Programme at a Glance

	Wednesday 7 th May	Thursday 8 th May	Friday 9 th May
Morning		09.00 – 09.30 Registration desk open	09.00 – 09.30 Registration desk open
		09.30 – 11.00 Parallel Session III	09.30 – 11.00 Parallel Session VII
		11.00 – 11.30 Tea/Coffee Break	11.00 – 11.30 Tea/Coffee Break
		11.30 – 13.00 Parallel Session IV	11.30 – 11.45 Conference Close (Common Room)
Lunch	12.00 – 13.00 Registration desk open Lunch available in ELC GSI AGM		
Afternoon	13.00 – 13.30 Conference Opening (GEO/OG/033)	13.00 – 14.00 Lunch Break (ELC) Poster session (Registration foyer - outside 0G/029)	12.00 – 16.00 Lunch packs available for all delegates Field Excursions (Buses depart outside Elmwood Building)
	13.30 – 15.00 Parallel Session I	14.00 – 15.30 Parallel Session V	
	15.00 – 15.30 Tea/Coffee Break	15.30 – 16.00 Tea/Coffee Break	
	15.30 – 17.00 Parallel Session II	16.00 – 17.30 Parallel Session VI	
Evening	18.00 - 19.00 Keynote 1 (DKB/0G/012)	18.00 – 19.00 Keynote 2 (Malone Hotel)	
	19.00 – Drinks Reception (<i>DKB Hub</i>)	19.00 – Conference Dinner (<i>Malone Hotel</i>)	

Parallel Session Summary

Wednesday 7th May

Parallel Session I (13.30 - 15.00)

- 1. Reimagining Education for Sustainability (GEO/0G/006)
- 2. Empowering Women in Rural Spaces (GEO/0G/029)
- 3. Sustainable Food and Agriculture (GEO/01/009)
- 4. Historical Geographies of Adaptation (GEO/0G/033)

Parallel Session II (15.30 - 17.00)

- 5. City and Regional Governance (GEO/0G/006)
- 6. Space-Planning Nexus (GEO/0G/029)
- 7. Sustainability and Development (GEO/0G/033)

Navigating your PhD & Early Career Development (GEO/0G/014)

Roundtable 1: Universities Under Attack (GEO/01/009)

Thursday 8th May

Parallel Session III (09.30 - 11.00)

- 8. Creative Methodologies (GEO/0G/006)
- 9. Urban Environmental Change (GEO/0G/029)
- 10. Borders and Geopolitics (GEO/0G/033)
- **11.** Adapting to being a host society: care and hospitality across borders in contemporary Ireland (GEO/0G/014)

Roundtable 2: Rural Perspectives on Just Transition (GEO/01/009)

Parallel Session IV (11.30 – 13.00)

- 12. <u>Green Extractivism and Eco-modernity in Ireland I: Ecological Expansionism</u> (GEO/0G/006)
- 13. Marine Governance & the Blue Economy (GEO/0G/029)
- 14. Historical Climatology: climate change and extreme weather events (GEO/0G/033)

Roundtable 3: Imperfect Adaptability: Flawed Utopias Gone Awry (GEO/0G/014)

Roundtable 4: Navigating through Storms of Change (GEO/01/009)

Parallel Session V (14.00 – 15.30)

15. Climate Mitigation and Ecosystem Resilience (GEO/0G/006)

- 16. Critical Geographies of Housing (GEO/0G/029)
- 17. Marginalised Identities and Social Justice (GEO/0G/033)

Roundtable 5: The Challenges around Embedding Sustainability (GEO/0G/014)

Roundtable 6: Open-Mic: Just Transitions or Just Adaptations? (GEO/01/009)

Parallel Session VI (16.00 - 17.30)

- 18. <u>Knowledge transmission and transformation across space and time: emerging trends in early career research (GEO/0G/006)</u>
- 19. Earth-writing and Terraforming: critical geographies of land, rock and speculative nature (GEO/0G/029)
- 20. Green Transitions: Challenges and Opportunities (GEO/0G/033)
- 21. Accessing Results from the 2021 Census in Northern Ireland (GEO/0G/014) Roundtable 7: Co-Creating Just Food Futures (GEO/01/009)

Friday 9th May

Parallel Session VII (09.30 – 11.00)

- 22. Climate Adaptation (GEO/0G/006)
- 23. Population Change in the UK (GEO/0G/033)
- 24. <u>Green Extractivism and Eco-modernity in Ireland II: Orientating Resistance</u> (GEO/0G/014)

Roundtable 8: Spatial Justice (GEO/01/009)

Poster Summary

- 1. Balancing Compact Urban Form and Ecology: A Spatial Analysis of Sustainability Trade-offs *Tianrui Sun*
- 2. All for One and One for All: Dissecting PREMIERE's Multi-Actor Inclusion and Stakeholder Engagement Strategy **Shane Francis Conway**
- 3. "They're Not Just Leaving, They're Gone": Challenges to Generational Renewal and Long-Term Care on The Islands of West Cork *Amy Duley*
- 4. Adaptation and Tools Chao Gong
- 5. <u>Development of a monthly snow and sleet series for the Greater Dublin Region</u> 1867-2024 **Csaba Horvath**
- 6. Sport adaptation to extreme heat in a warming world Aimée Kielt
- 7. Spatial Analysis of Agriculture with Emphasis on the Expansion of Sugarcane in 2010: Microregion of Vale do Rio dos Bois Cerrado Biome, Brazil *Lizandra Ribeiro Cavalcante*
- 8. Thinking Beyond Mobility: contextualizing the case of tramways of Kolkata Toshali Chattopadhyay
- 9. Recording and mapping Ireland's minor placenames Jonathan Cherry
- 10. ADAPTO Elaine Cleary

CIG 2025 Oral Session Abstracts

Day 1: Wednesday 7th May

Parallel Session I | 13.30 - 15.00

1. Reimagining Education for Sustainability

GEO/0G/006

Chair: Kathy Reilly

1.1 Facilitating a pedagogy of hope through geography

Anne Dolan

Hope is an essential part of both geography and global citizenship education including climate change education. Ojala's exploration of climate and hope, including the factors "trust in self" and "trust in others," concluded that "constructive hope" is central to environmental engagement in young people (Ojala, 2012, 635). According to Thunberg (2022:421) 'right now, we are in desperate need to hope. But hope is not about pretending that everything will be fine. It is not about sticking your head in the sand or listening to fairy tales about non-existent technological solutions. It's not about loopholes or cleaver accounting'. Educators can empower students by providing specific examples of useful actions and relevant tools and opportunities to help them act constructively.

Pedagogies of hope have also been developed by critical educational theorists such as Freire (2004) and hooks (2003), who connect hope with individual transformation. This paper explores different interpretations of hopeful pedagogies by educational theorists in philosophy, theology and psychology. This is a theoretical paper developing a philosophical argument through drawing on a review of literature upon which the framework for hopefulness is developed. The paper presents opportunities and challenges for adopting a hopeful pedagogy. It explores metaphors for hopefulness and it provides a framework for hopeful pedagogies based on research about teaching the Sustainable Development Goals (Dolan, 2024). Hope is closely linked to action, advocacy and activism. It is central to the job of creating just and sustainable futures together. Hopeful geographical education and indeed hopeful global citizenship education have vital roles to play in preparing our young people to take their place as informed, engaged, and empowered citizens who will be pivotal in shaping the future of our communities, our country, and our global environment.

1.2 Employing climate change education to help change our sociocultural system: identifying the core principles of effective climate change education and the potential barriers to its inclusion

Emma Morrissey-Gleeson, John Morrissey

In this paper, effective climate change education (CCE) is conceptualised as the type of education that develops agents of change, capable of contributing to sociocultural transformation. This is critical as our current sociocultural system underpins the climate crisis. This paper employs a systematic literature review, which aims to understand the necessary principles of effective CCE, as well as the obstacles to its implementation. When searching for articles, the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) is used. For article analysis, Braun and Clarke's (2006) six step approach to thematic analysis is used. It is concluded that pedagogies of entanglement, pedagogies of interconnectedness, systems-thinking pedagogies, collaborative and interdisciplinary learning, and a political-based education which incorporates critical media literacy are key principles of effective CCE. Including these principles can help deepen student understanding of the crisis, enhance their capacity to care, and increase their capacity to critique, and ultimately transform the sociocultural system they are entangled within. The paper also establishes barriers to the implementation of effective CCE. Largely, the established neoliberal system that pervades current education policy, curricula, education standards and shape the values and behaviours of teachers and students, can be charged with this. This research emphasises that education must play a role in disrupting the sociocultural system, rather than upholding the status-quo that underpins the climate crisis.

1.3 Young People's Perspectives on Climate Change in Ireland: Everyday Resilience through Intergenerational Dialogue and Activism

Bronagh Dillon, Kathy Reilly and Frances Fahy

Focusing on the Irish context, this article draws together young perspectives on the everyday intersection between intergenerational dialogue and climate crisis through data collected as part of the CCC-CATAPULT project. Incorporating a co-production and mixed method research design CCC-CATAPULT worked with young people (15 – 18-year-olds) in Ireland, United Kingdom, Finland and Italy to understand their perspectives on, and experiences of, the climate crisis. The findings from this article draw from three methodological stages of the Irish data collection process: a comprehensive survey with participating young people, focus groups, and narrative workshops with young people explicitly discussing intergenerational influence and climate crisis. Intergenerational influence is often considered primarily in the context of familial relationships. Such relational influences are discussed in this article, but we also examine broader intergenerational influences through questions that consider young peoples' resilience to engage perspectives on collective responsibility (or lack thereof) of older generations to prioritise an agenda that recognises and seeks to actively challenge the climate crisis. Finally, the article moves to consider

how the data informs our thinking on young people's resilience through activism pointing towards future directions and research needs in this area.

2. Empowering Women in Rural Spaces

GEO/0G/029

Chair: Maura Farrell, Louise Weir and Aishling Murtagh

2.1 "It All Falls on One": Balancing Long-Term Care and Work on the Farm

Amy Duley, Julien Mercille, David Meredith

Long-term care (LTC) is a rising topic of interest as the global population ages. However, rural residents face unique challenges when organising LTC. The aim of this study was to explore the experiences of those giving and receiving care in the farming community and whether perceived unmet needs exist. Semistructured interviews were held with 16 individuals who were giving and receiving LTC. Content analysis was conducted in NVivo 12 to identify themes within the structure of the social-ecological model. Many interviewees described difficulties with managing caring responsibilities alongside farm work. The general consensus was that, more often than not, the primary responsibility for care falls onto the successor. This is influenced by rural restructuring characterised by increased female labour force participation and emigration of the younger generation. While attitudes towards using home help within the farming community have changed over time, there are challenges to accessing and using these services in rural areas. As such, there are perceived unmet LTC needs within the farming community including initial access to home help and receiving additional home help hours. The expected loss of informal carers in the future and difficulty accessing home care services are prevalent concerns within the farming community and are issues that future policy should address to better support older people ageing in place.

2.2 Saffron-based agritourism, an untapped potential in rural Iran for farm women's empowerment

Fatemeh Zamani, Marie Mahon

Agriculture has a long history in Iran, and tourism has been booming over recent decades. However, agritourism, a combination of agriculture and tourism and a means of sustainable rural development, is still in its infancy in the country. Iran in the largest saffron producer in the world, with women being the main actors in saffron farming. However, saffron farming does not do anything to their socioeconomic empowerment. Innovative saffron-based agritourism

entrepreneurship has potential to add value to conventional agriculture and contribute to farm women's empowerment.

This presentation discusses the role of women in saffron farming and more widely in the emancipatory and empowering possibilities that agritourism as an innovative addition to saffron farming might provide for them. It describes the case study area of Tirân-va-Karvan county, Isfahan province, where saffron farming is widely practiced. It draws on semi-structured interviews conducted with female saffron farmers and their family members, local authority representatives, and non-farming individuals.

Key findings indicate that Iranian farm women encounter structured norm and barriers from household to organizational levels. However, leveraging available opportunities, they are resisting the challenges and creating a gradual change within their rural community. This change can potentially facilitate their agritourism entrepreneurial pathway and foster their socio-economic empowerment. These understandings can inform rural development policies to recognize and address women's specific needs and barriers in their rural place and facilitate their entrepreneurial pathway.

2.3 How Rural Mindsets Shape Women's Opportunities?

Gulvin Yusifova

Azerbaijan is a multicultural country with several factors affecting the society's beliefs that correlate with women's rights. Throughout history, gender roles have been constructed, challenged, and altered through the interplay of local traditions, Islamic values, and state policies concerning socioeconomic progress. Traditional ideas, especially those related to gender roles, tend to persist more in rural areas. Despite societal and governmental efforts to address these issues nationally, local communities often uphold their long-standing beliefs, which may not always align with broader changes. While significant progress has been made in achieving gender parity, disparities persist in rural regions, where patriarchal beliefs continue to restrict women's educational and economic opportunities.

Ten women from nine different regions participated in the interview, with four discussing the gender disparities they have experienced or observed. Women in certain regions face greater challenges than others, often finding themselves in highly disadvantaged situations. In some rural households, marriage and children are considered women's primary achievements, while higher education is seen as an unnecessary expense. Consequently, even when girls are not explicitly barred from attending school, their education is often deprioritised, and they receive little guidance at an age when they are not yet capable of making informed decisions about their future. Insights suggest that migration has the potential to empower women by exposing them to diverse perspectives, increasing their access to education, and enhancing their

economic independence. These insights contribute to ongoing discussions surrounding gender inequality, social mobility, and policy interventions.

2.4 Creating an Age-Friendly, Gender Inclusive Environment in Farming – The Farmer's Yards Approach

Shane Francis Conway, Maura Farrell

With demographic trends highlighting an inversion of the farming community age pyramid, with those aged 65 years and over constituting the fastest growing subgroup of the farming population globally, a social initiative for older farmers called Farmer's Yards, embodying values, and aspirations pertinent to farmers in their later years, is helping to create an age-friendly environment in farming in line with World Health Organisation (WHO) guidelines. By providing older farmers, of all genders, with a platform for sustained social engagement and inclusion within the farming community, this social initiative, originally piloted in Ireland in 2023 and now in operation in Pennsylvania, U.S.A., aligns with principles promoting active and healthy aging, thereby contributing positively to their mental health and wellbeing in later life. In doing so, Farmer's Yards is helping to address recent calls by the European Commission for an increased emphasis on the delivery of creative mechanisms that enhance the quality of life of older farmers through social policy. The pilot phase of this gender inclusive social initiative, held in a Livestock Mart (Auction Market) setting in the west of Ireland, also demonstrates how Farmer's Yards can strengthen Mart's long-standing position and reputation as centres of social activity within rural areas by helping older farmers maintain legitimate social connectedness, collegiality, and comradeship with their peers in advancing age in their respective regions, and in turn, combat social isolation and loneliness in later life. Recommendations for future research and on the further expansion of Farmer's Yards are also outlined.

2.5 | FLIARA: Female-Led Innovation in Agriculture and Rural Areas

Maura Farrell, Louise Weir, Aishling Murtagh

Key contemporary trends, such as climate change, gender inequalities and the COVID-19 pandemic, bring new challenges to European rural areas. Change also brings opportunities to foster more resilient, inclusive and sustainable rural regions, such as created by the digital and ecological transitions. However, there is a need for all individuals and communities to participate in rural innovation. Traditionally, however, rural women's employment opportunities and contribution to innovation has been overshadowed, and often suppressed, by for example a patriarchal ethos. The FLIARA (Female Led Innovation in Agriculture and Rural Areas) project uniquely proposes a transdisciplinary, innovative methodology to improve understanding, awareness and recognition of women's role in a more sustainable rural future, as well as develop proposals

for how more effective policy and governance frameworks can support this and enhance women's capacity to contribute to it. This paper will present the results of work carried out within an Irish context for the FLIARA project. The work highlights the challenges and favourable conditions facing thirty women on farms and in rural areas in Ireland. The paper also presents a series of recommendations, which can enhance the innovations led my women on farms and in rural areas.

3. Sustainable Food and Agriculture

GEO/01/009

Chair: Dean Phelan

3.1 Agricultural transformation in Ghana: Exploring ago-ecological and climate smart agriculture adoption among smallholder farmers and their ability to increase food security, resilience and vibrant livelihoods

Julian Bloomer, Dickson Boateng, Evans Amoah

Rural populations across Africa face increasingly complex challenges around food security, climate change, biodiversity loss, migration, and unemployment. Different approaches to sustainable agricultural transformation have been put forward - including climate-smart agriculture (CSA) and agroecology. The former is often associated with conventional agricultural policy approaches. The risk of relying on a globalised food production systems have been highlighted dramatically in recent years by the COVID-19 pandemic, changing climate and the Russia-Ukraine conflict. In Decolonizing African Agriculture, Moseley (2024) charts the trajectory of previous policies and makes a plea for a different paradigm that would shift away from neo-colonial approaches. Ghana has been active in encouraging both agroecology and climate-smart agricultural approaches. In addition, it has been one of the first countries to adopt genetically modified seeds as part of the new Green Revolution in Africa (Rock, 2022). This paper will present findings from a recent research project where we surveyed farmers and investigated the impacts of climate change, as well as the roll-out of both agroecology and CSA in rural Ghana. Both approaches have been critiqued extensively but other research has pointed to the potential lessons that could be applied from one to other (Saj et al., 2017). Others, such as Pimbert (2017), say whilst there are some overlaps, they are fundamentally different. Development organisations, such as ActionAid (2021), have called on donors to switch from conventional agricultural approaches to supporting agroecology approaches as they explicitly enhance bottom-up processes of development and food security, empowerment and climate resilience.

3.2

An assessment of the role of animal epizootics and/or extreme weather in the record of animal mortalities in Ireland from AD 684 to 1857

Kieran Hickey

Only in recent times has considerable academic attention been given to the history of animal epizootics in Europe (Newfield 2009, 2013) and in particular to causation and transmission. Some use has been made of the Irish records. In addition, the role of extreme weather in aiding these epizootics and generating mass fatalities of their own will be explored. This paper will use history of the record of such events from the 1851 Census of Ireland 'Report on Tables of Deaths' and will also try and put them into a European context. The information covered in the 'Report on Table of Deaths' stretch from the first millennium BC right up to 1857. The main focus of this table is on human epidemics and famine but also includes considerable information on epizootics and extreme weather mortalities affecting animals and birds both domestic and wild, even a couple of references to insects. For example, cattle is the most referenced animal, this is unsurprising, given their importance as part of the Irish economy stretching back for millennia. Over 60 epizootics and/or extreme weather mortalities were recorded as having affected cattle, cows, calves, horned cattle, black cattle and oxen in Ireland stretching from AD 684 onwards e.g. for A.D. 1084 the record states that 'Great mortality amongst cattle in the southern half of Munster'. In this case there is no indication of what caused this mortality.

3.3 Cultivating Change: How Market Gardening Can Regenerate Sustainable Food Systems

Marie Taylor and Elaine Cleary

Market gardening offers a transformative approach to regenerating sustainable food systems by focusing on small-scale, diverse farming practices that nurture both the environment and local communities. Training in market gardening is still absent in the majority of EU countries since this model requires a combination of skills and competences not yet included in many curricula and trainings, demanding multidisciplinary, managerial, and cross-sectoral expertise.

To help train and educate those interested in market gardening to possess the necessary skills (including technical, economic and regulatory knowledge) which are required by the current and future European Market Gardening trends, the Erasmus+ AGRETAIN project is developing an innovative training approach that brings together the worlds of a) higher education and research, b) vocational education and training (VET) and c) farming businesses. It includes developing an education/training curriculum, training material, and innovative training methodologies in order to bridge the skills gaps related to Market Gardening practitioners. It will deliver an innovative multi-disciplinary

approach for teaching sustainable production through Market Gardening, capacity building, business models, digital technologies and new strategies in farming.

