/communities that are linked closely together as the crow flies have become separated and isolated from one another; not only through the Clare/ Galway county border, but through the forestation practices of Coillte on what used to be commons and now have now come under public private ownership. The project in essence will map a changing landscape by revisiting an old path and re-seeing how it looks today, 50 years since it was last walked.

### **The Politics of Narrative - speaking back as a disruptive practice**

Pauline O'Connell

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In, of, about, across and through 'the rural' aims to investigate the rural discourse as a system of representation: a landscape, a place, a people, a subject and philosophy through an ongoing artistic practice. Reframed as an animating metaphor liberates it from any rigid definition geographically tamed by representation and is best reconsidered in terms of the 'postrural' (Murdock and Pratt). The rural therefore acts as a vehicle for many subjects – a means through which to examine the variability, contradiction and variety of representation and articulation - providing a wider context in which the politics of narrative and the cultural politics of identity can be analyzed and deconstructed.

As a work in progress I focus here on an Irish travelogue from 1840's, 'Ireland: Its Scenery and Character, etc.' by Samuel Carter Hall and his wife Ann Marie Hall, my research reveals the inherent politics of representation; heterogeneous textual and visual articulations aimed to promote tourism and future investment in Ireland and by so doing create an illusion of equilibrium upholding and justifying the Union. The broader economic and political context was not articulated - The Potato Famine gets no mention.

The uneven power relations formed by these heterogeneous articulations historically afforded an agency to those who employ it, whilst maintaining hegemony over those who are subjected to it. Which leads me to question whether the marginalised subordinate their individual perspectives to the consensus of the powerful and if so, why? The reframing of this travelogue opens a 'space' whereby a new agency from 'within' can be creatively explored through 'lay narratives' - the 'vernacular voice' disrupts the continuity and patriarchy of history.

## **Building, Sustaining and Navigating Musical Ecologies of Place in Irish Towns'**

Aoife Kavanagh

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This paper explores the on-the-ground experiences and practices of musical practitioners and participants in two small Irish towns, Carlow and Wexford. Drawing on larger on-going PhD research on music- and place-making in these towns (as well as Kilkenny) the paper considers some of the emerging themes of this research. These centre around building and sustaining day-to-day musical practice, negotiating challenges to practice, and capitalising on available resources in such contexts, monetary and otherwise (e.g. Finnegan 2007, Kenny 2016, Pitts 2005 and others). This contributes to the building of a 'musical ecologies of place' framework to understand musical practice in these settings, or 'music's many modes of being in the world' (Watkins 2011). In keeping with the proposed themes of the session, the paper attends to the ways in which these actors build networks and connections, form musical and artistic fields of care (Tuan 1977), innovate existing artistic and other infrastructures already in place, and shape their practice to navigate not only policy and funding frameworks (for instance The Arts Council's 2015 'Making Great Art Work' strategy), but also economic, business and tourism interests in these smaller town settings.

## **Session 2c: Regimes of energy citizenship: Thinking beyond market driven paradigms (2)**

Thursday May 4th 13:40-15:10 ORB Room 255

### **Designing citizens' forums for active and inclusive energy citizenship**

Clodagh Harris, Niall Dunphy, Gerard Mullally  
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Deliberative theorists argue that it is not majoritarian support that renders a political decision legitimate but that it can be deemed legitimate if it withstands scrutiny by those bound by it. In the last decade or two, deliberative citizens' forums (such as mini-publics) have been used in a variety of policy and constitutional processes to bridge the gap between theory and praxis and meet the democratic (inclusion and popular control), epistemic (knowledge and learning) and ethical (mutual respect, accommodating diversity) goals of deliberative democracy. Their levels of 'success' have rested in no small part on how they've been designed.

Such deliberative forums are but one way to promote and facilitate active and inclusive citizen involvement in sustainable energy transitions. However when compared with other modalities such as practice and social movements their use in this space is relatively new and under examined. This paper explores their potential in this field. Drawing on critical and contested conceptions of energy citizenship, it makes the case for their use in this space. It then examines a series of design options (including recruitment, communication mode, decision-making rules, agenda setting powers, group composition, expert selection, facilitation methods and framing), that will be used to engage 6 different communities across Europe as part of a multinational initiative involving citizens in envisioning their energy future(s).

Particular attention is paid to addressing the impact of the intersection of gender, age and socio-economic status on inclusion and popular control. It is hoped that these citizen forums will add to the debate on how to re-imagine 'new forms and regimes of energy citizenship which promote more active and equitable outcomes' (Dunphy and Revez, 2017).

### **Local Energy: The Role of Belonging, Place and Identity in the Energy Transition**

Paul O'Connor, Niall Dunphy  
*Cleaner Production Promotion Unit, University College Cork (pauloconnor@ucc.ie)*

Discussions of energy transition are often framed by a technocratic and market-driven perspective which renders questions of belonging, place and identity either invisible or irrelevant. Yet the burgeoning anti-wind movement, with hundreds of protest groups active across Europe, is partly driven by just such concerns, while other initiatives, such as Transition Towns and civic energy communities, draw on a sense of place and belonging to underpin the shift to a more sustainable lifestyle. The fossil fuel era was characterised by the displacement of energy production from localised contexts of social action into large-scale, centralised systems. An energy transition based on distributed renewable sources of energy will involve the re-emplacment of energy production, whether in the form of commercial or community-owned developments or household micro-generation. One potential impact is to give a renewed prominence to place, and the relation between the inhabitants of a locality and its energy resources. This (re-)localisation of energy production – and the specific forms it might take – has implications for landscapes, local economies, social relationships, community development, and everyday practices. The energy transition therefore promises to reshape experiences of belonging, place and the identity, at the same time as it is potentially both supported and threatened by them. This in turn suggests that conceptualisations of 'energy citizenship' should pay more attention to the local contexts within which many of the critical debates, conflicts, and transformations that will shape the energy transition will occur.

### **Community perspectives: local voices on energy transition**

John Morrissey, Stephen Axon, Rosita Aiesha, Joanne Hillman  
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Operationalising a 2°C conducive carbon emissions target presents a challenge of unprecedented scale. From a policy and decision making perspective, efforts to date have primarily been characterised by top-down, technocratic approaches. For meaningful energy transition within the requisite time-frames, a reconfiguration of the human dimension of the energy system is needed. At the community level, the capacity to engage in large group deliberations, and the development of consensus on, and support for, strategies to achieve future visions constitute valuable local capacity and agency development. However, stakeholder oriented studies on energy transitions have to date tended to elicit expert stakeholders, with limited examples of studies which have explored local resident and community perspectives on the direction and nature of energy transitions. This paper reports on outcomes from a series of envisioning exercises, including scenario development and community workshops, conducted with a low-income community in the North-West of England, in 2016-2017. Envisioning exercises are important as they can be used to highlight the need for mechanisms for the long-term evaluation of policies and strategies, particularly in the context of preparing society, institutions, actors and infrastructure for lasting change. To date, transitions literature has largely focused on lessons learned from past, historical transitions and has developed a range of theoretical frameworks and typologies to explain the processes which underpin socio-technical transitions. This paper presents unique community perspectives on current, ongoing transitions. The paper provides breadth and depth of understanding of how individuals and communities make sense of low-carbon energy system configurations.

### **Environmentalities and the spatial impacts of residential energy policies on Ireland's energy landscape**

Irene Morris

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Reducing energy consumption and increasing efficiency within the residential energy sector has become a key focus in achieving policy goals in relation to climate change and in Ireland policy instruments are increasingly responsabilising the citizen as the driver for change through market actions. Through these market based instruments the state is attempting to govern from a distance by through a mixture of technologies of subject formation and by attending to the 'conduct of conduct'. Specifically, the Irish state is seeking to craft both markets and market actors; in the first case by using regulations to construct new market rules, grants to stimulate retrofitting markets, and a Building Energy Rating (BER) system to improve market intelligence and surveillance.

This paper outlines a spatialised analysis of state policy and its reach, identifying some of the key instances where the current regimes of practice have created a gap in policy impact. It also indicates that an understanding of socio-economic and demographic conditions at the local scale may help in the design and delivery of more nuanced residential energy efficiency policy measures. The thesis concludes that resting the governance of Ireland's building stock on a mode of neoliberal environmentality which ties market behaviour to progressive environmental actions has its merits as well as its limitations.

## **Session 2d: Upland Environments: Drivers of Change**

Thursday May 4th 13:40-15:10 ORB Room 132

### **Socioeconomic profile of Upland areas.**

Caroline Crowley & Brendan O'Keeffe

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There are 57 upland ranges across the island of Ireland, the vast majority in the Republic of Ireland. For the purpose of this research, the authors worked in collaboration with the Irish Uplands Forum (IUF). The Forum had identified for analysis, electoral divisions (EDs) from 17 of these ranges based on mapping criteria for land cover and habitation characteristics to identify inhabited rural areas with agricultural activity. This research adopted a two-stage analysis. The first stage provides a summary of the characteristics of the upland ranges and a comparison with national data. The second stage compares key indicators across the individual upland ranges to highlight local variations. This paper highlights many of the socio-economic and demographic features that are shared among Ireland's uplands. These include more extensive farming practices, below average levels of connectivity, more traditional industrial structures and stronger gender-based divisions of labour than is the case elsewhere. The profile also suggests a bottoming-out in population decline in most upland communities and a demographic upturn in many areas. In identifying the factors and features that bind Ireland's upland communities, this research notes commonalities between upland areas and many other parts of rural Ireland, notably coastal and island communities.

### **High Nature Value Hill Farming on the Iveragh Peninsula and its Landscape implications.**

Eileen O'Rourke

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#### **Abstract**

European uplands are important repositories for biodiversity, scenic beauty and recreation, as well as being home to millions of people. Low intensive farming systems, in particular grazing practices, have played a defining role in shaping upland landscapes, ecology and livelihoods. The term High Nature Value (HNV) farming was coined to describe traditional farming systems that are inherently high in biodiversity, landscape value and other ecosystem services. This paper presents case study research of a HNV hill sheep farming system on the Iveragh Peninsula, Co. Kerry, a disadvantaged area of high nature conservation value. These low input, low output farming systems may be ecologically sustainable, but they are challenged in terms of social and economic sustainability. We explore the complex linkages between farming systems, biodiversity, social capital and the policy environment. We also address key drivers of change in upland environments and acknowledge the interdependence of ecological and social resilience as critical to future options for the uplands.

### **Palaeoecology and landscape history in Ribblesdale, Cumbria.**

Helen Shaw

*Maynooth University Department of Geography (helen.shaw@nuim.ie)*

This paper will reflect on a study undertaken in Ribblesdale, North Yorkshire UK between 2009 and 2013. The study investigated the changing ecological landscape through the post-medieval period; linking changes in management to changes in the structural diversity and ecology of the landscape over centuries. As with many upland areas the geographical remoteness belies a fundamental link with wider socioeconomic drivers. Manorial and palaeoecological records demonstrate a process of shifts in farming linked to economic drivers over centuries. In contrast with the usual rhetoric for traditional land management, detailed palaeoecological evidence demonstrates a lack of environmental sustainability and a sustained period of incremental biodiversity loss. This highlights some tensions in the rhetoric of culture, identity and heritage in the uplands being aligned with high nature value. It could be argued that shifting baselines and the pressures of socioeconomics have led to some upland areas being designated due to being most natural remaining rather than high nature value.

The paper will argue that future policies will need to avoid entrenchment, and be flexible and innovative in the prescription of HNV systems in order to redevelop structural diversity and ecosystem resilience. Local scale investigations are essential to understand sustainability of cultural systems in context and to validate policy relevance.

## **Seeing beyond the site: palaeoenvironmental reconstruction in south-east Ireland**

Susan Hegarty, Ben Gearey, Ellen O'Carroll & Suzi Richer

*DCU, UCC, University of York (susan.hegarty@dcu.ie)*

Archaeological excavations over the last two decades or so have fundamentally altered the state of knowledge about the Bronze and Iron Age in Ireland. Many sites have started to reveal evidence for people's lifeways in the period between 1200BD-AD400 and at times dramatic changes and shifts between regions and periods. However, often there has been an excessive importance placed on individual sites, with a lack of understanding of the surrounding landscape context.

In 2015 a consortium, led by UCC Archaeology, embarked on an INSTAR-funded project to investigate settlement and landscapes in Later Prehistoric south-east Ireland. Since its inception, the project has expanded to include new partners while new data has led to greater understanding of the environmental history of the area during the Holocene. This paper will give an overview of the project and some of the main findings around the palaeoenvironmental reconstruction of the mid to late Holocene.

## Session 3a: Temporality in the city (2)

Thursday May 4th 15:25-16:55 ORB Room 156

### **Planning and Vacancy in an Irish Housing Estate**

Joanne Ahern

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Planning received considerable criticism for its role in contributing to the devastation caused by the financial and property crisis experienced by the Republic of Ireland. Unfinished Estates - termed the New Ruins of Ireland by Kitchen, O'Callaghan, & Gleeson (2014) - were, and in many areas remain, a visible scar and reminder of this period of construction. This is an appropriate moment to reflect on the planning system which has been created in Ireland and examine the impact of planning on the local scale. Therefore this paper examines the interaction of Vacancy and the Planning system in the formation of a housing estate in County Cork that has passed from the status of unfinished in 2011 to vacant and now in 2016 is approaching occupancy. New build vacancy represents a different set of issues for an area than an older property that has become vacant after a period of use. Vacant properties are often portrayed as a type of blight in an area; a vacant property can represent a waste of resources, a sign of the inefficient functioning of the real estate market or the beginning of a process of dereliction (Bowman & Pagano, 2004; Planning Research, 1995). However, a certain level of Vacancy is essential for the operation of the property market often referred to as the 'natural vacancy rate' or as part of the "vacancy chain". Thus maintaining appropriate vacancy levels should be a key concern for planning going forward.

### **Rethinking the temporal politics of urban redevelopment: Moore Street, Dublin and its marketplace at the intersection of livelihoods, planning and heritage**

Christine Bonnin and Niamh Moore-Cherry

*University College Dublin (christine.bonnin@ucd.ie)*

Traditional urban markets are public assets contributing substantial social value to cities, yet they are globally coming under threat from urban redevelopment agendas. Their enduring significance in terms of urban livelihoods has made this transition less than straightforward. This paper explores Moore Street, which houses Dublin's famed and longest lasting open-air marketplace. Amidst significant urban regeneration in its wider environs, a long-term environment of disinvestment and inaction coupled with repeated redevelopment proposals has characterised the last three decades on Moore Street, threatening and gradually squeezing the market as an important space for livelihoods. More recently, a large-scale heritage campaign focused not on the market but on national discourses of nation-building has added an additional layer of complexity and precarity to this urban neighbourhood.

Based on qualitative research carried out between November 2015 and September 2016 in Moore Street, we propose a nuanced approach for conceptualising the powerful role that time and temporality plays in the politics of urban development. The temporal politics of the city goes beyond the politics of time or the unfolding of political events over time, and is more aptly captured through an in-depth examination of the formal and informal politics associated with how time is experienced. Our findings show that redevelopment in the city needs to be understood not in terms of the linear, fixed, progress-oriented timeframes of elite and bureaucratic stakeholders, but as shaped by multiple, fluid and contingent temporal framings and temporalities. Furthermore, we contend that despite attempts to the contrary, our research highlights the impotence of planning and the potential ungovernability of both time and urban temporalities.

### **Configuring time in the smart city: the multiple rhythms of urban management and infrastructures**

Claudio Coletta

*Maynooth university (claudio.coletta@nuim.ie)*

While urban studies literature largely addressed how time is used and experienced in cities, included its multiple digital rhythms (Willis, 2016), scant attention has been paid to how these rhythms are

configured and performed through management and infrastructures. Moreover, the research itself has its rhythms and temporalities that interact with the temporalities of the fieldwork. Drawing on an actualized reading of Lefebvre's rhythmanalysis, the paper looks at the way heterogeneous time and temporalities are performed in practice and how the different heartbeats of the city are tuned together through working practices, management processes, and cyberinfrastructures, as well as policy, planning and governance processes, such as procurement and testbedding. The empirical focus is on traffic management and sensing devices as tools that shape urban knowledge and life through "rhythmaking". In particular, I will describe the activities in the Traffic and Incident Management Centre in Dublin City Council and in environmental monitoring, emphasizing the temporal connections at different scales between devices, algorithms, management and policies, also taking into account the temporalities and rhythms of larger processes and projects of smart city development. Finally, I will conclude with a methodological note on how qualitative approaches and particularly ethnography could help to account for the multiple time and space settings which compose the (smart) city.

## **Session 3b: Art and Geography (2): Disruptive Practices: Occupying Difficult Spaces**

Thursday May 4th 15:25-16:55 ORB Room 101

### **A Platform for Art**

Gerry Kearns

*Maynooth University (gerry.kearns@nuim.ie)*

National commemoration produces commissions for art. This paper asks what sorts of spaces are opened up or closed down by such commissions and focuses in particular on Proclamation, curated by Andrew Duggan and commissioned by Culture Ireland. I set the commissioning process within the political moment of 2016 together with the consequences for arts funding of austerity policies. Proclamation had a number of different iterations and I ask what was produced through the travelling of these works in this way. The use of art for promoting the state overseas has a troubled history and I set this latest set of initiatives in the context of earlier trials. I conclude by taking up the government's recent arts policy, Creative Ireland, and ask if anything can be learned for policy development from the experience of arts funding in 2016.

