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MU Geography Society

43rd Edition

A Note from Professor Gerry Kearns

Head of the Geography Department, Maynooth University

In a year when we stayed home, we've learned how connected we are and need to be. Geography has been on everyone's minds from the hierarchical diffusion of Covid through international and national travel, to the so-called contagious diffusion of community spread. We have seen a geopolitics of disease from struggles over naming that were also about blaming, to the assertion of national priorities over access to and profits from vaccines.

Someone recently told me that they awakened each day to an impending sense of Zoom. Nevertheless, chained as we are to our screens we have yet tried to learn alongside each other online even while we cannot meet in person. And, so, we must share this issue of Milieu online. It is a marvel and a tribute to our esteemed editor, William Durkan.

Geographers have not allowed lockdown to halt their learning about their wider world. From the impact of Covid with Ailbhe Sherry and Brian Gaskin, to globalisation with Coimhe Currie, geopolitics with Christopher Jessop and Amy Coen, and electoral geography with Shane Hanley, and Tomás McNamara, we are an alert and astute bunch. We learn in wonderful variety, from imagining the future of American politics with Serena O'Brien, Anthony Cassidy and Anna Gallagher, to a work placement with Waterways Ireland for Shauna Maher, to the exploration of cinema with Kate Smyth, Siobhan Behan, and Nomonde Majola. Some of us did get out into the field during a pause in lockdown and Tasneem Ahmed tells us about learning aboard the Celtic Voyager while Robert Keogh and Sophie Thiesen report on a semester of visiting Inchicore, Dublin. Environmental issues engage us theoretically as in the work of Aoife Lawless-Larkin, Ciaran Burns, Cathal McGerr and Hannah Joy Treacy, but also empirically in the papers of Leo McConnell, Tasneem Ahmed, Ciara Niamh Nic Catháin, and David Ensor. And, finally, we have been listening to each other and Adrian Kavanagh rounds out this issue with a report on our recent student survey. We will try work harder to persuade the 5.5% of students who did not find the teaching of Geography good. On behalf of my colleagues I want to thank all students for their consideration over the past difficult year and I commend to you your Milieu; it made me proud to read it.

A Note from the Editor

William Durkan

The past year in Maynooth has certainly been different to most, with the majority of teaching and learning taking place remotely in the midst of the COVID-19 pandemic.

Despite these challenges, staff and students have continued to produce the quality of work that is accustomed to the Geography Department, with some of this showcased here, in Milieu 2021.

This year's edition demonstrates not only a selection of the work that was produced in a challenging academic environment, but also demonstrates how we as geographers can engage with the big issues of our time. This year's journal outlines how geography is at the heart of understanding the impacts of COVID-19, and also highlights the many ways in which all areas of research, be they physical, social, or political, have adapted to and drawn insight from the events of the last year.

Thank you to all of the excellent contributors to the 43rd edition of Milieu and all of the staff members that continually support the journal. Finally, thank you for reading, and I hope you enjoy!

William

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How Social and Cultural Geographers can Contribute to our Understanding of the Impacts of COVID-19

Author: Ailbhe Sherry

COVID-19 was declared a pandemic by the WHO on the 11th of March 2020. The rest of the year was characterised by change, as the world struggled to adapt to life with the virus. The societal and cultural (henceforth S&C) geographies of COVID-19 examine the disease beyond the realm of an epidemiology (Rose-Redwood et al., 2020). Impacts of the disease are of interest to S&C geographers as the disease created, highlighted, and enhanced S&C issues. Every aspect of the pandemic has ties to this discipline of geography, be it to the origin, the efforts to suppress the virus, or the adaption to the 'new normal' life enforced by the virus.

The origins of the infectious disease have been highly disputed, blame has been commonly placed upon a bat, the Chinese, and even Bill Gates. Yet geographers can offer a more legitimate answer to this debacle. Genomic science has been used as the dominant approach when looking at zoonotic diseases (Rose-Redwood et al., 2020) such as COVID-19. Although a topic arguably better associated with physical geography, S&C geographers can further provide valuable insight into the human geography behind these processes. Changes to the earth's spheres and systems since the start of the Anthropocene have been unprecedented. Pandemics can be directly linked back to land use change in which new pathogens emerge because of increased industrialized agriculture, livestock production and deforestation (Rose-Redwood et al., 2020). This of course comes as a result of capitalism in which the demand to provide for growing populations and growing consumption is increased. Capital's relentless exploitation of nature (Rose-Redwood et al., 2020) is not sustainable and in aiming to avoid future pandemics we must listen to S&C geographers.

COVID-19 transformed the familial spaces of home, modes of living and the geographies of everyday life (Rose-Redwood et al., 2020). Kitchen tables turned into school desks, spare rooms operated as offices and sitting room were repurposed as gyms. Places are crucial for understanding who we are and where we fit in to the culture and geography of our lives (Anderson, 2015). This sudden shift in people's relationship with place left many feeling increasingly displaced. As countries entered containment phase to prevent the spread of the virus, spatial inequalities which have been present for years were amplified. Cities experienced higher infection rates compared to rural areas due to overpopulation and conditions surrounding the urban poor. In addition to this the measures adopted, and their effects, have been far from universal. Impacts varied among and within countries depending on political regimes and capacity to respond, which has led to differences in approaches taken as well as differential infection rates and deaths (Rose-Redwood et al., 2020). Countries who experienced previous periods of prolonged austerity found their health systems

underprepared to deal with the pandemic (Rose-Redwood et al., 2020). For example, Ireland only had an ICU capacity of 280 for a population of 5 million, compared to New Zealand with a similar population had 358 but increased this to 522 by July of last year (New Zealand Ministry of Health, 2020). Social provisions for those who found themselves out of work due to COVID-19 also varied widely depending on government policy. Countries with higher development tended to provide subsidy schemes to help employers and to encourage the movement of capital through the economy in order to avoid recession, but also encouraged many to stay at home to slow the spread of the virus. Ireland was in the position to provide a subsidy scheme to those out of work due to COVID-19, yet many other countries couldn't offer such social provisions. All these facilitated changes in relations to public space, the operations of work and the space economy, the geopolitical landscape, and the global dynamics of capital accumulation.

Although the impacts of COVID-19 have not been isolated to anyone, the study of S&C geography can help us monitor and critically evaluate the discrepancies of social inequality caused by the pandemic. The emerging consensus is that low-income communities, the working class, people of colour, and migrants are significantly more inclined to be impacted by the virus as the virus exacerbates existing inequalities and disproportionately affects the most vulnerable segments of society (Rose-Redwood et al., 2020). In the UK, ethnic minorities have disproportionately high death rates (Rose-Redwood et al. 2020) which is less so contributed to genetic factors but instead is due to healthcare access, co-morbidities, and overcrowded living conditions in ghettos and social housing. Malnutrition, a common outcome of poverty diminishes the body's capacity to fight common infections (Del Casino, 2009). Employment for these members of society often consists of poorly paid jobs in sectors such as the service industry, food processing, and agriculture for instance. For example, in Peru many migrants are employed to collect and cremate COVID-19 corpses (Rose-Redwood et al., 2020). According to Redmond & McGuinness (2020), in Ireland approximately 14 per cent of essential employees are non-Irish nationals, with transport and retail having the highest concentration.

The COVID-19 pandemic has created unprecedented, sustained, and unavoidable stress for the entire population (Carstensen et al., 2020). The young and the elderly are often forefront of the COVID-19 conversation. Young people have been constantly villainised as super-spreading party animals throughout the pandemic. Yet, COVID-19 did not create this ageist narrative, it simply amplified and intensified it. Youths have always found themselves in a liminal position (Anderson, 2015), living in a grey area between childhood and adulthood. The urge to socialise, be active and reject adult culture is a natural instinct, yet the pandemic vilified this. That stated, the narrative of young people being the antiheros of the pandemic isn't entirely fair. Unpaid student nurses slave on the

frontlines and many other key workers, especially retail, have high rates of employees under 25. The lack of gratitude for their service is extremely taxing on young people. For example, I contracted the virus as a key worker. My family and I's health was valued at minimum wage. While out sick, it was not compassion I received but instead gossip over how I supposedly caught the virus.

On the opposite side of the spectrum is the elderly, who have a heightened risk of contracting the virus and suffering severe complications, including death (Carstensen et al., 2020). According to a report conducted by Carstensen et al. (2020), older adults are following COVID-19 news more closely than younger adults, meaning their intake of negative news is considerably higher. Enforced isolations such as cocooning has also taken a toll on their mental health, as in one sense they want to stay healthy, but also want to maintain their independence. It places this age group in a difficult, lonely situation.

Gender relates to more than our biological assets and capacities, but instead is something we become through the cultures in which we are socialised (Anderson, 2015). Gender inequality has unfortunately always been prevalent within our society, with norms and role expectations built off the back of historical patriarchal views. Therefore, it is no surprise that COVID-19 augmented these existing social biases. Women have felt increased gendered dimensions of inequality in many different aspects of their lives throughout the past year. Security and status were altered as changes occurred in paid work, unpaid domestic work, as well as gender violence (Rose-Redwood et al., 2020). Typically, the distribution of unpaid domestic work falls upon the female of the house, pre-pandemic females were already doing 12.9 more unpaid hours than their male counterparts (Hochschild & Machung, 2012). Women's workload doubled/tripled (Rose-Redwood, 2020) as mother's took on the role of home schooling. On top of this, a disproportionate amount (almost 70%) of essential workers were female, driven by high numbers within the three health groupings and retail (Redmond & McGuinness, 2020). The rate of lone parenthood is higher among essential employees (9%) compared to other employees (5%). This is primarily driven by a high rate of lone parent employees in the Other Health Employee group, at 14 % (Redmond & McGuinness, 2020). Furthermore, globally women tend to find themselves in poorer/unequally paid jobs without benefits leaving them more vulnerable and obliged to continue to work despite health risks (Rose-Redwood et al., 2020). Unequal pay has implications on infection rates and higher viral loads due to poor housing and diet (Rose-Redwood et al., 2020). Gender based violence (GBV) also saw a global surge as people were ordered to quarantine. According to Shah and Khurana (2021), calls to GBV helplines surged during lockdown and there was a three-fold increase in deaths of women at the hands of an aggressor in the UK. The UNPF (as cited in Shah & Khurana, 2021) has estimated that a three-month extension to lockdown would provoke 15 million additional cases of GBV globally. The

longer-term impacts of these pandemic induced, and exacerbated gender inequalities are yet to be seen (Rose-Redwood, 2020).

In conclusion, S&C Geography contributes to our understanding of the impacts of COVID-19. Many S&C issues have been created, exasperated, and amplified due to the virus. From the origin and the socio-spatial inequalities to age and gender-based inequalities, all aspects of our lives have been impacted due to the virus. S&C geographers can critically evaluate these impacts and provide insight into the processes behind them.

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COVID-19: We're all in this together, or are we? Assessing the uneven experience of COVID-19 in Dublin

Author: Brian Gaskin

Since the outbreak of the COVID-19 pandemic in Ireland last March, the media have emphasised the importance of human connection, care, and community in a time of crisis (Sobande, 2020). The government launched their '#InThisTogether' campaign in April 2020 which aimed to keep everyone in Ireland connected, and throughout the crisis they have continued to use the phrase 'We're all in this together' (Department of the Taoiseach, 2020). Although there is no denying that everyone in Ireland has been affected by the pandemic, not everyone in the country has been affected in the same way. Due to socio-economic factors, people in working-class areas have been most affected by the pandemic. A study conducted in Scotland found that people from deprived areas were more likely to be affected by severe COVID-19 in comparison with people from more affluent areas (University of Edinburgh, 2020). There are clear disparities in COVID-19 case numbers between working-class and affluent areas (COVID-19 Ireland, 2021). In Dublin, COVID-19 cases in working class areas are higher than the more affluent areas (COVID-19 Ireland, 2021). This disparity can be clearly seen in Figure One as the North-inner city and South-west areas have experienced the highest number of cases, and these areas are predominantly working-class.