3.4 Getting into the Doughnut: A framework for assessing systemic resilience in the global food system

Estelle Paulus, Michael Obersteiner, Nicola Ranger

The global food system's recent disruptions reveal its vulnerability to cascading failures, highlighting the urgent need to strengthen its systemic resilience – a vital precondition for global food security. Though modelling is key to comprehending its complex behaviour and inform policy and decisions, the conceptualisation, assessment and modelling of systemic resilience are still in their infancy, raising questions about the suitability of existing models for evaluating resilience-building solutions. Utilising insights from complexity theory and systems thinking, this paper proposes a holistic framework of seven criteria to evaluate modelling approaches and policies for systemic resilience. An assessment of five existing modelling approaches and associated examples of existing models reveals important gaps in current methodologies, especially regarding the transmission and amplification of impacts. Hence, we call for enhancing the analytical preparedness capability through the development of new models and clear communication of current shortfalls to stakeholders for improved governance.

3.5 Sustainable plant protein crops in the European Economic Area

Talia Huffe

The challenge of providing sustenance for a growing global population while simultaneously addressing significant climatic changes represents a critical global issue. Central to this challenge is the provision of protein, a primary nutrient requirement, with approximately 60% currently derived from plant sources. However, the European Union remains reliant on imported protein, highlighting the pressing need for sustainable, localised solutions. We employed a species distribution modelling (SDM) approach to identify regions within Europe that are suitable for the cultivation of high-protein, human-grade crops, integrating eight economically significant crop species with 1 km geospatial datasets covering climate, elevation, slope, aspect, and soil type. This enabled us to project both current and future crop distributions for the periods 2041–2060 and 2061–2080, across three Shared Socioeconomic Pathways (SSPs 2-4.5, 3-7.0, and 5-8.5). The models demonstrated high accuracy and identified substantial areas of current suitability for cultivation. All species exhibited varying sensitivities to future climatic conditions, with notable diversification across scenarios and timescales. Blue and white lupin,

faba beans, and peas are projected to experience significant increases in suitability under future conditions, while the remaining species are forecasted to experience slight decreases. Despite these fluctuations, our findings suggest that European regions will remain broadly conducive to the cultivation of high-protein crops throughout the coming decades. Furthermore, we assessed the agricultural extent of suitability on a country-by-country basis within the European Economic Area, offering useful insights to support national decision-making.

Beyond environmental and agronomic considerations, the shift towards plant-based protein sources carries substantial public health benefits. High consumption of plant polyphenols has been linked to a 37.2% reduction in low-density lipoprotein (LDL) levels, close to pharmacological intervention levels. Plant-based diets (PBDs) have been shown to lower diabetes risk by up to 71%, reduce obesity prevalence, decrease all-cause mortality, and significantly diminish the incidence of digestive system cancers (Zhao et al., 2022). Further research indicates potential reductions in overall cancer rates and improvements in survival outcomes (DeClercq et al., 2022; Hardt et al., 2022). However, producing sufficient high-quality protein remains a significant challenge. The adult daily protein requirement ranges from 0.66 to 0.83 g/kg, and in the current protein-deficient context of the EU, it is estimated that approximately 825,000 hectares of land will be needed to achieve self-sufficiency. This goal must be met by repurposing existing agricultural land, intensifying competition for limited resources.

To explore these dynamics at the national level, we applied our modelling framework to the Irish context. By integrating principles from multiple sustainability frameworks (FESML, SAFA, PGTool, etc.), we developed a supplement to extend the National Farm Survey. This tool was designed to assess the challenges, barriers, and opportunities involved in transitioning towards a high-protein cropping system in Ireland, across the sustainability pillars, Economic, Environmental, and Social.

These findings are intended to support the European Economic Area in achieving protein production targets aligned with broader policy objectives, the EU Protein Strategy 2023/2015(INI) and the Common Agricultural Policy for 2023–2027 increasing the production of native, sustainable protein crops by 2050.

4. Historical Geographies of Adaptation

GEO/0G/033

Chair: Ruth McManus

4.1 The potential for historical geographies of Irish drought to inform climate adaptation and mitigation

Arlene Crampsie, Eva Jobbová, Conor Murphy, Francis Ludlow, Robert McLeman, Csaba Horvath

The IRC Coalesce funded Irish Droughts project brought together an interdisciplinary team of researchers to examine the severity, geographical extent and impacts of Irish droughts from the Middle Ages to the present using a range of sources from climate records to tree ring data and archival sources. It produced the first systematic review of the evolving human impacts of and responses to drought periods in Ireland including how individuals and communities attempted to mitigate the worst impacts of water shortages at a local level. This paper draws together qualitative and quantitative findings from our systematic review of two key digital archival sources – the Irish Newspaper Archives and the Irish National Folklore Collection – to examine the identified historical geographies of drought adaptation practices across Ireland from 1735 to 2019. In doing so it will critically examine the potential for these practices to support future drought impact adaptation and mitigation in Ireland. The paper will also consider the potential for rich, qualitative, historical geography sources to be collated to create big data sources and how this can be harnessed both to engage policy level stakeholders in discussions around just adaptation strategies and mobilise community support for drought mitigation measures.

4.2 Country women and Urban Pubs: The West Cork network in Cork city's licenced trade,1935-70

Tom Spalding

Due to the unusual nature of the way that the licensed alcohol trade was organised in Cork city and county, until the early 1970s the majority of these businesses were operated by women, whilst in the rest of Ireland, men dominated the trade The pubs women ran varied from country grocery-pubs to busy city centre venues serving the people who worked in one of Cork's many factories or the business elite.

Another unusual feature was that many of these publicans were relatively new to the business (rather than being raised 'over the shop'). In addition, many came from rural areas - West Cork in particular provided many of this generation of landladies.

This paper will explore why this situation came about, how these women became publicans and will attempt to trace the family and provincial relationships which created self-supporting 'exile' communities of rural women in Cork city.

Comparisons will be drawn with the concept of 'chain immigration', supported by remittances, to the United States and other places and of family entrepreneurship in South Asian migrant communities.

4.3 | Mapping urban rivers: perspectives from the Irish Historic Towns Atlas

Sarah Gearty

Rivers are a dominant and enduring feature of our towns and cities, natural elements that have consistently served and responded to urban foundation and development. Major rivers were strategically important for the earliest Viking and Anglo-Norman town-builders and have continued to act as focal points for urban life to the present day. Firmly embedded within the topographies of towns, rivers both define and are defined by their surrounding network of streets and buildings. This paper looks at evidence from the Irish Historic Towns Atlas (IHTA) to look at how, over time, rivers have been adapted for urban settlement and vice versa. In particular, it will use historical maps compiled for the IHTA to take a comparative approach and see how rivers have altered and interacted with their urban surroundings.

4.4 Adapting to Solo Living in the City: A Twentieth-Century Perspective on Dutch and Irish cities

Ruth McMAnus and Tim Verlaan

The unprecedented rise in single person households globally has had both spatial and social consequences, with radical changes in how people live together in cities, their understanding of social relations and themselves, and, by extension, the ways in which buildings and urban spaces are organized and used. Our project adopts a long-term perspective, aiming to provide a historically nuanced and inclusive approach to the opportunities and constraints of living alone.

In this paper we will briefly examine cases from two different European cities – Amsterdam and Dublin – over the twentieth century, to explore how the existence of singletons shaped living arrangements and housing. Ireland was a demographic outlier which already had a significant proportion of nevermarrieds by the early twentieth century, yet the policy focus of successive governments was on the provision of housing stock for families. Housing choices for singletons were constrained, resulting in informal adaptations from lodging/boarding arrangements to the 'bedsit'. Contemporary options are even more limited, so that solo-living is concentrated in older age cohorts (widowed people being urged to 'down-size') while growing numbers of adults are living with their parents. By contrast, Amsterdam has seen the development of specific housing units and policies for singletons from the 1970s and 1980s

onwards, potentially enhancing the emancipation of marginal groups in urban society and reshaping the built fabric of the city.

Parallel Session II 15.30 – 17.00

5. City and Regional Governance

GEO/0G/006

Chair: Ben McAteer

5.1 Critical Reflections on Community Planning in Ireland

Shane O'Sullivan

Community plans, also referred to as social audits or community profiles are used by communities and policymakers to inform decision making about the allocation of resources. According to Hawtin et al., (1999) community plans provide a "comprehensive description of the needs of a population that is defined, or delivers itself, as a community, and the resources that exist within that community, carried out with the active involvement of the community itself, for the purpose of developing an action plan or other means of improving the quality of life in the community". This evidence-based approach is important in enabling local citizens and civil society organisations to: take stock of local assets; identify local needs and challenges; tap into latent and under-utilised resources; engage local citizens in feeling part of their community; engender new ideas and creativity; and encourage participation in local decision-making. In recent years, community plans have been developed by local authorities and local development companies in Ireland as a means of leveraging funding for critical infrastructure projects. Furthermore, community planning methodologies have been incorporated into the Town Centre First Planning framework. This paper will critically discuss the strengths and weaknesses associated with community planning; and offer personal insights on how this collaborative tool can be utilised for the development of short to medium-term strategies.

5.2 Policy, Planning and Governance in Chengdu's Industrial Heritage Regeneration

Mengyu Wu

The transformation of industrial heritage reflects a broader shift in China's urban development, moving from large-scale construction to regeneration. This shift is driven by economic restructuring, urban sprawl control, and the evolving perception of industrial heritage, from a historical burden to a cultural asset and development catalyst. This research examines the dynamic from an

entrepreneurial view to explore how built heritage policy has been shaped as an instrument of local economic growth, and focuses on Chengdu within the planning, governance, and urban regeneration frameworks, emphasizing the facilitative role of the local state in leveraging industrial heritage for urban development.

China's urban development trajectory has shifted from incremental to inventory growth, prioritizing efficient land use and accessibility. Chengdu has responded by combining industrial heritage with redevelopment and conservation, transforming industrial sites into cultural symbols and economic assets. Industrial regeneration operates within a multi-level governance structure integrating national, regional, and local strategies. Local states, act as both facilitators and active participants, and play a crucial role in implementing policies through coordinated regulatory frameworks, urban planning initiatives, and stakeholder negotiations. This study explores the interactions and collaborations within these institutional arrangements, examining how policies are formulated, communicated, and employed from the national to local levels as part of a wider pro-growth agenda.

The research adopts critical discourse analysis, focusing on policies, planning documents, and regulations related to regeneration and heritage conservation. By analysing the narrative, this study reveals the instrumentalization of industrial heritage governance and the broader implications for urban development in China.

5.3 CONUNDRUM: Democratising governance through co-creation approaches

Dean Phelan, Rachel McArdle

The CONUNDRUM project aims to identify a pathway for low carbon community mobility in small and medium sized towns that can be sustained and is sustainable. It adopts an inclusive co-creation approach to develop a community mobility strategy grounded in identified local needs and better utilisation of existing assets. Such an approach aims to offer pathways for empowering communities through democratising governance. Building on the knowledge generated from integrating diverse stakeholder perspectives through co-creation methodologies, we aim to demonstrate the importance of creating place-based approaches to national and international climate challenges by focusing on the intersection between bottom-up and top-down approaches. In our presentation, we outline our process for development of community mobility strategy and reflect on how we are scaling the approach in additional towns to provide local authorities with clear and actionable direction and tools that simultaneously respond to government commitments, policy frameworks and local community needs.

"How can you quality assure a citizen?" Expert rationalities, selfgovernance, and power in marine community science in the UK and Ireland

Ben McAteer, Wesley Flannery

Community science can transform how marine governance operates by introducing new knowledge, mobilising resources, and fostering sociotechnical innovation. Transformation has, however, been conceptualised in a limited way within the community science literature. Power issues within governance transformations have tended to be oversimplified, particularly concerning subtler forms of power that lie beyond the mere gatekeeping of participatory processes. Using a realist governmentality framework, this study critically assesses the power dynamics of government-funded marine community science initiatives in the United Kingdom and Ireland. Findings illustrate that a professionalisation governmentality creates conditions within which community science practitioners self-govern to reinforce existing marine management logics. In this governmentality, community science is narrowly framed as a means of generating additional data for current processes, foreclosing the possibility for transformative action. In this instance, community science's utility is legitimised by the connection it provides between government and non-governmental organisations, rather than its capacity to produce new knowledge and actions. Whilst this connection facilitates a pathway for community science to inform policy, it also enables the government to police projects. Epistemologically unsuitable data standards and short-term funding time-frames, act as professionalising technologies that encourage community science actors to moderate their conduct to maintain their relationship with the government. To challenge this governmentality, community science must create the conditions necessary to instigate radical change in marine governance. This could be achieved by politicising community science and learning from the concept of community organising.

5.5 How to deal with urban age-friendliness measurement – experience from four European cities

Jan Kazak

In 2007, the World Health Organization (WHO) published "Global Age-friendly Cities: A Guide" with the aim of encouraging public authorities to adapt urban environments to address the challenges posed by an ageing population. As a result, some cities began implementing initiatives in this area. However, a fundamental aspect of effective management is the evaluation of the impact of undertaken interventions. The WHO Guide, while providing a framework for age-friendly urban development, did not propose a specific methodology for measuring the extent to which urban spaces are age-friendly. This study presents the results of a project that explores diverse methodological approaches—both quantitative and qualitative—utilizing traditional as well as

digital measurement tools. The research includes validated surveys available in 12 languages, Geographic Information System tools applied in five cities, and policy recommendations for fostering age-friendly environments at the local level, developed in collaboration with stakeholders. A co-creation approach was adopted to ensure that the developed tools are tailored to the needs of their end users or beneficiaries. The outcomes of this research constitute a practical toolkit designed to support the effective creation of inclusive urban spaces.

6. Space- Planning Nexus

GEO/0G/029

Chair: Phil Boland

6.1 Regional development and key towns in Ireland: Examining the policy-implementation nexus

Zikang Ji, Niamh Moore-Cherry

This paper investigates the alignment between spatial policy aspirations and actual development trajectories of designated "Key Towns" in Ireland's Northern and Western Region. Using census data from 2006 to 2022, the analysis assesses whether demographic, infrastructural, and economic trends in these towns reflect policy goals outlined in the National Spatial Strategy and the National Planning Framework. Employing a place-based theoretical perspective, the research critically examines how intended policy objectives have translated into observed changes. Findings indicate uneven patterns of development among towns, highlighting mismatches between strategic policy intentions and actual local trajectories. The paper underscores challenges in translating high-level policy into local outcomes, emphasizing the need for more integrated and context-sensitive policy frameworks. It concludes by identifying policy areas requiring closer attention to enhance the effectiveness of small-town regional development strategies.

6.2 Rejecting adaptation to motorway strangulation: tracking outcomes of the highway tear-down movement

Leanna First-Arai

Whether resisting disproportionate exposure to air pollution from power plants, noise pollution from data centers, or mold from unkempt housing stock, environmental justice organizing is fundamentally about the collective rejection of a system that asks certain people to adapt to subpar living conditions. The motorway teardown movement constitutes a prime example. Since they were

built in the mid-20th century, highways across the world have wreaked havoc on the communities that they bisect, from displacing residents to forcing those left behind to adapt to upended neighbourhood ecosystems. As these concrete arteries have aged and required updates for safety, community coalitions in dozens of cities have successfully organised around and pushed for the removal of these structures and the replacement with uses like public space, housing and boulevards – in doing so rejecting forced adaptation to living amongst diesel exhaust and concrete plinths. But it appears that the outcome of the removal process may be mixed, with significant positive environmental effects from reduced vehicle emissions and more walkable neighbourhoods, and some suspected negative community impacts, such as the displacement of some Black and Hispanic residents. This paper comprehensively assesses all removals to date in the U.S., by developing and applying an adapted 'just sustainability' index (Agyeman 2005) to each case. This effort aims to contribute to a broader discussion on urban redevelopment outcomes in the neoliberal city: how can environmental and social interventions better avoid unintended consequences? Can communities "reject" adaptation and build stronger neighborhoods in the confines of the neoliberal city?

6.3 Townscape divided? The aesthetics and meanings of modern high-rise buildings in Ireland

Shuyun Zhang, Cristian Silva

The emergence of high-rise buildings has raised planning and policy concerns on the extent to which such typologies represent, preserve, and enhance the social and cultural townscape values of the places they are erected, or if they rather ignore them to prioritise imaginaries of international salience. Such concerns have sharpened in places with a longstanding tradition of local lowrise architecture – such as Ireland – where the arrival of high-rise buildings becomes contentious and disruptive of local values around preservation of identity and historic heritage, and the intensification of urban functionality. By taking a grounded-theory and visual sociology approach for inductive reasoning and the analysis of visual records, policy and media documents, data from semi-structured interviews and non-participant observations, three case studies of high-rise buildings in three Irish cities are analysed: (i) the Capital Dock in Dublin, (ii) The Elysian in Cork, and (iii) the Clayton Hotel in Limerick. The analysis look at the implementation of these buildings by interrogating the planning and design principles that defined their architectural character and aesthetics linked to modernisation agendas. In the three cases the findings suggest that although the buildings have been increasingly accepted, they are creating a townscape of individual units that remain detached from the historic, social, aesthetic and functional context to rather maximise land use, profitability, and their aesthetic role within city-branding agendas.

6.4 Religion planning nexus: Neoliberalism, necropolitics, and deathscapes

Amy Oke

This paper explores the intersection of religion, spatial planning, and funerary rites in Northern Ireland within the frameworks of neoliberalism and necropolitics. Drawing from a vast interdisciplinary literature, this paper examines how religion is planned for in the built environment through cemeteries, crematoriums, funeral homes, and scattering grounds (or 'deathscapes'), questioning how the state and private enterprises adapt to an increasingly multicultural population. With a lack of literature on both planning for religion and the experiences of ethnic and religious minorities in Northern Ireland, this paper makes a valuable contribution to knowledge. Through the lens of necropolitics, the paper investigates how urban planning policies potentially contribute to the marginalisation of vulnerable populations, particularly in spaces where religious and state authorities converge. Using qualitative methods to gather data and a thematic approach to conduct analysis, early results suggest a lack of focus and understanding of the spatial needs of minority religious groups (specifically Orthodox Christians, Muslims, and Hindus) in Northern Ireland. Ultimately, this restricts the ability of these groups to perform appropriate death rites and rituals. Consequently, this has led to minority groups reporting increasing feelings of ostracization. These observations are synthesised with debates in neoliberalism to examine how neoliberal expressions of power further marginalise minority religious and ethnic groups. Overall, this research highlights the need for a more nuanced understanding of how religious and political forces intersect to shape urban environments, offering insights into the broader implications of governance, mortality, and spatial justice in contemporary cities.

7. Sustainability and Development

GEO/0G/033

Chair: Satish Kumar

7.1 Sustainability or a 'Ghastly Future'

John Morrissey

Policy debates on sustainable development (eg. 'Green Growth') are largely predicated on overly-optimistic assumptions of ecological modernization and on the capacity of institutions to contain the extent of socio-economic disruption from growing climate-related impacts. Further, the low-carbon transitions discourse affords limited acknowledgement of deteriorating ecological conditions or accumulating risk context globally, not least when

considering climate threats. The sectoral and socio-spatial differentiation of patterns of vulnerability and disadvantage also remain poorly considered in transitions debates. The rapidly evolving climate crisis will by its nature necessitate radical overhaul and change in institutional and governance structures. Institutional stability and resilience need to be not only preserved, but also actively enhanced in this context. However, it is far from certain whether climate catalyzed change dynamics will result in 'bounce back' or 'bounce forward' recoveries, i.e. a return to the status quo ante or a rebuilding effort focused on social enhancement. The core argument forwarded in this paper is that justice concepts, as guiding principles of policy development, can allow diverse perspectives in decision-making processes, enabling wider reasoning on what is considered legitimate as well as provide a means to inform ethical actions, particularly so in the context of difficult trade-offs and sectoral and spatial differences and sensitivities posed by accumulating 'poly-crisis' of the 21st century.