### **Asylum Archive: an Archive of Asylum and Direct Provision in Ireland'**

Vukasin Nedeljkovic

*Maynooth University (gisele.oconnell.2013@mumail.ie)*

ilt a paradigmatic marker of spatial relations. This paper challenges the underlying geographical assumptions of the Quilt, by elucidating the powerful potentialities of the unorthodox, but nevertheless legitimate 'place-specific' response to the AIDS crisis. In particular, this paper aims to bring artistic practice into conversation with emergent work on 'counter-mapping' (see; Katz 1998; Harris and Hazen, 2005; Dalton and Deese 2012; Louis et al 2012) to examine how the artistic practice of community quilting in Rialto, Dublin, has acted as a counter-cartography of place, by using the Quilts mnemonic properties and capacious medium of expression to write against the neighbourhood's scopophilic spatial constructions in the Irish media. Drawing on archival footage, informant interviews and aesthetical properties of the Quilt itself, this paper will elucidate how geographical imaginaries of the Quilt essentially 'produce,' 'perform' and 'practice' the place of Rialto as residents come to perceive, conceive and live it in the everyday. As Irish citizens find themselves 'em-placed' within the decade of centenaries, the question of our AIDS crisis become all the more pertinent, as the ways in which we imagine and commemorate the Quilt, undoubtedly impacts in how we materially intervene in its memorialized subjects.

### **Counter-cartographies of "Place" in a community AIDS Quilt'**

Gisele Eugenia Connell

*Maynooth University*

The global circulation and commodification of the US NAMES Project has, to date, rendered the AIDS Quilt a paradigmatic marker of spatial relations. This paper challenges the underlying geographical assumptions of the Quilt, by elucidating the powerful potentialities of the unorthodox, but nevertheless legitimate 'place-specific' response to the AIDS crisis. In particular, this paper aims to bring artistic practice into conversation with emergent work on 'counter-mapping' (see; Katz 1998; Harris and Hazen, 2005; Dalton and Deese 2012; Louis et al 2012) to examine how the artistic practice of community quilting in Rialto, Dublin, has acted as a counter-cartography of place, by using the Quilts mnemonic properties and capacious medium of expression to write against the neighbourhood's scopophilic spatial constructions in the Irish media. Drawing on archival footage, informant interviews and aesthetical properties of the Quilt itself, this paper will elucidate how geographical imaginaries of the Quilt essentially 'produce,' 'perform' and 'practice' the place of Rialto as residents come to perceive, conceive and live it in the everyday. As Irish citizens find themselves 'em-placed' within the decade of centenaries, the question of our AIDS crisis become all the more pertinent, as the ways in which we imagine and commemorate the Quilt, undoubtedly impacts in how we materially intervene in its memorialized subjects.

## **Who Draws the Map?: Tracing Community (social and institutional) Through Art Making and Audio Cartography'**

Michael McLoughlin

*Artist and UCD School of Sociology*

Ethics in participatory art practice has focused on the participant/artist relationship and specifically on the point of their initial interaction/exchange. Outcomes from these engagements are represented and repositioned within curatorial practice of the hosting repository. The gallery, the collection, the museum, traditionally sees itself as dealing in objects and artworks rather than people and their ideas. The inquiry in this paper and the artwork discussed has come from art making in social contexts, particularly in the last 15 year. The relational positions and participant/institutional interactions are often seen as problematic. This artwork discussed here is in itself a provocation to open dialogues. The paper will discuss ethics within institutional manifestations of participatory art practice with particular respect to authorship, co-authorship and ownership as proposed by a series of audio-cartographic spatial installations (ref: Cumann, Limerick City Gallery of Art, Sept-Nov 2016 & Droichead Arts Centre, Drogheda, Apr-Jun 2016). This art making process involves mapping place through the interactions and relationships between the communities of interest who in turn define that place. It is an art making process that creates choreographed moments of exchanges through agreed, staged, multi-channel recordings of unmediated conversations between small groups of individuals who share some commonality.

### **Session 3c: Community energy transitions: Shifts in perceptions, consumption and control**

Thursday May 4th 15:25-16:55 ORB Room 255

#### **Generational aspects of energy behaviour: energy practices among university students in University College Cork, Ireland**

Alexandra Revez & Niall Dunphy

*Cleaner Production Promotion Unit, School of Engineering, University College Cork, Ireland  
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Energy transitions towards sustainability have disparate implications for different generations. A generational perspective is a valuable means toward studying the social complexities within the energy system, it can represent different perceptions of energy use, unique views of participation with the energy system as well as illustrating the manner in which specific life-stages affect energy use. The focus of this study is to explore the processes through which a cohort of students makes choices and interact with the energy system. Empirical research is based on a mixed-method approach which consisted of eight interviews, two focus groups and ten time-use surveys. The research sample consists of undergraduate students between the ages of 18 to 40 years old.

Our findings are broadly divided into three categories: i) material culture; ii) energy awareness; iii) future and transitions. Overall the findings identify a number of behavioural patterns and attitudes towards the environment which highlight the need to develop policies that consider the social specificities of the population as opposed to developing general instruments that target as broad a cohort as possible. We identify existing policies such as awareness campaigns and economic instruments in the form of grants and we suggest ways in which these could improve in light of our findings.

#### **Recruitment, decision-making and experiences of an energy retrofit scheme in a rural community**

Gary Goggins, Richard Manton, and Jamie Goggins

*NUI Galway (gary.goggins@nuigalway.ie)*

This paper examines the development and implementation of a Better Energy Communities scheme in a rural community in the West of Ireland. Better Energy Communities (BEC) is a Government of Ireland funded programme which aims to reduce greenhouse gas emissions, fossil fuel use and energy costs by retrofitting buildings to high standards of energy efficiency. The scheme, administered by the Sustainable Energy Authority of Ireland (SEAI), encourages sharing of knowledge and resources between public, private and community organisations to deliver energy improvements for local areas. The objective of the research was to better understand motivations for participating in the BEC scheme, decisions taken in relation to the type of work carried out, experience of the retrofit works and subsequent changes to energy practices. Data was collected through 20 semi-structured interviews with householders, a local community officer and a construction manager, all of who had an involvement with the scheme. The study found that several factors including formal and informal community networks, levels of grants available and lack of bureaucracy drove participation in the scheme. Decision-making in relation to retrofitting options was primarily informed through word-of-mouth among members of the community and technical advice from the building contractor. Comfort and economics were the major drivers behind changes to energy-related practices, however concern for the environment was not a prominent factor in influencing householders' decisions. Nonetheless, the research demonstrates the value of community-based approaches for promoting climate mitigation strategies, including retrofitting of existing homes.

## **ENERGISE: Developing an Energy Cultures Framework for Europe?**

Frances Fahy

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Energy practices adopted by households and communities reflect prevailing energy cultures, that is, social and cultural factors that influence collective energy demand and create variations in energy use within and between countries. Drawing on and extending existing work on energy cultures, the ENERGISE project focuses specifically on shared norms and conventions and related forms of energy governance that shape and reflect energy consumption practices in households. By appropriating and modifying the concept of energy cultures, ENERGISE explicitly recognises cultural change as a key ingredient of successful energy sustainability transitions, including reductions in household energy consumption and the prevention of subsequent rebound and 'backfire' effects. Understanding energy cultures and their potential modification is also central to advancing EU energy policy.

Combining an emphasis on energy cultures with a focus on the wider societal context of energy practices, this paper examines the socio-cultural and systemic factors that influence efforts towards reducing energy use. Moving beyond much conventional sustainable energy consumption research, the paper presents an innovative conceptual framework connecting individual-level, organisational and institutional and societal influences on household energy practices. Importantly, the paper explores options for changing the quality and quantity of energy use through individual-level and community-based initiatives that recognise the role of both routines (e.g. daily habits around heating and electricity use) and ruptures (e.g. accidental & deliberate energy blackouts) in shaping household energy consumption. Possible variations in the (in)effectiveness of these initiatives both within and between countries will receive particular attention.

## **Socio-technical transitions and dynamics in domestic energy practices**

Mary Greene

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In Ireland and beyond momentous changes in socio-technical infrastructures and landscapes have radically transformed the way in which energy is performed in daily life. However, to date little is known about how wider socio-technical transitions have been experienced in the context of lived lives. This paper seeks to explore the value of a retrospective approach for revealing the multiple dynamics already existing in the world. It asks what can looking backward on already existing social change inform us about the processes and mechanisms shaping transitions in everyday energy practices? Drawing on practice-theoretical and socio-historic lifecourse concepts, this paper investigates how individuals' everyday energy practices, including food, mobility and laundry practices, have intersected with processes of biographic and socio-technical change. In a European context, Irish exceptionalism in terms of the rate and pace of recent structural change offers a unique context in which to explore the processes under examination. A multi-modal reconstructive biographic-narrative methodology was employed with a sample of Irish participants to advance a holistic, contextual and experiential means of analysing processes that have hitherto been overlooked by deductive and temporally limited research designs. Findings reveal that the socio-technical processes shaping dynamics in energy practices over biographic time are complex, operating at a range of interacting scales. Energy policies, economic contexts, technological developments, spatial planning, work and health institutions, and gender and family policies are all implicated in the complex web of contextual processes shaping how energy is demanded in the home. These factors have intersected to steer practice towards increasing resource intensity. The paper concludes that these findings have important implications for policy, suggesting sustainable consumption requires a much more fundamental challenge to social contexts than is recognised by current approaches.

### **Session 3d: Rewilding**

Thursday May 4th 15:25-16:55 ORB Room 132

#### **Insights into the cultivation of environmental values in Irish peatlands conservation**

Margaret O’Riordan, John McDonagh, Marie Mahon  
*GMIT & NUIG (M.OR) and NUIG (J.McD), NUIG (M.M) (margaret.oriordan@gmit.ie)*

In this paper Q Methodology is used to dissect local environmental knowledge and attitudes to the implementation of the EU Habitats Directive in Ireland on raised bog Special Areas of Conservation. A naturalistic approach to statement generation for the Q set was adopted by conducting twenty-one semi-structured interviews with stakeholders. The Q sort was conducted by sixteen turf cutters, followed by post-sort interviews. Q sort results were subjected to principal components analysis and varimax rotation. The results offer insights into the cultivation of environmental values on peatland conservation and legitimacy at ground level. Alignments and gaps between local cultural and ecological knowledge and the science and governance of peatlands are revealed across three discourses namely (a) Cultural Resisters (b) Market Pragmatists and (c) Compensation Seekers. The results demonstrate how local environmental subjectivities respond to perceived inequities and inconsistencies in peatlands regulation. The integration of bottom-up practices and local knowledge into relocation policy through more adaptive governance demonstrate a more positive attitude to conservation of SACs, but also reveal ambivalence towards the conservation potential of non-SAC peatlands. The paper provides insights into the potential for the cultivation of more transformative environmental values on peatlands conservation.

#### **Rewilding a West of Ireland Landscape – an interim report on rewilding the Nephinbeg Wilderness area for future generations**

John O’Callaghan  
*National University of Ireland, Galway (NUIG) (ocallagjohn@gmail.com)*

Wild Nephin’ (Néifinn Fhiáin in Irish) is a long-term (up to 50 years) wilderness creation project, which will involve some elements of rewilding, underway since about 2010. The project is a joint initiative by Coillte, an Irish state-owned, commercial forest company; and the National Parks and Wildlife Service (NPWS), part of the Heritage Division of the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs, that manages, maintains and develops State-owned National Parks and Nature Reserves. The area set aside comprises some 14,000 hectares of mountain, forest, bog, lakes and rivers that make up the Ballycroy National Park and Coillte lands. It is planned to rewild this landscape over the next 15 years to allow it to develop as a wilderness area, a free willed landscape, free from human intervention as far as possible. As Ireland’s first designated wilderness it is contributing to the European Wilderness agenda which has an objective of setting aside over one million hectares by 2020. While not a restoration project, the landscape and ecology that are in place today will be allowed to develop untrammelled by humans.

This paper will describe how the current landscape has been re-imagined into what it will look like in the future; provide an interim update on the planning and design that has already gone into the process of rewilding the area and will discuss some of the challenges faced by the current stakeholders in transforming the present landscape.

One of the key factors is how to influence the EU to update existing draft guidelines in order to include ‘modified landscapes’ such as the Wild Nephin Wilderness Project in its formal criteria of designated areas. Ballycroy National Park, which includes the Owenduff-Nephin Special Area of Conservation (SAC); Special Protection Areas (SPA); is also in ‘Natura 2000’ network whereby all EU states are obliged to protect (and manage) habitats of scientific interest – an immediate dilemma for the development of a free willed landscape.

The project has received endorsement from An Taoiseach, Enda Kenny, TD, Prime Minister of Ireland; Toby Ackroyd (Wild Europe); Zoltan Kun, European Wilderness Society; Peter Hynes, Mayo County Manager and was the brainchild of Bill Murphy, former head of Recreation and Environment with Coillte. It is currently being managed by a management team comprising both Coillte and the NPWS, chaired by Denis Strong of the NPWS. The author wishes to gratefully acknowledge their assistance in the compilation of this paper.

## **An Assessment of the feasibility of reintroducing the wolf *Canis lupus* into Ireland**

Kieran Hickey

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Ireland is devoid of big predators but this was not always the case, with evidence of brown bears, lynx and wolves occurring in the Holocene. The wolf (*Canis lupus*) was only exterminated from Ireland in the late 18th century. The last reasonably reliable documented killing of a wolf was in 1786 on Mt. Leinster on the border of the counties of Carlow and Wexford. Claims of wolves in Ireland even extend down to the 1830's. This paper will assess the feasibility of reintroducing the wolf into Ireland and the many difficulties this would present including the physical requirements of wolves to survive successfully, their relationship with humans and ethical considerations.

## **From the Mountain, 2014, single channel HD video, black+white, sound**

Michael John Whelan

## **Session 4a: Infrastructural States (1)**

Friday May 5th 9:00-10:30 ORB Room 156

### **Rural Housing as End of Infrastructure**

Karen Keaveney

*UCD (karen.keaveney@ucd.ie)*

One off housing in the countryside tends to be viewed through the lens of rural change; subsequently it is treated as a rural issue alone. In the Irish context, agricultural change, rural decline, and latterly, regional development, set the context for debate and policy for rural housing. Since the 1970s, one off housing or ribbon development in the countryside has been presented in the context of utilising, or more negatively, exerting pressure on, infrastructure rather than being an infrastructure in and of itself. This paper attempts to contextualise rural housing differently by examining housing as infrastructure, and placing it outside 'the rural'. Housing in the Irish countryside has re-emerged in the past two to three years as a 'problem' for spatial planning, and yet there have been limited changes in policy approaches in the past number of decades. This paper will investigate rural housing as spaces for negotiation, tension and resistance, evaluating how living in the countryside can be (re)imagined in order to engage more meaningfully with policy and power.

### **The smart meter in parenthesis: the ontological politics of the device**

Caspar Menkman

*National University of Ireland, Maynooth*

For the majority of EU-membership states a target has been set that mandates 80% of electrical power connections to be outfitted with a smart meter in 2020. While there have been plenty reflections on their imagined effects, remarkably little attention has been given to the materials of the technologies involved. This paper addresses this gap by shifting the narrative from the dominant imaginaries like privacy and (dis)empowerment to the metering infrastructure itself. Particular attention is paid to the distinctiveness of smart meters as information and communication technologies and its ability in renegotiating traditional social and material relations. The consulted materials for this research are national and EU manuals on standards and policy with regards to the technical reference architecture of smart meters as well as a series of expert interviews. While smart metering deployments differ across national contexts, some generic technological capacities can be gleaned from these. A focus is subsequently put on what the technology does, how it relates to its immediate environment, and what it makes possible. This shows that the smart meter as a networked and calculative technology is not only a modern technology of address, but acts as a scaling device that has the capacity to renegotiate and put tension on the traditional relation between electricity grid and household. As such it is a powerful geographic technology inscribed with an ontological politics that allows for the household to show up differently dependent on context.

### **Governing Infrastructure values**

Ralitsa Hiteva

*University of Sussex*

The 2017 *Building our Industrial Strategy Green Paper* recognised that there are big disparities between the ability of different areas in the UK to attract necessary levels of infrastructure investment. However, securing infrastructure investment on its own is not a guarantee for creating, capturing and monetizing value from the investment. So, a big infrastructure governance challenge is not only how to create value from infrastructure but also how to capture value within specific places and groups of actors. Value speaks to the ways infrastructure is imagined and engaged with and by different publics; and can be used to reveal and represent the infrastructural interface with the environment, place, locality and landscape. The paper argues that the ability to create, capture and monetize a diverse set of values is dependent on 1) the ability of place to translate investment in infrastructure assets into quality infrastructure services (e.g. not roads but mobility); and is underpinned by 2) the modes, mechanisms and processes of infrastructure governance. Conceptually, the paper brings together two different strands of literature: infrastructure governance and business models, to critically examine how the two are linked. How do business models innovations effect change in the

governance of infrastructure? What modes, mechanisms and processes of infrastructure governance can increase the value that is created, captured and monetised throughout the whole life of infrastructure? Thus, this paper aims to examine the connections and disjunctures between infrastructure governance mechanisms and processes; and the creation, capture and monetization of value from infrastructure services, and their dependence on place. And the role that these play in the production of diverse infrastructure value geographies across nation states. This includes unpacking the role of business models for infrastructure services as a specific and dominant form of infrastructure governance.