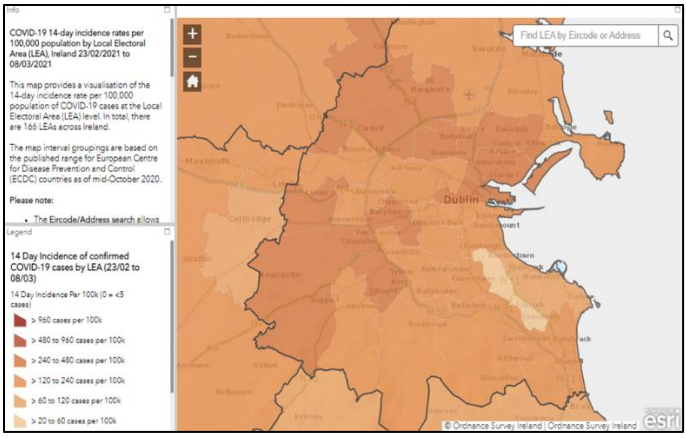

Figure One: Map of COVID-19 14-day incidence rates per 100,000 population by Local Electoral Area (LEA), Ireland 23/02/2021 to 08/03/2021.

Source: COVID-19 Ireland, 2021.

The idea that lower-income people experience epidemics differently to wealthier people is no new idea. Daniel Defoe recorded in his 1722 novel 'A Journal of the Plague Year', that in the 1665 plague in London the poor were 'more subject to be infected' due to the fact they had to take up high-risk jobs. Similarly, in the COVID-19 pandemic we see this issue resurface. Not everyone has the luxury of working from home, keeping themself safe from the virus. Many essential workers, especially those in elementary occupations, are more likely to live in deprived areas than others (Walsh et al., 2020). A study by Walsh et al. (2020) found that people from deprived areas were primarily employed in cleaning, security, and the processing plant industry. Care workers, housekeeping staff, and road transport drivers also disproportionately live-in areas of high deprivation (Walsh et al., 2020).

The Local Electoral Area (LEA) of Clondalkin has a COVID-19 case rate of 480 to 960 cases per 100k, while the LEA of Stillorgan has a rate of 20 to 60 cases per 100k (Figure One). One of the reasons which may cause this disparity is the primary occupation of people living in each LEA. In Stillorgan, 36.5 per cent of the working-age population are employed in 'professional' occupations while only 8.7 per cent of the population of Clondalkin are employed in 'professional' occupations (CSO, 2018a). People employed in 'professional' occupations are more likely to be able to work from home due to the manner of their work. In comparison, 20 per cent of the population of Clondalkin are employed in 'skilled' trades such as processing plant and machine work, while only 5.7 per cent of the population of Stillorgan are employed in the same sectors (CSO, 2018a). People employed in these sectors cannot work from home which means they are more at risk of catching the virus as they must continue to go out to earn an income and this was seen by the number of outbreaks in meat processing plants (NOCT, 2020).

Local Electoral Area (LEA)	Clondalkin	Stillorgan
Covid-19 case rate per 100k	480 to 960	20 to 60
Percentage of population employed in Professional occupations.	8.7	36.5
Percentage of population employed in Skilled trades and Process, plant and machine work.	20	5.7

Table One: Comparison of occupation and COVID-19 case rate.

Source: COVID-19 Ireland (2021) and CSO (2018a)

During a pandemic, access to information can be a matter of life or death (Pousadela, 2020). That is why it is essential for people to get factual up-to-date information to ensure their safety during a pandemic, as they know the risks and the precautions that should be taken (HSE, 2021). However, some people may find it hard to access this information or not understand it (Pousadela, 2020). During the COVID-19 pandemic there has been a lot of false information spread online, which may lead to people misunderstanding or underestimating the dangers of COVID-19 (HSE, 2021). Van Prooijen (2017) suggests that 'people with high education are less likely than people with low education to believe in conspiracy theories'. People who attend university learn the importance of using academic sources and how to assess the reliability of a source. This may be another reason for the disparities between COVID-19 cases observed in Dublin. Deprived areas tend to have a lower number of people who attend third-level education, which may make people in these areas less likely to understand medical information or be misled by false information regarding COVID-19, and as a result, increases their chance of contracting it. For comparison, the Beaumont - Donaghmede LEA has a COVID-19 rate of 480 to 960 cases per 100k (Figure One), and only 13.4 per cent of the population aged over fifteen has received a bachelor's degree or higher (CSO, 2018b). While the Pembroke - South Dock LEA has a COVID-19 rate of 120 to 240 cases per 100k (Figure One), 38.9 per cent of the population has received a bachelor's degree or higher (CSO, 2018b). Therefore, the lack

of third-level education could make select groups in society more vulnerable to infection, as appears to be the case in Dublin.

Local Electoral Area (LEA)	Beaumont - Donaghmede	Pembroke - South Dock
Covid-19 case rate per 100k	480 to 960	120 to 240
Percentage of population with a bachelor's degree or higher.	13.4	38.9

Table Two: Comparison of COVID-19 case rate per one hundred thousand and percentage of people with a bachelor's degree or higher.

Source: COVID-19 Ireland (2021) and CSO (2018a)

Another issue which contributes to people from deprived areas being worse affected by COVID-19 is the unequal health system in Ireland (Forster et al., 2018). Due to some people being able to afford private healthcare, those with health insurance who contract COVID-19 can receive better care at private hospitals as they are not as crowded as public ones (Forster et al., 2018; Burns, 2021). At the height of the pandemic in Ireland, Tallaght, The Mater, Connolly, and St. James' hospitals were the most overwhelmed (O'Loughlin, 2020). All of these public hospitals are located in working-class Dublin areas. A doctor from Tallaght said that they had 'been forced to decide who will get intensive care, and who will not' (Heaphy, 2021). During the third wave in January 2021, hospitals were overwhelmed. At the same time as public hospitals became overcrowded and unable to provide care to all patients, the private Beacon Hospital in south Dublin refused to sign an agreement to provide additional capacity to the HSE to deal with the COVID-19 surge, as they continued to serve their private patients (Burns, 2021). Doctors in public hospitals had to decide who needed ventilators and care most, while private hospitals continued to operate as normal (Heaphy, 2021). This shows that we are not all 'In this together', as those with private healthcare receive better care than people in public hospitals. This issue came to the fore in March 2021 when it emerged that the Beacon hospital had vaccinated twenty teachers from a private school in which the CEO of the Beacon hospital's son attended (Dwyer, 2021). Many vulnerable people are still waiting for the vaccine, but due to the abuse of power by the CEO of a private hospital, they still remain at risk to the virus. This again shows that we are not all 'In this together', as those in positions of power choose to look after the people that they know personally.

There is no doubt that everyone has been negatively affected by the COVID-19 pandemic in some way, but it has not been experienced equally. The phrase 'In this together' being used by the Government and media is clearly not true. Those in working-class areas have been at higher risk of contracting COVID-19 and experiencing severe effects of COVID-19 (University of Edinburgh, 2020). This is due to several factors which include, primary occupations, education, and access to healthcare (Walsh et al., 2020; Prooijen & Willem, 2017; Burns, 2021). The Beacon Hospital vaccination scandal really made it clear how people experience the pandemic differently, as corruption led to people who really

needed the vaccine missing out (Dwyer, 2021). The pandemic has also increased inequality in Ireland. Billionaires seen their wealth increase by €3.3bn since the start of the COVID-19 pandemic, while many people have lost their jobs or struggled to pay their mortgage and rent (Goodbody, 2021). After the pandemic has ended, a lot must be done to address this growing inequality. The pandemic has highlighted the extent of this disparity and how it can have such a perverse negative impact on those that are most vulnerable in society.

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Environmental Determinism and Human Culture

Author: Aoife Lawless-Larkin

Environmental determinism is the idea that physical environment determines the characters of cultures across the globe, this includes certain types of behaviours, personality traits, clothing, language, architectural styles, and so forth. It is essentially trying to say that people are primarily a product of their surrounding environment. The development of this theory determines why some societies will succeed and some will fail. Centred around the ideas of the German geographer Friedrich Ratzel (1806), environmental determinism was the major form of geographical theory during the late 19th century and for a lot of the 20th century. Undeniably, it was suggested that 'environmental determinism was geography's entrance into modern science'. (Bale, 2002). This essay will explore the advantages and privileges that some have due to their surrounding environment, the disadvantages some have had to endure due to their surrounding environment and will also attempt to explain variations in human culture from one place to another.

Ellen Churchill Semple contributed significantly to the early discipline of geography. Semple (1911) in her work suggests that development in civilization fundamentally includes a growing exploitation of natural benefits. Semple (1911) suggests that it is an erroneous idea to establish closer relations between a land and its inhabitants and suggests that humans tend to gradually emancipate themselves from the influence of the natural conditions that form the base and atmosphere of their operations at once. Semple also put forward the idea that northern Europeans were 'energetic, provident, serious, thoughtful rather than emotional, cautious rather than impulsive' (Semple 1911, 620). Chuckwudi Eze (1997) notes the words of Immanuel Kant, who labelled all inhabitants of hot zones 'idle'. These ideas brought forward by geographers and anthropologists from the past linking geography and race shows how well we as humans have developed, becoming more accepting of others, and understanding our mistakes of the past.

The theory of environmental determinism could be seen as somewhat problematic in recent decades. When the idea was originally put forward in the 1800's, the world was a very unequal place with slavery being legal in the United States and continuing on into the 1900's in the Jim Crowe era. Frenkel (1992) points out that environmentalism assumed a theoretical position in which Americans considered it normal to treat people from other races differently, and that races could be ranked based on their biological differences. Some Americans still have a romanticized view of their colonial past. Chuckwudi Eze (1997) points out the geographer and anthropologist Kant's inability to educate himself on humanity. In his table of moral classifications, he labels Americans as 'lacking passion', and he labels African Americans as 'full of passion' however can only be 'educated as slaves'. Since Kant considered his table to be 'moral', and that these ideas and thoughts will be carried on for years on end shows

what a powerful impact environmental determinism can have on humans.

Reide (2019) points out the modern case of the Haiti earthquakes. Reide (2019) claimed that the investigation of various disastrous environmental impacts observed in the area across time exposes how profoundly rooted they were in the historical processes, that resulted in the unequal distribution of risk and vulnerability country wide and at local levels in Latin America and the Caribbean. Lack of proper infrastructure, government bodies, and education had led to the construction of a society of extreme vulnerability. This type of vulnerability is also pointed out by Frenkel (1992), who points out how Panamanians were often omitted from employment and residing in the canal zone. The era affected the way towns were laid out from schools to post offices as a direct effect from the Jim Crowe laws. Many laws, practices and assumptions that had been in place from the era of slavery and colonialism, has affected so many people living in what is seen as 'poorer' or 'disadvantaged' areas. Many privileged or wealthy would have assumptions such as 'native races within the tropics are dull in thought and slow in action' (Huntington 1915, 35). This changed the way some people view themselves, and others.

Environmental determinism became progressively more unacceptable in the 1920s after the key concerns of imperialistic domination of the world were 'resolved' by World War 1 (Peet 1985). Peet also comes to the conclusion that humans acting on the earth during the fabrication of their lives transform outer nature but additionally discover and develop their own innermost nature. The experience of nature becomes internal consciousness during the social reproduction of human existence. Clarifying this process would generate a science of human-environment relations proficient in precisely managing political practice. The problem with environmental determinism is that it promotes colonialism and holds a Eurocentric view.

While environmental determinism has contributed negatively to many serious issues, it has also positively impacted certain people and has allowed people to explain certain aspects and characteristics of races. For example, statistically, African American athletes typically tend to perform better in track and field sports. In Semple's analysis, humankind does not build muscles, nature provides them, humans are the plastic which nature moulds. In other terms Semple contended that humans could not be examined scientifically in separation from the land. She understood that environment and temperament were connected. Bale (2002) notes that environmental determinism was the beauty that could explain black and white sports. He explains in the beginning of the 1950's how people were in disbelief that African Americans were incapable of matching the Europeans, especially in endurance events. Jokl (1946) put forward the view that Africa held a great athletic reserve and would soon play an important role in the Olympic games - and he was correct. Bale's paper (2002) also suggests that geographical science was essentially racist in nature, outlining that Africans have been undone in a lot of the writings about environmental determinism.