7.2 Circular Economy in the Global South: An investigation of non-Western perspectives and their application in delivering sustainability

Augustus Kweku Sobeng

For almost a decade, the UN Sustainable Development Goals (SDGs) have been central to international, governmental, and organisational agendas. However, numerous challenges have hindered progress, with some studies predicting that key targets may not be met by 2030. One promising approach highlighted in the literature is transforming how we produce and consume resources - an idea encapsulated by the Circular Economy (CE) concept. Instead of making things, using them, and then throwing them away, CE advocates for ways to use things over and over to avoid wastage. While CE has gained prominence in the literature, CE discussions predominantly reflect Western viewpoints, overlooking the contributions of non-Western perspectives. To reach the SDG 12 target of responsible consumption and production by 2030, it is important that CE principles are grounded in local socio-cultural contexts. This research embarks on a comprehensive investigation to uncover the non-Western perspectives of CE in the Global South and how they can be applied to achieve global sustainability. A cross-sectional case study research design and a mixedmethod approach will be deployed to collect and analyse data from key experts and stakeholders through interviews, Delphi panels, and questionnaire surveys. This research will address an under-researched area. The outcomes of the study will foster a more inclusive understanding of CE while offering practical insights to drive sustainability in the Global South. Ultimately, the study seeks to bridge theoretical perspectives with local and indigenous knowledge from the Global South, and thus enhance the potential for real delivery of sustainable CE globally.

7.3 | Climate Adaptation Discourses of Delay: Findings from Ireland

Alice Brawley-Chesworth, Darren Clarke; Danny Marks

Many nations have acknowledged the urgency of the climate emergency and have laws and policies in place to reduce their emissions and adapt to the anticipated changes. However, most countries have fallen short of their ambitions, creating a significant "implementation gap' between what is promised versus delivered for mitigation and adaptation. Scholars have been examining this implementation gap to understand its causes and overcome it. One framework that has been found useful in explaining the implementation gap for climate mitigation is Lamb et al's 2020 'Discourses of Delay' (DoD) framework. DoD organises these discourses into four categories: redirecting responsibility, pushing non-transformative solutions, emphasising the downsides, and surrender. However, the implementation gap is underexplored for climate adaptation, despite a similar gap existing between ambition and implementation. This research examines the applicability of the DoD framework for climate adaptation in a developed country, using a case study of the flood, agriculture, and water sectors in Ireland. The research involved an academic literature review, document analysis, interviews with fifty people in the three sectors in Ireland, and a stakeholder workshop. Overall, we find the framework useful for adaptation, with some modifications. Two categories can apply to adaptation without any modifications: pushing non-transformative solutions and emphasising the downsides. The other two categories, surrender and redirecting responsibility, require adjustments to apply to adaptation. This presentation will explore the usefulness of applying the DoD framework to climate adaptation, and what we can learn about attempts to simultaneously achieve both mitigation and adaptation for climate change.

Day 2: Thursday 8 th May		
Parallel Session	09.30 – 11.00	
III		
8. Creative Methodologies		
GEO/0G/006		

Chair: Diarmid Finnegan

8.1 Telling Data Otherwise: Creating Housing Data Stories through Researcher-Artist Collaboration in Dublin, Ireland

Samuel Mutter, Danielle Hynes

This paper responds to the tendency to pit story and data against one-another by wrestling with the storytelling (in)capacities of, *through* or *from* housing, planning and property data in Dublin, Ireland.

The paper reflects on a collaborative process between researchers and an artist-in-residence as part of the Data Stories project. Following researchers' use of traditional social science methods (a data audit, coded interviews, and critical document analysis of the 'data narratives' of state, media, business and civil society stakeholders), the paper traces the work of artists and researchers to find ways of translating, countering or responding to these 'big' data stories through creative practices and interventions.

Whilst being responses to (and sometimes using) the data, these practices – including grid story-writing using Excel, zine-making, and collaborative photography – seek to tell stories otherwise absent from mainstream deployments of data and statistics, engaging different audiences in the process.

These reflections help us to unpack methods which subvert the often invisibilising, decontextualising and extractive tendencies of data (especially in the context of housing and planning) by materialising, emplacing and distributing. At the same time, they are challenged by the 'stickiness' of entrenched narratives, the privileged position of the interpreter of both data and stories, and uncertainty as to whether interventions will reach or impact the housing issues on the ground.

8.2 Queer Ecologies and the Sanctuary of Performance

Gerry Kearns, Fearghus Ó Conchúir, Isabella Oberländer, Karen Till

Addressing the planetary crisis requires profound social and economic shifts. Queer ecologies may contribute to no-growth ideologies. Performance based on these ideas may also offer a refuge from a culture and economy accepting of ecocide as a by-product of endless expansion sustained by heteropatriarchal and capitalist drives. This paper reports on dance workshops and performances that explore queer ways of being in a more than human world. In what ways and with what limitations can performance and audience collaborate in making a safe place for anticipating a future where no-growth values and queer solidarities could support each other? Placemaking as a form of research is a fragile and risky endeavour; and learning from performance culture is challenging.

8.3 Adapting Through the Lens: Exploring Social Bonds in Participatory Photography Projects

Jayita Kundu

This research explores how participatory photography projects serve as adaptive tools for community empowerment and social connectivity. In a rapidly evolving world where visual storytelling plays a crucial role in communication and self-expression, photography emerges as a flexible medium that communities can use to navigate change and reinforce their collective identity. This study seeks to understand how such initiatives shape and transform community dynamics over time.

Utilizing a qualitative approach, this research draws on digital ethnography, visual analysis, and case studies to examine the evolving impact of participatory photography. By analyzing photographs, social media interactions, and project narratives, the study highlights the collaborative and adaptive nature of these initiatives. It investigates how participatory photography fosters resilience, strengthens agency, and supports communities in responding to social, cultural, and economic transformations.

Key areas of focus include how these projects act as catalysts for community development, providing participants with tools to reinterpret and reshape their surroundings. The research also examines how shared photographic narratives contribute to social cohesion, allowing communities to construct evolving identities in the face of change. Additionally, it considers the broader cultural significance of photography as a medium that adapts to different social realities, enabling new forms of engagement and representation.

Ultimately, this study aims to contribute to discussions on the transformative and adaptive power of participatory photography, demonstrating its capacity to extend beyond artistic expression and become a meaningful mechanism for communities to navigate shifting landscapes and strengthen social bonds.

8.4 The Governance of Urban Public Space in Dublin: Street Performance as a Lens for Understanding

Ruodi Yang, Niamh Moore Cherry

As urbanization accelerates, cities face mounting challenges in public space governance, with the nature, quality, and availability of public space under increasing pressure. These challenges are particularly acute in neoliberal contexts, where privatization and commodification reshape access and control, rendering public space more contested. Public participation is essential to fostering inclusive and dynamic urban spaces, yet opportunities for citizen involvement in the creation, protection, and management of public space are often constrained by regulatory barriers and conflicting interests. This study explores these tensions through the lens of street performance—an activity that takes place in public space yet is increasingly shaped by urban governance, revealing the dynamic interplay between creative expression, regulatory frameworks, and the everyday use of urban environments.

This paper reviews literature on the governance of urban public space, with a particular emphasis on public participation and street performance. Focusing on Dublin, an international city that is increasingly diverse but also unequal, how public space is conceptualised within planning and delivered is an interesting conceptual and applied problem to study. The paper sets out a research agenda for this topic which will inform the development of a PhD study.

9. Urban Environmental Change

GEO/0G/029

Chair: Niall Majury

9.1 Critical reflections on the potential of Citizen Science in urban water quality investigations

Mohammad Reza Tavangar, Jeremy Auerbach; Suzanne Linnane; Reza Tavangar

In social housing and other residential settings, the extent of lead piping across the Irish Republic is largely unknown. This is despite random sampling undertaken in the past to determine lead pipe estimates. Hence further examination into the presence of lead in domestic water supply is essential to ascertain its extent in buildings constructed during or pre the 1970s. This paper emerges from a research project which investigates water quality with a major focus on the presence of lead and how this can be addressed in social housing settings in Ireland. The project took a multifaceted approach via case studies in the Dolphin House and Oliver Bond social housing neighbourhoods, with the employment of Citizen Science Initiatives to inform on water quality issues. The paper investigates the methodologies utilised to ensure participation and encourage citizen science in testing domestic water supplies and the way forward. The methods included 2 workshops and 35 household surveys over the two social housing neighbourhoods to inform on the knowledge gaps. The methods also incorporated the roll out of a water testing programme where 51 households sampled their own water for testing. The paper is presented as a case study on the role of Citizen Science initiatives in examining domestic water quality issues in social housing and will critically reflect on the potential of a multifaceted citizen science approach with its especial value of unintrusive access in private settings.

9.2 Which one is more adaptive? Comparison of point cloud analysis of Truckee, California based on ERDAS and Matlab

Chao Gong

The research area was Truckee, California, the United States. ERDAS and Matlab play significant roles in point cloud classification which plays a key role in environment protection. Particularly, they demonstrate distinct characteristics and application methods in data manipulation, analysis, visualization, and the construction of classification models. In addition, R is an useful statistical analysis and data visualization platform in the realm of data science and statistical interpretation. Among more than 50 collected and organized papers, most researchers used ERDAS and Matlab directly as analysis software, and there was little discussion on which terrain point clouds they are suitable for analyzing. This paper compared point cloud analysis of mountainous vegetation areas based on ERDAS and Matlab. In terms of point cloud data analysis and comparison, R provides many strong statistical and visualization tools, notably convenient for in-depth data analysis and flexible model building. ArcGIS Pro has effective spatial analysis tools and comprehensive geographic information abilities in point cloud data analysis and comparison, making it markedly compatible for spatial data management and analysis. This paper compared the point cloud classification results, Digital Surface Model (DSM), and Digital Elevation Model (DEM) generation of ERDAS and Matlab using R and ArcGIS Pro platforms.

9.3 Cities and Climate Change

Gerald Mills, Zeting Li

Recently, the Intergovernmental Panel on Climate Change (IPCC) commissioned a special report on cities and climate change to focus on the scientific evidence on cities as it relates to mitigation and adaptation. The timing of this report is opportune for a number of reasons. First, cities are major sources of greenhouse gases and places where risks are concentrated. Second, progress in global climate science has allowed urban landscapes to be included directly in simulations. These advances have been matched by developments in the urban climate sciences (UCS) that can simulate the impacts of urban landscapes on outdoor and indoor settings. And, third, the improvements in the acquistion of precise information on the Earth's surface allows these global and urban sciences to function using common data sources. In this paper, I will intoduce the integration of UCS into global climate change research and discuss the use of big-data acquired from a range of sources to examine some climate risks.

9.4 Preferential localization of water erosion features in the urban area of Goiânia, Midwest, Brazil, between 1992 and 2016

Lizandra Ribeiro Cavalcante, Selma Simoes de Castro

Water erosion emerges as one of the socioenvironmental challenges exacerbated in Brazil, especially in its tropical climate, during the process of agricultural frontier expansion towards the Cerrado in the Central-West region of the country. Since the 1970s, the substantial transformation of landscapes has led to the intense conversion of their original phytophysiognomies into pastures and croplands associated with the well-known Green Revolution. This process not only spurred unregulated urban growth due to the attraction of modern agribusiness but also resulted in adverse socioenvironmental impacts, particularly noticeable in Goiânia, the capital of the state of Goiás. Since then, the so-called "capital of the Cerrado" has suffered from accelerated urban expansion, especially in the following decade—the 1980s—which unfolded without adequate planning, particularly concerning urban drainage infrastructure, leading to negative socioenvironmental impacts. Among these, linear hydric erosion, manifested through gullies and ravines of considerable size, both medium and large-scale, stands out. In 1982, under the supervision of the City Hall, 106 erosive features were identified, distributed across both consolidated urban areas and expanding urban zones, mainly in unplanned suburban neighbourhoods with a high population density exceeding 20% of occupancy.

In the 1990s, research indicated a moderate increase in the erosion phenomenon, recording 112 features. However, from the new millennium onwards, a drastic reduction was observed, with only 75 features identified in 2006 and fewer than 30 in 2016, primarily concentrated in valley bottoms and, secondarily, in drainage headwaters, forming high-density clusters. The main objective of this study is to conduct a detailed spatial analysis of erosive hotspots and urban expansion, aiming to identify preferential occurrence areas and understand their spatiotemporal evolution, considering physical environment conditions and urban land use as possible triggering factors. To this end, the area now known as Goiânia's Built Macrozone and the time period from 1992 to 2016 were selected for analysis, as they correspond to the actual urban site and a period marked by a significant reduction in erosion hotspots, respectively.

The methodology was based on a meticulous review of bibliographic and documentary sources, combined with the application of high-resolution satellite imagery and Geographic Information Systems (GIS), allowing for the spatialization of the phenomenon over time. The results indicated that the distribution of erosive hotspots and their spatiotemporal evolution correlate with the physical characteristics of the environment, with approximately 50% of the hotspots located in valley bottoms, as well as in urban expansion sectors. The main causes of the phenomenon are deforestation in these areas, followed by unregulated occupation in the form of spontaneous housing units, lacking proper street planning, infiltration areas for rainwater within housing developments, and micro and macro urban drainage systems. The decline in erosive hotspots from the 2000s onwards is attributed to public

policies aimed at controlling the phenomenon.

9.5 Advancing Urban Resilience Through Interoperability: Multi-City Implementation of Nature-Based Solutions

Bakul Budhiraja, Jennifer McKinley

The risk and frequency of heat waves and extreme precipitation are rising worldwide due to anthropogenic climate change. Its effect is exacerbated in cities affected by urban heat island (UHI) and high pollutant concentrations. Nature-based solutions have been used as a mitigation and adaptive strategy targeting environmental and social urban issues. The UPSURGE project aims to deploy Nature-based solutions for regenerative development and pollution alleviation in five demonstration cities. The five cities are based in different climate zones, vary in population, consist of single to multiple demonstration sites, and deploy various Nature-based solutions based on the key challenges. The implementation of Nature-based solutions in the project involves collaboration between multiple partners to co-create and implement NBS. The NBS deployment also relies on interoperability between different approaches – Earth observation for geospatial mapping of risks and vulnerability, codesigning for integration of local knowledge and stakeholders, and a sensor network to capture microclimatic changes for the effectiveness of NBS. The learnings from real-life demonstration cases feed into building an EU Regenerative lighthouse, modelling NBS solutions for seven partner cities and the development of the Regenerative Index for integration into Urban Spatial policy.

10. Borders and Geopolitics

GEO/0G/033

Chair: Tristan Sturm

10.1 Adapting to the bordering of Europe: governance of the EU asylum policy

Eray Canlar

Utilizing historical institutionalism and securitisation literature, the paper examines the governance of the EU asylum policy, which demonstrates a security-oriented and crisis-driven institutional path dependency leading to the process of regulatory agencification. Moreover, the paper highlights the mechanisms that reinforce the two-dimensional and two-paced character of the governance of the EU asylum policy. While the internal dimension of the EU asylum policy includes the Common European Asylum System (CEAS) and the European Union Agency for Asylum (EUAA), the external dimension centres around externalisation of the EU asylum and border control policies to third countries with the support of the European Border and Coast Guard Agency (EBCG), also known as FRONTEX. Throughout different 'crises', the external dimension of the EU asylum policy expanded rapidly both in a de

facto and de jure sense. In contrast, due to the lack of consensus between the EU member states within cumbersome negotiation processes, the governance of the internal dimension experienced a slow-paced and partial regulatory expansion. The reasons behind this difference of pace are the security-oriented institutional path dependency and the ongoing securitisation of immigration and asylum policies at different scales in Europe. Overall, through the utilisation of regulatory EU agencies, the EU asylum policy adapts to the external and internal bordering processes unfolding in Europe at different scales and paces.

10.2 Asiatic Continuities and Discontinuities in Ptolemaic models

Denise Macciò

This paper aims to examine the adaptation of Claudius Ptolemy's Geographia (or Cosmographia) in response to new geographical discoveries between the 15th and 16th centuries, with particular attention to the representation of the Asian continent. The purpose is to outline how this foundational work of Western geography was reinterpreted through a complex process of syncretism- especially in its early stages- combining Ptolemaic tradition and emerging knowledge from European explorations.

The study adopts an interdisciplinary approach on two levels: a philological analysis of content and structural variations in two key editions—the 1478 Latin edition printed in Rome, refining earlier translations, and Girolamo Ruscelli's 1531 vernacular edition, integrating new data—and an examination of the adaptations in the geographical description of Asia, highlighting cartographic, toponymic, and narrative innovations. Particular attention is given to India's borders, the position of Taprobana, and the depiction of the East, assessing continuities and breaks with the Ptolemaic model. Furthermore, Historical and philological aspects will not be overlooked, including printing contexts and textual transmission. This analysis sheds light on the transformation of Geographia and its role in shaping Renaissance geographical thought, contributing to a broader reflection on the circulation of knowledge and the evolution of cartography between the Middle Ages and the early modern period.

10.3 Geography, Possibilism, and Capabilities – Shaping a Geopolitical Approach to Enhanced Culture and Cooperation

Nuno Morgado

The purpose of this paper is to suggest a process for cooperation extracted from the recent theoretical developments in the geopolitical approach. I argue that knowing one another's culture (and aspirations) increases the chances of cooperation among international actors.

I propose to develop this argument by looking at the possibilities of active cultural foreign policy measures directed at openness to displaying one's culture, from which national aspirations (and therefore, downstream, "national interests") come from, with the greater objective of preventing conflict. I hypothesize that this cultural exchange process via foreign policy, i.e., the international socialization of ideas, may allow the rejection of certain values or aspirations – in other words, drying them out before they have the chance to become policy.

In this context, it matters to analyse: (1) states decision-making processes and (2) the distribution of power at the international level, as it is assumed that the state's behavior results from the interaction of these two variables. Regarding the (1) states' decision-making processes, it matters to conceptualize (1.1) the capabilities that states can dispose of, as well as (1.2) the perceptions and capacities of the decision-makers. Whilst for (2) the international distribution of power, it is necessary to (2.1) contextualize a state's potential and geography, (2.2) define potential and explain how potential can become a predictive tool of state behavior. Following this methodological path, I hypothesize that a better understanding of cultural foreign policy is possible, and this opens the space to set the agenda towards international cooperation through political and economic

10.4 Playing the game: nationality swapping and border-crossing

David Storey

Sport provides an arena in which the nation is regularly performed and reaffirmed, but the actors at the centre of this may be drawn from a diverse set of ethno-national and cultural backgrounds. A football player's identity space may be one that links them to more than one country, pointing to a need to explore the ways in which individual identities may be entwined with multiple places transcending the confines of the bounded nation-state. An exploration of this can provide valuable insights into the ways in which identity is performed, re-produced and adapted. The paper focuses on Irish examples (from both sides of the border) to highlight the issues that arise from this. The Republic of Ireland men's football team was one of the first to push the boundaries of player eligibility as far back as the 1980s when sizeable proportions of non – Irish born players, the sons and grandsons of Irish emigrants, were selected for the team. More recently players from immigrant family backgrounds have represented the country. Meanwhile, footballers from north of the border have been faced with competing options, some electing to play for the Republic's team. More recently still, controversies have surrounded footballers who have switched sporting allegiance back to their country of birth. In exploring these issues, the paper casts light on the complex connections between migration, sporting citizenship and national identity.