### **Infrastructure governance and the emergence of a 'not for profit' utilities sector in the UK**

Alan Patterson

*Sheffield Hallam University*

A dominant trend in the form of provision of local public services and public utilities in the UK has been the transfer of functions, powers, and responsibilities away from democratically-elected locally-based public-sector bodies and towards larger, typically regional-scale, private-sector organizations. This trend has also been accompanied by explicit political attempts to reconceptualise these services as marketable commodities. However, in some sectors a new experiment is under way that involves the creation of 'not for profit' companies to take over responsibility for services previously managed by privatised utilities. Considerable public attention has been paid to the transfer of ownership of the railways in the UK with the creation of Network Rail, but this paper focuses on another sector that was at the centre of the privatisation debate during the 1980s: the management of water services. With much less public attention, this sector, a key player in the provision of regional infrastructure and therefore strategic economic planning, is also undergoing significant organisational change. Through a case study of Glas Cymru, the 'not for profit' company specifically created to take over the water supply and sewerage responsibilities of Welsh Water/Dwr Cymru, this paper addresses the significance of the emergence of a new form of regional service provider and considers the implications for regional governance and regional economic development.

## **Session 4b: Legal Geographies in Ireland**

Friday May 5th 9:00-10:30 ORB Room 101

### **Owning Outer Space?: The Emerging Legal Geographies of Extra-Planetary Extraction.**

Rory Rowan

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Ten years ago Fraser MacDonald argued in *Progress in Human Geography* that outer space should be a mainstream concern of critical geography, and although the human presence in extra-planetary space has rapidly expanded and transformed in the intervening years it nonetheless remains marginal to the discipline. This paper argues that given the extent to which human activities in outer space are now a constitutive element of many earthbound social processes and the profound legal and political stakes of recent changes in the nature and scope of these activities MacDonald's call should be taken up. Indeed from the perspective of legal geography it is clear that the interface between the spatial and the legal has for a long time extended beyond Earth's atmosphere. However, this paper argues that recent developments mark a fundamental transformation of spatio-legal relations that deserves critical attention.

The US SPACE Act of 2015, recognizing the right of US citizens to engage in the commercial exploitation of 'space resources,' marked the first attempt to lay legal foundations for the development of off-Earth extractive industries. Although some consider the law to contravene existing international legal agreements other states, eager to claim a stake in this speculative bonanza, are developing their own legislation. Notably Luxembourg recently drafted its own law in an attempt to position itself as a hub for private space industries. This paper will explore some of the questions around property and sovereignty in outer space that these developments raise and argue that their stakes are potentially profound.

### **Evidence and Absence in Investigating the Irish Refugee Appeals Tribunal Archives**

Sasha Marks Brown

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Feminist geopolitics scholars have called for additional research into how states produce and perform the enforcement of borders and territory. In this paper, I delve into archives of the Irish Refugee Appeals Tribunal to investigate the state practice of determining status for asylum seekers in Ireland. Little work has been done into the role of state archives of border enforcement, and I argue that investigations into these archives can reveal the practices of civil servants and the cultures of state institution.

I conclude that the Refugee Appeals Tribunal members (re)produce and (re)perform the narratives of asylum seekers into threats to the security of states. This investigation of the refugee and asylum process also reveals a landscape of clarity and shadows: some qualities of the asylum process and the practices of the state agencies become clear, and some remain hidden. I discuss how mapping the evidence and the absence of evidence in the archives provides fills important gaps in our understanding of the judicial, legal and practical frameworks of border enforcement.

### **Echoing through the years: an exploration of the lasting legacy of the Offences Against the Person Act, 1861**

Louise Sarsfield Collins

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Exploring the ways in which law and space are co-constitutive and these processes often hidden from view, this paper seeks to explore the legacy of the 1861 Offences Against the Person Act. Despite being more than 150 years old, this law remains the basis for key aspects of criminal law in the UK and Ireland, albeit that certain sections have been repealed or amended in the different jurisdictions in the intervening period. In particular, I am concerned with aspects of this law that sought to govern the

most intimate aspects of people's lives.

Delaney (2010) argues that the legal practices of naming, cataloguing and ruling are imbricated in the production of social space. To ascribe legal signifiers to an act or an object situates them within networks of power. Furthermore, I would argue that the 1861 Act and subsequent related provisions not only criminalised particular acts but sought to criminalise particular identities. Thus foreclosing opportunities for certain classes of people to have 'a place' within civilised society and by extension sought to make their very 'being in space' unlawful. Through examining the relationship between the socio-spatial and the socio-legal I attempt to render a queered legal geography reading of the Offences Against the Person Act, 1861 and the places it travelled to better understand the ways in which the traces of this law continue to be woven into the production and reproduction of social space today.

### **Feminist Geolegalities**

Katherine Brickell and Dana Cuomo

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Feminist geolegality interrogates the connections between gender, law and space and their geopolitical and geoeconomic machinations. Our advancing of feminist geolegality aims to carve out a distinctive stream within legal geographies that begins to redress the lack of engagement between the intellectual projects of legal geographies, feminist geography and feminist legal studies. We do so by bringing together research focused on the geolegal home and body including issues of wartime sexual violence, contestations over reproductive rights, and revenge pornography to domestic worker abuse, domestic violence and women's imprisonment. The importance and timeliness of taking forward a feminist geolegal agenda is marked not only by this review of existing literature but explored through our respective research on domestic violence law in Cambodia and the United States and attention given to geolegal events and growing existential challenges facing the human rights project that carry acute gendered repercussions for women across the world.

## **Session 4c: Denial, deception and disruption: addressing the challenges and potential solutions to fix a broken food system (1)**

Friday May 5th 9:00-10:30 ORB Room 255

### **The new era of food poverty: commodification and corporatisation**

Tara Kenny

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Food insecurity, in its bimodal context, is a significant human tragedy; and in a food system where supply dictates demand, it is increasingly difficult to justify the enduring focus on 'empowering' the consumer to make the right choice. Across the globe inadequate diets affect one in three people, and while opportunities within the system to intervene exist, government inaction is commonplace-- even in situations where choice is clearly not an afforded luxury. In Ireland food poverty is an issue rooted in socio-economic inequality; and is increasingly becoming a problem championed and disputably maintained and exacerbated by charitable and individual/business philanthropic endeavours. Charitable food provisioning is now part of the general foodscape in Ireland, and has occurred in the absences of any critical debate or long-term visioning as to the human efficacy of such an arrangement. Based on the experience of other developed economies it is likely that the current state-of-play will remain the dominant approach to food poverty for the foreseeable future. Accordingly, statutory and non-statutory organisations, institutions, businesses, and individuals have key role to pay in shaping the lives of thousands of people daily. This paper provides an overview of the of the current poverty landscape in Cork and theorizes that conceptual impressions around what constitutes food poverty has acted as a catalyst for the current landscape. These issues will be explored by examining the circumstances surrounding charitable food provisioning in Cork, with the intention of disrupting the current discourses.

### **Denials and deceptions: disrupting the myth of food as waste**

Mags Adams

*Geography and Environmental Management, School of Environment and Life Sciences, University of Salford (m.adams@salford.ac.uk)*

The wastage of food brings about a moral outcry that is further fuelled by rising household food insecurity and austerity. Links are being made between the tonnes of food that are wasted in the UK and Ireland (WRAP, 2010) and the increasing proportion of income being spent on food, especially in low-income families (Defra, 2014). Concomitant with this there has been an escalation of organisations and practices to redirect wasted food to hungry people. And yet the terminology of food waste, food surplus, and wasted food linked to hunger can obfuscate the contingencies that lie behind its production and proliferation. In this paper I argue that using an industrial symbiosis approach in conjunction with supply chain thinking enables the narrative of food as waste to be disrupted, the deceptions within that narrative to be opened up and inspected, and the denial that food is food to be refuted. Taking as its starting point the contested configuration of food as waste, the paper argues that a supply chain approach helps with identifying the points of intersection at which food takes on various guises, as food, surplus and waste. I examine the ways in which such 'material' is reconfigured at these various points on its journey from food to surplus back to food, and argue that it maintains its character of food all the while. The paper thereby argues that all food that circulates within such 'redistribution' systems should not be considered waste or surplus, but rather we should reconfigure our conceptualisation of the food distribution system itself to incorporate the organisations that redistribute 'wasted' food within a circular economy framework.

### **Disruptive technologies? Scaling relational geographies of ICT-mediated surplus food redistribution**

Anna Davies, Marion Weymes

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ICT has long been seen as a disruptive and empowering tool for improving food systems. This interest in 'smart' food includes attention to ICT-mediated surplus food redistribution, but detailed analysis of the practices and impacts of such mechanisms is limited. In this paper we counteract this paucity of information by first mapping the landscapes of initiatives employing ICT to address food waste across 100 cities and five continents, and then categorising their location, scale, form, function

and governance. One case study of ICT-mediated surplus food redistribution - FoodCloud -which operates as an intermediary, linking up organisations with excess food with charitable organisations is then examined in detail. Initially facilitating these relationships in just one locale, FoodCloud now operates internationally, managing relationships between hundreds of food retailers and charities. Drawing on interviews with key stakeholders, this paper critically examines the areas of disruption and continuity around surplus food generation and its redistribution. While the landscape of surplus food redistribution internationally is highly variegated and requires more in-depth and comparative research, it is clear that FoodCloud operates very much 'in the meantime' (Cloke et al., 2016); neither claiming to be the silver bullet for food waste reduction nor the solution to food poverty, rather working provisionally towards a much more humble goal to raise awareness and reduce edible food going to landfill. Importantly, while technology has permitted an upscaling of activity, the effectiveness of the initiative still depends significantly on the management of relations between sharers, intermediaries and governing stakeholders.

## Session 4d: Earth Observation developments in physical geography

Friday May 5th 9:00-10:30 ORB Room 132

### Mapping Peatland Drains

John Connolly

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Peatlands play an important role in the global carbon cycle. They provide important ecosystem services including water storage, and carbon sequestration and storage. Drainage disturbs these ecosystem services. Traditional mapping of drains is difficult and expensive task. Their spatial extent is, in many cases, unknown. An object based image analysis (OBIA) was used to extract and map drains on a blanket bog in the west of Ireland. A very high resolution satellite image (Geoeye-1) was used. A key part of this study was the accuracy assessment methods. Two methods were used here: Error matrix and the completeness, correctness and quality (CCQ) the assess the accuracy of the extraction. A second part of the work was to assess the cost of this extract method versus manual digitisation and field survey.

### Slick Feature Mapping

Conor Cahalane, Dáire Walsh & Tim McCarthy

National Centre for Geocomputation, Maynooth University ([conor.cahalane@nuim.ie](mailto:conor.cahalane@nuim.ie))

Earth Observation technologies enable synoptic, near real-time mapping and monitoring over large areas of our national waters. These techniques have the potential to significantly contribute to the de-risking of oil and gas exploration and as a result work is underway to develop an EO methodology for mapping natural and anthropogenic oil-seeps/slicks over Ireland's offshore exploration area. The team at the National Centre for Geocomputation (NCG), Maynooth University are in the process of design, development and evaluation of a scalable, cloud-based marine observation platform to support this. This platform incorporates remote sensing and in-situ data and will be accessible by both the oil/gas industry and researcher alike. Imagery from satellites (SAR, multispectral, hyperspectral), light-aircraft and low flying drones are assessed in a processing chain to locate, classify and quantify marine slicks through their surface-roughness and/or their spectral and thermal signatures. Information on weather, geology and oceanic processes are combined with other spatial datasets to help inform the classification of the slicks and assess the impact of different weather and sea conditions on classification accuracy. This project is funded by the Petroleum Infrastructure Programme (PIP) through the iCRAG Marine Spoke.

### Integration of high resolution optical and microwave satellite imagery for quantification of small-scale forest disturbance events.

Parvez Rana, Fiona Cawkwell, Preethi Balaji, Stuart Green

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The use of remote sensing data in understanding the location and effect of forest disturbance is a worthwhile way of investigation. This study is focusing on the different techniques of image fusion between RapidEye and ALOS PALSAR images and compare the results of the different techniques to identify small-scale forest disturbances (e.g., clear-felling, thinning, deforestation, and storm) in Ireland during 2009-2010 and 2015-2016. The key point is that disturbance areas have been identified using ALOS PALSAR (15-meter resolution) but we need to explore what additional information can be gained through the integration with RapidEye image. In addition, ALOS PALSAR data with the integration of high spatial resolution RapidEye image (5-meter) could be useful to detect small-scale disturbances in the three study areas (i.e. Cork, Donegal and Wicklow) in Ireland. This RapidEye-ALOS PALSAR fusion approach could provide additional information in the classification process to identify small-scale forest disturbances. In addition, the study is assessing different forest disturbance detection approaches such as classification (i.e. ordinal logistic regression), transformation (i.e. principal component analysis), and spectral mixture modeling. For the ground truth data, we are using national forest inventory data, google earth imagery, Coillte field data for forest disturbance information. The initial result suggest that wavelet fusion and high pass filtering fusion are the two best fusion approaches. Machine learning approaches (i.e. random forest, extremely randomized trees, and support vector machine) produced forest mask with an overall accuracy of 99%. Forest disturbances classification are still ongoing process of this project.

## Co-ReSyF: Unlocking our potential for innovation in coastal water research

Rory Scarrott<sup>1</sup>, E. Politi<sup>1</sup>, E. Tuohy<sup>1</sup>, A. Cronin<sup>1</sup>, M. Terra Homem<sup>2</sup>, H. Caumont<sup>3</sup>, N. Grosso<sup>2</sup>, A. Mangin<sup>4</sup>, N. Catarino<sup>2</sup>, F. Cawkwell<sup>5</sup>, M. Cronin<sup>1</sup>, E. O' Rourke<sup>6</sup>

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Changing coastal processes, and human activity intensification can affect coastal regions in many ways. To fully understand the impacts and associated risks, geospatial approaches which harness both global and regional datasets, are needed. These can help characterise trajectories of change in coastal systems, improving our knowledge and understanding of the complex processes involved. Increasingly, such approaches often require Big Data solutions. Furthermore, they also typically require highly specialised data processing skillsets. Particularly with regard to satellite-derived Earth Observation (EO) data, targeting coastal uses of EO data requires collaborative approaches which involve both non-EO and EO data experts.

The H2020-funded Co-ReSyF project aims to address this need, developing a cloud-based platform which enables EO novices and experts to collaboratively develop algorithms, access, view and process satellite data, and visualise and share their outputs. It is also deploying a series of Research Applications, whose discrete processing steps will be distilled into a set of modules. These can be used independently for data (pre-)processing, or combined with other modules to create novel processing chains. Coastal researchers can collaboratively create processing chains which extract relevant coastal information on the physical environment from EO data. EO experts can also collaboratively develop modules of their own, deploying them using the platform, and make them available to others. Inexperienced users can use the modules as they are, building process chains without needing to understand the underlying programming details. Meanwhile, advanced users will be able to use the Co-ReSyF functionalities to develop their own modules, or adapt configurations of existing ones.

This presentation outlines the approach the Co-ReSyF project is taking, to unlock EO data's potential to contribute to coastal research. It also describes an example Research Application (and the modules to be made available) focused on extracting spatiotemporal ocean information from temporally rich data cubes of Sea Surface Temperature measurements.

## **Session 5a: Infrastructural States (2)**

Friday May 5th 11:00-12:30 ORB Room 156

### **The contested values which undergird inventorising infrastructure as heritage**

Mark Boyle and Andrew McLelland

*National University of Ireland, Maynooth*

In this session we wish to place under scrutiny the contested values which undergird inventorising infrastructure as heritage. Our specific focus is upon the cities whose infrastructural and utility histories are inextricably wound up with imperial projects, past and present. We are keen to explore which infrastructures are valorised and which not, how this comes to be expressed in landscape preservation and heritage management, and the meaning and implications of infrastructure as heritage for collective and contested memories of colonial and post-colonial histories. We develop our account with reference to a study of heritage management in the city of Derry/Londonderry. We introduce and reflect upon the idea of using public-participation GIS methodologies to unearth contested infrastructural heritage values.

### **Aeolian Enclosures: Wind, Sky and Infrastructural Publics in contemporary Ireland.**

Denis Linehan

*UCC*

The skyline is an involved and entangled thing. The anthropologist Tim Ingold reminds us that from the earliest times, there has been a knotting together of earth and sky. High places, mounds and elevations have been invested with meaning (Ingold, 2007). Drawing upon Heidegger, he notes that there is 'no life, in short, in a world where earth and sky do not mix and mingle' (Ingold, 2010). The skyline is a great meeting place, bringing disparate elements together in lines of sight, prospects, views and panoramas, whose ownership is never entirely fixed. Except of course, with the rapid expansion of wind-energy systems and the energy landscapes they produce, this commons is now subject to enclosure. Drawing upon the concept of Aeolian Extraction devised by Howes and Boyer (2016), this paper will attend to the response of various infrastructural publics to wind energy developments related to national targets for renewable electricity by 2020, where an estimated 5,500-6,000 MW of wind generation is demanded. The paper proposes that the manner in which these publics have experienced these developments reveal complex infrastructural states, which speak to tensions at the intersection of the body, place, technology and the sky. Simultaneously they represent the edge of contemporary transformation, often meshing places, skylines and communities with vibrant matters related to financialization, mythology, energy regulation, memory and privatization, playing out at multiple and overlapping scales.