Small countries like Jamaica with a tiny population dominate when it comes to running. Why is this? How can a country with a population of only 2.9 million succeed in these events compared to larger and more developed counterparts? In the era of colonialism and slavery many people viewed others from hot climates as lesser citizens and were labelled 'idle' by Immanuel Kant. If the African Americans as viewed back in the colonial and slavery era were as 'weak' and 'lazy' as they assumed, how come they excel at sports and athletic performance? When the millions of Africans were taken to become slaves it is believed that the weaker people died on route, leaving a stronger gene pool on the other side. Wilson and Grim (1991) note that from the transatlantic slave trade, there is evidence that reveals conditions existed for 'natural selection' and genetic changes were 'inevitable in slave populations'. This implies that slave selection did take place, however, it fails to explain how it would yield a competitive advantage. Noted importantly by Harpalani (1996), Wilson and Grim's work is perceived as controversial and racist. There are many speculations about the genetic basis for success among African athletes. There are theories about athletic superiority, such as studies on muscle fibres and slave breeding. While this is a controversial subject and that thanks genetics for athletic superiority, it undermines the hard work and dedication that athletes put in putting it down to race. Davis (1990) claims the studies of genetics and success are blatantly racist. However, it is still plausible to be engrossed in human adaptation without believing one race is superior to another. Studying these sensitive topics are essential to determine fact from fiction and will help eliminate certain stereotypes. This may explain the variations between African Americans and West Africans, while they are the same race, due to slavery and colonialism, one race may possess different characteristics and attributes to the other. This feeling of superiority by Europeans and Americans explains many variations in modern societies today, including racial discrimination in housing, planning, and the built environment.

As noted by Judkins and keys (2008), when scientific questions are formed, another series of questions are then produced and they begin to probe problems with identity, ethics, change, impacts and influences the definitions of the words 'humanity' and the 'environment'. This matches the fast-changing perceptions of the environment and people over time. This is evident in the Eurocentric view that environmental determinism holds. In the book 'Guns, germs and steel' Jared Diamond (1999) points out more specifically all the essential differences among human cultures, all the variations that have led some societies to survive and prosper. Progress and other shortcomings are attributable to the existence of the local environment of each community and its geographical position. Diamond (1999) shall carry on methodically through the key Periods of history in all parts of the world and attempts to prove, with thorough reasons, how every stage in each major area can be explained largely by environmental forces. The final result of these

ecological cycles is the growth and dominance of Europe. Blaut (1997) notes that the assertions of environmental determinism points to the idea that tropical heat somehow hinders human mental and physical ability. This blatantly racist view disregards people from tropic climates viewing them as lesser citizens.

In conclusion, a determinist suggests that destiny is controlled by the surrounding environment, however, free will believes that you control your own destiny. It was interesting to see the changes in the views of environmental determinism over the years. It appears that the more dated articles had racist views of people from hotter climates or poorer regions viewing them as incapable of being intellectual or seen as lesser than their European and American counterparts. The newer articles dated after 1990's mostly contained statements criticising environmental determinism, as has proven it to be quite problematic and was a way to justify western colonisation. Sluyter (2003) has pointed out many factual and logical errors in 'guns germs and steel' such as west Africans were hunters and gatherers, because the region had few suitable plant species.

Decades of study have shown that humans' relationships with the environment are a dynamic intertwining process. As popular worldviews developed, the theory of environmental determinism became less popular, and people started looking towards environmental possibilism. Environmental determinism was an important aspect of historic geography and attempted to explain variations in humans that geographers saw across the globe. As humas grew more intelligent and accepting they can now see the flaws in some of the works of geographers of the past.

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Deindustrialisation in India as a product of British Self-Interest and Globalisation

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India saw significant and prolonged deindustrialisation between the 17th and early 20th century. Although many attempts have been made to explain this process, this essay will focus on the role of British competition, colonial exploitation, and globalisation in crippling India's once prosperous industry and export markets. It will discuss the collapse of the Mughal hegemony as an early catalyst of this process, alongside the ways in which the Industrial Revolution taking place in Britain can be said to have motivated it. Various changes taking place in the dominant modes of production within both regions can also, it will be argued, go some way to explain how deindustrialisation (and Britain's corresponding industry boom) took place.

Prior to the origin of British rule, the Indian subcontinent was subject to the rule of the Mughal hegemony. The region's economic decline is generally agreed to have begun following the collapse of this governing system, sometime between its dissolution and the reintegration of the region under the control of the British East India Company. Although there has been some controversy around this interpretation of events, this essay makes an argument in line with the perspective offered in Clingingsmith and Williamson's (2007) article on the subject.

India's initial period of strong deindustrialisation began in the mid-18th century, seeing the total industrial workforce significantly reduced. This event can likely be attributed to widespread economic instability brought about by the collapse of the formerly centralised mode of production. Although the extent of the resulting instability is still debated, its effect can be seen in a marked decline in agricultural productivity throughout this period. The rise of scattered and warring successor states utilising a largely feudalist mode of production led to a significant increase in rent shares and a reduced incentive on the part of farmers to produce goods beyond the bare minimum required for subsistence. This decline in agricultural output led to a corresponding increase in the cost of food, as demand outstripped supply. This in turn resulted in a forced increase in the production costs of goods as the real wage was also forced upwards. Increased manufacturing costs reduced India's export competitiveness in international markets, including in the textile markets that it had previously dominated (Clingingsmith & Williamson, 2007). The effects of this are especially stark in the cotton manufacturing heartland of Dacca (Egeraat, 2020a). In this way, much of India's economic stagnation in the 18th century can be attributed to the changes which took place in the mode of production.

However, the effects of this transition had consequences in later centuries. In the same period, Britain found itself in a far more advantageous economic position. From the mid-18th century onwards, Britain had begun to see rapid

advancements in technology used for agriculture, metalworking, textile manufacture, and many other industries (Ashton, 1946). It became increasingly apparent that the dominant regime of accumulation was shifting, from merchant capitalism to industrial capitalism, and more specifically its earlier stage, to competitive capitalism (Knox, 2008). Under this new system small-scale cottage industry gave way to large-scale production of goods in industrial regions across the nation, creating surplus value and as a result, large quantities of cheaply produced goods that could be exported overseas. Growing agricultural capacity facilitated the growth of urban populations and provided a foundation for the burgeoning Industrial Revolution (Ashton, 1946). Alongside Britain's internal changes came new interests in terms of international trade. Where Britain's growing empire had prioritised access to exotic goods suitable for trade under merchant capitalism, it now had the means to directly produce them. This resulted in a shift in imports from manufactured goods to raw materials, and this had implications for its colony in India (Egeraat, 2020b). Textile exports to Britain, which had peaked at an annual value of £1,014,000 in the late 18th century, declined to only £77,000 by 1820 (Clingingsmith & Williamson, 2007). This is when the impact of globalisation in bringing about India's deindustrialization becomes evident.

Considering India's significant internal turmoil prior to the 19th century, it is hardly surprising that such uneven development was taking place. By the turn of the century the impacts of this were becoming clear. The onset of the Industrial Revolution in Europe and the corresponding dramatic increases in production resulted in an influx of cheap goods to the global market. While this initial advantage benefited Britain, its colony in India was not so fortunate. This surge in supply made India's own export goods more expensive in comparison. This shift in the terms of trade in India's favour exacerbated already significant deindustrialisation within India and resulted in negative price shocks, particularly in its once prosperous textile producing sector, now superseded by Britain's.

Rapid reductions in transport costs elsewhere in the world further reduced the costs of imports, while export costs from India remained largely the same. As a result, import-competing industrial sectors saw a dramatic decline in profits, while export-competing sectors (producing mainly agricultural goods such as opium, raw cotton, silk and sugar) boomed. A rising global demand for India's raw materials acted as a further catalyst, and by 1811 they comprised 57% of total exports. This incentivised workers to move to agricultural production en masse, resulting in a prolonged period of weak deindustrialisation. By 1900, industrial employment measured just 9% of the total, having accounted for nearly a quarter of all global manufacturing in 1750 (Clingingsmith & Williamson, 2007). Over the course of less than a century India's once crippled agricultural sector had become its dominant economic driver, while what had been powerful industry was effectively hobbled.

This change took place in part due to the influence of Britain in the region. Britain's own advances in

productivity made textile production in India largely obsolete and unprofitable from a colonial perspective. Britain stood to gain from a shift to commodity agricultural production and so refused to institute tariff protections that may have protected local industry. Instead they leveraged the colonial mode of regulation to further reduce trade barriers in much the same way that other imperial powers had been doing for centuries; the use of 'gateways', or centres of commerce that took the form of coastal primate cities. These provided an avenue to funnel India's exotic goods and raw materials out of the colony to the imperial 'core', while making it easier to inhibit trade between India and any other market. This allowed Britain to dictate India's economic policy unilaterally. Once in Britain, these goods could be consumed, resold, or refined and sold back to the colony which had produced them, while the profits were reinvested in the core itself. Under this system the British Empire could extract wealth from India at great benefit to itself, but in a way which hindered the economic development of the colony. By the end of the 19th century this 'international division of labour' had been more or less globally implemented (Egeraat, 2020a).

By the turn of the 20th century however, the strongest catalysts of deindustrialisation were waning. The terms of trade had again shifted, and India was entering a period of more favourable economic factors. As this coincided with the latter part of a climacteric economic cycle in which Britain entered a period of relative decline, this is perhaps unsurprising (Knox, 2008). The dynamism of economic development in general may also be responsible, as the circulation of capital within the global market is never static. Globalisation may now have shifted in India's favour as spatial divisions of labour have only grown over the course of the century. India has found itself in a position to take advantage of this change, experiencing significant economic growth and reindustrialisation as a product of its status as a source of relatively cheap labour (MacKinnon et al., 2019). The specialisation that had for so long served to benefit Britain and other European powers may now be becoming something of a liability, as cheaper labour markets such as those in India draw lower-order functions of industry elsewhere.

Regardless of present improvement, the historical damage of Britain's parasitic relationship with its colony in India is only too clear. India saw industrial decline even before it began to experience the effects of globalisation. The ramifications of the collapse of the Mughal hegemony on the production costs of goods were given greater impact by booming foreign industry and the refusal of Britain to implement any protectionist policies in its colony which may have offered some protection to its internal markets. The decline can also be attributed to India's previous reversion to a generally feudalist mode of production and Britain's contrasting move towards industrial capitalism. The result was enormously uneven development between the imperial power and its colony, a process echoed elsewhere in the world by the dominant colonial division of labour.

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Influences of Power: The last divided Capital of Europe

Author: Christopher Jessop

Power can be considered as a measure of a group's ability to exercise and impose their own rules and agenda on the general public of a place, with the means to an end of securing their lasting control. Succession of this process is considered achieving Hegemony. A dominant group, being the most powerful, can attempt to control the actions of the population on a variety of scales. The singular agenda of this dominant group can often be counterproductive, offensive, or outright hostile to some or all other groups within their shared place. This possible clash of agendas as well as their resulting outcome on place will be the focus of this essay, critically examining the influence of a dominant group seizing/exercising their power on the landscape, population, and culture. This essay will focus on and utilise the example of Cyprus, and primarily focus on the capital city, Nicosia, which continues to witness a forceful division of culture and population, making it arguably the last divided Capital of Europe.

Cyprus has spent nearly the last 50 years in a state of cultural dishevel and local tension. In order to resolve the past Turkish/Greek conflict on the island a ceasefire was declared in 1974, putting the Cypriot-Greek and Cypriot-Turk populations at peace with one another (Bryant, 2010). In the decades since this ceasefire was enacted, this island has provided the

ideal case study to examine to exercise of power and influence on place, as the Turkish government emerged as the dominant and governing power on the island.