10.5 Conspiracist Knowledge Geographies and the Potentiality of an Impossible Political Alliance

Tristan Sturm

This paper interrogates the epistemic and spatial dimensions of conspiracy theories through the lens of knowledge geography, foregrounding the sociospatial infrastructures that condition the emergence, circulation, and legitimization of conspiracism. In response to Ridgeway's provocation concerning geographers' aversion to conspiracy discourses, I critique the normative deployment of 'conspiracy theory' as a pathologizing category that obscures the political and affective labour such narratives perform. The paper distinguishes conspiracist epistemologies from reflexive critique, while simultaneously acknowledging the complex affective investments that render conspiracy theories intelligible within marginalized or disenchanted communities. Further, it proposes the notion of an 'impossible' alliance, wherein leftist movements might strategically engage with conspiracist publics—not by validating epistemically closed worldviews, but by reorienting their latent anti-elite sentiments toward emancipatory political projects. By mapping the geographies of conspiracism and analysing the scalar, affective, and ideological registers through which these discourses operate, this paper articulates a call for geographers to reconceptualize conspiracism not as epistemic deviance, but as situated critique. In doing so, it opens space for a transgressive political imaginary that reclaims disaffection as a site of contestation and possibility.

11. Adapting to being a host society

GEO/0G/014

Chair: Jonathan Harris

11.1 Migrant Place Identity and Neighbourhood Attachment in a Post-Conflict Society: A Study of Portuguese Communities across Northern Ireland's Semi-Rural areas

Neal Halforty, Gemma Catney, Ian Shuttleworth

Migration to and from the UK and Ireland is changing considerably with key patterns emerging such as a variation among migrant groups and the spatial

concentration of migrant communities within particular semi-rural localities. Northern Ireland (NI), a region undergoing a post-conflict transition is also becoming a new immigration destination, with the region emerging as a focal point for migration flows from Portugal post-millennium. This paper examines the lived experiences of Portuguese populations post-migration, living in small towns and semi-rural areas across the Mid Ulster and Armagh, Banbridge and Craigavon local government districts. In doing so, the paper brings together important concepts from the migration scholarship, including place identity, neighbourhood attachment, integration and transnationalism. Concentrating on a single national identity – Portuguese, allowed for in-depth interviews to explore the role of place in constructing identity, as well as assessing attachment to neighbourhood in areas traditionally segregated by religion and with low levels of ethnic diversity. The paper will present key findings from fieldwork conducted primarily on migrant place identity and neighbourhood attachment within semi-rural locales, which will contribute to the central focus of this project: Portuguese communities residing in semi-rural areas across NI. Moreover, this research focuses on diverse rural migratory patterns occurring in NI, highlighting the spatiality and (im)mobilities of migration that have led to a degree of residential concentration for Portuguese populations. Drawing on literature from these concepts, the research addresses a gap whereby NI has received considerably less attention in the scholarship on migrant rural diversification.

11.2 Diaspora Diplomacy of/in Ireland

Jonathan Harris

Diasporas are increasingly targeted by states across the globe (Gamlen et al., 2019), which attempt to 'map' ever wider potential diaspora populations in the service of homeland development. Geographers and others are increasingly considering the political opportunities might open, or close, for diasporas as a result. The concept of 'diaspora diplomacy' highlights the contested politics of diaspora mobilisation (Brinkerhoff, 2019; Kennedy, 2022), including identifying forms of diplomacy by diasporas and thereby decentring the role of state in diplomacy (Ho and McConnell, 2019).

Ireland is in several ways an ideal test case to explore this concept. It has long benefitted from its sizeable diaspora in economically and politically powerful states, and is seen by many as an international leader in diaspora diplomacy, with the recent mobilisation of Irish diaspora networks to protect the Good Friday Agreement in the wake of Brexit being a case in point. However, in recent years Ireland has become an immigration state, with arrivals outnumbering departures and the size of diaspora communities growing across the island. Conflicts are now arising over social integration and access to welfare, with nativist-populist discourse entering the political debate in new and challenging ways.

This paper asks what might be learned by inverting the lens of Ireland's diaspora diplomacy abroad in the service of social integration at home, as new and growing diasporas become established mediators and interlocutors of Irish state and society as well as their own home states and societies.

11.3 Adapting to migration: reframing the debate

Mary Gilmartin

Contemporary approaches to the study of migration, evident also in public discourses, tend to emphasise the migrant as different, leading to a framing of the migrant as either an object of pity or, increasingly, an object to fear. In the Irish context, the framing of difference has highlighted and problematized different groups at different times: from migrant mothers in the case of the 2004 Citizenship Referendum, to young single men in the current era. The insistence on migrant difference has broader, often negative, consequences for how the place of migrants is understood. In this paper, we discuss an alternative approach to the study of migration and the place of migrants that focuses on connections rather than difference. Drawing from our new research project, MobiliseCare, we speculate on what might happen to our understanding of migration in Ireland, and more broadly, when we focus on commonalities rather than differences, expressed through acts and practices of care.

11.4 Grounds For Workers' Inquiry: Migrant Social Reproduction in Rural Ireland

Jack Edmunds-Bergin

This study applies the Marxist tradition of Workers' Inquiry (WI) as a social investigation method to explore the social reproduction of non-native English-speaking (NNES) migrants in rural southeastern Ireland. Empirically, the research focuses on work and housing conditions, as well as the collective and personal stakes of these issues for NNES migrants and their families. Utilising respondent-driven sampling methods, the research captures nuanced experiential knowledge, revealing complexities and systemic barriers encountered by NNES migrants within their daily lives.

The analysis reveals how vulnerable conditions of social reproduction articulate migrant workers into everyday dynamics of profit and capital accumulation. It is pursued by adopting a class compositional analysis (CCA), wherein we examine: changes in housing and workplace situations; the impact of these factors on migrants' ability to support their families; the technical aspects that shape work in this environment; social relations and

tensions from spatial arrangements; and possibilities to navigate organising to accomplish lasting changes for workers-tenants.

Following the tradition of WI, the research engages participants as coresearchers. This allows for a transcending of traditional academic methodologies by fostering collaborative knowledge production. The findings of the paper and its methodological innovations contribute to broader discussions in geography on labour dynamics, social reproduction, and class struggle. The study concludes by highlighting how co-research can uncover shared challenges encountered among diverse cross-sections of the working class in any place and time- demonstrating the potential of WI as a critical geographic method that can contribute to resistance and empowerment against capitalist-imposing obstacles.

Parallel Session IV

11.30 - 13.00

12. Green Extractivism and Eco-modernity in Ireland I: Ecological Expansionism

GEO/0G/006

Chair: Patrick Brodie & Ciarán Ó Briain

12.1 Garden, Jungle or something in-between? Confronting Eco-Imperialism through the Irish Semi-Periphery

Criostóir King, Dylan Murphy

In 2022, European Commission vice-president Josep Borrell described Europe as a "garden" that must protect itself through taming the outside "jungle". The relationship between core and periphery is ecological not only in such imaginaries, but also in its material manifestations. Imperialist capitalism is in and of itself a way of organising socio-ecological relations. Maintained by extreme forms of violence and domination, it involves a massive appropriation of labour and natural resources from the periphery by the core. Most policies and agreements addressing ecological crises in core states or international organisations (e.g. the European Green Deal or the UN's COP process) leave unquestioned these imperialist relations. Elite environmentalist projects bolstered by narratives of "Energy Security", "Sustainability", and "Green Transition" represent new forms of mediating this relationship. In Ireland, infrastructural projects such as data centres, LNG terminals and deep-sea cables are therefore mobilised in the context of Ireland's semi-peripherality and in service of the imperial core. By examining Ireland's semi-peripheral position within the eco-imperialist world-system, this paper makes a theoretical contribution to the political ecology literature on Ireland that centres the lens of imperialism in both examining the constitution of socioecological relations on this island and efforts to reshape them. This paper outlines how an anti-imperialist lens can be used to analyse Ireland's current

socio-ecological re-alignment and how a just transition for workers and citizens is impossible without confronting the broader trends of the eco-imperialist world-system, including Ireland's dependent economic model and accelerating European militarisation.

12.2 Metabolic Vampyre: Vampire Capitalism, Metabolic Rift, and Ireland's Thrall to Digital Eco-Imperialism

Ciarán Ó Briain

Ireland's rapid expansion of data centres, largely driven by foreign direct investment, exemplifies vampire capitalism—extracting vast amounts of energy, water, and land while externalizing significant ecological and social costs. This paper examines Ireland's role in the global AI and cloud economy through a decolonial theory, political ecology and ecological Marxist framework, arguing that the state's facilitation of digital infrastructure exacerbates metabolic rift, intensifying ecological dispossession both locally and globally. At the national level, data centre expansion contributes to energy crises and water depletion, deepening socio-ecological inequalities. Globally, Ireland's semi-peripheral status within the global digital economy perpetuates digital imperialism, reinforcing the green extractivism of AI/cloud-based supply chains and socio-ecological degradation.

The paper begins with a theoretical engagement with metabolic rift theory and vampire capitalism, using these concepts to explain how Ireland's digital infrastructure development deepens ecological rifts at both local and global levels. Metabolic rift theory is applied to understand the disconnection between Ireland's ecological systems and the demands of its digital economy, while vampire capitalism frames the extractive nature of multinational corporations that drain local resources for global profit. The paper then utilises critical discourse analysis, and counterinsurgency theory to examine how state policies and corporate strategies seek to justify and legitimize data centre expansion despite its environmental and social costs. It investigates how counterinsurgency practices are used to suppress opposition by framing data centre growth as an economic necessity while downplaying its ecological impact. Finally, the paper explores the potential for resistance through the connection of anti-authoritarian and anti-capitalist climate movements in Ireland with global post-extractivist struggles, aiming to build translocal resistance networks against the ecological injustices of digital capitalism.

This paper contributes to discussions on socio-ecological dispossession and digital imperialism, offering insights into how Ireland's role in the global digital economy perpetuates ecological inequalities locally and globally, before seeking pathways for translocal resistance against the extractive dynamics of digital imperialism towards alternative just ecological and post-capitalist futures.

12.3 The Geopolitics of Offshore Wind: energy frontiers, green militarization, and the 'real map of Ireland'

Rory Rowan

The Irish National Seabed Survey (INSS, now INFOMAR) has found that Ireland's marine territory is up to 880,000km2, ten times the country's landmass. In 2009 INSS released what they called 'the real map of Ireland' which including an enlarged exclusive economic zone extending far in to the Atlantic. The Irish state was quick to capitalise on this remapping of Ireland to promoting the country as an El Dorado for investment in offshore wind. However, this paper argues that another remapping of Ireland is underway that seeks to integrate Ireland's emergence as a frontier for offshore wind infrastructure within a radical geopolitical repositioning of the country. In the wake of Russia's invasion of Ukraine European states and the European Union (EU) have sought ways to secure alternative energy supplies in the absence of Russian gas. This has led to an intense securitisation of European commitments to decarbonization with 'green transition' initiatives now turbo charged as part of a changing energy geopolitics. It is in this context that the Irish state established an Offshore Wind Delivery Taskforce in April 2022 and in 2024 launched 'Powering Prosperity Ireland's Offshore Wind Industrial Strategy', as well as participating in European projects to expand Europe's offshore wind as part of a drive for energy security.

These developments locate Ireland at the heart of a broader tendency towards the securitisation of green energy across Europe and the militarization of Europe's 'green transition'. However, they also reflect Ireland's unique situation, where marine wind is being framed as an anchor and accelerant for a fundamental transformation of the country's geopolitical positioning. Behind the headlines about neutrality an attempt is underway to remap Ireland's place in world affairs as an emerging infrastructural frontier at the heart of Atlantic imperialism and European transition. Offshore wind lies at the heart of this twinned process

12.4 Peatlands and Polluters: Irish environmental expansionism in the 1980s and 1990s

Lily Toomey

Ireland's state structure of environmental monitoring and regulation took shape in the late 1980s and early 1990s as the government faced fallout from its postwar policies of economic expansion. This expansionist relationship to Land, involving the industrialisation of peatland extraction and the intensification of grassland agriculture systems left contentious and highly visible scars in the form of cutaway bog and mass fish kills. This paper

examines the history of contradictory environmentalisms that emerged from efforts to mitigate harm caused by peatland extraction and agriculture: the wise-use eco-efficiency paradigm of Bord na Moìna and An Foras Forbartha, and a grassroots environmentalism of the poor generated within communities in direct relationship with Land. The paper shows how these grassroots movements appropriated nascent EU environmental policy to subvert state power and how, despite these movements, today's environmental policies remain rooted in the same expansionism that brought about the peatland and pollution crises. The paper further explores how linkages between peatlands and agriculture, in shared drainage infrastructure and the use of cutaway bog for pasture, served as both economic opportunities for their paired exploitation and ecological vectors for environmental harm.

13. Marine Governance & the Blue Economy

GEO/0G/029

Chair: Wesley Flannery

13.1 Adaptation of Irish Energy System: Case Study of floating offshore wind in the Celtic Sea

Christina Kelly

Adaptation of our energy systems is necessary to transition away from our dependence on imported fossil fuels. The development of wind energy as an alternative clean energy source is already making significant contributions to the energy transition worldwide. In particular, offshore wind energy (OWE) is establishing itself as a maturing, competitive, globally diverse, and scalable industry. International legislation and policies are intrinsic to the development of OWE. In Europe, the Green Deal provides a plan to increase the EU's GHG emission reduction targets for 2030 to at least 50% and towards 55% compared with 1990 levels. Within this context, ambitious targets have been set for the delivery of OWE in Ireland. These include installed offshore wind capacities of 5 gigawatts (GW) by 2030, 20 GW by 2040, and 37 GW by 2050. Several governance innovations have been implemented in Ireland to facilitate OWE development, including the implementation of sub-national marine spatial planning. This paper assesses these OWE governance changes and identifies persistent adaptation barriers that need to be addressed to realise OWE targets. These barriers include policy and infrastructure fragmentation, institutional rigidity and scale mismatch. The paper identifies several opportunities to improve OWE governance and concludes with key policy recommendations.

13.2 Revisiting the Blue Economy: Aquaculture as a Lens for Pathways Forward

Noelle King

The Blue Economy has emerged as a framework for sustainable utilization of marine resources to promote coastal and marine economies, yet its pairing with "blue growth" raises concerns about environmental degradation, livelihood impacts, and the risk of being co-opted by industrial interests. This chapter uses aquaculture as a lens to examine the conflicts within the Blue Economy discourse and highlights pathways toward more environmentally and socially sustainable practices. Aquaculture is positioned as a fast-growing but controversial sector of the Blue Economy – exemplifying both the promise of food security and the risks of prioritizing extractive, growth-oriented models. This chapter introduces alternative frameworks such as the circular economy, doughnut economy, and blue degrowth. These alternatives challenge blue growth framings which prioritize perpetual growth and instead emphasize social and ecological boundaries and regenerative practices. Two case studies illustrate how these approaches can be operationalized in the aquaculture sector: one case study of GreenWave, a non-profit pioneering regenerative kelp aquaculture in the United States, and another case study of aquaculture innovations in Sardinia, where recirculating aquaculture systems, integrated multi-trophic aquaculture, and flow-through systems are utilized in farming shellfish and finfish. Together, these case studies underscore how embracing circular, doughnut, and regenerative principles can bring aquaculture toward a more balanced and ecologically sound model. Using aquaculture as a lens, this chapter examines how innovative practices can reshape the Blue Economy into a channel for economic, social, and environmental sustainability.

13.3 Assessing the enablers and barriers of adaptive marine governance

Ben McAteer, Wesley Flannery

The sustainable governance of marine resources has been a topic of continued concern. Prevailing management approaches have tended to be technocratic, leading to arguments for major paradigm shifts in the design and implementation of marine governance. Attention has moved towards an improvement of our comprehension of the factors required for sustainable marine governance, with adaptive governance identified as essential for governing social-ecological systems during periods of change and uncertainty. However, knowledge about the relationship between the characteristics of marine governance regimes, their performance and the nature of their dynamics, requires continued examination. This paper explores the adaptive capacity of eight regional European marine governance regimes, with several barriers and enablers to adaptive governance identified. Resource constraints, lack of political will and hierarchical policy frameworks are major barriers to

adaptation. Reactionary, incremental policy initiatives and enhanced consultation enable low-level adaptive governance that, although progressive, may not facilitate the achievement of governance transformation. Enablers of high-level adaptive governance include partnership working and comanagement approaches. Whilst adaptive governance cannot be mandated, it can be facilitated though the implementation of legal mechanisms that enable governance to efficiently address dynamic challenges. Successful transitions to adaptive governance depend on learning across all network actors – government, sectors and stakeholders – as well as the creation of tailored co-management approaches.

13.4 Climate Change and coastal communities: Vulnerability, adaptation, and resilience

Wonder Kofi Adzigbli, Julian Bloomer, John Morrissey

Coastal and marine spaces are among the most dynamic systems on earth, providing critical ecosystems services to coastal inhabitants and well-being. Despite positive developments coastal communities in the Greater Cape Three Point Area of Ghana remain vulnerable to coastal flooding and coastal ecosystem degradation instigated by an amalgamation of sea-level rise, tidal wave dynamics, storm surges and mangrove degradation. These climatic and non-climatic hazards threaten coastal infrastructure, ecosystems and livelihoods of coastal resource-dependent households due to inadequate integration of climate change adaptation and resilience actions into local development plans. Further, the local conditions that make these communities vulnerable are poorly understood and knowledge on which communities are most vulnerable is lacking. Hence, there is a need to improve the understanding of different dimensions of vulnerability that exist across the selected coastal communities and map various levels of vulnerability each exposed community exhibit. The study will employ mixed method to assess coastal vulnerability, adaptation and resilience. The study will also contribute to development of climate change adaptation and flooding mitigation plans for resilient coastal communities in Ghana.

14. Historical Climatology: climate change and extreme weather events

GEO/0G/033

Chair: Carla Mateus

John Butler

14.1 Trends and Cycles in the Armagh Observatory Meteorological Series

Meteorological observations from Armagh Observatory, which commenced in the mid-1790s and continue to the present day, are the longest such series from any single site in Ireland. We describe the standardisation of the series using the extensive archive of Metadata at Armagh. This leads to a discussion of the trends and cyclic variability of the climate variables for this site.

14.2 Attribution of an anthropogenic climate change signal in flood timeseries

Conor Murphy

While attribution of a climate change signal to extreme flood events has progressed recently, it is still a challenge to discern the fingerprint of climate change in hydrological timeseries. This presents considerable challenges for policymakers and adaptation to climate change. Policies directed at the wrong driver of change may result in poor outcomes and maladaptation. This research presents a new framework based on causal chains for disentangling human driven climate change, natural variability and internal catchment change in flood time series. Application of the framework to the Shannon catchment shows the clear emergence of a climate change signal in annual maximum flood series.

14.3 Impacts of the storm 'Night of the Big Wind' on the 6 – 7 January 1839 in Ireland

Carla Mateus

A severe extratropical windstorm took place on 6 – 7 January 1839, known as 'Night of the Big Wind', and is one of the strongest in the instrumental record for Ireland. Extreme windstorms are associated with high wind speeds and are a major source of natural hazard risk with considerable socio-economic impacts in Ireland. Reported socio-economic impacts include damage to infrastructure, agriculture, forestry, coastal areas, flooding, and loss of lives. Due to the environmental and socio-economic impacts of extreme windstorms, there is broad interest in understanding the potential impact of climate change on extreme extratropical windstorm activity in the North Atlantic. Ireland has a rich heritage of historical documentary (e.g. newspapers, weather diaries) and instrumental meteorological observations, which allow a detailed reconstruction of the impacts of this severe extratropical windstorm. Additionally, a detailed analysis of the documentary sources is crucial to assess vulnerability, exposure and adaptation to severe extratropical windstorms.