### **'Optimizing Water Services': Environmental Accounting, Water Pricing and the Techno-Politics of Water Infrastructures**

Patrick Bresnihan

*Trinity College Dublin*

A key focus of scholarly work on neoliberal water governance has been the shifting roles of private and state actors in the re-organization of water infrastructures and resources – from the 'heyday' of water privatization in the 1990s to hybrid public-private partnerships, increasing financialization, and the 'corporatization' of state-owned water utilities. However, within this body of work there is less attention paid to the material and discursive shifts in how water infrastructures and resources are represented, accounted for and managed within new regimes of governance. This paper examines such changes with a specific focus on the Irish water sector within the context of the European Union. There are three overlapping tendencies identified. First, the move towards identifying and mapping the many 'services' provided by water systems to better account for them within decision-making, thereby blurring the line between 'ecological' and 'technological' water infrastructures. Second, the need to assess the performance of these water services through quantitative metrics designed to inform data-driven decision-making and infrastructural 'optimization'. Third, the economic valuation of these water services translated into new instruments of governance (water pricing and charges). These tendencies add up to a highly technical, liberal approach to water governance, effectively

displacing existing public institutions and procedures for decision-making with the promise of unbiased data and equitable pricing mechanisms that will not only finance the costs of vital water services but also optimize water use within households, businesses and utilities. The paper draws on the analysis of STS and governmentality scholars to highlight the political dimension of these developments, namely the clash between the economic management (and valuation) of water and the possibility (and demand) for something else. This clash has played out through the unprecedented mobilization of the Irish population against the introduction of water charges (and the re-organization of the water sector) over the past three years, despite pressure from the European Commission, the political parties in power, and 'experts' in the fields of water, economics and government.

**Attending to mature infrastructure systems: reconfiguration, contestation and decline.**

Katherine Lovell

*University of Sussex, UK.*

Long-established infrastructure systems are common and important features within Western nations. These Large Technical Systems (LTS), such as road and electricity networks, underpin both economic and societal activities helping to shape the cities, regions and countries they support. Although these mature infrastructure systems can be large, complex and appear fixed, in technology, operation, governance, usage, scope and scale these LTS continue to develop and change over time. These are also systems that excite interest of many actors from across society – they are not the preserve of a single industry, profession or class – this makes them key sites for negotiation and conflict. This paper presents and illustrates a framework for conceptualising development and change in these systems. In addition to its position within academic discussions of co-evolution of LTS, this research seeks to inform policy, governance and civil society actors interacting with and seeking to intervene in the operation and performance of mature infrastructure systems. Building on the work of Thomas Hughes, Jane Summerton, Iskander Gökalp and others, this research extends the idea that LTS can be considered to pass through different phases of development as they mature. Moving beyond studies that have focused on how innovation has occurred to enable the establishment and spread of certain LTS, this paper examines the continued existence and innovation within these systems after they have acquired high momentum and established style. This paper introduces new phases of system development that apply to these mature systems, 1) reconfiguration 2) contestation and 3) decline, and discusses important and interacting mechanisms in play within these phases (see Figure 1, below). These phases and mechanisms are illustrated with examples from existing histories of mature infrastructure systems and passage between phases is investigated using the case of the railway system of Great Britain. This framework highlights the complexity and variety present in actors and interactions involved in shaping and re-shaping these systems and, importantly, it acknowledges the many outlets for agency within these structures.

## **Session 5c: Denial, deception and disruption: addressing the challenges and potential solutions to fix a broken food system (2)**

Friday May 5th 11:00-12:30 ORB Room 255

### **Food denialism, climate change sceptics and the politics of (social) science**

Mike Goodman, Colin Sage

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Sustained scientific work across a range of disciplines has provided us with an overwhelming body of evidence for human-induced climate change as well as the ecologically destructive effects of the industrial food system. Livestock rearing for meat-intensive diets is one way in which these two are interlinked. Moreover, hunger and lack of access to decent food continues to grow, rates of obesity rise, diet-related health care costs soar and carbon and methane emissions continue apace. Yet powerful interests seek to maintain business as usual at all costs. In this paper, we wish to explore the ways that food-related denialism—the equally insidious second-cousin of climate denialism—has worked to obfuscate the evidence that points to the destructive consequences of the industrial food system, working to complicate discourses and misdirect policies around food sustainability. In so doing it serves to shore up the business as usual case and strengthen the current corporate-controlled arrangements. In a speculative set of arguments and analysis, we wish to explore the ways that food denialism works, drawing parallels with the better known campaigns of climate change scepticism and global warming denialism. One of the core points we wish to make is the way that both nutrition and climate science share an epidemiological approach to the presentation of their findings which leaves considerable ‘room for manoeuvre’ for oppositional and denialist tropes to flourish, and thus leave room for wildly heterodox perspectives on both climate and food. In addition, we explore the ways that alternative framings—both in the context of green energy and new food networks—have been able to transcend denialist and sceptic tropes through their growing economic leverage and normalisation. Thus, we are left with that enduring question in the context of offering alternative transitions to more sustainable futures: will these initiatives remain marginal or can they work to overcome powerful denialist inertia that seeks to retain the status quo via technical fix and a discourse of reassurance?

### **Reshaping urban political ecologies: An analysis of policy trajectories to deliver food security**

Bridin Carroll

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In a context of increasing urbanization, cities have become key sites to transform our current food system in order to deliver good food for all. Indeed, municipal governments around the globe are developing food policies to integrate different sectors and actors implicated in delivering food security outcomes. Despite the acknowledgement of the need to develop integrative plans and food governance approaches, sustainable food transitions are conditioned by specific socio-ecological configurations of individual cities. Furthermore, inclusiveness and integration are discursively deployed but challenging to implement on the ground. In order to understand these policy trajectories we mobilise a political ecology framework to explore how the specific configurations of nature and society express themselves in the process and outcomes of urban food policies. We select three European cities: Rotterdam, Cardiff, and Cork. These cities represent distinct urban foodscapes, with diverse state-civil society relationships and varied food policy trajectories. Our analysis shows how policy opportunities for success are shaped by existing sociocultural dynamics (e.g. social asymmetry, level of engagement from civil society, pre-existing policy environment, and degree of state involvement), as well as particular ecological basis (i.e. availability and access to spaces for growing, share of green spaces, local climate, etc.). Furthermore, the potential of urban food policies to effect change on the city’s foodscape hinges on their capacity to leverage place-based assets, and transform the structural processes that create exclusive and food insecure spaces in the first place.

## **Foods from catchment to coast – responsible development of rural foodscapes**

Eifiona Thomas Lane, Rebecca Jones and Jane Ricketts Hein

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Within the current chaotic disruptive circumstance of an uncertain rural policy and funding context, significant opportunities exist to strategically and sustainably develop new responsible food-scapes. A unique and changing Welsh governance framework includes a legislative commitment to sustainable development and future well-being goals, demands the production of both staple healthy foods and also foods of heritage and local provenance to feed a growing market for seasonal rural gastronomic experiences.

By drawing out the commonalities and challenges from a range of empirical case studies as well as focus group research, the experiences of rural stakeholders who are deeply involved in the food supply chains of both upland livestock production and fish based gastronomy are presented. These are different voices that describe very similar experiences.

The future impacts of changing Fisheries and Agricultural policies, further compound the urgent need for supporting new forms of coastal and upland food production as well as touristic and recreational offers. The potential to couple strategic food development with social entrepreneurship aimed towards promoting responsible development of livelihoods, social inclusion and resilience building is discussed within a policy direction increasingly emphasising ecosystem services focussed around climate risk management. Founding criteria for supporting new landscapes of responsibly harvested foods are explored along with possible innovations for maximising local value from fairly traded supply of foods from both the upland areas of Wales and its slow fished coastal and inland fisheries

## **Session 5d: Disruptive Hazards, Weathers and Climates**

Friday May 5th 11:00-12:30 ORB Room 132

### **Disruptive hazards and climates: Making sense of ambiguity**

Jim Jeffers

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This paper explores the ambiguous ways in which local actors interpret weather related hazards and climate change. It draws on evidence from qualitative analysis of interviews with decision-makers and stakeholders in the cities of Dublin, Cork and Galway to examine how hazards and climate impacts are interpreted in ways that appear contradictory including: as both a threat and an opportunity, as a present reality but also located in an uncertain future, and as a process that is spatially near at hand yet also distant and remote. These ambiguous interpretations emerge from encounters and experiences that bring together the material and socio-cultural realities of weather and climate. Climate change is encountered as a material reality through weather events that are viewed as unusual. It is also experienced as a social, cultural and political reality shaped through a wide range of information sources. Ambiguous interpretations present numerous challenges for decision-making and policy. They may require the development of new approaches to decision-making that are improvised, provisional and reflexive.

### **A comparison of the 2009 and 2015-16 flooding in Ireland and its historical context**

Kieran Hickey

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Given its western extremity and relatively high and generally year round rainfall Ireland has a long history of river flooding with the Shannon catchment being the most problematic. In addition the morphology of Ireland inhibits good drainage with most of the centre of the island being very low lying and most of the mountain ranges along the coast, thus being described as saucer shaped. This paper compares and contrast the flooding of 2009 and 2015 -16 both considered to be 1 in 100 year floods (Hickey 2010).

Both events are associated with record monthly rainfalls received in November 2009 and December 2015 e.g. Cork Airport recorded 402.2mm of rain in December 2015 which represents 302% of its long term average and was its wettest December on record since the station opened in 1962.

Both floods occurred after long periods of above average rainfall which meant that there was little additional storage capacity in the lakes, channels and soil. Both led to record water heights being recorded on some Irish rivers especially on the Shannon catchment.

The human factor cannot be ignored and the encroachment onto floodplains of extensive building during the Celtic Tiger era has significantly exacerbated the problem in terms of impact. This is coupled with persistent underinvestment in flood defences and a planning and tendering process for new flood defences which can be easily stopped have also contributed to the scale of the problem. This paper will assess the role of climate change in both these events and will also contextualise them with the historic flood record. This will give insight into Ireland's rising future river flood vulnerability and how this scale of flooding is likely to occur more frequently into the future.

### **Climate change: fake news or ideology? Combining insights from geography and critical communication theory.**

Trish Morgan & Paschal Preston

*Dublin City University (trishmorgan@gmail.com)*

As the years 2014-2016 were the three warmest years since climate records began, the spectres of 'post-truth' and 'fake news' are on the rise in populist political discourse, directly undermining, if not denying, efforts to communicate the scientific consensus on ecosystem crisis.

This paper explores the sources and meaning of the recent rise of populism, nationalisms and accompanying notions of 'post-truth' and 'alternative facts' amidst growing scientific evidence of environmental distress. The approach draws on a specific interdisciplinary perspective combining insight from the fields of geography, communication and cultural studies including the crucial concepts

of ideology, alienation and reification.

Geography and other disciplines provide ample empirical data and robust scientific 'facts' that foreground the pressing need for action towards more ecological sustainability. They also yield insights on the prevailing economic system, which situates ecosystem crisis as an issue that is most likely to be 'fixed' by continued spatial or temporal expansion, the extension of neoliberal practices, or, a move towards 'green growth'.

Critical cultural theory, on the other hand, has long problematised issues of ideology, alienation and cultural reification. At the same time, the communication studies field can help us understand how, despite the rich empirical data that foregrounds economic and ecosystem crises, a distinctly 'business as usual' approach characterises the contemporary zeitgeist.

The paper explores how these traditions of inquiry can help understand the growth of nationalisms, populism, 'post-truth' and 'alternative facts' - all of which threaten to derail positive progress connected with ecological sustainability and climate action.

### **Methodology for quality control and homogenisation of the long term daily (max/min) summer and winter air temperature records in Ireland.**

Carla Mateus, Aaron Potito & Mary Curley

*1National University of Ireland Galway, 2Met Éireann (C.PEDROSOMATEUS2@nuigalway.ie)*

This research is the first to achieve data and metadata recovery, digitisation, quality control and homogenisation of all available summer and winter long-term instrumental daily maximum and minimum air temperature records since the beginning of meteorological observations in Ireland. The ten long-term records of daily air temperature observations, dating back to the 19th century are: Phoenix Park (1831-2016), Armagh Observatory (1844-2016), Botanic Gardens (1848-2016), NUI Galway (1861-2016), Birr Observatory (1872-2016), Roches Point (1872-2016), Valentia Observatory (1872-2016), Markree Observatory (1875-2016), Blacksod Point/Belmullet (1885-2016) and Malin Head (1885-2016).

The aim of this presentation is the introduction and discussion of the methodology for rigorous quality control and homogenisation (detection and adjustment of non-climatic inhomogeneities) of the long-term daily air temperature records.

To achieve high quality daily maximum and minimum air temperature series it is important to rescue the most complete available metadata for each meteorological station (notes on its characteristics and changes of: thermometers, exposure, shelter, observation times, observation procedures, observer, location of the station, surroundings, parallel readings and conversion from manual to automatic station).

The following methodologies will be discussed:

- (1) Interpolation techniques to fill missing data in the series;
- (2) First difference correlation coefficient for reference and candidate climate stations (PETERSON and EASTERLING, 1994) and adjustment of non-climatic inhomogeneities through statistical techniques and metadata comparison;
- (3) Difference correlation coefficient for parallel measurements (e.g. manual and automatic stations).

References:

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## **Session 6a: Infrastructural States (3)**

Friday May 5th 13:30-15:00 ORB Room 156

### **The politics surrounding the proposed implementation of a smart lighting system**

Darach Mac Donncha

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Existing studies on the proliferation of Smart City associated technologies have often sought to identify the forms or models of such initiatives. However, the implementation of such schemes is often detailed in a manner that fails to account for the political and economic realities necessary. In reality, the roll-out of such schemes is often far more contested politically and ad-hoc in nature than presented due to a variety of factors, such as: the technologies; motivations; and vested interests involved. The difficulties surrounding such schemes are also reflected by their position as the intersection between advocates of digital technology solutions and urban decision-makers. Indeed, despite the increasingly pervasive nature of the smart city agenda amongst a variety of sectors, initiatives are still struggling to be fully implemented in a variety of cities. This paper examines this issue through an analysis of the contingencies and practicalities of implementing a smart lighting project. Critical reflections on the material politics of the proposed plan, a review of the accompanying regime and the project's development as a consequence are provided. The paper also reviews the suitability of using regime and regulation theory in conjunction with one another to provide greater insights into both the influence of local political machinations and place those relationships in the context of their wider political economy.

### **A Design-led Approach to Sustainable Urban Infrastructure**

Daniel Tubridy

*University of Sheffield*

This paper will investigate experimental approaches to designing sustainable urban infrastructures. More specifically, it will ask what it would mean to take a 'design-led approach to infrastructure' (Design Council/CABE, 2012). This notion suggests that design disciplines of architecture, landscape architecture and product design amongst others should be given a leading role in infrastructure projects and that their combined technical and social expertise could help fix a wide range of urban problems including liveability, resource over-consumption and lack of environmental awareness. This paper will review emerging debates about design-led infrastructure and highlight possible implications for future urbanism. It will ask what, if anything, is distinctive in current debates about designing infrastructure? What do these debates imply for design practice? Where are experiments in infrastructure design happening? Why are they happening in those places? And whose interests do these experiments serve? Drawing on ongoing empirical research the paper will discuss where and in what circumstances a design-led approach to infrastructure is being adopted with reference to international examples of experimental infrastructure design. This raises the issue of the broader policy context and urban strategies which are leading to a design-led approach being legitimised and implemented. These include familiar concepts of multifunctionality and liveability but also the resilience agenda, a recognition of the complexity of local environmental problems and the trend towards 'experimental urbanism'. The above complicates the aspirations of designers to radically reimagine urban infrastructures, leading to the question of under what conditions might this process be productive?

### **Power relations and spatialised discourse in acute hospital reconfiguration in Ireland**

Darren O'Rourke

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The debate surrounding the reconfiguration of acute hospital services in Ireland is inherently spatial juxtaposing, as it does, regionalised 'Centres of Excellence' with small local hospitals. In recent years reconfiguration has been an important area of contestation between health authorities/Government and local communities faced with the prospect of service withdrawal. This paper takes one such instance, the controversial and publicly contested decision to close the Emergency Department at Roscommon County Hospital in July 2011, to explore acute hospital reconfiguration in Ireland from a

Foucauldian perspective.

It examines, through a textual analysis of policy documents, parliamentary debates and local print media, the extent to which policy is apparent, visible and knowable and identifies those power relations and spatialised discourses which exist and are used to sustain and contest it.

The study found geographic metaphors and spatial imaginaries are used to construct and reconstruct place and space in contemporary health policy discourse in Ireland. Policy, despite a change of national Government during these events, was permanent, blurred and seen as “implemented by stealth”. A significant power differential existed, particularly in relation to control of truth, and it is argued that this was crucial in the debate surrounding closure and was used by authorities to reproduce spatial power relations.

This paper adds an Irish case to the growing literature on the use of geography within contemporary health policy and examples how Foucauldian analysis can provide further understanding of discourses which contribute to contestation in the reform agenda.

### **Post-Commodity Africa: Industrial Policy as Assemblage**

Padraig Carmody

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The central problematic of African development is rooted in the continent’s economic structure and the nature of the political settlements and unsettlement to which this has given rise. The end of the recent commodity boom has once again revealed the structural weaknesses and vulnerabilities of many African economies and consequently reinforced the imperative to move beyond commodity dependence. Developed countries are typically characterised both by diversified economic and developed class structures. In contrast most African “economies” are characterised by commodity dependence and fragmented class structures. What this conceptualisation neglects however is the way in which territorially embedded development processes can be conceived of outcomes of transnational and transnationalising assemblages of actors and artefacts or actants. A relational economic-geographic perspective goes beyond binaries, such as development/underdevelopment and core/periphery to examine the ways in which globally imbricated structures are produced and reproduced, with concrete territorial effects.