In the wake of the Turkish invasion and eventual habitation of Cyprus, the capital Nicosia was dissected and split by a physical wall, dividing the city into Turkish and Greek populations (Bryant, 2010). The installation of this physical border represents one of the key and initial exertions of power, claiming territory. As stated by Anderson (2015), the process of '(B)ordering' is initiated when the dominating power attempts to 'Culturally order and physically border' a place and population. In this instance, the Turkish Government's influence as the dominant power was used to isolate the original Greek population while introducing a new Turkish one. This initial use of the wall as a physical border has served as the catalyst for the influences of power to wash over the value of place in Nicosia.

As mentioned, the conclusion of the conflict and erection of the wall has left a residual trace of power in the Greek community as a constant reminder of the dominating Turkish influence. The Cypriot-Greek populated side of the wall is littered with 'traces' of their defeat and concession to the Turkish government. Figure One serves as a solemn reminder of the past conflict and defeat, old wounds which never healed. It's this image which realizes another influence of power exerted over the Greek population and their place on the landscape. As stated by Anderson (2015) "places are culturally ordered by traces", negative traces such as these bullet craters are a harsh reminder of terrible times, and thus can be attributed to the influence of power known as 'spontaneous consent"

Figure One: Bullet impacts in Nicosia, a message of 'spontaneous consent'?

Source: Rapp, 2009

'Spontaneous consent' is when the population of a place collectively abides by the rules of the dominant power as it is the least destructive course of action for said population. While considering this state of terror imposed by the Turkish, one may think that their power is a static constant ensured by their dominating power, but as Anderson (2015) notes, 'power is exercised rather than possessed'.

To grasp the true extend of their influence on place we must broaden the scale of the examination outside of the Capital to the nearby 'ghost town' of Famagusta where the exertion and influence of Turkey's power in place is hauntingly clear.

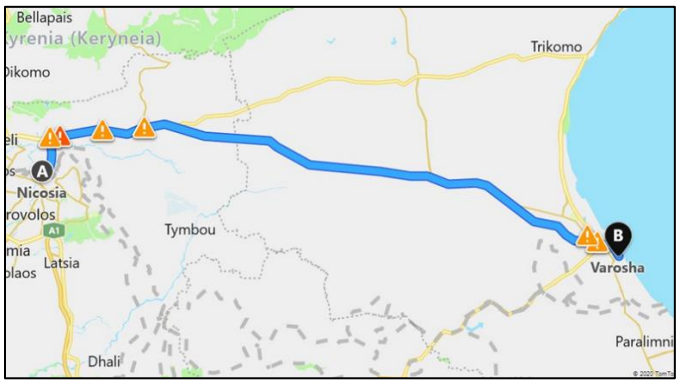

Figure Two: The 61km journey from Nicosia to Varosa/Famagusta

Source: Bing Maps, 2020

A simple search of the travel time from Nicosia to Famagusta depicts the first detrimental effect of power on place. Examining the map in Figure Two, one may notice that along the one straight road there are six explanation points dotting the 'buffer zone' between Nicosia and the once wildly popular coastal resort town of Famagusta (Byrant, 2010). Each of these points on the map are checkpoints and barricades preventing the flow of all travel into the abandoned town. Ownership of them starts as Greek, then the UN peacekeepers, and followed by an array of Turkish outposts. This is an extreme exertion of power and force which emphasises the rational that power is not held in a place but rather it is exercised through means such as the possession of territory.

Vacated in 1974 as per the terms of the ceasefire agreement, Famagusta was once a wildly popular tourist town which attracted a host of international traces and provided a local trade in terms of employment for the Cypriot-Greeks who once called it home. The documentary, 'Dark Tourist' (2018) provides a valuable insight into the people's dynamic of place following their forced departure from their homes in Famagusta and the ultimate influence of power on place. As Anderson (2015) noted, a personal attachment to place is formed through 'everyday mundane practices as well as special one-off experiences, a person-place relationship is inevitably developed'. This assessment effectively summarises the human development of 'Topophilia', the love of place.

In 'Dark Tourist' (2018), the reporter who leads the documentary interviews key members of the Cypriot-Greek population and there is one man above the rest who highlights multiple influences of power on place. Antone is introduced (at 25:42) in the documentary (Dark Tourist, 2018) as he leads the reporter up the steps of his 'viewpoint' tower which he built in 1979, five years following his forceful eviction from Famagusta. From his granted safety within the Cypriot-Greek zone it seems to be a 'normal trace' of their culture to simply look longingly upon Famagusta. The influence of the Turkish Government's power to alienate even their own home becomes apparent as Antone alludes to the possibility of being shot if he attempted to cross the

seemingly insignificant buffer zone laid out before their tower. The scene of the deathly still Famagusta in the distance is reminiscent of Tuan's (1977) concept that place effectively becomes a 'static concept' when enclosed by strict borders. While Anderson (2015) was slightly critical of this statement, looking out first-hand at the dead city shown in the documentary (Dark Tourist, 2018) it does give a lot of leniency to this morbid influence of excessive power on place.

Figure Three: Turkish Flags fly overhead at a border checkpoint

Source: RhinoCarHire, 2020

In the time since this documentary aired in 2018 there have been major developments in the region on the Turkish half of the border. On October 29th, 2020 (The Guardian, 2020) the streets of Varosha were reopened for the first time in 46 years, not to the Cypriot-Greek public who were displaced nearly five decades ago, but instead only to the Cypriot-Turk population of Nicosia. This extremely insensitive and controversial decision by the Turkish dominating power alludes to the writings of Creswell (2004) who stated, 'A dominant power will seek to establish its own experience of the world'. The clear prioritisation of their own citizens and neglection of the Cypriot-Greek population is an abhorrent abuse of their dominating power and its influence in itself only proves to further spur more influences of power, as it provokes resistance from the subservient Cypriot-Greek population. Disrespecting the sense of place held by the Greek population and instead instilling their own traces of culture within Famagusta is a blatant example of the Turkish dominating power establishing its own experience in a place which is arguably stolen.

Just as domination is a form of power, so is counter-resistance. Like an inevitable reaction, the influence of one form of power, domination, can ultimately influence the creation of Transgression, the act of resisting the norms of the power of the dominant group in a place. As previously discussed, the Cypriot-Greek population had fallen into a state of idle dormancy as a result of their 'spontaneous consent', submitting to the borders and regulations instilled by the Turkish. One minimal act of

resistance noted earlier in this essay was Antone's development of his tower, thus still maintaining his forbidden sense of place through viewing his dearly departed Famagusta. Davidson and Milligan (2004) argue that place must be felt to make sense, and Antone achieved this not just for himself, but anyone who joined him on his tower to gaze longingly back at the place to which they relate. It was in recent times however where the transgression of the public increased in intensity as protests erupted as news of the Turkish habitation of Famagusta broke.

Upon summarising the influence of power using this case study to materialise the examples, it becomes quite apparent that the influence of power is entirely reactionary. The Cypriot people must have originally believed in the wake of the ceasefire that a period of unity would follow, but instead played witness to the divisionary influence of power on place. While borders can be thought of as a physical divide, their influence runs much deeper. They create a mental and cultural divide in the population, developing an 'othering mentality' among them. This is the true claim to power, as the dominant group can simply let the 'othered' fight among themselves, as is happening between the Cypriot-Greek and Cypriot-Turk people.

The ultimate influence of excessive power on place is the negative traces it leaves and the positive traces it attempts to erase, fighting to survive. Power has materialised on both fronts of the Cypriot conflict, dominant on the Turkish side but gradually mounting on the Greek, ironically as a reactionary influence of the Turkish power. Spectators can only hope the influence of power on this place doesn't materialise into the repetition of history and the continued cycle of hatred and war which prompted a ceasefire so long ago.

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Law and Violence: How Relations Changed Under the 'Global War on Terror'

Author: Amy Coen

The Global War on Terror came to light following the heinous acts carried out by Al-Qaeda on the 11th of September 2001. On this day there was an elaborate plan to bring the United States to its knees by hijacking four transnational commercial flights and crashing them into some of the most symbolic buildings in the US. This was done with the hope of causing the maximum damage to a number of US ideals. Greed: by attacking the World Trade Centre (Twin Towers). Security: by attacking The Pentagon, which is the headquarters for the United States Department of Defence. Another location was targeted by a fourth aircraft; however it didn't reach its target, which is still unknown.

There has been military interference by the US globally long before the events of 9/11 (Gregory, 2011). War had always been a clearly defined action against perceived injustice that could be classed as an honourable pursuit of peace. As nicely articulated by Graham (2009) the battlefield has now been transformed into a 'battlespace' with no tangible boundaries or repercussions for the questionable acts committed during wartimes, as the laws are twisted to suit military strategies (Gregory, 2011).The so-called 'Global War on Terror' represents a shift in the geopolitics of war and the very reasons for it, following the humiliating defeat in Vietnam and the attacks on September 11th 2001 (Kearns, 2018). It was a blow to the American ego which meant that war went from an effort to find peace to a way to exact revenge on those who would dare to question the hegemony of the United States as a military power.

The ten days following the events of 9/11 are pivotal, with lasting impacts that influenced the Global War on Terror for the following twenty years. Just one day after 9/11, The UN Security Council announced Resolution 1368, which detailed how all United Nations members must work together to bring justice to the terrorists and their sponsors (Franck, 2001). On the 14th of September, the United States Congress provided authorisation for the use of 'necessary and appropriate' military force against terrorist nations, groups, or people, that contributed to the events of 9/11, as decided by the residing president of the US at the time (Scheppele, 2003). This is the most obvious turning point in the emergence of 'Lawfare', which is using law as a tool in warfare (Weizman, 2010). The following day on the 15th of September the North Atlantic Treaty Organisation (NATO) came to a decision to show the strongest form of solidarity possible with the US, both to show their disdain for terrorism and as a show of force so that NATO could be taken seriously as a defence organisation (Rühle, 2013). They decided to invoke Article Five, meaning that all the members of the alliance were committed to military action in defence of the United States. This was a rapid and powerful development just six days following the events of 9/11 (Rühle, 2013). The effects of these decisions were global. On the 17th of September Pakistan

closed its boarders with Afghanistan, following President Bush's address to congress using 9/11 as a political springboard to gain support and sympathy in the media and among policy makers in order to gain momentum for his military agenda (Entman, 2003).

A glaring example of the changes in law and violence and how the United States used alliances and laws to suit their prerogative is the invasion of Afghanistan on the 7th of October 2001, in what is known as 'Operation Enduring Freedom'. NATO did not lead this operation as expected but was instead involved in a loose coalition. NATO provided the US with unrestricted access to air-rights, bases and ports but had little to do with the combat, revealing a US-NATO scenario where the United States 'consults' with NATO regarding security concerns but when it's in their best interest the United States acts outside the alliance structure (Collins, 2002). The blatant disregard for law in favour of the 'end-goal' of rooting out al-Qaeda was showcased in January of 2002 when both the Geneva Convention and The White House came to the shared conclusion that people suspected of involvement in al-Qaeda (or even simply caught in Afghanistan, as it was declared a 'failed state') were not to be given prisoner of war (POW) status, and as such, had no human rights upon capture (Murphy, 2002). As astutely observed by David Kennedy, military lawyers have gone from simply conveying rules and restrictions to actively participating in the planning and discussions around military tactics and strategy (Morrissey, 2011).

Guantanamo Bay is the most notorious of the US military's bases for 'detaining' prisoners. The legality of Guantanamo Bay resides between the lines of two warring legal geographies. The first: the location of the prison outside the United States enables prisoners to be detained for an indefinite amount of time, as the camp is located in Cuba. The second: the war camp is in the United States, as the naval base and military base is under the United States jurisdiction, so this permits their 'coercive interrogation' techniques (Gregory, 2006). This is known as a 'space of exception' as conflicting laws, both national and international, allow for an area of lawlessness where there is conflicting legal basis to stop the crimes occurring in these areas. Following the suicide of three of the inmates at Guantanamo Bay, President Bush did some damage control claiming that the facility was to be shut down (of course it wasn't shut down, but the statement was made), releasing some and returning others to their native countries as he didn't want the so called 'critics' to have an excuse to say the US is not upholding the very values it claims to protect (Gregory, 2006).