14.4 Extreme heat risk and the potential implications for the scheduling of football matches at the 2026 FIFA World Cup

Donal Mullan

Climate change is making extreme heat events more frequent and intense. This negatively impacts many aspects of society, including organised sport. As the world's most watched sporting event, the FIFA World Cup commands particular attention around the threat of extreme heat. The 2022 tournament in Qatar was moved from summer to winter in response to this threat, and now attention turns to the 2026 tournament in North America with extreme heat risk across many of the 16 host locations. We examine this risk by modelling wet bulb globe temperature (WBGT) – a widely used measure of heat stress – for the host locations using hourly meteorological data for the period 2003– 2022. Our results show that 14 out of 16 host locations exceed WBGTs of 28 °C, with four (nine) exceeding this threshold more than half the time during afternoons across the mean (hottest year) of the 20 year record. This threshold is important as the level beyond which some football governing bodies recommend match delay or postponement. A climatically sound argument is therefore presented to reschedule kick-off times outside the hottest afternoon hours for the host locations with highest heat risk at which no indoor air conditioned environment exists - primarily Miami and Monterrey, but also Philadelphia, Kansas City, Boston and New York. This study highlights the need to carefully assess heat risk ahead of major sporting events to help inform any potential interventions needed in the scheduling of matches and competitions in a warming climate.

Parallel Session V		14.00 – 15.30	
15.	Climate Mitigation and Ecosystem Resilience		

GEO/0G/006

Chair: Bakul Budhiraja

15.1 Creating a comprehensive model to support greenhouse gas emission strategies: A case-study for Ireland

Ankur Prabhat Sati, Gerald Mills, Matthias Demuzere, Rowan Fealy

Climate change mitigation policies should be supported by a scientific infrastructure that includes inventories, models and observations; this infrastructure could provide an independent assessment of greenhouse gas (GHG) emissions and contribute to the formulation of effective policies at national and regional scale. However, current policies are largely based on sectoral inventories that use land-use and land-cover information to estimate

GHG emissions. Other parts of the infrastructure are not well developed at national scales. GHG observations are relatively few and not designed to assess net emissions from complex landscapes (e.g. rural landscapes, with diverse natural and anthropogenic sources and sinks). Moreover, land-surface models are rarely employed at these scales to assess the inventory in the context of observations. We apply an enhanced version of the Weather and Research Forecasting model (WRF-chem); this model simulates the atmospheric mixing of GHGs based on anthropogenic emissions and biogenic net contributions over natural, rural and urban land cover types. Model results for selected winter and summer periods are evaluated against meteorological observations and measurements of CO2 concentrations and Net Ecosystem Exchange (NEE), derived from available flux and atmospheric monitoring sites. While anthropogenic emissions of Carbon Dioxide dominate over urban areas, emissions of Methane are linked to grasslands and dairy farming, with forests and peatlands acting as either sources/sinks depending on season and weather. This model framework provides a tool for identifying the profile of net GHG emissions at national and local scales and the development and evaluation of place-based mitigation policies.

15.2 Beyond Windows of Opportunity: The Germination and Establishment of Two Salt Marsh Pioneers in a Changing Climate

Jenny Clarke, Iris Möller

Salt marshes are intertidal ecosystems dominated by halophytic plants. These ecosystems provide valuable services such as coastal protection, carbon sequestration, habitat provision, and biodiversity support. Their ability to provide these services, however, is increasingly threatened by the effects of climate change on vegetation and, consequently, on salt marsh formation and functioning.

Pioneer species, the first to colonise intertidal flats, are crucial to salt marsh expansion and adaptation to environmental change. The lateral expansion of salt marsh ecosystems—and, therefore, their persistence—depends on the successful establishment of pioneer species on bare tidal flats in the 'pioneer zone'. Periods of reduced physical forcing below a critical disturbance threshold—'windows of opportunity' (WoOs)—are thought to be essential for seedling establishment here. With climate change driving increasingly unpredictable weather events, however, there is concern that WoOs may decrease in frequency and duration. Understanding how altered climatic conditions influence the growth and biophysical traits of pioneer species is thus essential for predicting salt marsh resilience.

This presentation introduces a project that will explore how increased atmospheric temperature and/or CO2 concentrations influence the germination, establishment, and biophysical properties of two salt marsh

pioneer species, Spartina anglica and Salicornia europaea. Seedlings grown in laboratory mesocosms under simulated climate-change conditions will be compared to those grown on the tidal flats of Dublin Bay under ambient conditions with respect to these characteristics. This project will contribute to discussions on the resilience and adaptive capacity of Irish and Northwestern European salt marshes in response to a changing climate.

15.3 The RePEAT Project – Using 200-year-old maps to uncover Ireland's converted peatlands.

Lisa Coleman, Louis Gilet, Terry R. Morley, John Connolly

Peatlands and their management represent an area where major steps can be made toward achieving GHG targets set out by the EU. However, up to 90% of Irish peatlands have been degraded and modified for specific land uses, such as agriculture. Converted peatlands are now masked by surface vegetation and land cover, hindering the identification of many areas containing organic soils. It is therefore difficult to quantify their carbon stocks, GHG emissions, and their mitigation potential. The Bogs Commissioner's Reports ('BC', 1810-1814) presents an opportunity to reveal these 'hidden' peat soils. The RePEAT Project aims to identify organic soils where there have been changes in land use over the last 200 years. This is accomplished by the georectification of the maps produced from the BC reports and verification of their boundaries to assess the extent of these former peatland areas. Our work has found that these maps accurately represent peatland boundaries with a median RMSE of 18.5m. We compared the boundaries obtained through the georectification of the maps with the National Land Cover Map of Ireland to identify the long-term conversion that has taken place on Irish peatlands. We observed pronounced changes in land cover on all maps, some greater than 90%, since the construction of the BC Maps. Considering the multi-layered environmental history of Ireland's peatlands, the project will identify areas of former peatlands, help produce a new peat map of Ireland, facilitate more accurate assessment, monitoring and management of peatlands, and aid in the mitigation of national GHG emissions.

16. Critical Geographies of Housing

GEO/0G/029

Chair: Urmi Sengupta and Cristian Silva

16.1 Assessing Public Housing Conditions: Survey-Photovoice research methods for building relationships towards robust data collection and collective organising

Laure Tymowski, Fiadh Tubridy, Patrick Bresnihan

The JustHousing is a 3-year, EPA funded research project examining how current retrofitting policies exacerbate or alleviate social inequalities associated with Ireland's housing system. JustHousing aims to deepen understanding about the links between housing and climate justice, ensuring that decarbonisation happens effectively and equitably. To better understand the policy, governance and economic contexts shaping retrofitting schemes in Ireland, we are learning from the experiences and knowledge of tenants in public housing, the private rental sector, and homeowners. The success of the project depends on the relationships we build with residents, and collaborations with tenant and community groups working to collectively address housing problems. In this paper, we outline and discuss the survey and photovoice methods used as part of our research project to collect data on housing conditions in public housing flat complexes in Dublin. Although the survey and photovoice methods can be seen as two distinct methods, in our project they were two steps of the same method. This is because the methods were as much about data collection as they were a medium of relationship building. In this sense, they became part of the same process (the 'surveyphotovoice' research method) that stretched as a continuum from the first survey door-knocking until the photovoice interviews. While allowing for richer data collection, relationship building also quickly fed into collective organizing efforts for a "better quality of life" (Bernie Whelan, Cromcastle Court Resident and Campaigner) supported the by local CATU branches.

Housing the Working Class - Urban Renewal in Limerick's Oldtown 1887-1915

Helene Bradley Davies

By the closing decades of the nineteenth century, the housing situation in the Oldtown in Limerick was at breaking point. Ravaged by years of neglect and exploitation by profiteering landlords, many buildings were on the brink of collapse, posing a constant threat to safety. Local media blamed the Corporation and called for immediate action to be taken to address the 'worsening' housing conditions.

Legislative reforms were enhancing the power of the Corporation to effectively deal with unhealthy areas and build replacement houses for the working class. New funding models allowed local authorities to advance loans to private organisations involved in the construction of new houses.

This paper will first investigate the role of the Corporation as both a developer and an enabler of development between 1887 and 1915. Particular attention will be paid to some of the early social housing schemes in Limerick city. It will then examine the involvement of private entrepreneurs, with a particular focus

on the role of Bishop Edmund O'Dwyer and the Thomond Artisan Dwelling Company. While small in scale, these new developments enhanced the living conditions of those fortunate enough to secure these new homes. However, the issue of rent setting and equitable access to tenancy requires further investigation together with an evaluation of the relative success of these schemes in improving the living conditions of the 'poor' in the city during the period in question.

16.3 Eviction Nation: Findings from the Community Action Tenants Union eviction database project

Fiadh Tubridy, Sam Mutter, Danielle Hynes, Anushka Dasgupta

Despite evictions being one of the most harmful and widely recognised impacts of the current housing crisis, there is a surprising lack of information and research focused on evictions in the Republic of Ireland. This presentation discusses findings from the eviction database project, which has been undertaken by members of the Community Action Tenants Union Ireland, to collect data about evictions based on records of disputes dealt with by the Residential Tenancies Board. In the presentation we will first cover the project's findings regarding legal and illegal evictions, including the failures of regulation and enforcement which allow them to take place on such a widespread scale. Secondly, we will discuss the challenges associated with official data sources such as the RTB case files from the perspective of providing a comprehensive analysis of displacement in the current housing system, and suggest avenues for further research. Despite these limitations, we argue that the project has succeeded in subverting official data sources to provide a counter-analysis of the housing system that challenges the narratives put forward by government and industry actors.

16.4 Moving away from public housing: justifications and implications

Danielle Hynes

In a context of ongoing, overlapping, intersecting global crises of housing, multiple jurisdictions – including Ireland and Australia – are moving away from the provision of state funded, owned and managed housing. In Australia, a part of the shift away from public housing has been the growth of Community Housing Providers (CHPs) – analogous to Approved Housing Bodies in Ireland. In this presentation, I discuss findings from a media analysis of over 700 newspaper articles published in Australia throughout 2020. This was a unique moment of crisis marked by heightened media attention on public housing in the Australian context. Through this analysis, I demonstrate that just as public housing is portrayed as a broken system that ought to be moved away from, CHPs are portrayed as part of the solution to problems (both real and

imagined) with public housing. I point to why this may be the case, and draw out some implications of the shift to CHPs – including reduced democratic accountability in relation to housing, the removal of public lands from public hands as ownership is transferred to CHPs, and potential increased rents and reduced security of tenure for tenants. In Australia the public and CHP housing system is residualised and under-resourced, functioning as an 'ambulance service' (Fitzpatrick and Pawson 2013) with only those experiencing severe disadvantage able to access it. In this context, it is essential to consider the implications of shifting away from public housing.

16.5 Not quite public, not quite private: The adaptations of Approved Housing Bodies within the Irish social housing ecosystem

Maedhbh Lochlainn

Ireland has been experiencing protracted and interconnected crises of housing affordability, supply, and security for many years. Against a wider and longer-term backdrop of disinvestment in and residualisation of public housing, the decade since the 2007/08 financial crisis has seen an increasing number of social housing eligible tenants being accommodated by Approved Housing Body. Approved Housing Bodies (AHBs) are not-for-profit organisations who provide and manage affordable rental housing for households who are approved for social housing support. In this paper, I draw on policy, academic, media, and industry literature to explain how AHBs occupy a shifting and expanding niche in the Irish social housing ecosystem. I give an overview of the AHB sector and highlight how AHBs have adapted to a wider context of, on the one hand, the residualisation of public housing and, on the other hand, shifts in social housing financing in the decade after the financial crisis. I outline the impacts that the adaptations of AHBs, and their somewhat ambiguous roles as not quite public but not quite private, have on the wider Irish social housing ecosystem. In doing so, I seek to position to AHBs for international and comparative research on the piecemeal financialisation of social housing and a broader shift away from public housing.

17. Marginalised Identities and Social Justice

GEO/0G/033

Chair: Diarmid Finnegan

17.1 Encountering Difference and Building Solidarities: LGBT activism in South Africa

Louise Sarsfield Collins

Across the globe in recent years there has been a rise in right-wing populism, violence and intolerance of difference. In different contexts, trans and gender non-conforming people, religious minorities, ethnic minorities, women, migrants, sexual minorities, and other 'Others' have found themselves under attack. The right to free speech and freedom of assembly have also been restricted and met with opposition. In a world that often appears to be increasingly hostile to difference, forging solidarities is one way in which people can both resist and challenge oppression directly experienced and/or witnessed. Building solidarities is an ongoing process and can emerge from a shared struggle however solidarity can also be theorised through the lens of citizenship as a relational set of place-based practices where engaging in solidarities provides a means for people to both perform their citizenship and extend citizenship to other. Drawing on research in Pietermaritzburg, South Africa this paper examines the role of everyday encounter in building placebased intersectional solidarities. In some instances, solidarity practices were fleeting, emerging at a point of crisis. However, there were also many instances of ongoing, sustained encounters which required negotiation of difference in order to share space from which solidarities grew and were nourished. The findings demonstrate that while encounters in the everyday are not a panacea for challenging anti-LGBT, anti-migrant, anti-minority, and other right-wing discourses, everyday encounters in places are nonetheless, an important aspect of building intersectional solidarities.

17.2 The Construction of an Activist: An analysis of the Motivations behind Memory Work emerging around Mother and Baby Institutions throughout the island of Ireland

Nicole Rea

Mother and Baby institutions were established throughout the island of Ireland during the 20th century to deal with the 'challenge' of unmarried mothers. Run by religious orders, women and girls who were perceived to have brought shame, not just on their families but also on their communities, were sent to these institutions to give birth away from the public gaze. Approximately 66,500 women and girls spent time in these places, many with harrowing experiences of abuse. These national narratives of shame were largely silenced until the last Mother and Baby institution closed in the 1990s. Since then, a public reckoning on both sides of the Irish border has taken place. Although these institutions were, and remain, an all-island issue, they are currently being dealt with separately in each jurisdiction. This is despite the belief that after the island was partitioned in 1921, many women were brought across the Irish border to have their babies or, once born, those babies were moved to the other jurisdiction. This paper aims to explore the motivations behind the flurry of creative responses that have emerged, whilst considering if these motivations are an expression of activism, advocacy or neither. It engages with creative work and how they are used to raise awareness and

illicit an official reaction to the island of Ireland's dark and silenced past. This paper draws on qualitative data, including interviews with activists and advocates involved in profiling the experiences of mothers and their children on both sides of the border.

17.3 Exploring children as seasonal cod tongue cutters in coastal communities in Northern Norway across three generations

Anne Trine Kjørholt

Norway is a sea nation consisting of thousands of islands. Adaptation to marine environment and resources, especially fishing, has been key in settlement patterns, economic development, and ways of life throughout history. The family has been a key production unit (Jentoft 2020). In coastal communities in Northern Norway, children have participated in work related to seasonal cod fishing through generations. Thus children and young people learnt to be skilled islanders through informal pathways of work and family responsibilities as part of the social and economic reproduction of the wider family and community. Today boys and girls still take part in seasonal work, earning an income from an early age (6-7 years)

Based on fieldwork in coastal communities in Northern Norway, including observation and interviews with three generations of child workers, I discuss issues related to social and cultural sustainability of small fishing communities by exploring children's participation in work across three generations. The study is part of the international research project, Valuing the past, sustaining the future. Education, knowledge and identities across three generations in coastal communities Norway I argue that this practice is 'meaningful participation' (Solberg 1994), promoting not only essential skills and knowledge, but identities as fishers and a deep sense of belonging to the seascape Furthermore, these shared intergenerational practices are of key importance for social and cultural sustainability of the communities.

17.4 The Hunting of the Snark: A Spatial Exploration of Tobacco Control Prosecutions in Ireland

Frank Houghton

Tobacco-related illnesses are the leading cause of mortality and morbidity globally. The annual death toll from tobacco-induced disease is now estimated to be over 8 million people per annum. The World Health Organisation's (WHO) Framework Convention on Tobacco Control (FCTC) is a major enabler of tobacco control in many countries, including Ireland. This treaty, which is legally binding upon those who ratify it, includes rules governing the production, sale, distribution, advertisement, and taxation of

tobacco. Ireland led the world in becoming the first country to introduce a workplace smoking ban. Current tobacco legislation covers this and a range of other issues including the sale of tobacco to children below 18 years of age. Enforcement of the Tobacco Acts falls to Environmental Health Officers who release quarterly reports of prosecutions. Over 10 years of this data was examined. This study sought to explore to examine four factors: the level of compliance with the Tobacco Acts; the number of prosecutions for being found in breach of the Tobacco Acts; the penalties imposed on those found guilty of breaking the Acts; and spatial variations in enforcement. The results show widespread non-compliance, minimal prosecution rates, and minimal penalties imposed for those found guilty. A notable variation in spatial enforcement of the Tobacco Acts was noted.

17.5 Geographies of gender-based violence and the Irish Criminal Courts

Jeremy Auerbach

Gender-based violence (GBV) is a critical issue within the Irish Criminal Court system, marked by significant disparities in how cases are managed and sentencing is administered. This paper explores these disparities, highlighting the systemic challenges and biases that perpetuate inequities for victims and survivors of GBV in Ireland. As batch criminal court records are not publicly available an analysis of news reports on criminal court proceedings was conducted. Irish news sites were crawled and scraped for details of criminal court proceedings, included characteristics of the incident (e.g., location and CCTV presence), the offender (e.g., age and prior GBV), the victim (e.g., age and race), the judge (e.g., gender and age), and the court case (e.g., days to sentencing and length of sentence). Initial findings for presenting trends include high rates of bail and long processing times. For gender-based violence cases, there is significant time between the assault and the arrest and between the arrest and sentencing, even for cases with immediate video evidence. These extensive periods where the perpetrator of the violence can potentially interact with the victim increases trauma. Post sentencing trends include short sentences and high rates of sentence suspensions. Many offenders had prior GBV convictions and yet they received lenient sentences. These court trends also display spatial variation, with the location of the incident (home or public) and the location of the court (County and rural) correlating with the time to arrest and sentencing length.

Parallel Session VI	16.00 – 17.30		
18. Knowledge transmission and transformation across space and			
time: Emerging trends in early career research			
GEO/0G/006			

Chair: Hannah Campbell Hewson

18.1 Methodological adaptations in the study of knowledge circulation: a case study of early modern Indian Ocean cartographic circuits of knowledge.

Hannah Campbell Hewson

The study of knowledge and its circulation is vast and diverse which, whilst complex and exciting, also can make it challenging to engage with, often leading geographers interested in this field into multi-disciplinarity. This paper looks to emphasise how adapting existing methodological approaches, cartobibliography and 'mapping the mapmaker', can excavate new insight in the analysis of early modern Indian Ocean maps. Cartobibliography, which is discussed within the context of the history of cartography, bibliographical studies and historical geography, offers little in terms of methodology, as it has no standardised structure, and is dominated by decades old research. Consequently, by critically reflecting on existing studies in order to adapt and create a cartobibliographical methodology, new insight into maps and map makers, as well as their relationship with geography and geographers can be found. Similarly, by modelling past studies of 'mapping the mapmaker', which has been used within the history of cartography to record and compare the locations of early modern Dutch mapmakers, or map sellers in central London, it is possible to create novel maps which visually depict the other geographical and spatial relationships. These creations, connect to previous research, but are unique and original in their own right and, in this paper, provide a means of analysis the wider cartographical circuits present within early modern London. By incorporating existing research into a new intellectual domain, this paper highlights how adaption facilitates the formation of unique approaches, to further research in how knowledge circulates and transforms over time and space.