## **Session 6b: Art and Geography (3): Alternative Engagements: Counter-Mappings**

Friday May 5th 13:30-15:00 ORB Room 101

### **Who's disrupting whom? Reflections on process-related and personal learning in an arts-science-engagement climate change project called Art, Change, & Creativity, in Prince George, BC (Canada)'**

Zoë A. Meletis & colleagues

*University of Northern British Columbia (UNBC); UNBC; Pacific Institute for Climate Solutions; UNBC; UNBC; Two Rivers Gallery; Two Rivers Gallery (zoe.meletis@unbc.ca)*

Our paper details disruptive aspects of our Art, Change, and Creativity (ACC) project. While not likely “capital D” disruptive for radical scholar activists, they represent unusual undertakings in climate change engagement. We incorporated activist and artist panels, art activities, and a co-curated art exhibition, to move climate change into new spaces and spur different dialogues. We challenged engagement as top down dissemination from “experts”, aiming for behavioural change. We emphasized citizens as experts of their own experiences, and learned alongside them. We invited them to draw, make bicycle license plates, contribute suggestions, and vote. We sought to educate decision-makers and ourselves, reversing the typical flow of climate change information. Our team's composition is also disruptive; it involves university researchers, gallery employees, an NGO employee, and undergraduate students. We continue to learn from our unconventional group as we negotiate activities, tasks, and texts. In this paper, we focus on the co-curated exhibition CHANGE and arts-based activities with children. We examine how the ACC transformed a gallery space into a venue for engaging with climate change, questioning “business as usual” emphasis on science and technology. Our goal was to disrupt typical engagement formats and to blur lines drawn between art and science, research and activism, expert and project participant. In the end, we also experienced intimate disruptions as individuals and as a team. Unconventional interactions forced us to confront the emotionality of climate change and our roles within it. We consider how such disruptions have influenced our team and project outputs.

### **“Taming the wilderness” mapping visual representations of a peatland landscape through time**

Kate Flood

*UCD*

The study of place is increasingly interdisciplinary in nature, synthesising information from the natural and social sciences such as geography, ecology, archaeology, cartography, and history. This integration of science and humanities is recognised as necessary in solving today's complex environmental problems. Increasingly, history has taken a ‘spatial turn’, literary studies a ‘cartographic turn’ and art and geography have long been linked through the visual representation of landscapes found in maps. The time period covered in this research begins in the early 1600s, when the study site, Girley bog in County Meath, first appears meaningfully in maps and historical records, and examines subsequent visual representations of the site in maps, photographs, and other documents. Exploring landscapes through the visual arts and cartography can also reveal current attitudes towards peatland habitats, which were traditionally viewed as ‘unprofitable land’, to be drained, reclaimed, and transformed into agricultural land. The creation of maps and spatial representations of places by artists and communities, in processes such as participatory mapping, can reflect changing perceptions of peatlands as places of wildness, biodiversity, and recreation. These knowledge-forming practices can be used to destabilise existing approaches to nature conservation and question ‘top down’ modes of engagement, promoting a more collaborative, inclusive approach that involves communities and other actors. This presentation will explore how digital technologies can be used to reveal and aid visualisation of landscape change over time, enabling greater understanding of human impacts on the environment and improved awareness of the necessity of conservation among differing sectors in society.

### **Land~Edge: Disrupted photographic practice on a bioregional edge**

John Sunderland

This paper will discuss a three-part work in progress that uses interpretive photographic practice to investigate the shoreline as the border of a bio-cultural region as an alternative to a national or political boundaries. My presentation has two elements: A paper discussing the ontological process of

making as a form of disruptive spatial interpretation; Four large-scale photographic artworks. This project disrupts photographic traditions of landscape photography by using composite photography, performative photography and studio still life to find an edge to my inhabited bio-cultural region in an ontological and metaphorical interpretation. The works enter a negotiation between the environment and the individual; the artwork and the beholder, in a process of encountering and making that changes as the project progresses due to these dialogues. Outcomes are not always predictable but journeys and discoveries are made that bring together diverse elements such as, Brexit, existentialism, identity, climate change, classical allegory, perception, nationalism and ecology. A unifying over-arching influence is the writing of Albert Camus and each part of the project is titled "The Search for Sisyphus", "The Fall" and "Sisyphus Found" respectively. This work is in part a response to Brexit and to the current rise of nationalism in a neo-liberal anarcho-capitalist context. It is both personal and political. As a process, it is multi-layered, using photography's capacity for ambiguous depiction of a range of elements that include the social and the natural, often blurring the boundary between the two. Along with the paper, "The Search for Sisyphus", which includes four large archive inkjet photographs mounted on Aluminium artworks, will be on exhibition at the Glucksman Gallery. For additional information see: <http://johnsunderland.com/landedge/>

## **Session 6c: Rural Revitalisation: Valuing Local Heritage Communities (1)**

Friday May 5th 13:30-15:00 ORB Room 255

### **Social Enterprise: A Strategy for Rural Socio-Economic Rejuvenation?**

Shane O'Sullivan & Cathy Jones

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In recent decades, the rural economic base in Ireland, similar to that of other developed countries across the globe, has witnessed a period of significant structural change, with academic literature coining the term rural restructuring to classify and describe this socio-economic transition. As a result, there has been a knock-on effect on population structure and economic activity. Some locations, particularly those in close proximity to urban centres and with high levels of connectivity, have thrived whilst others, that are considered to be peripheral and rural, have declined dramatically. The development and expansion of social enterprises offers a possible strategy towards combatting the negative effects of rural restructuring – isolation; unemployment; and loss of retail services and recreational amenities. Social entrepreneurship provides an important role in delivering a 'social value to the less privileged or an environmental value, all through an entrepreneurially orientated entity that is financially independent self-sufficient and sustainable' (Abu-Saifan, 2012). There are many different types of social enterprise business models and structures, which vary according to social mission / purpose; ownership; and management structures and accountability. Prominent examples include: community enterprises; social firms; co-operatives; credit unions; development trusts; public sector spin-outs; and trading arms of charitable organisations. This paper will provide two contrasting case studies of social enterprises operating at different geographic scales within rural Ireland. Both organisations have responded pro-actively and effectively to the challenges posed by rural restructuring. These include a community shop / tea-rooms situated in a rural village; and a home-care provider operating across several counties.

### **Rural Development in Ireland: an overview of strategies to revitalise rural areas 1845-2017**

Ray O'Connor & Mark Rylands

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This paper provides an overview of the origins and impacts of rural development strategies in Ireland from the mid-nineteenth century to the present day. It explores the effectiveness and value of different kinds of interventions in rural areas in during the period of British control and the approach adopted by a newly independent Irish State. It traces initiatives that influenced rural areas in the second half of the twentieth century and evaluates EU membership on rural development strategies. The paper concludes with an examination of recent changes in rural development delivery mechanisms (Local Government Reform Act, 2014) and anticipates possible outcomes from the government's recent Action Plan for Rural Development (2017).

### **How effective is external policy support and funding in empowering rural communities? A case study of rural revitalisation from rural Ireland**

Mary O' Shaughnessy

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In Ireland, rural development policy and associated programmes funded from the EU and the national exchequer have had mixed success in terms of impact on the economic development of rural regions and the well-being of rural residents. There has been no detailed assessment of whether rural and local development programmes have improved the capacity of rural communities to intervene effectively to bring about change, regardless of whether the ultimate outcome is business establishment or quality of life enhancement.

In this paper we focus on the success of one rural community-based local development organisation – Ballyhoura Development – in improving community capacity to achieve change and hence contribute to a process of rural revitalisation. Participation in various EU and state programmes over a period of three decades has facilitated this organisation to access resources so as to put in place a range of interventions that have delivered substantial economic and social dividends to a rural region. A distinctive feature of the Ballyhoura approach is the capacity to mobilise partnerships, and engage in ongoing activation, animation and mobilisation of individuals and groups to achieve agreed objectives.

One of the ways this is achieved is through integrated outreach. This delivers support to communities through the deployment of skilled development officers to respond to community needs and access particular expertise in for example, heritage, tourism, enterprise or employment. They and others work closely with partners in various networks and structures, and as they identify issues or spot trends they can alert the local community to potential opportunities. When this is combined with a consistent methodology that empowers communities and helps to ensure that community planning and development takes place in a professional strategic manner, it facilitates a genuine process of participatory development, builds stores of social capital and encourages a more efficient use of statutory and community resources.

In this paper we explore the Ballyhoura methodology, focusing on the way it has used state and EU resources to achieve strategic objectives that have a strong and measurable impact on the rural communities that it serves.

**Session 6d: Coastal Geomorphology**  
Friday May 5th 13:30-15:00 ORB Room 132

**The response and recovery of coastal beach-dune systems to storms**

Eugene Farrell, Kevin Lynch, Sinead Wilkes Orozco, & Guillermo Castro Camba  
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This two year field monitoring project examines the response and recovery of a coastal beach-dune system in the west coast of Ireland (The Maharees, Co. Kerry) to storms. Historic analyses were completed using maps, aerial photography, and DGPS surveys inputted to the Digital Shoreline Analysis System. The results establish that the average shoreline recession along the 1.2 km site is 72 m during the past 115 years. Geomorphological changes on the beach and near-shore bar migration were monitored using repeated monthly DGPS surveys and drone technology. Topographical data were correlated with atmospheric data obtained from a locally installed Campbell Scientific automatic weather station, oceanographic data from secondary sources, and photogrammetry using a camera installed at the site collecting pictures every 10 minutes during daylight hours. Changes in surface elevation on the top of the foredune caused by aeolian processes are measured using erosion pin transects. The preliminary results illustrate that natural beach building processes initiate system recovery post storms including elevated foreshores and backshores and nearshore sand bar migration across the entire 1.2 km stretch of coastline. In parallel with the scientific work, the local community have mobilized and are working closely with the lead scientists to implement short term coastal management strategies such as signage, information booklets, sand trap fencing, walkways, wooden revetments, dune planting in order to support the end goal of obtaining financial support from government for a larger, long term coastal protection plan.

**Coastal barrier system changes in Ireland under climate warming and their significance for coastal people and future land uses**

Robert Devoy  
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Since the 1990s a series of internationally partnered research projects have examined the process functioning and key controls operating on the clastic beach-barrier and other soft sedimentary coastal systems of the west and the south of Ireland, e.g., EU Framework Projects SEA LEVELS, IMPACTS, STORMINESS. More recently, higher resolution and instrumented studies have been undertaken at some representative sites on these coasts, where good quality records exist, e.g., at Inch - Rossbehy, Ballyheigue and Fanore. This progression of scaled work has been done to develop a better understanding of the complexity of the processes operating at different locations along these coasts. Further, this work has served as a basis for numerical modelled projections of these coasts under climate warming and as analogue for the behaviour of these extensive, vulnerable coastal systems elsewhere in the North Atlantic region. The resulting development in the understanding of the functioning of these coasts under, e.g., sea-level rise and storminess (high energy waves), at different spatial and time scales, has established their sensitivity to both present and particularly future climate and linked environmental changes (through a series of EU InterReg and linked projects, e.g., CONSCIENCE, CoastAdapt). Significant physical system and living space impacts, with economic costs for the people, settlements and commercial activities on these coasts, will result from these changes (as at e.g., Castlemaine Harbour, Lahinch, Ballhheigue, Youghal, Doonbeg). This paper presents some of the results of these integrated approaches in coastal research and their significance for future coastal space uses and costs.

**Supervised classification of continental shelf sediment off western Donegal**

Kieran Craven<sup>1,2</sup>, Stephen McCarron<sup>1</sup>, Xavier Monteys<sup>2</sup>

<sup>1</sup> *Maynooth University Geography Department, Maynooth, Co Kildare;* <sup>2</sup> *Geological Survey Ireland, Dublin 4 (Kieran.craven@nuim.ie)*

Managing human impacts on marine ecosystems requires natural regions to be identified and mapped over a range of hierarchically nested scales. In recent years (2000-present), the Irish National Seabed Survey (INSS) and Integrated Mapping for the Sustainable Development of Ireland's

Marin Resources (INFOMAR) (Geological Survey Ireland and Marine Institute collaborations) have provided unprecedented quantities of high quality data on Ireland's offshore territories. However, the increasing availability of large, detailed digital representations of the seafloor requires the application of objective and quantitative analyses

This study presents results of a new approach for sea floor sediment mapping based on an integrated analysis of INFOMAR multibeam bathymetric data, backscatter data and sediment groundtruthing over the continental shelf, west of Donegal. It applies the image classification software eCognition to provide a supervised classification of the surface sediment. This approach can provide a statistically robust, high resolution classification of the seafloor. Initial results are promising and indicate a methodology that could be used during physical habitat mapping and classification of marine environments.

## **Session 7a: Formatting urban policy: Urban policy mobilities in Ireland and beyond**

Friday May 5th 15:20-16:50 ORB Room 156

### **Between Slow Transfer and Fast Mediation: The case of the The Quito Papers**

Philip Lawton

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This paper undertakes an analysis of the transfer and dissemination of different forms of urban knowledge. This is carried out through an engagement with 'The Quito Papers', and associated activities (lectures, films, previews) by a number of key urban theorists, including Saskia Sassen and Richard Sennett (Clos, Sennett, Burdett, and Sassen, 2017). Launched in response to UN Habitat III, The Quito Papers seek to reimagine a new future for the urban world, with the ultimate desire to promote what they term an 'open city'. Moreover, while much current urban critique discusses notions of 'fast policy', The Quito Papers instead emphasises the dominance of modernist principles over urban experiences over a period going back at least to the first half of the 20th Century. While being broadly sympathetic to the approach taken by the authors, this paper will seek to undertake a critical analysis of its assumptions and arguments. In so doing, it will also seek to examine the potentials and challenges of alternative forms of urban knowledge transfer as is proposed within, and ask questions about the ways in which various forms of urban knowledge are produced and transmitted by different groups and actors.

### **Metro-phobia? The politics of spatial planning in Dublin**

Niamh Moore-Cherry and John Tomaney

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In a context where primate/capital cities are seen as motors of growth in the global economy and national governments typically favour them in policy terms, Dublin represents an anomalous case. International research suggests large cities experience growing interdependencies and externalities alongside the fragmentation of jurisdictions at the metropolitan scale, that represent a challenge of governability. In search of better urban governance and more effective spatial planning, reform of metropolitan government is a key central government priority in many contexts. Ireland appears to have been bypassed by these developments. Through a case study of the city of Dublin, we challenge some of the current thinking on the intersections between national policy and urban primacy. This paper reports the emerging results of a research project investigating the politics of spatial planning in Dublin, drawing on interviews with key actors in national and local government and the private sector. We analyse why Dublin, a city of tremendous economic and demographic power, seems to diverge from the experience of other comparable places. We ascribe these outcomes to a distinctive planning culture – actors, institutions, discourses and practices – that shape the production of the built environment in Ireland. We suggest there is a metro-phobia at work in Dublin that can only be explained by unpacking the territorial politics and planning culture that intersects with neoliberalisation in the Dublin city-region.

### **The multiscale circuits of smart cities policy mobility**

Rob Kitchin, Claudio Coletta, Leighton Evans, and Liam Heaphy

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In a few short years, cities from around the globe have declared an ambition to transform themselves into a 'smart city' – that is, to prioritize the use of a range of digital technologies to address urban issues. Originating in a longer discourse concerning the creation of 'wired', 'cyber', 'networked', 'knowledge', 'innovation', 'entrepreneurial', 'creative', and 'eco' cities that have promoted the use of ICT in urban development, and championed by a number of stakeholders (e.g., industry, consultancies, academics), smart city rhetoric, policy ideas, and technical solutions have multiplied exponentially and circulated extensively. There now exists a broad private-public advocacy coalition that operates on multiple scales from the global (e.g., Smart City Council) to the supranational (e.g., European Innovation Partnership – Smart Cities and Communities), to the national (e.g., All Ireland Smart Cities Forum) and local (e.g., Smart Dublin and Smart Cork Gateway). This advocacy coalition formulates and circulates smart city policy through a number of channels that seek to enact social learning, including conferences, international trade fairs, competitive funding schemes for projects,

co-creation through city collaborations, testbedding and trialling, consultancy services and feasibility studies, professional education and training, hackathons, and city benchmarking exercises. In this paper, we examine the work of smart cities advocacy coalitions and the multiscale circuits of smart cities policy mobility.

### **Governing Policy transfer in the EU - the case of Urbact III**

Mark Boyle

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Recently, and in concert with scholarship inspired by critical urban policy studies, human geographers have played a key role by developing new conceptual tools to articulate the notion of policy mobilities. Central to this contribution is the claim that it is no longer tenable to construe policy transfer in terms of the cascading of celebrated models, intact, from pioneering centres to lagging peripheries bent on emulation, replication, copying, and reuse. Instead, attention is to be focussed on the one hand on the socio-institutional scaffolds, circulatory systems, capillaries, distended networks and policy assemblages which canonise some policy models at the expense of others and route them in complex ways, and, on the other, the unpredictable downstream mutations, transmogrifications and germinations which ensure that the political, institutional and technical architecture of policy models routinely shifts in transit. The purpose of this paper is to offer an account of the increased institutionalisation of policy transfer across the EU. We use the case of the ERDF Urbact programme for illustration. Using Agamben's concept of the *oikonomia*, we assert that in involving itself in policy transfer in an effort to administer the house so as to promote a particular understanding of integrated and sustainable urban development.