It wasn't only Afghan prisoners who suffered at the hands of the invading military powers of the Global North. Iraq was invaded a year after the US touched ground in Afghanistan. After multiple failed attempts by President Bush to gain the UN Security Council's support in by authorising the use of force against Iraq, he decided to simply ignore the objections and on the 20th of March 2003 President Bush, with support from the UK and Australian militaries,

declared war on Iraq, an action which completely lacked formal authorisation by a competent international body (Sifris, 2003). The war didn't last long, with President Bush announcing 'Mission Accomplished' on the 1st of May 2003, just three months after the initial invasion. However, in April of 2004 reports emerged with images of the gross treatment of the prisoners captured at Aru Ghraib. Iraqi men were both physically and psychologically tortured by military personnel. Photos emerged of men being walked on a leash by female soldiers and made to form a naked pyramid with other men, which due to their cultural ideals would have been the height of humiliation (Keller, 2006). There were a couple of soldiers convicted of misconduct because of their mistreatment of the prisoners in Aru Ghraib, however, no superior officers were convicted due to the treatment, or mistreatment, of prisoners in Iraq.

It is beyond doubt that the Global War on Terror has altered the ways in which law and violence interact. In general, the law is in place in order to restrict violence and promote 'peace'. The events that have occurred and are still occurring mostly at the will of the ever-powerful United States of America, who completely switch the meaning behind the law and transform it into something that is sinister, and in most cases very violent. 9/11 was a truly horrific event carried out by the fanatics of a terrorist organisation. The response from the United States and other allied states however has caused such a disproportionate loss of life that was unlawful and frankly immoral. US 'lawfare' creates a narrative of emergency or necessity, whilst in the shadows causing human suffering beyond comprehension. They can do this because they've got lawyers focussing on laws that offer a 'get out of jail free card' and focus their attention on slipping through the cracks of international law (Morrissey, 2011). This attitude of invincibility is a dangerous one, as clearly shown by the actions of the United States military in Afghanistan and Iraq as examined above.

In conclusion, Morrissey (2011) points to the work of David Kennedy to highlight this issue. 'International law "legitimates". It means, of course, that killing, maiming, humiliating, wounding people is legally privileged, authorized, permitted, and justified'.

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Electoral Geography Overview

Adrian Kavanagh & William Durkan

2020 was an exciting year for electoral geographers. On February 8th Ireland went to the polls in an election that would see the growth of non-traditional parties, with both Sinn Féin and the Green Party returning their largest number of TDs in the state's history. If that excitement wasn't enough, November brought the much-awaited Trump Vs Biden bout on the other side of the Atlantic, which surely didn't fail to disappoint.

One of the exercises for the GY227 Political Geography module this year asked students to submit a critical overview of a political party's election campaign in General Election 2020 - from a geographical perspective naturally - in an individual Dáil constituency (in most cases, a student's home constituency). There were many interesting submissions from the class for this assignment, including the following two submissions from Shane and Tomás.

GY347 focused on all things American, and while it may be hard to top the big personalities we have become all too familiar with in US elections, this year's selection of fictional candidates certainly didn't hold back, with Foxy Foley (Republican) and Bill Wright (Democrat), as well as third-party candidate, former President Grant County, fighting for the hearts and minds of the (fictional) American Public. Serena (who played the role of Republican

campaign worker, Mel Walzer) and Anthony (who played the role of Democrat candidate, Bill Wright) offer their different overviews of some of the highs and lows of yet another nail-biting campaign, which ultimately was decided by a few thousand votes in Arizona and New Hampshire, as well as the always-important Nebraska Congressional District 2.

The electoral geography segment of Milieu concludes with an intriguing presidential debate taking place between two aspiring candidates, a quantitatively minded Martin Musk and feminist geographer Sabrina Hicks, as authored by Anna Gallagher. What could go wrong?

General Election 2020: Sinn Féin in the Cavan-Monaghan constituency

Author: Shane Hanley

Sinn Féin selected two candidates to run in the Cavan-Monaghan constituency at the 2020 General Election. These were Carrickmacross based Matt Carthy and Cavan based Pauline Tully (Kavanagh, 2017; Northern Sound, 2020). This election was a big success for both candidates, as both were subsequently elected with ease. Sinn Féin's campaign focused on the Monaghan part of the constituency for Matt Carthy, while pushing for Pauline Tully to secure most of the Cavan votes (Anglo Celt, 2020). They utilised strong vote management techniques throughout the campaign. For example, Matt Carthy's advertisements in the local newspaper encouraged Cavan based voters to give their 'Number 1' to Pauline Tully and 'Number 2' to himself, knowing he will receive enough votes for election in his native Monaghan. The use of this literature demonstrates the candidates' commitment to a geographical campaign approach. (Anglo Celt, 2020).

Matt Carthy was elected on the first count, topping the constituency with a large 22.6 per cent of first-preference votes, while Pauline Tully was elected on count two, also having a rather large 14.08 per cent share of first-preference votes. (Irish Times, 2020). This means that Sinn Féin topped the first-preference votes, with 36.68 per cent of all cast, over 10% greater than the next two most popular parties,

Fianna Fáil and Fine Gael. What makes these numbers more impressive is that this was with one candidate less than the other parties (Irish Times, 2020).

What can be drawn from these statistics is that Sinn Féin were quite easily the most popular party in the Cavan-Monaghan constituency, and I think they had some missed opportunities here. In my opinion, Sinn Féin should have run three candidates. Due to these underlying numbers, the evidence suggests that there is a very high probability they would have got a third candidate elected. I would suggest that they should have run a third candidate in the Monaghan part of the constituency. The reason for this is that Monaghan based Matt Carthy was a strong candidate expected to be elected (Bray, 2020). As previously mentioned, this turned out to be the case and he was deemed elected on first count surpassing the quota with over 4000 votes to spare (Irish Times, 2020).

The party could have better utilised the geography of the 'friends and neighbours effect', which is a concept that people will vote for the local candidate in their area (Parker, 1982). Parker (1982) outlines different reasons for this effect, such as voters liking the idea of having a local candidate elected and basking in the glory of this. Self-interested reasons are another possible factor for the 'friends and neighbours effect', as voters believe the candidate will do best for their area, and through local information flows, the candidate has an inside knowledge of any issues and problems (Kavanagh et al., 2021). By utilising this geographic strategy and good vote management techniques, I believe a third Sinn Féin candidate in Monaghan would have received a large portion of surplus transfer votes from Matt Carthy, and on top of their own first preferences, they would be put on the front foot to being deemed elected. However, the candidate may not have even needed the 'friends and neighbours effect', as according to Kavanagh et al. (2021), the Sinn Féin support surge throughout Ireland was so strong they often defied the usual geographic support patterns.

To counter the argument for running three candidates, it is worth noting that Sinn Féin had never claimed two seats in the Cavan-Monaghan constituency prior to the 2020 General Election. There was no real sense that Sinn Féin would have this much success, at least until very close to the election when predictions became more apparent (O'Reilly, 2020). For instance, the 2019 Local Elections were a disaster for Sinn Féin (Leahy et al., 2019). County Cavan turned out very poor for Sinn Féin, claiming just one seat and losing three in the process from the previous Local Election in 2014 (Irish Times, 2019). In County Monaghan however, Sinn Féin were once again a strong presence at the 2019 Local Elections, winning the most seats (with six) and defying the nationwide trends, albeit down one seat from 2014 (McArdle, 2019). The support pattern in Monaghan when the party were dramatically losing seats nationwide, shows that the area is a stronghold for Sinn Féin. This further enhances the previous point made, that Sinn Féin should have run an extra candidate in the Monaghan area at the 2020 General Election.

The argument for running a third candidate is also supported by other evidence, such as the competitive wide-open toss up for the last two seats in this constituency (O'Reilly, 2020). For example, it took eleven counts for the final two seats, which went to Brendan Smith and Niamh Smyth of Fianna Fáil, to be filled (Horgan-Jones, 2020). Given the dominant nature of Sinn Féin's campaign and the near 'catch-all' geographic support patterns, I believe they certainly would have got a third candidate elected at the expense of one of Fianna Fáil's two elected candidates had they run one in the Cavan-Monaghan constituency. The Sinn Féin party certainly had nothing to lose by adding a third candidate to the ticket given the ease of election for their candidates and while it may have been tough to predict this success due to previous election results, I believe it was a missed opportunity.

Indeed, the party were said to be left to rue the decision not to field more candidates nationwide (Young & Black, 2020). Additional candidates in areas such as Murnaghan may have seen even more seats gained, in what was Sinn Féin's most successful General Election since the foundation of the state.

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General Election 2020: Social Democrats in the Kildare North Constituency

Author: Tomás McNamara

The Social Democrats (SD), a new party formed in 2015, have contested two general elections (2016, 2020) and one local election (2019). In Kildare North SD have one TD, Catherine Murphy. Kildare North has a district magnitude of four seats.

Due to the candidate centeredness of PR-STV elections, selecting the correct candidate is key. SD only ran one candidate, Catherine Murphy, and so weren't concerned with vote splitting and could avail fully of the 'friends and neighbours effect' (Kavanagh, 2016). To her advantage, Murphy was the incumbent TD and as co-leader of the party, had a national media presence. The campaign in Kildare North for the SD was more focused in the northern areas of the constituency, where Catherine Murphy lives, the more populous part of the constituency.

The campaign can be seen as successful as SD's incumbent, co-leader, candidate was re-elected in the 2020 General Election with a vote share of 19.3 per cent (RTÉ, 2021). Although down 3.4% from 2016, due mainly to a swing against the government in the final two weeks. SD's vote share was greater than Fine Geal (17.8%) who ran two candidates and also won one seat. It is possible that SD could have run a second candidate in the Naas area, being furthest away from Catherine Murphy's base but also as SD have a councillor in Naas. Doing so could have

helped raise the status of SD in the area and also have taken some votes from James Lawless, Fianna Fáil's TD from Sallins. Fianna Fáil ran two candidates and achieved a vote share of 26.2 per cent (RTÉ, 2021), one in Celbridge and one in Sallins, the two ends of the constituency avoiding vote splitting and gaining from the 'friends and neighbours effect' in each case.

In the first count Catherine Murphy was 382 votes below the quota (Oireachtas, 2020) and so was in no risk of losing her seat. With this in mind, the risk of splitting the party vote is smaller than may have been perceived and SD could have run a candidate in the south of the constituency, possibly a male for gender quota reasons (Gallagher et al., 2021). One reason for only having run one candidate may be that Catherine Murphy may have a preselected successor. Cllr. Nuala Killeen has worked in Catherine Murphy's office since 2012 and has been involved with SD since the formation of the party, and as such, holds 'expertise to navigate systems of local and national government' (SD, 2021).

The 2020 General Election in Kildare North was a relative success for the Social Democrats, with co-leader Catherine Murphy topping the poll in the first count for the second consecutive election. This strong level of party support in the constituency begs the question if the party has a chance of securing an additional seat in future elections, with a good opportunity for a geographically balanced ticket. The 2020 campaign highlights a constituency where the party is particularly strong within the country, with the relatively new party continuing to find its footing in terms of widespread, national electoral success.

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Republican Campaign Diary: A Critical Commentary on the 2024 U.S. Presidential Election

Author: Serena O'Brien

Battling to win the hearts of the American people is a tough process, but it is also one of the most rewarding experiences. Here lies the account of an American presidential election, when three candidates named Foxy Foley (Republican), Bill Wright (Democrat) and a third-party candidate, former president Grant County, battled to gain the vote of the American people. This learning journal critically reflects upon my experience throughout this election and documents what I learned from it. From active involvement, fostering communication to taking ownership of my learning, this metacognitive entry aims to document this election process.