Home Away from Home? Irish Presbyterian Missionary Homes in Malawi as Spaces of Adaptation and Intercultural Exchange

Rebecca Irwin

The Christian home has long been central to missionary efforts, serving as a space to promote and transmit evangelical ideas of domesticity and family life (Cleall, 2012). Despite this, Dana Robert (2005) argues that missionary homes have been overlooked in academic research on Anglo-American missions. This paper responds to Robert's call for a greater recognition of the home as an essential space in mission practice and theory. It will do so by examining the spatialised and politicised nature of the homes of Irish Presbyterian missionaries in Malawi between 1958 and 2000.

Missionary homes, I will argue, became sites of intercultural exchange, where missionary efforts both influenced and were impacted by local practices, thus shaping evolving perceptions of race, gender and religion in Malawi. In this way, homes of Irish Presbyterian missionaries in Malawi were not static, rather they were fluid and dynamic spaces of contestation and adaptation. Indeed, they were shaped by shifting material, social, emotional and political relations. This paper will consider how knowledge, space and relationships were transformed within the intimate setting of the home. It will draw on archival research and oral history interviews conducted as part of broader doctoral research which seeks to understand the racial, cultural and gendered legacies of Irish Presbyterian missions in Malawi between 1958 and 2000.

18.3 Urban Morphology and Colonial Capitals in India: A Methodological Toolkit

Diya Banerjee

The research that underpins this paper seeks to establish a transferable methodology to help reveal processes of historical urban development in colonial India. The use of historic cartographic evidence, and modern geospatial technologies, including Geographic Information System, are proposed as integral and crucial elements of this methodological 'toolkit'. Urban Morphological Research (UMR) gained prominence in the anglophone world during the early decades of the 20th century. Over time, scholars from various disciplines—including geography, architecture, urban planning, design, and urban economics—have sought to establish universal methodologies for analysing urban form and theorising developmental patterns influenced by a diverse array of agents. However, it is noteworthy that India has largely remained as a blind spot in the discourse surrounding international Urban Morphological research. This study builds upon the established UMR framework of Town-plan analysis, as developed by M.R.G. Conzen in his examination of Alnwick and adapts it to the Indian context as a means of investigating colonial urban development. This paper will discuss the challenges encountered and the strategies implemented to address these challenges, as well as the integration of these efforts into the field of urban analytics through the application of Geographic Information Systems. Calcutta, which served as the capital of British-occupied India from 1772 until 1911, has been identified as one of the case studies. In contrast, Shahjahanabad, commonly referred to as Old Delhi, (functioned as the capital of the Mughal Empire in India until 1857) has been selected as the second case study due to its significant transformation following the uprising of 1857 and the subsequent British occupation of both the city and the fort. The paper demonstrates the versatility of Conzen's plan-analysis method, contending that the tripartite framework—comprising streets, plots, and buildings—proposed for the analysis of morphological regions within urban environments can be effectively adapted to various geographical contexts,

provided that these elements are discernible in the available plans and maps, whether in paper or digital formats.

18.4 Pink Tools, Red Walls: Feminist Spatial Adaptation at The Woman's Building

Shakshi Singh

This paper explores the material and symbolic adaptation of space at the Woman's Building (1973-1991) in Los Angeles. In early 1970s, women artists mobilised in Los Angeles to build a 'feminist mecca' as a protest against their exclusion from mainstream patriarchal art institutions. Despite lacking formal training in construction, they learned to use power tools and building techniques to renovate an abandoned warehouse into an art gallery and education centre. Their act of feminist placemaking was not only an assertion of autonomy over the built environment but also a radical reimagining of how knowledge, labour, and artistic practice could be spatially reorganized.

Beyond its material transformation, the Woman's Building became a site of knowledge-making, skill-sharing, and collective action. This paper highlights the ways in which the building itself—its spatial layout and separation from traditional institutional spaces—facilitated a reimagining of artistic practice based on female experience, collaboration and activism. Through a spatial lens, this paper situates the Woman's Building within broader discussions of human and built environment interaction, examining how space is not only shaped by human intervention but also how it, in turn, shapes social and political movements. By analysing the particularities of the Woman's Building—how it was built, how it was used, and why it mattered—this paper contributes to a wider understanding of feminist spatial politics and the role of built environments in fostering alternative modes of cultural production.

19. Earth-writing and Terraforming

GEO/0G/029

Chair: Tristan Sturm

19.1 White ants and political geologies: the earth writings of Henry Drummond (1851-1897)

Diarmid Finnegan

Henry Drummond's Tropical Africa (1888), one of the best-selling travelogues of the period, popularised and enshrined a liberal form of political geology that lent support to commercial and religious interests in southern central Africa

and in other parts of the British empire. Interacting with the work of Pratik Chakrabarti (2020) and Kathryn Yusoff (2020; 2024) among others, this paper examines the origins and functions of Drummond's racialised bio-geological imaginary. In doing so, it both confirms and qualifies notions of Western geological time as a secular myth that fully naturalised invidious concepts of racial difference.

19.2 The effectiveness of buzzwords in science: A case against rewilding

Erica Terese Krueger, Iris Möller

Buzzwords are trendy terms that are established as a way to gain attention within a certain community, but can quickly become misappropriated when adopted and exploited by a wider audience. Rooted in terrestrial ecosystems, rewilding has taken on many different interpretations through various lenses. More recently, the term has crossed the boundaries into other fields of study, including the marine and coastal sciences. Yet, rewilding is a contentious term that is not widely accepted in these disciplines. This paper discusses the historical emergence of rewilding, the ways in which this buzzword has produced criticisms in various fields, and the inclusion (or exclusion) of the use of the term in certain countries. A preliminary case study from stakeholder interviews is presented to determine how rewilding is viewed across a large European consortium and if rebranding or alternatives for the term should be implemented based on environmental settings.

19.3 Landscapes of Outer Space: Armagh Astropark and other models of the Universe

Oliver Dunnett

The Astropark at Armagh Observatory and Planetarium is a unique site in which scientific understandings of outer space are conveyed through a cosmic landscape of scale models, bodies in motion and a guided walk to the origin of the universe. It is one example of a culture of land art whereby the form of landscape acts as a medium to convey the vastness of the cosmos, alongside the agency (or, insignificance) of the human being in this context. More broadly, scale models of the solar system exist in a multitude of forms, from intricate miniature orreries to the 8.5-kilometre-long installation by artist Oliver Jeffers, while the universe continues to be modelled in scientific and artistic representations in attempts to understand and communicate its mysteries. This presentation will describe the origins of the Armagh Astropark in the 1990s, its design principles and main features, while outlining the broader research aims around understanding audience interactions with the site and its plans for the future.

19.4 Decomposing geologies: John Latham's Niddrie Woman and the failures of deep time

Franklin Ginn

Concerned with current geographic debates about the relations between the geologic and the social, this paper considers British artist John Latham's (1921-2006) land-art project, Niddrie Woman. Niddrie woman was the name Latham gave, in the mid-1970s, to Greendykes bing – bings being prominent, pink-hued slagheaps left over from nineteenth-century shale-oil mining which dot the landscape west of Edinburgh, Scotland. As process-art form, Niddrie woman was found more than made, a living embodiment of the process of industrial labour that had shaped the landscape. She also embodied the form of an unspecified Celtic goddess, Latham's nod to a fetish for primitivism popular at the time. This paper evaluates the landscape of Niddrie Woman along two lines. The evaluation takes the style of decomposition, decomposing aspects of its geo-social alignments. The first is the ambition for Niddrie woman to represent a monument for epochal industrial transformation. From afar, this seems unlikely; up close the casual encounter with the bings reveals the decomposition of epochal geology (monumentalizing industrial ruination) into humdrum processes of everyday life. Second, the story can be told as an epochal clash between the figure of the maveric genius and the bureaucrat. Turning to the archive, my assessment is that the need to act cheaply on industrial blight encapsulated by the bings, in this case by declaring them an artwork, motivated the government much more rather than Latham's genius. In other words, deep time and geologic remains failed to make inroads into the bureaucractic.

20. Green Transitions: Challenges and Opportunities

GEO/0G/033

Chair: Shane O'Sullivan

20.1 Providing, Confining, and Fostering Mobility: The E-Cargo Bike as a Family Vehicle in Ireland

Robert Egan, Hannah Julienne, Brian Caulfield

Like many low-cycling contexts in Europe, the practice of 'good' parenting is often intimately tied up with extensive private car use across Ireland. With the private car, parents spend considerable time transporting their children to various destinations and activities and supplying the family household with groceries and other everyday domestic items. In this study, we explored practitioners of 'cycle-parenting' in Ireland, who used private e-cargo bikes as

a key component of their broader family mobilities. Using grounded theory, we illustrate how private e-cargo bikes are used to fulfil several contemporary parental responsibilities: providing mobility, confining mobility, and fostering mobility. First and foremost, participants used their e-cargo bikes to provide mobility for their children to various destinations such as school and afterschool activities. This provision of mobility was often enacted by parents to simultaneously confine the independent mobility of their children. By confining their children as passengers – much like the car – parents could segregate their children from the dangers of the street, conserve their energy for alternative activities, and efficiently manage collective family schedules. However, in contrast to the car, providing mobility with the e-cargo was felt to sensitise children to their local areas and natural environments, while normalising cycling as an everyday mode of transport. In this way, e-cargo cycle parenting helped to foster child competences for independent active mobility in the future. We conclude by considering how cycle-parenting with the e-cargo bike differs from alternative family mobilities, and assess its disruptive potential in the car-intensive context of Ireland.

20.2 Challenges for the 'Green Transition': exploring the correlates of retrofitting activity at the Electoral Division scale in Ireland

Kevin Credit, Tom Murphy, Patrick Bresnihan, Fiadh Tubridy, and Laure De Tymowski

To achieve a just 'green transition' and reach national and international emissions targets, energy use from buildings must be reduced significantly, which entails a substantial effort to retrofit the existing building stock. Unfortunately, in many countries – including Ireland – government incentives to spur retrofit activity have not yet resulted in the requisite increase in uptake. While government agencies have invested considerable resources in trying to better understand the behavioural components of retrofit uptake – viewing the decision to retrofit through the lens of individual choice – there has been relatively less focus on the spatially-patterned social and economic context that structures the ability of individuals to engage in or pay for retrofit upgrades in the first place.

The purpose of this paper is to examine the general spatial patterns and socioeconomic and demographic correlates of retrofitting activity in Ireland at the Electoral Division scale so that we can 1) better understand the relationship between retrofitting activity and specific indicators of social vulnerability, tenure, and energy use and 2) develop a 'priority map' for retrofit that identifies areas of the country (Electoral Divisions) that could be prioritised for inclusive retrofitting policies based on their existing lack of retrofit uptake and underlying vulnerability characteristics. To do this we spatially-interpolate and analyse the Building Energy Ratings (BER) public sample data from the Sustainable Energy Authority of Ireland (SEAI) – along

with 2022 Census data – using a number of spatial quantitative methods, including random forest and k-means clustering.

20.3 Carbon Implications of Retrofitting Existing Buildings in Irish Town Centres: Insights from the TREBUChEt Project

Rola Abu Hilal, Philip Crowe, Liam Heaphy, Ciara Reddy, Gloriana Vargas Castro, Sombi Kakui, Lysander Reid-Powell, Herin Vora, Ali Zaheer

The persistently high levels of vacancy in Irish town centres reflect broader trends of urban migration and a cultural preference for rural self-build housing, often near extended family networks. Much of this vacant stock consists of terraced buildings, typically clustered in or near town centres. Meanwhile, Ireland faces growing housing demand alongside delivery shortages. Meeting this need while reducing CO_2 e emissions from the built environment is a major national challenge—especially given the country's high per capita greenhouse gas emissions. This context calls for adaptive responses in how we use, reuse, and reconfigure the existing built environment.

The TREBUChEt project (Town REvitalisation through the Integration of BUildings into the Circular Economy), funded by the EPA, investigates the carbon implications of retrofitting town centre buildings as a sustainable alternative to new construction. The research applies Life Cycle Assessment (LCA) to five case studies across Ireland. These buildings reflect varied typologies and retrofit approaches, with assessing how structural solutions and material choices impact embodied carbon.

Beyond individual buildings, the study models neighbourhood-scale regeneration in three Irish towns, comparing it to delivering equivalent accommodation in a greenfield development on the edge of the town. The results show that neighbourhood-scale retrofitting, when guided by circular economy principles, can significantly reduce carbon emissions—one contributing factor being the substantial embodied carbon associated with infrastructure in greenfield developments. These findings highlight the advantages of compact, infill-led approaches, demonstrating both the adaptive potential of existing built environments to meet evolving societal needs, environmental constraints, and climate objectives, and their capacity to support urban revitalisation and community wellbeing.

20.4 The Obstacles Facing Ireland's Shift Towards Electric Vehicles: Global Industry Pressures and Local Adaptation

Conchúr Ó Maonaigh

This paper examines the challenges Ireland faces in transitioning to electric vehicles (EVs) through the lens of economic dependence. Drawing on critical

geographers, such as Cox (1998) and Harvey (1999), I analyse how states, firms, and individuals depend on the continuation and expansion of specific economic activities within and beyond their regions, often defending them against competing interests. I argue that global auto-manufacturers based in the industrial cores intervene in the EV sector to sustain internal combustion engine (ICE) production, protecting the flow of capital into their home regions. In doing so, these 'technology makers' create significant barriers to decarbonization efforts of 'technology takers' – regions like Ireland located outside of the industrial core. Based on 72 interviews – including, 39 EV users, 23 private sector actors, and 10 public sector representatives – I identify three key challenges shaped by this core-periphery dynamic. First, I examine how Japanese automakers' commitment to mild-hybrid technologies has contributed to inertia in expanding EVs and their infrastructure in Ireland. Second, I explore how inconstant support for EVs from German manufacturers has driven resistance among Irish auto dealers, leading them to oppose climate action targets. Third, I analyse how automakers' reluctance to develop place-specific charging infrastructure shifts the burden onto the Irish state and local firms. This analysis highlights how smaller economies, such as Ireland, depend on the industrial core to drive decarbonization. As a result, their climate action targets are susceptible to the influence of the path dependencies of these core economies. This dynamic raises critical questions about how climate action is entangled in the combined and uneven development of global production networks.

21. Accessing Results from the 2021 Census in Northern Ireland GEO/0G/014

Chair: Estelle Lowry

21.1 Census 2021

Richard Elliot

The most recent census was undertaken in March 2021 and achieved a very successful response rate of 97%. With an online first approach, where over 80% of the information was collected on an electronic questionnaire, the data positions this census among the highest quality ever produced. While the process of census design, consultation and data collection is comprehensively documented on the NISRA website, what distinguishes this census from its predecessors are the ways in which data have been made available to users. Prime among these is the NISRA Flexible Table Builder, which for the first time ever allows users to query the census dataset flexibly online to create their own bespoke tables and analysis for standard census output geographies (with disclosure checking built in). This innovation significantly broadens data accessibility and is freely available for anyone to use. Additionally, unique data products for Northern Ireland, such as the Grid

Square Product (first initiated in 1971). Emphasis has also been placed on the use and release of individual level microdata. As ever there are 5 and 10% samples of anonymised records (SARS) but a major initiative this time is the Census 2021 Comprehensive microdata product, which includes 98.5% of anonymised census records for research - available to access for researchers within the NISRA secure environment. Furthermore, Census 2021 contributes an additional layer of data to the Northern Ireland Longitudinal Study, which now spans 40 years, greatly enhancing its value. This paper highlights the use of this extensive new data, demonstrating its increased accessibility and offering insights into the population's evolution in Northern Ireland since the beginning of the century.

How far do different Census output geographies yield different statistical results?

Ian Shuttleworth, Estelle Lowry, John Hughes, Neil Rowland, Aideen Maguire

Output geographies change between Censuses to reflect spatial shifts in population and political/administrative redistricting. There is always a tension between revising geographical units to respond to new circumstances and keeping them the same to permit consistent analyses through time. This tension centres on the Modifiable Areal Unit Problem (MAUP); cutting up a population into units of different shapes and sizes can potentially yield inconsistent statistical outputs and misleading estimates of change. In some specialised contexts, like the Northern Ireland Longitudinal Study (NILS), temporal change is primary but even more standard questions about whether Northern Ireland (NI) has become more/less segregated or more/less uneven on other dimensions require cross-Census comparisons. Therefore, does the move to Super Data Zones (SDZ) in 2021 from Super Output Areas (SOAs) in 2001 and 2011 substantively matter? We answer this question by placing Census 2021 100m Grid-Square data on the SDZ and SOA geographies to calculate similar indices of segregation and to examine bivariate relationships. Furthermore, we assess, using the NILS, the impact of using SDZs rather than SOAs as proxy neighbourhoods as Level 2 in a ML model. We conclude that it is safe to make NI-level comparisons between Census 2021 using data counts for SDZs and Census 2011 using those for SOAs and that the transition to SDZs does not lead to a discontinuity in the NILS.

21.3 Maximising the Value of the 2021 Northern Ireland Census – adding time to place using the Grid Square Product

Sara Ferguson, Ian Shuttleworth, Kathryn Higgins, Andrew Grounds

The census is an invaluable resource for helping understand local populations across Northern Ireland. However, given changes in administrative and

statistical geographies, backward-comparability and therefore understanding change over time, can be difficult. We address this weakness, and add value to the recent 2021 Census, by linking it to previous output geographies, using 50 years of Grid-Square Census data (counts for 100m and 1km grid squares provided for every Census since 1971). The aim is to develop a research-ready consistent database for researchers and an accompanying user-friendly data dashboard for lay users. The product will cover all of Northern Ireland, and incorporate topics_such as demography, housing composition, economic activity, housing, migration, religion and travel and transport. This will mean that very localised places, and how they change, can be profiled and analysed through time: from The Troubles to peace, and through economic and social changes since 1971.

To ensure that this technical product has a real-world impact and there are viable destinations for its application across wider local policy arenas, as well as the community development sector, the project importantly incorporates a community-focused data science engagement element. Through this collaborative approach, which combines technical data innovation with engagement, we aim to create a transformative resource that democratises access to Northern Ireland's rich census data heritage and empowers evidence-based practice and decision-making across Northern Ireland's policy and community development sector.

21.4 The Northern Ireland Longitudinal Study: Looking at population changes through time.

Estelle Lowry

The Northern Ireland Longitudinal Study (NILS) is a complex administrative data linkage system. It uses a healthcard spine to link census and other administrative datasets resulting in a cohort of c530,000 representing approx. 28% of health card registrations.

Since its creation in 2006 based on 2001 Census data, it has undergone subsequent linkages with Census 2011, 1981 (partial), 1991 and most recently Census 2021 data resulting in a rich dataset spanning 40 years. The expansion in both breadth and depth of the data allows the development of new research agendas delivering insights into the population of Northern Ireland and how their lives have changed over time.

Census 2021 had a number of new questions as well as questions asked for the second, or subsequent time. This will enable new research on sexual identity, national identity, passports held, religion, demographics, energy efficient households, and self-reported health including a number of specific health conditions. It provides an invaluable tool to investigate impacts of the last decade in which society have experienced several unprecedented events

such as Brexit, a global pandemic, housing and cost-of-living crises. We will present an updated cohort profile highlighting characteristics of the Census-enumerated population in 2021 and trends across time in the key areas mentioned above.