**Session 7b: Healthy Natures**  
Friday May 5th 15:20-16:50 ORB Room 101

**Growing fruit, vegetables and sustainability in urban community gardens**

Sonya Agnew

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Cities are facing increasing environmental, social and economic challenges. With urban population trends rapidly increasing, the continued drive for economic prosperity is having considerable implications for environmental and social well-being in relation to resource depletion, deteriorating ecosystems and many other challenges. Over the past three decades there has been a resurgence in different forms of urban gardening. Indeed, there are abundant benefits attributed to urban gardening documented in the literature: providing a platform for cultural diversity and creativity, environmental activity, community involved food and nutrition education, mental health and physical well-being, community cohesion and regeneration, as well as providing much needed green infrastructure and publicly accessible green space in densely populated urban areas.

Employing a walk along methodology involving semi-structured interviews of 35 community garden spaces, garden members were asked to discuss their personal experiences and motivations for involvement in the community garden, their connections to other gardens and groups and alignments with city administration and decision makers. This paper outlines current research examining the potential role of community garden spaces in fostering new forms of urban sustainability.

**Green-Blue Infrastructures: A Health-Led Approach.**

Olodunsin Arodudu, Ronan Foley Michael Brennan, Gerald Mills, Tine Ningal, Malachy Bradley  
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A large body of evidence exists showing that the provision of, and access to, a good quality environment has detectable health benefits. These benefits include, inter alia, reduced stress and stress related illness, increased physical activity and higher self-reported satisfaction. While the presence of green and blue infrastructure (GBI) has been shown to improve health outcomes, consensus is lacking in the literature as to the magnitude-of-effect GBI elements, such as parks, street trees, etc., have on the health of populations. Additionally, most research in this area tends to be “GBI led”, that is studies are performed where GBI data is available. This research seeks to examine the GBI/health interaction from a “health-led” direction, i.e. sites of interest have been chosen based on existing health data, with subsequent characterisation of the GBI elements in these sites of interest. Drawing on international research and best practice, this paper models environment/health interactions by identifying areas with high and low indicators of health and then characterising the GBI elements of these areas, thereby identifying the elements and configurations of elements contributing to these health outcomes.

**Deprivation and Trees: spatial inequality of urban tree canopy cover in Dublin city.**

Mike Brennan, Gerald Mills & Tine Ningal

*Eastern & Midlands Regional Assembly (1st Author), UCD (Other Authors) (mbrennan@emra.ie)*

The network of urban vegetation present within a city, often termed the ‘green infrastructure’, has become increasingly recognised as crucial the health and well-being of urban residents. Urban green infrastructure provides a host of physical, economic and social benefits; including climate regulation, air pollutant reduction, increases in property price, and relaxing spaces to name but a few. Urban trees represent key components of any city’s green infrastructure, and can provide many of the benefits of green infrastructure even in isolation.

Accompanying the increased recognition of the importance of urban trees and green infrastructure to urban residents’ the health and well-being, there has been a parallel realisation that access to green infrastructure (and the benefits provided) is often not equally distributed among different socioeconomic groups. Indeed, multiple studies have described situations where the quality and quantity of green infrastructure present in a location is inversely correlated with socioeconomic advantage.

Given the recognised benefits, there has been mounting emphasis in many countries to increase urban green infrastructure and in particularly urban trees. The challenge for policy makers then becomes to identify areas with the least amount of, and hence greatest need for, green infrastructure.

In this paper, we present; 1) a city level assessment of one green infrastructure element (urban tree canopy cover) for one European capital (Dublin, Ireland), 2) examine how tree cover relates to measures of socioeconomic deprivation in this city, and 3) discuss the potential for increasing urban tree cover within areas currently impoverished in this resource.

### **From 'distribution' to 'opportunity': Planning for inclusive green spaces**

Owen Douglas, Mick Lennon and Mark Scott

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A considerable body of research has considered the potential positive health benefits of environmental 'goods', such as access to 'nature' and the distribution of urban green space. While much of this research has identified the varying health benefits of living close to green space, many studies have shown that the existence of green space in a locality does not necessarily equate with a health-promoting environment. Hence, this paper adopts a more nuanced approach to analysing the intersections of public health and green space by reflecting on the need to move beyond an overriding concern with equity in the spatial distribution of green spaces towards a focus on the quality of those green spaces provided. The paper thereby resonates with recent calls in environmental justice literature to move past a simple focus on 'distribution', and engage more fine-grained studies focused on issues of 'opportunities' and individual agency, functioning and well-being when examining the goods potentially offered us by the environment. This line of reasoning is reinforced by research which has demonstrated that differences in age, gender, cultural background and socio-economic status influence a person's relationship with green space. This suggests that the planning and design of green spaces should focus not only on provision, accessibility and distribution, but on design interventions that complement proximity by enticing people to use green spaces to enhance health and well-being.

## **Session 7c: Rural Revitalisation: Valuing Local Heritage Communities (2)**

Friday May 5th 15:20-16:50 ORB Room 255

### **Heritage led regeneration during the age of austerity**

Liam Mannix

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How do you help regenerate historic rural towns when the budget you operate has been cut by almost 80%? This was the challenge facing the Irish Walled Towns Network (IWTN) and the Heritage Council in general with the collapse in employment and public funding in 2009/2010. The reaction was to totally re-evaluate how our resources were focused and to instead concentrate on empowering local communities through education, advice and the strategic use of our remaining funds. Ultimately, these efforts led to the IWTN being awarded the EU prize for cultural heritage/Europa Nostra awards in 2013. At present, the IWTN is undergoing a period of renewed change as it becomes the Historic Towns Network. Charged with being the leading network for heritage led regeneration of Ireland's rural towns, the new and expanded network has expanded goals and a moderately enlarged budget. During this presentation, Liam will talk about how the network has dealt with the challenge of change and how it has helped its member towns to at least partially recover.

### **Myths, Facts and Hidden Heritage – Revitalising rural areas by leveraging local assets to reveal people and place.**

Mark Rylands

*South Tipperary Development CLG / UCC (markrylands@stdc.ie)*

Peadar Kirby, once stated that “most of us live our lives as strangers in our own land”. While he was directly discussing our relationship with the Irish language, that same sentiment could be applied to any discussion of our relationship with that all-inclusive term, ‘Irish Heritage’. This term, *inter alia*, as defined in the 1995 Heritage Act, includes monuments, archaeological objects, heritage objects, architectural heritage, flora, fauna, wildlife habitats, landscapes, seascapes, wrecks, geology, heritage gardens and parks, and inland waterways. In such an all-encompassing area, few people could be classified as experts in ‘Heritage’. Few people could be expected to know as much about a flower as they do about their language, or about the architectural style of building or the potential damage of introducing new floral or faunal species into an area.

This paper explores how one small community group in Tipperary (Knockmealdown Active) sought to address this knowledge deficit as they began to explore their own local heritage using a variety of local volunteers and labour activation participants. Through fundraising they began to leverage those funds, from LEADER and County Councils grants, to host a range of activities and projects, the results of which were used to produce maps, DVDs and even graphic novels, all of which contribute to a greater understanding of what makes any place special. This paper further explores the role that such groups can play in using local heritage to revitalise and develop those rural areas that are off the beaten tourist tracks.

### **Beyond Beauty: Landscape Appraisal and Planning in Rural Environments**

Karen Ray

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The management of change in rural areas is now as integral a focus of planning as urban land use. Over the past few decades, rural planning has adopted an increasingly value-laden and environmentally sustainable approach. Regardless, in the context of landscape management, the essence of rural areas can become overshadowed by broad and somewhat dated appraisals of landscape which underpin both local and strategic policies, and at the expense of meaningful engagement with heritage, vitality, and above all distinctiveness. This paper examines some of the tensions and discords that often emerge between themes such as natural versus built heritage, scenic beauty versus socio-economic issues, progress versus conservation, and physical versus intangible value layers. Building on these themes, it further examines the scope for enriching how we engage with the rural in routine planning, ensuring the longevity of both beauty and vitality in these living landscapes.

## Session 7d: Disrupting Imagined Geographies: Media, Power and Representation

Friday May 5th 15:20-16:50 ORB Room 132

### Discourse or rhetoric? Framing the “others” from humanitarian perspectives

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Framing the “others” is an integral part of cultural dynamics within any society. Social and political scientists including Chomsky (2002, 2015), Said (1978), Foucault (1966, 2009) and Gregory (2004) have researched this from various perspectives including power narratives and ‘manufacture of consent’ so helping to deconstruct geographical, cultural and political orthodoxies. This has contributed to diverse understandings of crucial development, humanitarian and human rights issues whose narratives were once the preserve of state and ‘commercial’ media, but sometimes being challenged by NGOs. Now with the Digital Revolution, ever-more multitude voices are seeking to be heard occasioning ‘other’ perspectives. While this is laudable from humanitarian perspectives, cacophony may clash with fake news and the production of new ‘orthodoxies’. In this context, the perceptions of 40 third level Geography students will be explored with emphasis on Ireland’s Department of Foreign Affairs – Irish Aid, Amnesty International Ireland and MSF (Médecins Sans Frontières/Doctors without Borders).

### Deconstructing Crisis: Refugees, Representation, Responses

Ryan Brown

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Humanitarian campaigns have the discursive power to represent, construct and ultimately script the lives of distant people and spaces outside of the West (Said 1978). Amnesty International’s, *When You Don’t Exist* (2012), Amnesty Poland’s, *Four Minute Experiment* (2016), Save the Children’s, *Most Shocking Video Today* (2014) Action Aid’s, *Help Keep Children Warm and Dry* (2016) and Trócaire’s *This is Our Exodus* (2016) are targeted campaigns that focus exclusively on the ‘refugee/migrant crisis’ in Europe. This paper will examine how the figure of the refugee, the migrant, and the child are constructed within these films, considering how these constructions account for a critical understanding of current migration patterns into Europe. The analysis will demonstrate how the campaign footage produces a homogeneous and collectivised refugee experience that ultimately ignores the more complex and nuanced reality of the situation. This has the effect of marginalising and alienating a significant proportion of refugees and migrants from the narrative, namely those individuals travelling from sub-Saharan Africa. Looking across a broad range of INGO campaign material, the message from these separate organisations is the same: certain types of migrants are prioritised and valued over others. In creating a partial, reductive and collective narrative the organisations exclude and marginalise all those who fall outside of this scripting, not only limiting the subjects of the refugee, migrant and child, but in turn limiting the possible responses to the issues now surrounding the contentious label of migration in contemporary western society.

### Media Representations in ‘The City After Terrorism’

Anthony O’ Reilly

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The media can be considered as an extremely influential actor in the propagation and reassertion of dominant ideologies, and a key agent in the shaping of discourse and public opinion. Additionally, as Dowling (1986) argues, a symbiotic relationship between the media and terrorism exists, while this has been reaffirmed by Rothe and Muzzatti (2004) who suggest that the media is intrinsically linked to terrorism, with the media existing as the epitome of ‘terrorvision; a choreographer of violence, fear, revulsion and hatred’ (p. 333). Subsequently, in the aftermath of a terrorist incident, the city becomes reconfigured and reassembled, with the media embodying a crucial role as a key actor in the assemblage of contemporary urbanism in ‘the city after terrorism’. This reconfiguration and re-assemblage of the post-terrorism city creates a temporal juncture through which ‘moral panic’ can accumulate and embed itself within the city, culminating in an increased potential for hostility and intolerance towards ‘the other’ (Said, 1978; Hubbard, 2003). This process is directly linked to the media, and contributes to emerging socio-spatial divides. As such, this paper is based on research which critically analysed the media representation of the 2014 Sydney Lindt café siege and hostage

crisis in The Sydney Morning Herald. Drawing on the analysis of 55 newspaper articles, 9 opinion letters, and 266 photographs from The Sydney Morning Herald in the immediate aftermath of the incident, this paper argues that while The Sydney Morning Herald has made a conscious effort to distance Islam from the siege, it has nevertheless failed to completely detach and disassociate the religion from the confines of terrorism. This is exemplified by the presence of a 'good' versus 'bad' Muslim dichotomy that has proliferated in the media reporting in the aftermath of the siege. The paper concludes by arguing that while there has been a shift in the representations of Islam by the media in the aftermath of a terror incident, representations are still considerably negative, reinforcing a Muslim 'other', and culminating in continued exclusion for the Islamic community

### **Representing humanitarianism: Mediating alternatives across ambiguous discourses**

Natasha Keenaghan

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This paper considers how humanitarian work as both a discourse and a practice in the Global South becomes mediated in the Global North. In scripting hegemonic narratives about people and suffering, NGOs in particular have contributed significantly to a stock of knowledge that prioritises tropes such as pain, tragedy and helplessness in the public mind-set. As a result, donor expectations often fail to engage the local complexities and contextual nuance across Global South regions, priority is given instead to narrow goal-orientated interventions. This paper considers the role counter-geographies (Gregory 2005) can play in disrupting such hindering understandings of distant people and places within the current humanitarian context; in doing so highlighting the challenges posed by these re-imaginings for traditional charity-based NGOs, and considering the emergence of social entrepreneurship as a potentially alternative discourse of humanitarian interventionism. Thus the paper proposes a project that offers a new perspective on the imagined geographies of humanitarianism interventionism.

### **Lucid Geopolitics: playing with imaginative geographies of war**

Tara Woodyer and Sean Carter

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The important role of play and toys to warfare – as tools for recruitment and training, test beds for defence industry innovations, and strategies for legitimating and sustaining geopolitical logics – has been noted, but is yet to receive sustained investigation as a form of geopolitical representation and geopolitical culture. This is due, in large part, to play being frequently overlooked as an irrelevant aspect of people's social worlds. Yet it is precisely play's banal and taken-for-granted nature that often enables the domestication and sanitisation of military technologies and logics, and allows its role in popular imaginaries to go unchallenged. This paper examines how geopolitical cultures are (re)configured across a variety of scales, but especially in and through the space of the home, through attention to children's play with military action figures. It is argued that play and toys do not merely respond to geopolitical climates and cultures, but are co-constitutive of them. Moreover, by examining how children do not simply reproduce dominant geopolitical tropes, this paper argues that play is a useful mechanism for crafting more nuanced and critical representational practices than typically afforded in hegemonic media representations.

**Session 8a: Lived Spaces of Austerity (1)**  
Saturday May 6th 9:30-11:00 ORB Room 156

**Lived experiences of resistance and solidarity among working-class communities in Dublin's post-crash gentrification.**

Lidia Manzo & Sinead Kelly  
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Successive waves of entrepreneurial urban agendas have consolidated large-scale urban redevelopment projects, booming local housing markets and the gentrification of space as central pillars of urban policy. For many urban dwellers, these policies have intensified housing pressures and everyday experiences of displacement and affordability problems. This paper addresses the variegated impacts of neoliberal urban policies in the aftermath of Dublin's economic crisis, highlighting the responses of disadvantaged communities that are experiencing housing and other pressures in the current climate of welfare state retrenchments in Ireland. Dublin, a city dramatically transformed with the creation of new industrial, residential and financial spaces, vividly illustrates the contradictions of relying on a property-led or gentrification-based model, which in turn has served to create an unprecedented housing crisis. Drawing on a two-year field and participatory research project conducted in Dublin's inner-city Liberties area, we consider the extent to which gentrification processes in the aftermath of the property crash has created the space for grassroots activism. We analyse the intersections of affect, solidarity and community forms of support in the lived manifestations of crisis and resistance to gentrification enacted by working-class communities. Ethnography helps us understand why and how everyday relationalities of care become attached (and central) to alternative repertoires and community responses. The research highlights the key role that women have played in creatively and effectively organizing residents' activism to resist disinvestment in public housing. Finally, we reflect on the impact of our position and practice in the field.

**The Irish Water War: Ireland's Delayed Anti-Austerity Movement & New Spaces of Contentious Politics in Ireland.**

Rory Hearne  
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This paper explores the actual every-day practices and outcomes of the contestation of austerity in Ireland using the case study of the 'water movement'. This movement emerged in 2014 in the form of community based protests against the installation of water meters and has become one of Ireland's largest social movements in many decades with a significant impact on the Irish political landscape in a very short period of time. This paper draws on the political theory of Laclau and Mouffe and framework of contentious politics (Featherstone, 2015) to analyse the way in which the movement constructed and articulated its antagonisms; its politics and impacts, explaining why it emerged 'late', explains its success by acting as a signifier for popular opposition to austerity, the framing through a human rights approach; the creation of a new strong working class and local community based protest action. Using a socio-spatial lens it assesses the success of the Irish Water movement the role of attachment to place and how it constructed itself via local, national and international scales and subaltern solidarities. The water movement represents a regime crisis in Ireland as it unified the majority of the Irish people into an antagonistic opposition to the hegemony of the elite. In an era of onslaught from on-going neoliberalism and austerity, this research into the reasons for success and significant achievements of the Irish water movement, provide an important contribution to the international literature focused on movements and struggles against neoliberalism and austerity.