The first part of the formal American presidential election process is the primary election, which determines who will be the elected pledged delegates for the Republican and Democrat party convention – the people who will ultimately decide who their party's presidential election candidate will be (Gallagher and Mitchell, 2005). Most states use proportional rules for the allocation of delegates, with each state having a certain number of electoral college votes attached to it, although some states in the Republican contest, like Ohio and Florida, allocate their delegates on a winner takes all base (Gallagher and Mitchell, 2005). Different states hold their primary election on various dates and voting in the early states of Iowa, New Hampshire, South Carolina and Nevada begins the primary election process. States have various types of contests. Iowa for example partakes in caucuses and New Hampshire hosts primary elections. There are various state primary election types, including binding, non-binding, open, and closed contests (Gallagher and Mitchell, 2005).

Potential Democratic and Republican candidates emerge from hibernation one year prior to the primary election. The first event of the primary season is the Iowa caucuses, where citizens vote for their preferred Republican and Democrat presidential election candidate. Success in presidential elections is determined by the concept of 'Mo Mo'. (Money and Momentum). These aspects of 'Mo Mo' are interlinked because if the candidate builds momentum, they attract more donations. If a campaigning team has money, they will be able to advertise effectively, which will encourage further momentum building (Gallagher and Mitchell, 2005). Candidates build momentum by making themselves known at pre-election debates, which can make or break them. Opinion polls confirm a candidate's position in respect to the primary elections, and result in a higher level of momentum.

I as Mel Walzer, was a member of former New York Mayor Ruth Aaronson's campaign team. It was vital that we showed the American people that Ruth was an electable candidate. To build momentum, we had to work hard to win the people's trust in at least one of the early states in the primary elections. To start

our election journey, Team Ruth Aaronson attended the Iowa State Fair, where we strove to gain the trust of the people. Political success in Iowa was important, as gaining the voters' trust gives candidates the momentum they need to propel them to victory in the primary election. The Iowa State Fair was an opportunity for our team to show the American population how normal we were to gain their trust. Events here are live streamed, and the press are constantly reporting, so gaining momentum here is vital for any campaign. The people at the Iowa State Fair do not always attend campaign rallies, so we realised that this was an event where we could gain many votes. The fair was not a place to discuss our party's policies, but to illustrate that we were on the side of the American people. Traditions like eating the produce on show at the fair made us relatable and helped to build momentum for our campaign. It was vital that we build momentum in New Hampshire, South Carolina, and Nevada also. Reflecting critically on this experience, I feel that we should have campaigned to a greater extent in South Carolina, a winner takes all state. It was, however, difficult to compete with the level of posting by the Foxy Foley team in both Iowa and South Carolina, so we worked very hard to instead win the contests in New Hampshire and Nevada and were successful in doing so. We worked very well as a mini team campaigning in these states and built the momentum we needed to win New Hampshire and Nevada by thinking strategically, partaking in team meetings, and planning efficiently.

One of the biggest dates in the primary calendar is Super Tuesday, a special day when a large number of states (maybe thirteen or fourteen) vote for their preferred candidate in primaries or caucuses (Gallagher and Mitchell, 2005). A third of all the delegates available in the entire primary season were to be won on Super Tuesday. This event plays a key role in determining who will be elected as the party candidate. I knew our candidacy was viable because of our success in the early states and it was important that we carried this momentum into Super Tuesday. The Super Tuesday state with the most delegates attached was California, so we planned our posts strategically and this was our main focus. During this process, other candidates lost momentum and withdrew from the race. It was vital that we gained as much support and endorsements from these teams as possible. After gaining the support of three of the withdrawing candidates we realised that, by making this strategic move, we could then establish Ruth Aaronson as a front-runner. Our plan for Super Tuesday was to imply the right message that would help us gain the support of the people. At this moment, I realised that American politics isn't about policies, but relatability. The secret to become a relatable candidate is to be seen in public places with the people, showing that you like what they like and most importantly, showing that you are not an elitist politician! We as a team did our best to show that we understood the voters' concerns.

Despite the efforts of the Ruth Aaronson mini team, the Foxy Foley administration won the Republican nomination. At the Republican Party Convention,

Foxy Foley was elected as the Republican president, but we needed a running mate to accompany him. It was important that this running mate had some past electoral experience, such as a state Governor who has experience of holding power and responsibility. I realised that nominating a female running mate would be an advantage, as she would appeal to a key voting block and engage with American women. Sigelman and Wahlbeck (1997) discuss that party leaders tend to elect vice presidential running mates from large states. They also discuss how nominees who can capture the electoral votes of mega-states determine the election outcome. Martinez (1989) advises that candidates should form geographic, ethnic, and gender balanced tickets. Drawing from this literature, I strove to argue for a geographically and gender balanced ticket for our team. Voting Ruth as our vice president would allow us to gain the trust of American women and in particular, suburban women. In saying this, what better vice president to elect than Ms. Ruth Aaronson, but as politics is, decisions are never that simple!

In past Republican conventions, like the convention of 1976, the candidate wasn't decided on before the convention and this disunited the party. At one point in our Republican team discussions, I thought the events of the 1976 convention were repeating themselves! Parties don't like contested party conventions, but us Republicans put this form of party contestation to the test! These conventions are usually sites of party celebration, but at one point, there was no celebration in sight for us Republicans. However, by working as a team, we united as the Foley-Aaronson ticker. The end of this convention marked the beginning of the general election, where our focus was now based on various swing states and congressional districts.

Geography always underpins what occurs at American elections. Every country is divided into constituencies which determine the spatial structuring of the electoral system. The way political actors operate within the constituencies is important for the campaign (Johnston, Rossiter and Pattie, 2005). We politicians had to focus on the votes that were needed to succeed, as related to the concept of vote distribution efficiency, which is the means of ensuring that votes are distributed as efficiently as possible (Johnson, Rossiter and Pattie, 2005). The more efficient the vote distribution is, the better the parties' chances of winning are. Vote distribution efficiency is highest when parties win effective votes which are the 'votes that bring victory' and are 'calculated as the number of votes won by the second-placed candidate plus one' (Johnston, Rossiter and Pattie, 2005: 959). We strove to win as many effective votes as possible and to reduce the number of wasted and surplus votes. I knew we had to travel to regions where effective votes could be won, and where better to gather effective votes than the swing states! The effective votes won by the Foley-Aaronson team in key swing states are listed in Figure One.

Shelley (2008) states that red states are focused in the deep south, as well as the Mountains/Plains region, and these predominantly support the Republican Party in presidential elections. These states contain

high numbers of rural and suburban voters. It was important not to campaign in these states, as we were virtually guaranteed to win the electoral college votes in states like Wyoming, West Virginia, Louisiana, Alabama and Kentucky and any campaigning in these states would solely act to simply increase the number of surplus votes won there and would do nothing in terms of increasing our overall tally of electoral college votes.

Selected Swing States	Wright (Democrat)	Republican Effective votes
Arizona	1,626,279	1,626,280
Florida	4,874,788	4,874,789
Georgia	1,825,531	1,825,532
Maine Cong district 2	*131,161*	*131,162*
Michigen	1,870,131	1,870,132
Nebraska Cong district 2	*88,330*	*88,331*
Nevada	620,233	620,234
New Hampshire	349,839	349,840
North Carolina	2,045,086	2,045,087
Ohio	2,163,256	2,163,257
Pennsylvania	2,804,719	2,804,720

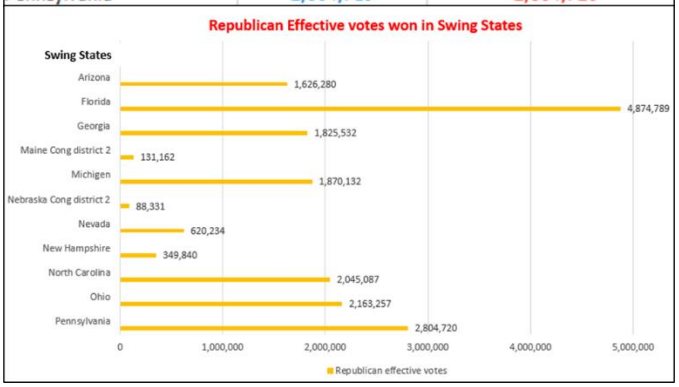

Figure One: Effective votes won by the Republican team while winning key swing states

Blue states, like California, New York and Delaware, are states that are located on the Atlantic and Pacific coasts and consistently vote Democrat in presidential elections. The outcome of Purple States is always uncertain, and these states are the focus of heavy campaigning during any general election. I can confirm from this experience that this statement is very true!

However, there is a geographical aspect to these regions. Black and Black (2007) discuss the political makeup of American regions and their divided natures. The scholars discuss how the Northeast is mainly a Democrat region, however some states like New Hampshire are classified as swing states. When charting our plans at team meetings, we realised this was an important state to win. The swing state of Maine divides two of its electoral votes between Maine Congressional Districts 1 and 2. Congressional District 1 is very Democrat, but District 2 is very rural, so this district was one that we focused on. The Pacific and Atlantic coasts are very strong Democratic regions, so we decided not to campaign there. The Mountains/Plains and deep South regions are mainly Republican. States such as New Mexico and Colorado were originally red states and then became swing states but have now diverged more towards the Democrats. McKee and Teigen (2009) conclude that this process of political realignment occurred, in part, through the process of increased levels of spatial polarisation. Black and Black, (2007) discuss how the Midwest region is not dominated by any party, therefore it was vital for our administration to travel to states like Iowa, Michigan, Wisconsin, and Minnesota. The insights of Black and Black (2007) gave me a view of American political competition in the more Democrat and Republican regions, but also in the "swing" region of the Midwest, and this literature helped me to make

decisions with the team when planning for the general election.

To win effective votes, we had to campaign in states like Nevada, Arizona, Texas, Florida, Georgia, North Carolina, New Hampshire, Pennsylvania, Maine, Michigan, and last but not least, Minnesota, the states where any election is won or lost (and let's not forget Nebraska Congressional District 2 and Maine Congressional District 2). Trends in recent years show that Ohio is becoming more of a Republican state, so we decided as a group not to put all of our efforts here.

Kavanagh (2016) states that the 2016 Trump vote was efficiently distributed, meaning that there was a larger number of effective votes for him, while by contrast, Hillary Clinton received a larger amount of wasted and surplus votes. We attempted to follow this strategy, as illustrated in Figure One, although we did also lose out narrowly in other swing states, such as Minnesota and Texas.

An effective strategy that added to our momentum was making use of our home state. Devine and Kopko (2011) discuss the electoral significance of a candidate's home state advantage and argue that this advantage influences a party's campaign strategy. Devine and Kopko (2013) draw on the ideas of Key (1949) whose ideologies were built on the 'friends and neighbours' hypothesis. He argued that candidates perform most effectively among voters living in close geographic proximity to them because local voters tend to be familiar with the candidate, view the candidate as conversant about local worries, believe that the candidate will be inclined to direct government resources toward solving them, and most importantly, share a common geographic identity and view the candidate as one of their own. Drawing upon these ideas, I used my home state advantage of residing in Nevada to gain momentum for the Foley-Aaronson campaign in that state.

It was extremely important to make specific appeals to certain regions and groups. McKee and Teigen (2009) discuss increased levels of spatial polarisation in electoral trends. They illustrate how American politics has become more polarised and the ways in which these political divisions are evident in society. Black and Black (2007) argues that there has been a realignment of American politics. There exists a growing influence from minority groups, which benefits the Democrat party. However, the Democrats have lost votes from white working-class people. Based on these trends, we realised it was important for us as individual politicians to share our policies with working-class voters. We also mounted a major push across battleground states to gain the suburban women vote, a key demographic that we knew would help us be successful. Even though the style and divisive rhetoric used by a certain Republican candidate (Donald Trump) in the 2020 election may have turned suburban women against him, we were determined to reverse this! We advocated for solutions to economic problems that hold families back, such as affordable childcare, female empowerment, and paid family leave. We worked hard across the battleground states to ensure Foley and Aaronson had the infrastructure they

needed to win the election. The use of endorsements from members of the Maynooth Geography Department and local politicians helped gained momentum for our campaign and showed we were relatable and were supported by Doctors and Professors! I would like to take this opportunity to thank everyone who helped me throughout this process by endorsing our campaign. The use of added visual imagery in the form of 'made up' newspaper headlines and CNN reports, as illustrated in Figure Two, added a sense of reality to my posts, allowing our campaign to attract many votes.