Day 3: Friday 9 th May			
Parallel Session VII	09.30 – 11.00		
22. Climate Adaptation			
GEO/0G/006			

Chair: Arlene Crampsie

22.1 LOcalized ADaptation (LOAD) for climate change in Ireland and Timor-Leste: Co-developing framework for nature-based solutions

Arsenia Da Cruz, Kevin Lynch, Kathy Reilly

Climate-related risks and disasters have severely affected both Ireland and Small Island Developing States (SIDS) like Timor-Leste, with the growing frequency and intensity of extreme events underlining the devastating impacts of climate change. In Timor-Leste, these challenges have disrupted the environment, society, and economy, driving efforts to implement a comprehensive recovery strategy centered on nature-based solutions (NbS) and strengthening community resilience. Timor-Leste has sought collaborations with developed island nations to achieve these goals, as Ireland's Strategy for partnership with SIDS to facilitate knowledge exchange and promote best practices aligned with NbS principles. The LOAD project explores the implementation of effective adaptation strategies in island states, focusing on Ireland and Timor-Leste. By incorporating NbS principles, the project refines adaptation best practices and develops procedural guidelines to enhance climate resilience. A key objective is establishing a dynamic, reciprocal exchange of knowledge between Ireland and Timor-Leste, fostering capacity-building in both regions. Utilizing indigenous knowledge & local expertise, the project focuses on case studies to develop site-specific adaptation measures, distinguishing itself from broader mitigation efforts at the national level. Through co-productive, creative, and qualitative methodologies, the project ensures that its outputs are context-specific and have an immediate impact. Additionally, the developed methodological framework provides a scalable, adaptable model for use in diverse settings while maintaining sensitivity to local needs.

22.2 Adapting to what is to become? Theoretical explorations of the Not-Yet in times of climate crisis

Nina Liebhaber

The climate crisis requires continuous adaptation to processually changing circumstances and challenges. Even if mean global warming was successfully limited to 2°C compared to pre-industrial times, we will be confronted with not yet known consequences and not yet uncovered futures. While there is extensive geographical research on climate scenarios and related risks, there is comparatively little inquiry into the more hopeful potentialities of what is not yet. There is a strong focus on the necessary radical adaptations to climate change and its societal impacts, oftentimes overshadowing the simultaneous need to think about the diversity of potential futures. The concept of the Not-Yet can guide this exploration of how a better future might look like and how it might manifest. Ernst Bloch introduced the Not-Yet as the ontological core of his 'Principle of Hope'. While seeking to uncover hopes and imaginations, the Not-Yet is at the same time grounded in existing materialities and entanglements. This contribution sketches possible ways of analysing geographies of what has yet to become, arguing that ever new, unfolding potentialities originate from already existing materialities. The open-ended, continuously changing Not-Yet is particularly present in times of change and among young people according to Bloch. Hence, this philosophical approach offers new perspectives for the study of transformation processes and the development of climate change education settings. Connecting the material, its inherent constraints and potentialities with an imaginative, hopeful outlook, thinking with the Not-Yet allows to consider the climate crisis in its various material and affective implications.

22.3 Adaptation isn't for farmers: Narratives of injustice around climate adaptation in Irish agriculture

Alice Brawley-Chesworth, Danny Marks, Darren Clarke

Ireland's climate is changing in line with international trends, with higher temperatures and higher rainfall impacting farmers, making adaptation necessary. Despite commitments since 2018, however, annual reviews have concluded that agriculture has made only moderate or limited progress to date. Through narrative analysis using a justice and just transition lens, this paper explores how the framing of adaptation in rural community narratives makes adaptation feel like an unfair burden on farmers. This paper outlines results of research on climate adaptation barriers conducted through an academic literature review, document analysis, interviews with twenty seven people working in or knowledgeable about agriculture in Ireland and a multisector stakeholder workshop. Among agricultural professionals, three narrative elements were perceived to contribute to farming and rural communities feeling unjustly treated and resistant to implementing climate adaptation measures. The first is a narrative that climate adaptation is not

something that benefits agriculture, but rather is being done for water quality, biodiversity, flood reduction, or climate mitigation reasons. The second is a feeling that when the environment wins, farmers lose. And finally, there's a narrative that farmers have been repeatedly asked to change their farming practices at their own expense and at their own risk to achieve larger societal goals. The findings underscore the need for adaptation conversations in rural Ireland to take perceptions of justice into account, and promote narratives that highlight specific benefits to farmers and their families. Such reframing could strengthen farmer engagement and foster greater support for climate adaptation initiatives.

22.4 Bridging the Climate Divide - Looking at Adaptation Through an Equity Lens

Denise McCullagh

To adapt to the record-breaking climate extremes the world is facing in a way that "Leaves No One Behind", will require change in the political agenda, and immediate and widespread climate adaptation action from all of society. To do this in a way that does not further disadvantage those living in marginalised conditions, there must be a directed focus on different ways of supporting equitable adaptation, from the inclusion and valuing of community voices and priorities, to the accessibility of climate services and the power of policy to ensure a just transition and avoid maladaptation. Historically, many communities have not been substantially engaged or involved in adaptation decision-making processes, with status quo power dynamics often dictating the direction of resources and development. However, studies have shown that widespread community involvement in adaptation planning and action strengthens initiatives, making them more likely to be successful in the long-term.

Co-creation is a key aspect of climate equity – whose voice is heard and how different stakeholder needs are incorporated into 'on the ground 'adaptation implementation. Focusing on three separate climate adaptation projects we will explore the ways that practitioners have utilised different co-creation approaches to support equity, including trans-disciplinary and multi-level partnerships, innovative tools and services and the use of creativity to communicate the lived experience of different communities and individuals. It is not only who we engage, but how we engage, that is crucial in bridging the current climate adaptation divide and supporting transformational change and climate justice.

23. Population Change in the UK

GEO/0G/033

Chair: Ian Shuttleworth

Does the contemporary geography of the Irish and Ulster Scots Languages in Northern Ireland have deep historical roots?

Ian Shuttleworth, John Hughes

The Irish and Ulster Scots languages in Northern Ireland (NI) are associated with the two communities – Catholic (and Irish nationalist) and Protestant (and British Unionist) - that have dominated political discourse for much of NI's existence. Irish was lost in the six counties of Eastern and Central Ulster that formed NI by the 19th Century but has recently become a revival language which has even attracted Protestant interest. Ulster Scots, descended from the Scots tongue, has its own vernacular literature and heritage and is also supported currently. This presentation begins by looking at the demography of who gained, retained, or lost Irish and Ulster Scots between 2011 and 2021 and then goes on to analyse in more depth the geography of the languages in 2011 and 2021 using 1km grid-square and Super Data Zone Census (SDZ) data. This section of the analysis finds that the relationship between the share of the population that is Protestant (and knows Ulster Scots) and Catholic (and knows Irish) varies across NI with some locations having less Irish/Ulster Scots than expected and others having more. This differential geography overlaps (to some extent) with the geography of the 17th Century Ulster Plantation and Scottish settlement and the geography of Irish decline with some of the areas last to lose it in the late 19th Century now at the forefront of its revival.

23.2 The geographies of religion in England and Wales, 2001-2021

AbdulQadeer Fayaz-Khan, Gemma Catney, Christopher Lloyd, Jesse Ransley, Momoko Nishikido

This presentation examines the shifting geographies and demographics of religious communities in England and Wales, tackling three key issues: the evolution of major religious groups over time, the geographical diversification of religious affiliations, and the current state of religious diversity amid secularisation trends. Drawing on Census data on religion for 2001, 2011 and 2021, the study uses the Dissimilarity Index (D) and Reciprocal Diversity Index (RDI) to analyse residential segregation and diversity at the neighbourhood (Lower Layer Super Output Area (LSOA)) and Local Authority levels.

The findings reveal significant demographic changes. The proportion of people describing themselves as Christian - some 46.16% of the England and Wales population - continues to decline, while non-religious identities rise sharply. The proportion of people identifying as Muslim (6.51%) and Hindu (1.74%) now comprise the second and third largest groups.

Analysis of segregation shows decreasing residential separation for people identifying as Muslim, Sikh, and Hindu, reflecting growing integration, while people describing themselves as Jewish maintain relatively high segregation levels, essentially unchanged since 2001. People describing themselves as Christian had low segregation levels in 2001 and these are even lower by 2021.

Ongoing research will show how religious diversity nationally, regionally, and in local areas, has evolved in recent decades. We will explore the growth and spread of religious diversity, and the ways in which this relates to the new neighbourhood geographies of ethnic diversity evidenced in allied research (Catney et al., 2023).

23.3 Who is my neighbour? The changing ethnic make-up of residential space across the urban-rural continuum in England and Wales, 2001-2021

Momoko Nishikido, Gemma Catney, Richard Wright, Mark Ellis

Ethnic and racial diversity has been increasing steadily across neighbourhoods in England and Wales. A feature of this growth in diversity has been its increasing spatial complexity. Analysis of Census data for 2001-2021 revealed increasing ethnic diversity in urban spaces, which also spilled over to urban peripheries and small towns beyond the urban fringe. These changes are significant and mark the growing presence of people from several ethnic groups in formerly non-diverse, White-dominated, suburban and rural spaces. We find that most minority ethnic group populations are living in moderately diverse White spaces - not in neighbourhoods dominated by their own ethnic group. This points to interesting developments in the diversification of White spaces. Who are the new neighbours of White people? In what ways is residential ethnic mixing growing, and in what area types? We employ our neighbourhood schema that categorises neighbourhoods according to their levels of ethnic diversity and group dominance and focus on low- and moderate-diversity White and high-diversity neighbourhoods. We are interested in these spaces because of their prevalence, but also because these spaces experience the most demographic changes. Our analysis uses 2001-2011-2021 Census data for geographically consistent Lower Layer Super Output Areas and the 2021 Office for National Statistics urban-rural neighbourhood classification, to explore changes in the 16 ethnic groups comparable across the three Censuses. We show that Whitedominated spaces are becoming more mixed, and their ethnic composition more diverse. The White ethnic group has become increasingly residentially 'exposed' to people in other (minority) ethnic groups, across the urban-rural hierarchy.

23.4 Trajectories of Deprivation in the UK, 1971-2021

Christopher Lloyd, Paul Norman, Sara Ferguson, Gemma Catney, David McLennan

Deprivation measures are used widely for understanding spatial inequalities, for designing policies, and for targeting resources at vulnerable communities. Only rarely are the implications of the history of deprivation considered directly. Areas may have similar levels of deprivation at one time point, but very different levels a decade before. Thus, strategies for reducing deprivation may be appropriate in one area with high deprivation, but not in another with a very different deprivation history. In this paper, the focus is on how deprivation levels have changed over a fifty-year period in neighbourhoods across the UK. Census data for 1971 to 2021 (2022 in Scotland) are used to construct a deprivation measure - the Townsend index - using data on employment, housing tenure, car or van access, and overcrowding. Results for individual nations show common trends, with an absolute decrease in deprivation in most neighbourhoods but with differences between more deprived and less deprived areas remaining relatively constant. The final part of the paper considers the challenges of producing a UK-wide trajectory classification given differences in data definitions and geographies. It presents provisional results which point to, for example, common experiences in many areas across the nations but with some distinctive differences in terms of spatial concentrations of persistent deprivation. It is argued that the Census offers crucial insights into how deprivation and population and housing characteristics have changed in small areas across the UK and that this information should be used more widely to design schemes to better tackle spatial inequalities.

24. Green Extractivism and Eco-modernity in Ireland II: Orientating Resistance

GEO/0G/014

Chair: Patrick Brodie

24.1 From the Bog to the Cloud: Dependency and Eco-Modernity in Ireland

Patrick Brodie

Drive out of Dublin and you'd probably not notice the dozens of data centres built along the M50, the motorway that marks the boundary of the city. Here data centres merge easily with warehouses and industrial blocks. There is little beyond these non-descript data sheds to suggest that Ireland is Europe's foremost tech infrastructure hub, with 25% of Europe's share of data centres accounting for 18% of Ireland's electricity demand. IEA reports from 2024 estimate that this will nearly double by 2026 to 32%. From proposed "energy

parks" in the boggy Irish midlands pairing multinational green energy with data centres, to increasingly integrated partnerships between tech companies and grid providers, the "cloud" is a supply chain and it is shaping Ireland's energy futures and ecologies in multifaceted ways, with profound implications for the unfolding histories of digital technologies and infrastructures on and off the island.

However, truly studying the ongoing development of data centres in Ireland requires a deep historical engagement with the island's uneven geographies and environmental relationships. This emerging green tech landscape is the most recent manifestation of Ireland's foreign direct investment (FDI) economic strategies, which have incentivised and attracted multinationals to locate their operations in Ireland since 1960s-1970s. Through these circumstances, Ireland has become a test-bed for the emerging "data/energy nexus" as the growth of energy-intensive digital infrastructures is paired with the growth in environmental technologies and renewable energy. But this vision of eco-modernity is contested and maps onto persistent historical and geographical imbalances – stark contradictions and anachronism characterise Ireland's investment in the "smart," "green" economy, with the extreme over-development of multinational energy, data, and associated infrastructures contrasting sharply with the apparent "under-development" of rural boglands, agrarian landscapes, extractive sites, and so-called wilderness. Communities in these areas, where infrastructures supporting colonial modernity, postcolonial development, and today eco-modernity have been constructed across geographies of unequal rural/urban relations, still struggle for a say in the shape of their environmental and infrastructural futures.

Drawing on these longer histories of Ireland as a spatial and technological "test-bed" for capital as well as more recent circumstances surrounding the 2007-2008 financial crisis, we illustrate how Ireland's prevailing economic and political environment led to the country becoming a "data haven" wherein extractive multinational capital was able to instrumentalise Irish public infrastructures towards profit accumulation. In particular, we show how big tech companies are becoming increasingly involved in "green energy" and state solutions towards its generation and delivery, especially as artificial intelligence is being proposed as both a solution to efficiency problems while compounding the scales of remote computing required. In this way, with the significant presence of big tech companies and a state eager to build out its renewable resources through private investment, Ireland is once again becoming a "test-bed" for emerging regimes of extraction in the digital, green economy, as tech multinationals' ecological strategies penetrate deeper into land and resource relations in Ireland – implicating Ireland within wider planetary regimes of green tech capital.

24.2 Resisting the Social Engineering and Colonial Logics of Green Extractivism in the Sperrins

V'cenza Cirefice

As the extractive frontier expands out into peripheralised parts of Europe, branded as critical for the green transition, communities are resisting. Research on resistance to this extractivism has ballooned in recent years. I explore the resistance movement to a gold mining proposal for the Sperrin Mountains, North of Ireland, building on feminist and decolonial scholarship which has conceptually widened extractivism from a physical removal of resources to be understood as a logic, worldview, a way of relating in the world rooted in coloniality and specific power relations. This article contributes to discussions on the impacts of green extractivism on marginalised communities within Europe, particularly how these dynamics play out in the North of Ireland with a unique colonial and post-conflict setting. Drawing on a five-year activist research project, I detail how extractive logics are manifesting in the Sperrins. These logics appear in colonial constructions of place, embodied and emotional slow violence and through a social engineering of extraction. In this context resistance to new extractivist incursions are understood as part of longer histories of resistance to oppression. I argue that in challenging these extractive logics, the resistance movement is "Making Relatives" and transforming relations with the human and more-than-human world, and pointing to post-extractive futures.

24.3 Land as possibility: disrupting the neoliberal imaginary through the opposition to LNG.

Emanuela Ferrari

Ireland's determination to allow LNG (liquefied natural gas) imports, is 'no gas craic' in Ireland, a country which has seen the emergence of some of the most radical episodes of opposition to gas extraction and infrastructure in recent decades.

The import of LNG into Ireland is crucial to the exponential growth of the data center industry, according to a political economy based on attracting Foreign Direct Investments with favorable fiscal policies and slack environmental regulations. LNG - a fossil fuel obtained by fracking, with life-cycle emissions estimated as 33% worse than coal's - is touted as a 'transition fuel' towards decarbonization, according to an eco-modernization ideology that seeks to reconcile unbridled economic growth and the imperative of emissions reduction to avert climate breakdown.

Our ethnographic analysis of the resistance to LNG staged by the Stop Shannon LNG campaign, reveals that grassroots opposition to gas in Ireland goes beyond technical arguments and is instead emblematic of a friction of imaginaries about place, or normative vision about the future of a biophysical area and the type of socio-ecological relationships that it enables. By complicating the energy transition narrative, and the eco-modernization paradigm that normalizes it, the campaign exposes the taken for granted

instrumental and economic rationality at work in policy making circles and proposes instead a place-based vision of what is possible, informed by principles for socio-ecological relations based on responsibility, relationality and reciprocity towards the human and more than human, close and far.

CIG 2025 Roundtable Session Abstracts

Day 1: Wednesday 7th May

Parallel Session II | 15.30 – 17.00

1. Universities Under Attack: Academic Solidarity During Adaptive Times of Polycrisis, Militarization and Collapse of Empire

GEO/01/009

Chair: Jennie C Stephens

John Barry, Rafaela Scheiffer, Iris Moeller, Rory Rowan, Gerry Kearns

Around the world higher education systems are under attack by violent authoritarian regimes who deny the polycrisis that humanity is facing. As militarisation is on the rise, and the collapse of the American and British empires accelerates, what does academic solidarity look like? From scholasticide in Palestine to state arrests and abduction of scholars in the United States, fear and intimidation are becoming widespread as a mechanism to silence those whose perspectives and cultures do not align with the regime. Those who stand up for human rights and ecological health are increasingly targeted with militarized responses. How can university communities, on the island of Ireland and beyond, respond in the weeks, month and years ahead to act in solidarity during this time of global disruption and societal transformation?

Students and staff in many contexts are increasingly being incentivized to stay silent on what is happening. But silence is a form on complicity, and complacency is a form of denialism. This roundtable will ask participants to reflect on whether and how communities within the higher education sector can resist, reclaim and restructure. Discussion will focus on strategies to: (1) resist the pressure to be silent and complacent, (2) reclaim the responsibility of academic communities to engage with and expose what is happening in the world, and (3) restructure university processes and priorities to enable higher education to be oriented toward addressing the urgent challenges facing society. How should academic communities prioritize their work and engage differently during this disruptive time?

Day 2: Thursday 8th May

Parallel Session III | **09.30 – 11.00**

2. Rural Perspectives on Just Transition

GEO/01/009

Chair: Rory Rowan

Oscar Mooney, Niamh Donnelly, Deirdre Carolan, V'cenza Cirefice

Rural Ireland is known for its picturesque green landscapes and association with simple pastoral living. However, this perceived harmony is often at odds with the lived realities in such spaces. Ireland's capitalist-colonial history and state-led policies have led to asymmetrical development, feelings of left behindness, and the commodification and financialisation of nature. In recent years, proposed climate and environmental policies are impacting rural Ireland. While industrial developments are often framed as part of a Just Transition, they can have unforeseen and underheard social and ecological harms. Alterations of landscapes, disruptions of cultures, and damage to local ecosystems supported by Ireland's Climate Action Plans suggest that while a transition is taking place, justice is not.

This roundtable discussion will explore how proposed climate policies are reorganising and reinforcing rural social relations, creating and exacerbating environmental conflicts. Short presentations will be given on the ongoing and potential impacts of biogas, forestry, and mining developments in the northwest, and who these industrial shifts benefit and who is harmed in the process. These dominant pathways often present market-based solutions to address the climate crisis and can obscure a focus on creating, re-newing, and re-generating alternative visions. Yet, are grassroots initiatives plausible alternatives to top-down approaches to sustainability? We will examine calls for and examples of community-led and nature-based just transitions, as well as the challenges and limitations within these. Mutual themes will be identified, and through group discussion, we aim to collectively articulate potential low-carbon trajectories which emphasise rural well-being.

Niamh Donnelly (TCD) - Just Transitions in Biogas Development

- Niamh's PhD research explores community responses and resistance to Biogas development in the west of Ireland.

Oscar Mooney (TCD) - Cultural tensions surrounding Irish forestry

- In this short presentation, Oscar will explore adverse rural sentiments towards forestry expansion in Ireland.

Deirdre Carolan (TCD) - Grassroots just transition initiatives

- Drawing on Feminist Political Ecology and an ethic of care lens, this examines the challenges and limitations of community-level climate action to maintain, continue and repair the human and more-than-human world and work towards sustainable futures.