**Subjectivity and the situated (re)production of urbanization through contested vacancy, housing and homelessness in post-crisis Dublin.**

Cian O'Callaghan & Cesare Di Felicianantonio  
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In the context of calls for a theory of "planetary urbanisation" (Brenner and Schmid, 2015; Merrifield 2013), we argue that more attention needs to be paid to the lived realities of austerity and their associated impact on urban politics. In this paper we respond to the need to "bring an 'other' urban studies... more fully into being", and take inspiration from calls for an urban theory that is "provisional"

and informed by a “feminist mode of situated knowledge production” (Peake, 2015). We focus our analysis on contestations over the reuse and remediation of vacant spaces following Ireland’s property crash, and their relationship with an evolving homelessness and housing crisis. A key political antagonism has emerged in Dublin between the persistence of vacant properties/space and growing levels of “family homelessness”. This crisis disproportionately affects single parents, especially women, and their children. In response, a core component of recent housing activism has centred on redressing the stigma of homelessness through practices of care, community, and solidarity. The contestations encapsulated in these practices – which encompass both political action and everyday life – have been instrumental in remaking normative discourses of homelessness, along with related questions of who has a ‘right to housing’ in the city. Thus, these situated practices of (re)producing subjectivities play a crucial role in producing new forms of post-crisis urbanization. Placing these practices as central to situated urban theorising, we argue for an approach to urban scholarship that is positioned at the fluid and evolving interface between the “context of context” of neoliberal capitalism and the messy and complex praxis of political struggles and everyday life.

**Constructing austerity experiences: connecting the personal and structural through the lifeworld assemblage.**

Sander van Lanen

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Although geography has widely engaged with Irish austerity, there is a relative absence of work on the qualitative and experiential aspects of austerity in everyday life. This paper develops and presents the concept ‘lifeworld assemblage’ as instrument to investigate lived experiences of austerity as grounded in an individual or group’s social, spatial and structural context and their interactions. It is argued that a partial return to and redevelopment of humanistic geography offers the opportunity to investigate the changing meaning, value and experience of place within the structural disruptions of austerity and recession. Specifically, the lifeworld is developed critically to integrate structural transformations and their everyday consequences as mediated by social and spatial contexts. Building on in-depth interviews with disadvantaged urban youth from Dublin and Cork, a comparative approach enables to establish the urban geographies of austerity experiences, while simultaneously challenging the overwhelming focus on Dublin in Irish austerity research. The lifeworld assemblage interrogates the structural disruptions of everyday life while remaining sensitive to the personal, subtle and fine-grained variations austerity experiences, it investigates the plethora of austerity experiences by disadvantaged urban youth, embedding them within the structural context of Irish austerity.

## Session 8b: Innovating and Disrupting Geographical Research Methods

Saturday May 6th 9:30-11:00 ORB Room 101

### **Characterization and monitoring of forest disturbances in Ireland using active Microwave satellite platforms**

Preeti Balaji

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Accurate assessment of spatial extent of the forest cover is a crucial requirement for quantifying the sources and sinks of carbon from the terrestrial biosphere. A reliable system is needed for quantifying land use changes for global GHG models and reporting requirements. The constant cloud cover in Ireland is not a hindrance to Synthetic Aperture Radar (SAR) which is also an active sensor, being independent of solar illumination. The Advanced Land Observing Satellite (ALOS) Phased Array L-band SAR (PALSAR) launched in 2006 has been successfully used for forest disturbance mapping, however very few studies have investigated the potential of SAR for forest monitoring in sparse and fragmented forest landscapes. Forest/Non-forest maps were generated on selected study sites for the years 2007-2010 using a Random Forest (RF) machine learning approach. Due to the lack of annual ground truth data availability, a data driven approach was used to monitor the disturbances within the forest sites identified by the RF algorithm. The ISODATA clustering algorithm was used to derive clusters indicating a change in the signature of the SAR backscatter. The clusters corresponding to a disturbance event showed a change in the SAR backscatter profile. The methodology was then transferred and tested on the recently launched ALOS-2 data. Using ALOS-2 and ALOS-1 images, deforestation and other disturbance information will be extracted. Along with other new SAR sensors, there is potential for annual forest monitoring in Ireland on a national scale.

### **Mapping digital contention networks: social media, GIS, and the anti-water charges movement in Co. Dublin**

Grainne Nic Lochlainn

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Digital contention is online activity which attempts to influence how sociocultural/political issues are addressed in twenty-first century societies. Geographers and geographical approaches have a rich history in the study of contention and social movements, but modern digital contention networks raise a number of profound geographical research challenges. This paper addresses these challenges in the context of the anti-water charges movement in Dublin, which has (and continues to) draw extensively upon public Facebook groups to create online social spaces and strategies going beyond co-ordinating offline activities and/or digital protest. Using the anti-water charges movement case study, the paper engages with digital contention from a geographical perspective and explores the process involved in geographically researching and interpreting digital contention in the twenty-first century. Methodologically, digital contention research involves the adaptation of existing approaches as well as the invention of novel research techniques. Grounding these methods in traditional and/or new theoretical frameworks requires a willingness to explore (and sometimes reimagine) conceptualisations of sociospatial 'reality'. The paper discusses how these alternative/adaptive methodological and theoretical considerations can inform innovative uses of GIS and social media studies within the discipline.

### **“Entrer, sortir, traverser”. A visual ethnography at the margins of the city**

Elisabetta Rosa

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What does a visual methodology add to an ethnographical research at/on the margins of the city? How does it affect our knowledge of the field and the consequent representations? How does the positioning of the researcher articulate when she/he uses a camera, specifically when urban margins are concerned?

This paper comes from my recent research on urban margins and is based on a visual ethnography that I conducted in Marseille between 2015 and 2016 with a Romanian Roma family living in a squat. The documentary *Entrer, sortir, traverser (Going in, out, through - Marseille, 2016, 36')* is the result of this experience at the crossroads of relational pragmatism and more-than-representational theories. These two theoretical approaches underline, in particular, the progressive character of knowledge that

is made through the body and the experience, as well as the relational nature of knowledge that comes from the relationship we have with others (people, objects, environments). Based on this framework, the documentary builds on the experience of marginality of the Roma people I met, as well the one I personally did within the field. In other words, the guiding thread that forms the narrative of the film is played around the encounter: between the Roma people, the margins, the city and I. Today, the spatial and temporal distance makes it possible to rethink the experience I made, both of the field and the documentary, proposing my reflections on:

- the epistemological issues I faced during the field, which question the positioning of the researcher vis-à-vis of her/his research subject, particularly when marginality is at stake;
- the opportunities and challenges that a visual methodology entails in terms of knowledge, representation and communication of a research;
- the opportunities and challenges that a camera involves as a machine-tool within a research field.

### **Expanding the Archives; Social Media Data Harvesting for Human Geography'**

Rosie Howlett Southgate

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Geographies of asylum and refuge have evolved into a study of the convoluted, everyday entanglements of law, policies and politics as they play out in the lifeworld of an individual. Geographical research methods have similarly expanded into a more diverse array of options, including in recent years the online world of social media data. Asylum seekers in Ireland occupy a complex position within the political sphere, as they are situated physically within Irish society (unlike the 'holding centres' employed by many countries, away from their sovereign shores) but they are marginalised and excluded from meaningful integration into Irish society as they have no right to work. This system of 'Direct Provision' has been critiqued as a "space of exception" by (Lentin, 2016) where people's lives and deaths (61 since 2004) slide under the societal radar without due investigation from governmental departments. The privatization of Direct Provision and the enforced reliance of its inhabitants on welfare payments has led to discrimination, myths and anxiety around asylum seekers in Ireland. To investigate the more intricate dimensions of this discrimination, the study to hand utilises social media commentary and analyses the trends emerging online through NVIVO software. This is a novel way of 'doing' political research as it expands the field to include digital, ever-evolving archives of social media commentary. It also provides filter-free, primary attitudinal data on current asylum policies and politics as stories break in online news outlets, providing a nuanced pictures of the true spectrum of views on asylum in Ireland. However, it simultaneously raises issues of rigour in analysis and ethical questions in the use of personal data for research purposes.

### **Maps and Apps as Pedagogic Tools**

Aoife Corcoran

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Traditionally geography focuses on understanding the world around us with a strong emphasis placed on the relationship between people and place. Mapping has been a fundamental research tool for geographers allowing them to visualise the spatial relationships they seek to understand and acting as a key method for engaging people with place. This is evident in the work of Patrick Geddes and his promotion of surveying methods in the early 1900s as part of his pioneering town-planning, and the work of the early Irish Geographer T.W Freeman in the 1930s with his Land Utilisation Survey and land-use map of the Dublin region. Geddes's aspiration was to democratise mapping, and to engage the ordinary citizen with their locality whereas Freeman's focus was on engaging students with the world around them through fieldwork and surveying.

Integrating and translating the ambition of both men into the present day, this research explores a prototype crowd sourced web mapping app for surveying underused urban spaces. The emerging methodology, trialled by groups of students from a range of disciplines in Aarhus and Dublin, is discussed. The paper focuses on a reinterpretation of the thinking of Geddes and Freeman as a stimulus to the development of techniques to promote student engagement with their immediate surroundings. It looks at the use of crowd sourcing and interactive mapping as pedagogic tools to promote more effective ways of engaging with place, generating data and facilitating meaningful co-design. This work is part funded by Horizon 2020 "OrganiCity - Co-creating smart cities of the future".

## Session 8c: Electoral Geography

Saturday May 6th 9:30-11:00 ORB Room 255

### **The Eurovision Song Contest: Voting Patterns, Politics and Geography**

Adrian Kavanagh

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Are voting patterns for the Eurovision Song Contest totally, or partially, determined by political concerns? This paper will tease out this question, while also considering aspects of the contest that are of interest from the perspective of political geography. Given recent changes in the voting system for the contest, there will also be a consideration, from a political geography perspective, of voting patterns evident in the jury vote and the public vote/televote.

### **Best of both worlds? Identity, Place and Politics in the election campaigning of Sinn Féin**

Caoilfhionn D'arcy

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Rosalind Brunt suggested identity politics is continuously "making and remaking" ourselves in relation to others. (Bondi, 1993) This paper will explore how identity and place can redevelop and transform within politics, with particular reference to Sinn Féin which contests in both Republic of Ireland and Northern Ireland elections at a national and local level. It will illustrate how identity and place have an effect on voting behaviour and candidate selection in elections, where localism is also prominent. (Gallagher, 1980) Pile and Thrift see identity as a "political problem", representing those who can be seen as a minority in regards to gender, class and race. What will be argued is Sinn Féin give an opportunity to be a representation to those in this "minority". (Gregory, 1980)

I intend to firstly look at the role of identity and place in Sinn Féin and how this has benefited/ failed them in election campaigns by drawing on candidate selection and campaign methods. Secondly, I look to illustrate how Sinn Féin display Brunt's redevelopment of identity and inclusion with reference to the role of women in Sinn Féin. I suggest the possibility that Sinn Féin now hold an identity that not only promotes a "United Ireland Party" but displays a "gender-friendly" party also. (Coakley, Gallagher, 2010:178) Finally, I make a comparison of both electoral sides of the Irish border and outline the impacts and effects gender quotas, boundary changes, seat reductions and an overall "sense of place" have had on elections. (Agnew, 1992) I will compare the similarities and differences between Sinn Féin electoral geographies in the North and Republic of Ireland with reference to election results. This will take a focus on General Elections in the Republic of Ireland and National Assembly Elections in Northern Ireland, concluding how a development of identity and place can both be a benefit and a disadvantage to a political party.

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### **Political parties and women's recruitment as Dáil Éireann candidates, 2011-2016: the impact of localism**

Claire McGing

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The excessive localism that defines Irish politics has long been documented (O'Carroll, 1987), but few studies explore the impact of localism and brokerage on the selection women candidates for the Dáil. Few women have been elected to the lower house of the Irish Parliament over the years in comparison to men (McGing, 2013). Using a feminist institutionalist framework (Chappell, 2010; Krook

& Mackay, 2015), this paper draws a distinction between formal rules (rules that are written down) and informal rules ('the way things are done around here') to assess how localism interacts with gender to structure political opportunities for women (and men) in different parties and different constituencies. The 2016 election was the first in which quota legislation for Dáil selections applied, specifying that parties must run at least 30 per cent women candidates or else surrender half of the state funding they receive on an annual basis to run their operations. The research finds that while legal quotas did result in an increase in the numbers of women selected, and thus elected, for the major political parties, the underlying informal gendered rules and norms within parties – the masculinised nature of local party democracy and a preference for 'local' men – remained embedded and in fact created a new layer of difficulty for women candidates. The Irish case shows that legal quotas, while changing or modifying the formal rules of the game, do not necessarily make an institutional difference where it is needed the most: at local levels.

### **Political Disengagement, Under-Representation, and Spaces of Neglect in the Current Political System**

William Durkan

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This report investigates the relationship between declining voter turnout trends and candidate location in recent Irish elections. While there have been a number of studies which identify and explore various socio-economic and demographic influences on declining voter turnout rates, the impact of candidate location holds an increasingly influential role in this respect and is in need of further analysis. This is particularly relevant as the Republic of Ireland currently has the lowest political representation level since the foundation of the state, close to the constitutional limit of one TD per 30,000 members of the population, a factor which directly influences candidate location. Analysis of marked electoral registers at a sub-constituency level allows for the identification of areas which display declining voter turnout trends and political disengagement. Mapping this information using G.I.S. software allows for comparison with General Election candidate locations.

There is a strong correlation observed between declining voter turnout rates and candidate location, especially in constituencies which have a clear urban/rural divide, such as those in the Dublin City commuter-belt area. This trend not only impacts on political representation and engagement in specific spaces of political neglect, but also raises administrative issues when addressing constituency boundary changes and subsequently the impact of these changes in a given locality. A suggested solution to this issue is an increase in the national number of political representatives, a solution which may also have positive implications in other aspects of the current electoral system.

## **Session 8d: Disruptions and the Urban Environment**

Saturday May 6th 9:30-11:00 ORB Room 132

### **Climate Change impacts on Heat Exposure Across the Greater Dublin Region**

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With the majority of the global population now residing in urban areas, assessing the risk of future climate changes must now focus on fine-scale conurbations where there is a concentration of people and vital critical infrastructural assets. Even with ever increasing spatial and temporal resolutions, general circulation models and regional climate models are presently unable to resolve fine-scale processes, therefore exclude important heat and moisture exchange processes unique to cities and/or do not capture intra-urban variation. Yet, such information is urgently required to carry out risk assessments and begin formulating and implementing local-level adaptation plans in urban areas. In this presentation, we assess the exposure of conurbations to heat hazards located in middle latitudes situated around the eastern-midlands region of Ireland i.e. the Greater Dublin Region. We identify heat exposure by modelling 1) The background climate 2) The localised impact of urban areas and 3) Climate change projections for the region of interest up to the 2060s. Urban areas at this latitude are generally considered to be low risk with respect to heat hazards. We test the validity of this assumption by combining our simulations with the Universal Thermal Climate Index (UTCI), a thermophysiological model which is useful for examining human biometeorology. We use the UTCI to carry out a spatially explicit heat risk assessment for these urban areas, now and in the future, taking account of projected changes in land cover and demographic changes which form part of a comprehensive vulnerability assessment.

### **Pollution hotspot analysis in urban soil geochemistry**

Chaosheng Zhang  
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The identification of pollution hotspots is an important approach for a better understanding of spatial distribution patterns and the exploration for their influencing factors in environmental studies. One of the most often asked questions in an environmental investigation is: Where are the pollution hotspots? This presentation explains one of the popularly used methodologies called local index of spatial association (LISA) and its applications in urban geochemical studies in Galway, Ireland and London, the UK. The LISA is a useful tool for identifying pollution hotspots and classifying them into spatial clusters and spatial outliers. The results were affected by the definition of weight function, data transformation and existence of extreme values, and it is suggested that all these influencing factors should be considered until reasonable and reliable results are obtained. This method has been applied to identify Pb pollution in Galway, polluted areas in bonfires sites, elevated P and REE concentrations in London. Hotspots identified in urban soils are related to locations of high road density, traditional festival bonfires, industries and other human activities. The results of hotspots analysis provide useful information for the management of urban soils.

### **A remote sensing approach to extracting tree canopies in Dublin city centre**

Tine Ningal *et al.*  
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In recent times, there has been an increased emphasis in research on the environmental and other associated benefits of green infrastructure, particularly in cities. The scale and duration of such studies vary, however, they all begin by mapping the extent and character of existing green infrastructure including parks, gardens, and trees. Tree cover assessment is necessary due to a range of essential environmental benefits and services that they provide to both environment and society. To gather data on tree canopies and produce relevant and timely information, technologies such as Geographic Information System (GIS) and remote sensing (RS) are required to create geographic databases for querying, analyses and mapping. In this paper, several GIS and RS approaches are investigated to extract tree canopy cover in Dublin city centre. Software such as ArcGIS, Erdas, Envi (IDL), eCognition and others are used to extract and map tree canopies. There

are differences in the results of each method; however, the decision on which method is 'best' depends on various considerations. These are image resolution, availability, and ease of access to the RS data; experienced personal and the necessary software. These issues would be discussed along with the results from the various feature extraction approaches. The results of this study would provide valuable information to others undertaking similar work.

### **The geography of Dublin's building stock and energy demand**

Buckley Niall, Mills Gerald & Fealy Rowan

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Each EU member state is committed to a 20% reduction in Greenhouse Gas emissions (GHGs) by 2020 (relative to 2005 levels) to be achieved through the introduction of renewable energy and energy efficiency. The largest contributors to Ireland's GHG emissions are agriculture (29.2%), energy (21%) and transport (21%); the remainder is made up by the residential sector at 12%, industry and commercial at 14.8%, and waste at 2%. Given that much energy generation is used for heating/cooling homes and businesses, running computers, etc. the contributions of buildings to GHG emissions is significant. However, these sectoral assessments do not account for the significant spatial correlation between population, housing, transportation and employment – in this respect, the non-agricultural drivers of GHG emissions are 'bundled' together in urban centres. Policies to mitigate emissions through energy efficiency must focus on the building stock and occupation patterns to identify spatially-focussed opportunities for intervention. This work examines built stock for Dublin city centre on a building-by-building basis using a variety of data sources and techniques. Each building in the city centre is classified by type into residential, commercial, institutional and mixed types and the properties of each in terms of occupation patterns and energy demand is estimated. For example, residential buildings are classified using the Tabula building typology, which was developed to identify energy performances of buildings across the EU. The housing stock is mapped to Tabula using the 2011 Census and Google Earth. These data are organised and managed within a GIS system and the focus of the presentation will be on the methodology employed and the initial results.