Figure Two: Images (based on "real life" contests) used to illustrate some of my campaign posts

Throughout the election process, it was vital for each of us to pay attention to details by responding strategically to opinion poll figures and viewing advances of Grant County and the Democrat Party. I believe we worked very well as a team. We designated most members of the team to specific swing states, with another group member and me travelling between states when we knew extra support was needed. We were constantly focused on every swing state, as both Grant County and the Democrat Team planned their state visits in a very clever way. I believe it was these strategies that helped the Foley-Aaronson team to win the 2024 Presidential election!

This journey has been one of the best learning experiences I have embarked on. We tried our best to work as a team, to think strategically, communicate efficiently, strive to reach our goals, and motivate each other along the way. We believed in a country where we could invest in employment, education, science, and infrastructure so that we could create new opportunities, so that children could have a future. Most importantly, we learned the tools and techniques needed to gain the support and respect of the American people and ultimately learned how to win a presidential election! From receiving late endorsements from politicians and from the daily tensions among three candidates who strove to become the next president of the U.S, and their teams, to the post-electoral celebrations and hard work that paid off… if these are the ups and downs of politics, well I wouldn't have it any other way!

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Democrat Campaign Diary: A Critical Commentary on the 2024 U.S. Presidential Election

Author: Anthony Cassidy

With over 18,870 words written and countless hours spent strategizing, researching, and appealing to the citizens of the United States, the Bill Wright campaign was unsuccessful in reaching the Oval Office, losing out by just one Electoral College vote. However, the Bill Wright campaign was successful in broadening my understanding of the United States election process; not only from a structural perspective, but my overall political awareness, understanding, and appreciation for electoral politics. Throughout the task my apprehension towards political strategy, central concepts, political philosophy, theory, and approaches developed significantly, while similarly sharpening my overall communication and teamwork skills. Through the eyes of Democratic candidate, Senator Bill Wright, I received a brief and diluted glimpse of the diligent efforts, challenges, constraints, and obligations of candidates within the American presidential election process. Every step of the election was both intense and engaging. In hindsight, our campaign prevailed and succeeded in many aspects. Although, undifferentiated from all campaigns, successful or not, there was scope for improvement. This learning journal will draw on the successes, the challenges, and the various blunders of the campaign, sectioned

into the major segments of the task, starting with the candidate selection and pre-election events.

Correspondent to real life elections, our opening gambit preceded the primaries and the general election. In our case, we served as our own exploratory committee, determining which candidate (out of the list of Democrat candidates that we could choose from) possessed the most potential and most beneficial attributes. Considering the designation to a political party was determined by the means of a transparent draw; it was crucial to evaluate both the Democratic and Republican candidates. In retrospect, our team had an advantage, as we formed a campaign team prior to the draw, enabling us to discuss and analyse not only the characters but also their team members, while assuming positions in the process. We effectively shortlisted, prioritised, and ensured we embodied promising characters. Ultimately, we selected Bill Wright, an experienced politician, and the leader of the Democrats in the Senate, boasting the second highest initial campaign budget of $65 million. He was well-resourced in comparison to others. Moreover, we recognised the potential in his character details as someone who was able to 'make deals' with Republicans; we understood this would be beneficial in the later stages and the swing states. We lacked ethnic diversity but acknowledged this factor going forward. Another aspect worth mentioning is the real-life politician selected to visually represent my candidate. I chose Joe Biden, noting the extensive range of photographs available online to support any future speeches, visits, etc.

The pre-election events consisted of building a likable, honest, and charismatic persona. Bill's patriotic and altruistic traits started to form, portraying an honest and trustworthy candidate. We effectively utilised the Iowa State Fair to establish ourselves as the future leading candidate. Depicting a culturally aware and grounded leader, we achieved this through researching the Fair and resonating with the crowd.

The early states and early successes are crucial to a successful campaign (Bartels 1988). As a team, we understood the importance of this stage. This section allowed me to not only to grasp the delegate system associated with the primary elections but understand its importance and central role in the election process. Our success began in Iowa. I attribute this to the volume of posts and engagement. Notable blunders on the opposition's behalf, such as bidding farewell to the voters in states a few days before a campaign was scheduled to close there, also worked in our favour.

New Hampshire proved more challenging, candidates became more active, including rival Bobbi Bingham (played by Adrian Kavanagh). Our immediate strategy was to undermine any accusations or attempts to hinder our campaign. This was a result of a key component to our success, the utilisation of our lecturer's office hours. These allowed us to develop strategies and tactics, including how to respond to, and spin, any jabs from opposition candidates. We began to understand the Democratic ideology. Posts ranged from climate change, social equality, Medicaid, progressive

taxation, to many other diverse other social issues. Additionally, I acquired an endorsement from Prof. Karen Till. Amassing endorsements was crucial, both for primaries and for the later stages.

MO-MO (money and momentum) was central to our strategy. Bill won in both Iowa and New Hampshire and we carried this momentum into Nevada and South Carolina. Our arguments started to develop, and we effectively researched statistics, organisations, social issues and incorporated anecdotal 'experiences' to appeal to the nation. Our use of artistic licence on the team's past and connections, such as relations, experiences etc. further assisted us in connecting with the voters. A notable instance was when I mentioned Bob Casey was a gay man, appealing to the LGBTQI+ community as I emphasised the importance of equality to our team. We found a rhythm and our future looked promising.

Super Tuesday soon followed, alongside some strategic hiccups. We received an endorsement from Candice Buckley, following the suspension of her campaign, adding further momentum. We began campaigning in Virginia (home state of Bill Wright), also home of our strategic blunder. In hindsight we spent far too much time in Virginia, where we would have been expected to poll well, in any case. Candidates tend to poll overwhelming majorities in their home states and receive significant support in bordering states (Key, 1949). This is due to the 'friends and neighbours effect', a concept prominent in elections containing parties, primaries, and the overall electoral geography lexicon (Johnston et al., 2016). This oversight resulted in rival Wyatt Huntington gaining traction in other states. His active candidate endorsements were also extremely effective in comparison to ours. We communicated this concern and strategized, producing high volume and quality posts in the final days of the Super Tuesday campaign. Ultimately, due to the late start made by the Huntington team (meaning they lacked momentum), we won some big wins on Super Tuesday and, as the confirmed Democrat candidate, morale was high moving into the general election.

State	Delegates	Bobbi Bingham	Tim O'Toole	Candice Buckley	Wyatt Huntington	Bill Wright
South Dakota	20					
Tennessee	75				56	19
Texas	251				65	186
Utah	37					
Vermont	26				6	20
Virgin Islands	95					
Virginia	109				19	76
Washington	118					
West Virginia	29					
Wisconsin	96					
Wyoming	18					
Total	4,392	8	5	28	502	1,128
		0.5%	0.3%	1.7%	30.0%	67.5%

Figure One: Super Tuesday Results

The general election proved far more complex. We chose Cecilia Huntington as a running mate to enhance our platform, expand our geographical reach and appeal to key voting blocs, such as suburban housewives. Selecting a candidate from a swing state would have also proved beneficial, although we took the activity of the students themselves (during the primary election stage) also into account. Generally, our team had a great grasp of blue, red, and purple states. This is the stage in which I grasped the importance of disproportionality and bias. A

majority share of the popular vote does not equate to victory; disproportionality is central in the general election (translation of popular votes to Electoral College votes) as well as bias, the unequal application of disproportionality between two parties (Johnson, Rossiter and Pattie, 2005). We set to shape our campaign and exploit these rules/concepts. We reinvented Wright employing a more passive persona, emphasised moderate ideology in swing states and the importance of smaller areas, such as the Congressional Districts in Maine and Nebraska... ironically. A list of the swing states was compiled, and we aimed for those with a high number of seats.

While hypothetically our plan was promising, execution proved difficult. Firstly, a smaller proportion of our team actively communicated and posted, relative to the levels associated with the Republican team. Roles (dustbusters, chairperson etc.) to different team members (at the start of the campaign) were generally disregarded but our overall post quality drastically improved. During this period, making specific appeals to areas and groups was crucial, paying attention to detail and accounting for demographics and social issues within states. Effectively appealing to voters in the swing states listed, as exemplified in my posts in Pennsylvania and North Carolina, conveying my Democratic roots, yet still aiming to attract some "soft" Republican voters. Further communication and strategy would have helped. The Republicans did a great job of spreading their resources, fulfilling their post 'cap' and effectively strategizing. Posts made by some members of our team in states like Tennessee, which we had little chance of winning, did not help our cause...

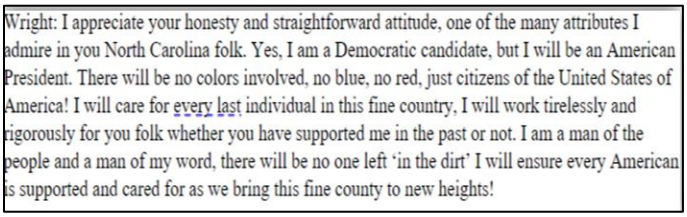
Wright: I appreciate your honesty and straightforward attitude, one of the many attributes I admire in you North Carolina folk. Yes, I am a Democratic candidate, but I will be an American President. There will be no colors involved, no blue, no red, just citizens of the United States of America! I will care for every last individual in this fine country, I will work tirelessly and rigorously for you folk whether you have supported me in the past or not. I am a man of the people and a man of my word, there will be no one left 'in the dirt' I will ensure every American is supported and cared for as we bring this fine county to new heights!

Figure Two: Excerpt from Campaign posts in North Carolina

Week Two started with the contest extremely close, based on "opinion poll figures". We analysed the polls and strategized accordingly. The Republicans had the advantage with their sheer volume of campaign posts. We attempted to slow their momentum in states such as Pennsylvania. We also tried to gain our own momentum in states such as Florida through coordinated rallies. Generally, we used our geographical knowledge and political perceptions to our advantage. We targeted cities in Texas, where dense clusters of Democrat supporters are situated, and appealed to the Latino community in Florida, recognising their political influence. Democrats historically retain support from the majority of minority racial and ethnic groups and voters in metropolitan areas (Morrill, Knop and Brown, 2007), so these were concise strategic moves on our behalf. After posting in the swing states, we focused on the Debate.

The Big Debate is undoubtably one aspect of the campaign I would like to re-do. We had a one-hour meeting as a team to discuss the debate, which went

well. However, prior to the Debate there was a mix up. Luckily, Tim O'Toole (played by Shane Walsh) was politically savvy, however our over reliance on his prowess is one I regret. As the candidate, I would have liked to assist Tim, perhaps with more preparation. We effectively utilized spin both during and after the debate. We also exploited their dark secret. I prepared for a question relating to 'issues during our campaign', anticipating a question surrounding our dark secret. I wrote an article to discredit any accusations of foul-play, posting it minutes before the debate. However, I confused the order, and the question wasn't asked. Also, in hindsight, I could have produced a more ethical article, as it may have been a sensitive topic to other students.