V'cenza Cirefice (NUIG) - Resisting Extractivism in the Sperrins

- This short presentation will focus on creative and participatory research with communities across the Sperrins who are resisting a large gold mining project. With mining being branded as essential for green transitions, the role of extractivism in Ireland must be included in how we conceptualise a just transition for rural areas.

Parallel Session IV 11.30 – 13.00

3. Imperfect Adaptability: Flawed Utopias Gone Awry

GEO/0G/014

Chair: Elisa Sofia Jimenez Borja

Niall Herron, Charlie Finucane, Elisa Sofia Jimenez Borja, TBC.

Adaptation can be theorised as a successful and necessary change, or as an imperfect search for other ways of living (Nightingale and Eriksen, 2021). 'Imperfect' adaptability offers a porous approach to how humans experience change. In this roundtable, imperfect adaptations will be appreciated in different spatial and temporal contexts in Belfast. This roundtable considers examples of 'imperfect' adaptability by exploring flawed utopias. These flawed utopias can be conceptualised as liminal spaces or secure spaces, adapting between insecure environments to circumvent oppressive hegemonic systems (Soja, 1996). In particular, we look at how intentional communities have become an increasingly common mode of adapting to, and resisting, to the perils of modernity – including climate anxiety and social isolation - by becoming a counterspace in which people feel an expanded sense of community that includes nature. We also examine how the landscape is forced to adapt and change in response to human need in a post-violent conflict society. Lastly, we excavate how a history of spatial adaptation can be found through the Belfast queer social scene during the period of conflict known as the Troubles. Drawing on research conducted through urban mapping, ethnography, interviews, participantobservation, discourse analysis and archival research, this roundtable will consider the limits of adaptation and its relationship with utopianism and liminality. We ask, how does thinking of adaptation as imperfect and flawed facilitate future change within the natural built environment of Belfast and the people that inhabit these spaces.

4. Navigating through Storms of Change: How Islandness can inspire Pathways towards Climate Resilience

GEO/01/009

Chair: Nina Liebhaber

Nina Liebhaber, Shirley Howe, Jennifer Jackson Smyth, Maxim Fomin, Anne Trine Kjørholt

Island communities are increasingly experiencing the situated impacts of the intensifying climate crisis. While they are often remote and may experience both

resilience and vulnerabilities as aspects of 'islandness', global challenges simultaneously underline their varied entanglements which reach far beyond the waters surrounding them. This roundtable presents interdisciplinary research on some of the relationalities that shape island lives. The international contributors will combine their experiences from working with different generations of islanders on Rathlin Island (NI), Inishbofin Island (IE) and the Seagull islands (NO). Despite their specific, situated challenges, these islands are connected through having to manage their relationalities with the so-called 'mainland' and finding responses to the global challenges impacting on their limited spaces. The contributions, varying in their approaches to analysing island lives, are connected by their interest in the interrelations that affect how people living on islands respond to crises. This will be exemplified by how participating islanders describe their connections to other generations and to the places in which and from which they live. For various reasons, island life in our current times can lead to vulnerabilities and perceptions of disconnection, but also connectedness, resilience and responsibility. Two contributions more specifically explore creative educational approaches that are inspired by or build on experiences of islandness and relationality. All reveal adaptation and transformative learning opportunities in the face of the climate crisis, with contributors offering a range of insights on how coastal communities can inspire education, action and policy towards a sustainable, climate-friendly future.

Parallel Session V	14.00 – 15.30
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5. The Challenges around Embedding Sustainability

GEO/0G/014

Chair: Marie Taylor and Elaine Cleary

Marie Taylor, Elaine Cleary, Shane O'Sullivan

Green advancements are propelled forward by the attitudes, knowledge and skills of those who can adapt and thrive in a greener society. In this context, educational institutes have expanded their responsibilities and are supporting learners in developing a green-skilled workforce and proactive contributors that the European Green Deal calls for.

The Joint Research Centre of the European Commission offer a shared definition of green competences through a reference framework for learning for environmental sustainability that can be applied in any learning context: the European Sustainability Competence Framework, or GreenComp.

GreenHive is a European funded project aimed at embedding sustainability in education and to include individuals, schools, organisations and regions to collaborate and pool their knowledge, ideas, solutions and skills to address the everevolving challenges of sustainability and increase capacity to prepare learners for the green transition. This roundtable discussion will outline the challenges around

embedding sustainability in education and how GreenComp and the GreenHive project could be used as examples of how to address these challenges.

References

Bianchi, G., Pisiotis, U. & Cabrera Giraldez, M. (2022). GreenComp The European sustainability competence framework. Punie, Y. and Bacigalupo, M. editor(s), EUR 30955 EN, Publications Office of the European Union, Luxembourg, ISBN 978-92-76-53201-9, DOI:10.2760/821058, JRC128040.

European Commission (2019). Communication from the Commission to the European Parliament, The European Council, the Council, the European Economic and Social Committee and the Committee Of the Regions: The European Green Deal.

6. Open-Mic: Just Transitions or Just Adaptations? Directions for Transitions Scholarship in 2025

GEO/01/009

Chair: John Morrissey, Noelle King & Kathleen Stokes

John Morrissey, Kathleen Stokes, Noelle King

The urgency of climate change and sustainability challenges has led to increasing attention on just transitions—ensuring that shifts to low-carbon economies are fair and inclusive. At the same time, the growing impacts of climate change are elevating discussions of just adaptation, which focuses on equitable ways for societies to adjust to environmental and economic disruptions.

This interactive session invites geographers and other attendees to share brief, two-minute summaries of their ongoing research related to just transitions and just adaptation. After these rapid-fire presentations, the floor will open for a discussion about the evolving landscape of transitions research in 2025.

Discussion questions include:

- Should the field prioritize systemic transformation (just transitions) or focus on mitigating harm through equitable adaptation (just adaptation)?
- Are these objectives complementary, or do they involve trade-offs?
- How do governance, justice, and policy approaches to just transition research balance mitigation and adaptation?
- What are the implications of this research for marginalized communities? This session aims to foster open dialogue and collaboration, and identify emerging research directions at the intersection of sustainability transitions, political economy, and climate justice. Whether you're developing a new framework, testing an empirical approach, or grappling with theoretical tensions, this is an opportunity to share, debate, and shape the future of transitions scholarship.

Parallel Session	16.00 – 17.30
VI	

7. Co-Creating Just Food Futures: Reflections on Collaborations with Community Partners

GEO/01/009

Chair: Karen Till

Karen Till, Dean Phelan, Rafaela Graca Scheiffer, Eray Canlar, Jack Edmunds Bergin

How can working with communities on food-related projects address major societal and environmental challenges? This roundtable highlights co-creation and collaboration with community partners to advance spatial justice through food growing, sharing, cooking, eating, recycling and composting. Key themes include: diverse economies, intergenerational knowledge sharing, embodied and emplaced education, empowerment, climate action, land stewardship, self-sustaining skills, improved mental health, multispecies communities, regenerative environments, fun and sociability. Following brief reflections from community partners and community-engaged researchers, the discussion may explore the following questions:

- Why partner for change through food? What are the challenges and possibilities?
- What is the role of co-creation when partnering?
- How can diverse local partnerships work together to support food sovereign and climate-conscious communities?
- What research approaches and methods best support such partnerships?
- What tensions arise between community and academic priorities, and how are these navigated?
- How can place-based just food alternatives be shared regionally and nationally?

Day 3: Friday 9th Ma	av	M	9 th	av	rid	F	3:	av	D
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Parallel Session VII | **09.30 – 11.00**

8. Spatial Justice

GEO/01/009

Chair: Roos Timmers and Lauren Mallon

Roos Timmers, Lauren Mallon, Hannah Thompson, Sun Cole Seeberg Dyremose, Amy Oke

This roundtable will cover issues of spatial justice and the broad notion of adaptation. Our societies are facing multiple crises from climate change, political instability, and pandemics to housing and cost-of-living crises. The ability and need to adapt are underlined by systemic constructs of injustice and power. We then ask; How can we address spatial justice in adaptation practices? In this interactive roundtable discussion, led by an interdisciplinary group of early career researchers from

Queen's, we will touch upon different approaches to understanding justice in relation to space and adaptation. The discussion will first disentangle the concept of spatial justice, where the audience is also engaged to share their understanding. The second part of the discussion will focus on lessons from real-life practices and justice-related issues in our research. The panel consists of geographers, planners and anthropologists focusing on issues of green energy transition, access to green and blue spaces, deathscapes, and contested urban spaces. We invite all to a fruitful discussion and to contribute with critical reflections.

CIG 2025 Poster Session Abstracts

Day 2: Thursday 8 th May				
Poster Session	13.00 – 14.00			
Registration foyer - outside 0G/029				

1 Balancing Compact Urban Form and Ecology: A Spatial Analysis of Sustainability Trade-offs

Tianrui Sun

Compact urban development is widely advocated as a sustainable model to curb urban sprawl, improve resource efficiency, and promote vibrant communities. However, concerns arise regarding its potential negative impacts on the urban environment. This tension exemplifies "sustainability trade-offs," where a gain in one dimension of sustainability may be accompanied by a loss in another. Using a grid-based spatial analysis, this study examines the sustainability trade-offs between urban compactness and ecology across Belfast, Glasgow, and Liverpool. Urban compactness is quantified through physical, functional, and economic dimensions, while ecology is assessed

through ecosystem service indicators, including air quality, urban heat island intensity, NDVI and green space accessibility. The findings reveal spatial variations in the compactness-ecology relationship, highlighting both synergies and conflicts. This study underscores the complexity of achieving sustainable urban forms and provides insights for balancing densification strategies with ecological considerations in future urban planning.

All for One and One for All: Dissecting PREMIERE's Multi-Actor Inclusion and Stakeholder Engagement Strategy

Shane Francis Conway

Innovation is increasingly being considered a social process, more bottom-up and interactive than top-down science to implementation. Projects funded at a European level under Cluster 6 of the Horizon Europe Work Programme and EIP-AGRI Operational Groups at a national and regional level in each of the 27 EU Member States reflect this by placing greater focus on making the best use of different types of knowledge and complementary expertise (practical, scientific, technical, organisational, etc.) through the Multi-actor Approach (MAA). A wealth of strategic management literature exists on good practice stakeholder engagement strategies that mobilise the necessary bidirectional and cross-sectoral knowledge exchange and idea generation required for successful co-innovation ecosystems. Its counterpart, however, from an Agricultural Knowledge and Innovation Systems (AKIS) perspective, is largely absent. The PREMIERE (Preparing Multi-actor Projects in a Co-creative Way) Horizon Europe Project addresses this gap by developing a 5-step AKIS Stakeholder Engagement Strategy to create an 'enabling environment' that fosters and accelerates innovation, knowledge sharing, and digitisation in agriculture, forestry, and related sectors at EU, national, and regional levels. This inclusive, multi-staged strategy aims to close the innovation gap between policy, research, and practice through genuine multi-actor dialogue, holistic insights, and feedback from project inception to completion across a diverse AKIS network (e.g. researchers, advisors, agri-businesses, farmers). By replacing one-off consultations with long-term engagement, PREMIERE's approach also builds trusting, meaningful relationships among stakeholders, from policymakers to harder-to-reach groups. The resultant knowledge exchange will significantly contribute to meeting objectives and targets set out in the European Green Deal, EU Climate Policy, Common Agricultural Policy and Farm to Fork Strategy.

They're Not Just Leaving, They're Gone": Challenges to Generational Renewal and Long-Term Care on The Islands of West Cork

Amy Duley

With an ageing rural population, concerns around who will provide long-term care in the near future have emerged. As younger people have better access to higher education and more employment opportunities outside of farming, generational renewal has become a central issue in the EU. While the field of rural ageing is beginning to garner more attention, the most peripheral areas are given less consideration. The aim of this study was to explore the challenges faced by two of West Cork's offshore islands in relation to ageing in place. Indepth interviews were conducted with eight island residents from Cape Clear (Oileán Chléire) and Bere Island in January 2025 to discuss the unique challenges that older residents face when ageing in place. Lack of supports available on the islands were expected to impact the ability of islanders to successfully age in place. Community was important in meeting social needs and protecting the few services that were being delivered. However, the loss of the younger generation directly impacted on generational renewal and expected future availability of informal care, creating a need for home care services. Furthermore, lack of housing was stressed as a primary concern which prevented new or returning residents from coming to the islands. Concerns about generational renewal and long-term care were prevalent and the State was expected to provide more supports to the islands, particularly in relation to health care services and housing, in order to better support older people to age in place.

4 Adaptation and Tools

Chao Gong

This study compared point cloud classification results, Digital Surface Model (DSM), and Digital Elevation Model (DEM) generation using ERDAS, Matlab, R, and ArcGIS Pro. ERDAS and Matlab plays key roles in data manipulation, analysis, and model construction, while R offers powerful statistical and visualization tools for in-depth analysis. ArcGIS Pro demonstrates its strength in spatial analysis and geographic information management, particularly for point cloud data. This research focused on analyzing mountainous vegetation areas and explored environmental changes in our life.

Development of a monthly snow and sleet series for the Greater Dublin Region 1867-2024

Csaba Horvath

This poster introduces a 157-year-long snow and sleet frequency dataset for the Dublin region, offering a long-term perspective on snow and sleet variability from 1867 to 2024. The dataset integrates historical (pre-1940) and modern (post-1940) observations from five sites within the Greater Dublin Area and provides a regional snow and sleet frequency dataset at three different time

resolutions - monthly, seasonal and annual. Data sources include archived meteorological records, digitised station logs, and synoptic weather reports. The poster outlines the compilation and quality assurance procedures for constructing the snow and sleet dataset. It introduces the preliminary results of a brief analysis, offering insights into long-term snowfall climatology in the Dublin region from 1867 to 2024.

6 Sport adaptation to extreme heat in a warming world

Aimée Kielt

The global sports industry faces considerable challenges due to climate change. This research project aims to investigate the impacts of climate change on both professional and amateur sporting activities across the summer and winter seasons.

The research objectives include evaluating the feasibility of sporting venues under projected climate scenarios and assessing the effects of extreme heat on professional and amateur athletes. The project will also analyse upcoming Olympic host cities for feasibility and will propose adaptation measures.

The methods employed to complete this research will include the analysis of:

- Historical climate data and projections from climate models to evaluate snow season length and depth requirements for a selection of professional winter sports
- Wet Bulb Globe Temperatures for sporting venues to evaluate the risk of extreme heat on athletes for a selection of professional summer sports
- Performance analysis of team sports participants in environmental chambers to evaluate the risk of extreme heat on amateur athletes
- Historical and future projected lake ice depth and season length to evaluate the safety/feasibility of amateur winter sports (ice skating)

This research emphasises the urgent need for adaptive measures in sport infrastructure and regulations to mitigate the effects of climate change and safeguard athletes' health and performance.

7 SPATIAL ANALYSIS OF AGRICULTURE WITH EMPHASIS ON THE EXPANSION OF SUGARCANE IN 2010: Microregion of Vale do Rio dos Bois – Cerrado Biome, Brazil

Lizandra Ribeiro Cavalcante

The change in the global energy matrix, as a consequence of the environmental crisis resulting from global warming, has been stimulating the production of bioethanol as one of the renewable fuels that has been strongly expanding in the Central-South region of the Cerrado in Brazil. In addition, the country now

has flex-fuel vehicles, new industrial processing technologies with lower environmental impact, and new cultivars that are more productive and less dependent on pesticides. The expansion of the Central-South Cerrado stands out in the Southern Goiás region, even though pastures and grains, especially soybeans, are prominent in cultivated area and the economy. In this context, the present study focuses on the analysis of agricultural data regarding the areas of the municipalities that make up the microregion of Vale do Rio dos Bois, to evaluate the spatial dimension of the agricultural area, with an emphasis on sugarcane data. Thus, through the analysis, it is expected to understand the representativeness of agriculture and sugarcane cultivation in the microregion of Vale do Rio dos Bois, located in Brazil.

8 Thinking Beyond Mobility: contextualizing the case of tramways of Kolkata

Toshali Chattopadhyay

My research seeks to study the cultural meaning of speed through the lens of urban transportation and how the global fetishism for increased speed is transforming the urban space, collective memories and imaginations of residents of Kolkata, India. The project particularly focuses on tramways and its gradual process of decommissioning in the city of Kolkata. Additionally, it delves into the evolving relationship between humans and the environment in the globalized setting of Kolkata by scrutinizing the trends of urban metabolism in the city. This analysis would offer valuable insights into the way nature evolves into a socio-physical process intertwined with political authority and cultural connotations (Haraway, 1991).

9 Recording and mapping Ireland's minor placenames

Jonathan Cherry

Ireland's rich toponymic landscape reflects the placenaming agency of both past generations and contemporary inhabitants in meeting their varying needs and ideologies. Distinct to the official administrative placenames are minor placenames, associated with both physical components of the landscape such as lakes, rivers, bays, islands, mountains and hills and man-made features including for example fields, ancient structures such as ring-forts, buildings, wells and infrastructure such as roads, crossroads and bridges. While these minor placenames are without official status, they are an integral part of Ireland's intangible cultural heritage providing important insights and significantly enhancing our understanding of how Ireland's cultural landscape has both in the past, and is presently being shaped and used. Concerns centered on the loss of unique and irreplaceable knowledge in the form of minor placenames underpins this project which is funded by the Heritage Council through the Irish Research Council New Foundations Awards. In

addition the project aims to highlight the importance of these names and provide support and encouragement to increase the number of names being recorded on the Meitheal Logainm website, which exists as a platform for recording minor placenames. In achieving this a series of workshops facilitated through local authority heritage officers will be convened, where participants will have access to a guide on, and manual for recording minor placenames.

10 ADAPTO

Elaine Cleary

ADAPTO is a €1.4 million Interreg Europe funded project to increase territorial resilience to current and future climate change impacts, through interregional exchange on design, development and implementation of climate adaptation policy measures.

ADAPTO brings together 8 partners from across Europe in Ireland, France, Greece, Cyprus, Poland and Lithuania. It seeks to strengthen regional resilience to current and future climate change impacts by fostering cross-regional learning and participatory governance. While the territorial situation and specific climate hazards may vary, territories can learn from each other in the process of designing, implementing and monitoring smart, systemic and swift adaptation plans. All territories involved in the project are developing adaptation strategies at differing governance levels and face the challenge of designing and putting into action a strategy that can build knowledge and foresight, characterise adaptive capacity, assess vulnerability and act accordingly.

In February 2021, the European Commission adopted its strategy on adaptation to the unavoidable impacts of climate change. The global recognition of climate adaptation as a critical policy priority continues to grow; however, many regions remain underprepared for the escalating impacts of climate change. Adaptation can yield a "triple dividend": mitigating future human, environmental, and economic losses; enhancing economic performance through risk reduction, innovation, and productivity; and generating social, environmental, and cultural value. European Commission (2021). ADAPTO follows a structured, three-step methodology over 36 months in Ireland, France, Greece, Cyprus Poland and Lithuania. The project will be broken into three key work areas; The first will be assessing the status quo in each region to identify existing vulnerabilities, strategies, and institutional capacities; the second will identify and analyse Good Practices (GPs) that address key challenges; the third will be supporting the adaptation and transfer of these practices to improve local and regional policy instruments. The project places a strong emphasis on multi-level governance and stakeholder engagement, involving public authorities, academia, businesses, and civil society throughout the process. Key outputs will include a Methodological Handbook, an Interregional Challenge Matrix, and tailored policy improvement plans.

European Commission (2021) Forging a climate-resilient Europe – the new EU Strategy on Adaptation to Climate Change. COM/2021/82 final. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2021:82:FIN