### **Using WUDAPT to explore urban exposure to climate change hazards**

Gerald Mills

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The World Urban Database Access Portal Tools (WUDAPT) project acquires, stores and makes available climate-relevant data on cities globally. Urban information is organised by level of detail in WUDAPT; Level 0 data has a resolution of 1 sq. km and is based on the Local Climate Zone (LCZ) classification scheme, which has 10 different categories of urban land cover. Using publicly available data and locally-based expertise more than 100 cities have been mapped into LCZ types. Each type is linked with ranges of values that describe properties of the urban landscape, such as the green proportion, mean building height, impervious fraction etc. In other words, a LCZ map is also a framework for assigning parameter values that can be used to run climate models to examine the urban effect. Currently, Level 0 maps exists for nearly 100 cities across a range of latitudes, climates and topographies. The WUDAPT data provides a geographical framework for examining both the impact of the urban landscape on local climate and the impact of global and regional climate changes on the urban landscape. In this paper we use this database to compare cities in terms of their exposure to current and projected climate hazards.

## **Session 9a: Lived Spaces of Austerity (2)**

Saturday May 6th 11:20-12:50 ORB Room 156

### **Household vulnerability and resilience after a global economic shock: evidence from Ireland.**

Jon-Paul Faulkner

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The 2008 financial crisis revealed the increasing exposure of rural economies to exogenous disturbances caused by unpredictable global markets. Academic literature suggests that the economic downturn has been more protracted in rural regions with emerging structural unemployment resulting in longer-term economic disturbance. This paper explores the impacts and coping mechanisms of households in rural regions through the application of a socio-economic instrument which combines various strands of scholarship to generate a model that is applicable to alternative economic contexts. The instrument was administered to a sample of 386 farm and non-farm households in rural Ireland across three case study locations chosen to reflect potentially high, moderate, and low resilient areas based on a spatial analysis of employment rate change over the past 30 years. The results focusing on identifying (1) important indicators of perceived sensitivity and adaptive capacity; (2) indicators of objective sensitivity and adaptive capacity; and, (3) components of exposure and capacity of response.

### **Young people, return mobilities and spaces of austerity: the reproduction of intergenerational transnational families.**

Caitriona Ni Laoire

*UCD Teagasc (jon-paul.faulkner@ucdconnect.ie)*

This paper explores lived spaces of austerity by focusing on how im/mobility mediates the ways in which the economic crisis has been experienced and articulated in the lives of young people from return-migrant families. The focus is on young people who had earlier moved to Ireland with their Irish return-migrant parents during the economic boom, amid familial intentions to settle 'back home'. The economic crash and subsequent period of austerity disrupted the dream of return for many of these families. In this paper, I explore how these young people have experienced and responded to economic crisis and austerity. In particular, the paper highlights the ways in which they and their families have used diverse mobility strategies, including transnational re-migration, to cope with economic hardship. The paper explores how everyday lives, identity formations and place-belongings have been disrupted by the crisis; in this way, long-established intergenerational familial patterns of transnational mobility are being reproduced, re-asserting the role of migration and migrancy as necessary and deeply embedded dimensions of socio-spatial processes in the Irish context.

### **Blood, Sweat and Tears: Symbolic Power and the Insidious Pervasiveness of Symbolic Violence in the Family Farm Transfer Process.**

Shane Conway

*School of Applied Social Studies, University College Cork (c.nilaoire@ucc.ie)*

The older generation's reluctance to 'step aside' and retire to facilitate young farmers who want to establish a career in farming is a globally recognized feature of family farm transfer. This is despite the array of financial enticements encouraging the process. Recent research carried out in the Republic of Ireland reveals that the prospect of such a transition places significant emotional stress on older farmers, leading many to abstain from retirement. Applying Pierre Bourdieu's concepts of symbolic power and violence as a theoretical framework, this paper presents an insightful analysis of the manner in which the older generation galvanize and sustain their managerial control and dominance as head of the family farm. This research employs a multi-method triangulation design, consisting of self-administered questionnaires in conjunction with complimentary Problem-Centred Interviews, to reveal the actions that have a hindering and deterring influence on the process. Preliminary findings suggest that the prominent strategies of symbolic violence employed by the senior generation are their efforts to reiterate their indispensability to the daily management and operation of the farm, the imposition of a mind-set of the disastrous consequences retirement would bring and unilateral acts of generosity. Additionally, farmers are found to hold contradictory and conflicting desires about farm transfer. The paper concludes by suggesting that policy and professionals dealing with farm families must be cognizant of the pervasiveness of power relations

embedded in the mentality of everyday farm life when facilitating discussions between old and young family members' objectives, goals and expectations for the farm.

## Session 9c: Contemporary Geographies

Saturday May 6th 11:20-12:50 ORB Room 255

### **Oh, East is East and West is West, and never the twain shall meet: Cross cultural/political perspectives of combining Human and Physical geographies and its impact on teaching and learning**

Tasleem Shakur and Rory Flood

*Edge Hill University, Lancashire, UK (shakurt@edgehill.ac.uk)*

Engagements between human and physical geographers (and geographies) tend to run parallel and neither converge in a manner akin to Kipling's poem. Engagement between and within human and physical geography has tended to see the former focus on philosophical discussion, with the latter being considered to avoid ontological and epistemological issues (Harrison et al., 2004). In recent times there have been movements towards deriving greater linkages between the two sub-disciplines of geography (e.g., Massey, 2000; Lane, 2001), with further integration of human and physical being the key. Yarnal and Neff (2004) contend that there is a case for 'intellectual centrality' within the discipline, with Turner (2002) proposing that both human and physical should carry an 'equal footing'. This study has looked at the communication to two final year undergraduate modules in human geography with interesting combination of two tutors from two separate disciplines of Geography but having similar diverse background of south Asian and Ireland. One class of GIS application in 'population and medical geography' module taught from the perspective of a physical geographer while the other on India's Sepoy mutiny (seen through James Joyce's 'Ulysses' and J G Farrell's 'The Siege of Krishnapur') with parallel in Irish perspective in the class of 'post-colonial theory' in 'south Asian popular culture module. For both the classes branching the intellectual divide between both sub-disciplines was necessary for student engagement, and this was carried out through an understanding of the situational knowledge of human geographers. The student experience was positive in terms of gaining an understanding of the material being taught, but with the caveat that sub-discipline boundaries were being eroded through this experience (i.e., a physical geographer teaching human geographers). Aspects of culture and ethnicity have been considered to play a role in this engagement between physical and human geography.

This paper attempts to analyse the surprising but interesting outcome of positive student experience from pedagogic perspective and explore the tutors ethnic, political and cultural experience which seemed to have enthused two tutors even from very different age perspectives.

### **Bordering citizenship: Ireland, Britain and Brexit**

Mary Gilmartin and Patricia Burke Wood

*Maynooth University; York University, Toronto, Canada (mary.gilmartin@nuim.ie)*

Since the Brexit vote, there has been a significant increase in the number of people applying for Irish citizenship who are living in Britain and Northern Ireland. We explore this issue through an examination of media representations of the rise in applications. We pay particular attention to the various ways in which media representations of citizenship applications make use of bordering tactics. While the key issue remains the land border between the Republic of Ireland and Northern Ireland, we also draw attention to the ways in which Irish citizenship is bordered by journalists, opinion and feature writers, and their interviewees and sources. In particular, we consider the ways in which access to Irish citizenship is bordered by narratives of ethnic belonging, and the implications of this for other immigrants living in Ireland.

### **Using animations to visualise correlation structures in multivariate spatial data**

Chris Brunsdon and Martin Charlton

Conventionally we used static displays to visualise relationships in multivariate spatial data. Such display can include scatterplots, boxplots, lineplots, and maps. However the challenge for multivariate data is being able to view several relationships at once. Scatterplot matrices become cluttered when the number of variables exceeds a relatively small number, and while principal component transforms allow us to concentrate on the most important relationships, a number of issues still remain. In particular (i) are such relationships stable over geographic space (ii) what level of sampling uncertainty manifest itself in the visualisations.

We propose to address these issues through the use of animated visualisations: in particular to highlight the effects of sampling variability and spatial heterogeneity. This is achieved using open source software based on the R statistical and graphics programming language, together with other open source software tools. In addition these techniques lend themselves to web-based resources to explore these visualisation approaches and all techniques are fully reproducible.

A number of examples will be given in the presentation using dynamic visualisation applied to Irish socio-economic data.

### **Tracing the historical geography of social exclusion in Ireland**

Arlene Crampsie

*School of Geography, UCD (arlene.crampsie@ucd.ie)*

Irish historical geographers have long been interested in the creation and development of institutional landscapes across Ireland in the nineteenth century. In the main their work has focussed on two key areas – the role of these institutions as significant agents in landscape evolution and their role in facilitating the extension of the power of church and state across the island. However, a third important strand (perhaps more often perceived to be the domain of social and cultural geographers) remains largely ignored – the role that many of these institutions played in creating and developing geographies of stigma and social exclusion; the legacies of which persist in some cases to the present day. This paper seeks to address this gap by offering an exploratory investigation of the role played by institutions such as workhouses, prisons and lunatic asylums in this process as they physically segregated those individuals who did not conform to Victorian moral ideals in large, enclosed, foreboding institutional spaces on the outskirts of urban centres. Focussing on the period before Irish independence (1830s – 1922), this paper will also examine the extent of church-state cooperation in this regard under British rule in an attempt to provide a marker against which post-independence church-state relations can be compared.

### **What is primary geography and who knows about it?**

Shelagh Waddington

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It is now more than 16 years since the current Social, Environmental and Scientific Education curriculum [SESE] (Department of Education, 1999) was introduced into Irish Primary Schools. This subject area includes geography, history and science. While this is a combined subject, all three subjects actually have separate curriculum documents. The SESE curriculum replaced one which had been in force since 1971 (Department of Education, 1971). This earlier curriculum included methodologies which were 'open-ended and experimental, including enquiry and the local environment' (Pike, 2011). Sadly, this curriculum (and its predecessors) was not fully implemented. Indeed, geography was widely regarded as 'learning off' various information, particularly locational knowledge. There is evidence (Pike, 2011) that the 1999 curriculum is being more widely implemented, but as this study reports some, at least, of those who experienced it as pupils were not apparently aware of this. Participants on the Professional Master of Education course and their co-operating teachers in schools displayed a similar lack of awareness of the primary programme.

Department of Education (1971). Primary School Curriculum: Teacher's Handbook. Dublin: Stationary Office.

Department of Education (1999). Primary School curriculum: Geography. Dublin: Stationary Office. Available at: [http://www.ncca.ie/uploadedfiles/Curriculum/Geog\\_Curr.pdf](http://www.ncca.ie/uploadedfiles/Curriculum/Geog_Curr.pdf). [Accessed 9 March, 2017]  
Pike, S. (2011). Geography in Primary Schools. Geographical Viewpoint, 39, 31-34.

## **Session 9d: River science towards the management of freshwater systems**

Saturday May 6th 11:20-12:50 ORB Room 132

### **Physiographic units map of Ireland supporting hydromorphology classification methods.**

Xavier M. Pellicer (presenting), Robbie Meehan, Monica Lee, Michael Sheehy  
*Geological Survey Ireland, Beggars Bush, Haddington Road, Dublin*

Physiographic maps are cartographic representations of the broad-scale physical landscape units of a region. Physiographic units consist of physical regions showing internal uniformity with respect to one or more environmental attributes that can be clearly differentiated from neighbouring regions. The value of physiographic unit maps is becoming increasingly acknowledged, particularly in the fields of regional land-use planning, landscape evolution, and the influence of physical landscape on aspects of the ecological environment. We present a draft classification scheme for Physiographic Units for Ireland. The units were mapped at 1:100,000 scale to be represented as a cartographic digital map at 1:250,000 scale. A hierarchical classification system was derived in order to provide representations of the landscape physiography at different levels of complexity. Level 1 differentiates between six broad physiographic units, which are further divided into 2 further levels of subclasses, providing additional detail in the landscape, based on geological influences. A supplementary classification scheme was developed, in partnership with the Environmental Protection Agency (EPA), to underpin a hydromorphological assessment method and river hydromorphological classification scheme currently being developed by the EPA in support of the Irish obligations under the Water Framework Directive.

### **Modelling Annual Suspended Sediment Yields in Irish River Catchments.**

A Rymaszewicz (presenting), J.J. O'Sullivan, M. Bruen, J.N. Turner, D. Lawler, Harrington, J., E. Conroy & M. Kelly-Quinn

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Estimates of sediment yields (SY) are important for the ecological and geomorphological assessment of fluvial systems and for the assessment of soil erosion within a catchment. Measurements of sediment transport at a national scale can be challenging and therefore, sediment yield models are often utilised by water resource managers as an alternative for estimating sediment export from catchments. Regression based models, calibrated to field measurements, can provide information on the factors controlling sediment production and are usually based on easily available catchment descriptors making them attractive for the prediction of sediment yields. This study presents an overview of suspended sediment yield measurements in Irish catchments and explores a number of different catchment characteristics as potential predictor variables for the development of a national sediment yield model.

### **An Urban River Survey of the River Dodder, Co. Dublin**

Linda Heery (presenting) and Jonathan Turner  
*University College Dublin ([jonathan.turner@ucd.ie](mailto:jonathan.turner@ucd.ie))*

The Urban River Survey (URS) is a reach-scale, scientific physical assessment method and tool kit, adapted from the UK Environment Agency, River Habitat Survey, that supports the work of river managers in urban environments. The technique is specifically designed to capture the variety of engineering types and influences found in urban settings, together with the spatial variability of meso-flow habitats, and riparian and aquatic vegetation that hitherto has not been incorporated into the more conventional classification of surface waters as 'urban'. This paper presents results from the first URS to be conducted in Ireland using the River Dodder in Dublin as a case-study. The work was

carried out by a team of MSc students from the UCD School of Geography and provides important insights into the diversity of fluvial process-environments and human impacts along the river. Implications for current management and future planning strategies for the River Dodder will be discussed.

### **The Hydromorphology of Obstacles to Flow in Irish Rivers**

C.M. Casserly<sup>1</sup> (presenting), J.N. Turner<sup>1</sup>, M. Bruen<sup>2</sup>, J. O'Sullivan<sup>2</sup>, M. Kelly-Quinn<sup>3</sup>, J. Carlsson<sup>3</sup>, S. Atkinson<sup>3</sup>, B. Ball<sup>3</sup>, C. Bullock<sup>4</sup>

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The aim of this research is to assess the hydromorphological impacts of run-of-the-river, man-made obstacles in Irish rivers, and to measure or predict hydromorphological responses to their removal or modification. These structures, which include weirs, bridge aprons and culverts, typically impede the downstream movement of water, organic matter and sediment, and the upstream passage of migratory fish species such as salmon. Where they have been in place for extended periods of time (c. 40/50+ years) equilibrium conditions may have been established. Consequently, attempts to remove or modify such structures is likely to result in morphological adjustment and changes in sediment dynamics, which could impact on physical habitat, channel stability and potentially increase flood risk as systems adjust to a new set of boundary conditions. This research, which commenced in September 2016, forms part of the EPA-funded ReCONNECT project that seeks to form a validated methodology for prioritising obstacles for removal or modification, to improve the longitudinal connectivity of Irish freshwater systems in accordance with objectives under the EU Water Framework Directive (2000/60/EC). This paper will outline the key objectives of this research linked to (i) an assessment of the hydromorphological impacts of obstacles in Irish rivers and (ii) the predicted hydromorphological response(s) following removal or modification. The paper will provide an overview of the project experimental design and methodology centered on investigations of four weirs that the Inland Fisheries Ireland (IFI) intend to remove or modify in late summer/early autumn 2017.

### **Purpose-built participatory modeling: Linking science and stakeholders to evaluate water quality improvement strategies**

Patrick Belmont

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Diverse groups of stakeholders are often challenged with making large and costly decisions regarding conservation or land and water management practices that impact rivers. Science can play an important role if it is conducted and communicated in a way that effectively supports key decisions. This is challenging because rivers are complex systems, characterized by myriad ecological, physical and chemical processes, many of which are non-linear and inter-dependent as well as highly variable in both time and space. Nevertheless, rivers provide essential ecosystem services and management decisions must be made based on the best available understanding. In this paper, we briefly highlight some critical limitations in models that are commonly used to inform river policy and management. To overcome some of these limitations, we developed a purpose-built model to evaluate the costs and benefits of numerous strategies to reduce sediment pollution in the 2,880 km<sup>2</sup>, agricultural Le Sueur watershed, in southern Minnesota, USA. The model was developed in collaboration with a diverse stakeholder group including individual farmers, agricultural industry representatives, federal, state and local agency staff and non-profit organizations. Over a five year period, the model was built, iteratively modified, tested and ultimately used to compare a multitude of portfolios of potential sediment reduction actions. The outcome of the participatory modeling effort is a jointly authored document that outlines what the group determined to be the most prudent, practical and cost-effective path forward for sediment reduction.