The final week was a short one. At the start of the week, we trailed the Republicans; based on the polls, we stood at 225 Electoral College votes and everyone was burnt out. Although looking back, this section proved to be the most beneficial. I grasped the true importance of vote distribution efficiency (the hard way). Firstly, we had to 'cut and run' sacrificing the swing states with a significant percentile difference (Pennsylvania, Michigan). We set out to flip both Florida and Texas, using endorsements and rallies to gain momentum. We succeeded in Texas with 4,284,001 effectives votes and 1,109.685 surplus votes. Unfortunately, we wasted 4,874,788 votes in Florida, where we lost out to the Republicans. Perhaps we spread ourselves too thin. We fell short of victory by a single Electoral College vote. Had we attended to Nebraska Congressional District 2, as we had previously discussed, we may have won. Alternatively, had we focused solely on Texas, minimised our number of wasted votes in Florida, reduced surplus votes, and campaigned more in other, smaller, swing states (Maine, Nevada, Ohio, Arizona) instead, it might have earned us a significant "seat bonus". The outcome may have also differed. However, sometimes you win, sometimes you learn...

This unconventional task became more than a means of assessment. I selected this module on the basis of furthering my understanding of electoral geography and politics and this goal has undoubtedly been achieved. Additionally, my interest and attentiveness towards elections has soared. Running as a presidential candidate has exposed me to the intricate components and concepts within the American electoral system. Evidently, the task served as an idyllic scenario regarding promises of policy change, solutions etc.. and there are thousands of other variables and challenges in "real" elections. However, my comprehension of both the Democratic and Republican parties' philosophies and policies have significantly improved. During this period, I embodied Bill Wright. We may have just fallen short of the Oval Office, but in the words of Bill himself, 'change is on the horizon' and with a few tweaks, here and there, 2028 is looking promising…

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Play: Let's not make this political

Author: Anna Gallagher

After completing four years in office, US president Meryl Streep has decided to not run for a second term due to the prior commitment of filming the third and final Mamma Mia movie, "Mamma Mia: Revenge of Mia".

Two new candidates are gearing up for the first presidential debate, chaired by the notorious Carla Marts. Carla is well known for her for her level-headedness as a journalist but has been known to get involved in the occasional argument when she does not agree with something.

Sabrina Hicks is a former feminist geographer and a well-known ex-democrat. She then turned independent and managed to work her way to the presidential candidate through methods of female empowerment, winning the hearts of the nation for her views on equality and justice.

Martin Musk is a well-known spatial scientist. He is the current CEO of a major GIS company and the opposing candidate to Sabrina. He believes the United States should be completely digitised and does not believe in anything but hard facts. Although he is not a republican candidate, he is supported by the republican party

The televised debate is taking place in Princeton University.

Carla: Good evening from Princeton University in Princeton New Jersey. I'm Carla Marts of Milieu News and I welcome you to the final 2028 presidential debate between presidential candidates Sabrina Hicks and Martin Musk. The audience here in the hall has promised to remain silent. No cheers, boos, or other interruptions as we welcome to the stage this year's presidential candidates.

Hicks and Musk enter the hall and take their positions at their stands.

Carla: Before we begin, I would like to remind the candidates that they will each have a maximum of two minutes uninterrupted to answer the questions we have put together for this evening. These questions will raise concerns about some of the most pressing issues we see in our country today. I ask that you speak one at a time as the goal is for the people at home to hear the points you are making loud and clear. So, if you are ready, let us begin.

Hicks and Musk stand in anticipation awaiting the first question.

Carla: Mr. Musk, we'll start with you for the first question. Do you believe our country's education system is fair? Fair meaning allowing equal opportunities for all.

Musk [chuckling]: What a fabulous question. Of course, I do. I believe that education today has great infrastructure in place to build many smart cities. As a spatial scientist I believe we need to stop putting so much emphasis on subjects that are not associated with mathematics and science. These are the subjects that we all believe in and can rarely be contradicted as they are stone cold fact. If anything about the education system is unfair it is that students aren't being told about the wonderous possibilities quantitative methods can teach us.

Carla: Thank you Mr. Musk. Ms. Hicks, the floor is yours.

Hicks [gobsmacked]: If I am being honest, I am appalled at what I just heard. Education is fair because people have the opportunity to learn mathematics and science? I agree that these are important subjects, but are they the most important? I think Mr. Musk's views on this are a disgrace. Equality in our society still exists as it did in 1848 at the Seneca Falls convention. Mr. Musk says he is a spatial scientist. Well, I am a feminist geographer. Might I remind everyone that only two women receive mention in half a millennium of western geographies?! Geography itself has been defined by men. How can we say our education system is fair when the women in this system are constantly being overlooked for their contributions? Who is to say if women study science and mathematics their ideas will be accounted for like they should be?

Carla [with an insightful expression]: You make some good points Hicks. Equality for all says I.

Musk [outraged]: Excuse me? What happened to being impartial here? And no interrupting?

Carla [while shrugging her shoulders]: Hey, I said the audience and candidates couldn't interrupt. A real presidential candidate would learn to open their ears

and listen before making comments like that. *[Takes a gulp of her coffee]* While I am speaking, I may as well continue. Mr. Musk, you say you are a spatial scientist and seem to believe spatial science is the superior discipline, am I correct in saying that?

Musk [with an inquisitive look]: Yes, that is correct

Carla: Why do you believe that applying capitalist views on society will help our country? We have so much poverty as well as many people facing staggering debt. Why do you believe these mathematical and scientific developments will help our country when it's appearing in my eyes a matter of the rich getting richer and the poor getting poorer? As a Marxist geographer I believe your ideas are ludicrous.

Musk: I did not realise you were running for president too Carla, this debate is ridiculous. I'll participate but it's unfair. To answer your question, maybe you should stop attaching physical and human values to geography and think about the importance of the relations between everything. If we use the power of quantitative methods, everyone would be helped. Stop thinking about doing things the old fashion way and apply new methods. If we want to strive for clarity on certain topics, we must use mathematical forms.

Hicks: Mr. Musk I think you completely missed Carla's point. You can't claim that spatial science will solve all of our problems when you detach human ideals and needs! Why don't you just stay silent like the spatial scientists did during the turbulence that was the 1960s. You can't say you are working for the benefit of the people but then neglect social issues such as oppression and inequality. Look at Saudi Arabia for example. A country with high rise buildings and one of the richest countries in the world. However, Saudi women do not have basic human rights.

Musk [shouting at the top of his lungs]: STOP GANGING UP ON ME!!!!

Carla: Okay. It is evident that myself and Ms. Hicks are on the same side here anyway. So should we just say Sabrina and myself are the winners here and head on our merry way? To heck with capitalism.

Hicks: Hang on a second here Carla, although I do agree with some of your Marxist ideals, I do not intend on transforming capitalism. I intend on destroying the patriarchy.

Carla [confused]: Excuse me?

Hicks: While you want to take down the social organization that is capitalism, I would much rather change the system which allows men to define a woman's role in the economy as well as how they define us culturally. The basis of my work as a feminist geographer was political as opposed to theoretical. Even in feminist geography, why should we as people accept that it needs its own section? Why can't it be included in all aspects of geography. Not even Marxist beliefs cover the extent in which feminism lies. If we look at spatial dialectic, women are considered to be the essence of locality. In traditional societies, women are the typically the people in charge when it comes to gathering and

agriculture. In the past it was women who discovered gardening techniques, which is partially the reason we farm as well as we do today. So why are we being overlooked so much? I thought you would understand this as a woman yourself Carla but geographic thought itself excludes women. Masculinist knowledge itself sees itself as the only knowledge.

Musk: I don't see why gender should come into geography when it's not needed. I believe geography is all about improving the world through quantitative methods.

Hicks [clenching her fists]: See, I feel like you think you're right in saying that but you're just not. If we take your idea of smart cities into account, can I guarantee women will feel any safer there than they would in any other city? So, although you think that quantitative methods solve everything, how does it solve those kinds of social issues that you are choosing to ignore? Just because you know how to do mathematical equations and TikTok dances does not mean you have all of the answers Mr. Musk!

Carla: Okay I acknowledge your point… but I cannot say with chest that I completely agree. Capitalism changes the position of women from the centre of society to the periphery.

Hicks: Yes, but it is not the social construct I want to change for now, it is the patriarchy behind that.

Carla: Right. I appreciate where you are coming from.

Musk [now standing on a stool for people to acknowledge he is still a part of the debate]: Have you guys *[coughs]* apologies… women, never heard of positivism? Only things that we can experience through the senses count as knowledge. There should be scientific evidence based on observable reality. Also, when things are repeated, we should be able to predict them happening again. Those are just two of the principles associated with it. I apply these to all of my work. For example, my company "GIS Systems" observes where we need suitable infrastructure while following laws which govern the spatial distribution of certain features on the surface of the earth. Spatial science helps people if anything, as we take the earth into account. We apply logic to situations or come up with a system which can help people. So, would you two ever stop being so stupid and realise that geography must be scientific! I believe in the Irish language, "geography" literally translates to "land science"!

Carla: I hear you loud and clear Mr. Musk. But hear me out on this, applying science and mathematics to problems can help, I agree with you there. But spatial scientists jump over the middleman when it comes to dealing with problems. Have you ever asked people whether they want new buildings or infrastructure? By completely disregarding the people you are "doing good" for, your projects are more passion projects more than anything. Typical capitalist idea. Forgetting about the poor to make yourself richer. Although spatial science is a very useful discipline, you have to realise that the issues behind the spatial problems are not being thought of.

Hicks: I think it should also be acknowledged that Mr. Musk's spatial science is not always used for good. Take a look at the bombings in the middle east. What kind technology do you suppose lead to that bombing? Spatial science. If you elect me as your president, I can guarantee quality for all female geographers as well as women in general and I will ensure that no more of this barbaric, sociopathic spatial science nonsense will take place!

Carla: I completely forgot this was supposed to be a presidential debate ha-ha! I suppose we should move in on our closing arguments.

Musk and Hicks in unison: Our?

Carla [nodding]: Yes, our. I have come this far I may as well finish my argument. *[stands up and makes her way to centre stage].* Ahem. People of America. Think about the life you have now. Think of all of the impacts culture has on this society. The Marxist outlook on life is what I believe to be the most beneficial outlook to all of us regular people. It is a life about equality and fairness. The structural elements which we see today have the power to limit and direct the kind of state which comes into reality. However, people who live in certain times and places create more exact social and historical structures and methods. Social transformations involve a shift from one mode of production of existence to another. Contradictions between capital and labour are the moving principles of social life, giving rise to struggles, conflicts, and crises endemic to class societies. The New York Times itself reflects a capitalist model and I believe that by changing this economic structure, our culture will change for the better. All I ask is you vote for a better America.

[Carla makes her way back to her seat]

Hicks: Since when are there closing arguments?

Carla: Ms. Hicks, I would appreciate it if you did not interrupt. Now, Mr Musk, your closing argument please.

Musk: Well, all I have left to say is that spatial science has the mathematical component behind it which makes it free from contradiction. Quite like myself, free from contradiction. To be honest after hearing Carla speak just now, it leads me to believe that she was just rejected as a spatial scientist. The memory of spatial facts simply will not work anymore. She said Marxist ideas focus on the production of space, place, and landscape, but who do you think came up with these ideas? Me. So vote for me, because I will make America greater.

[Carla goes to fight back but the producer gives her a dangerous glare]

Carla: Right. And Ms. Hicks, please, why should you be the successor to President Streep?

Hicks: President Streep has done wonders for our country as our first female president. From empowering women all over the world, to changing our national anthem to Abba's "The Winner Takes It All". Succeeding President Streep as the second female president of the United States would be nothing but an honour. I believe that women should be acknowledged for all their work, especially in geography departments. As a geographer, I believe

that through standpoint theory and poststructuralist feminism, I have come to understand knowledge as always partial, situated, and political. Should you elect me as your president, I will apply my beliefs to every aspect of the job. I am not a "man hater", I just want women to be recognised to the same equivalence as men. Vote for me, for your daughters, sisters, friends, and mothers. Vote for me if you are ready for change, as I am ready to lead.

Carla: And that concludes this evening's debate. Powerful stuff if you ask me! In the wise words of Hillary Clinton "Pokémon Go to the Polls" and vote on November 7th. I am Carla Marts, and this has been your final 2028 presidential debate. Goodnight.

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Geography Fieldwork & Research

Students in the Field with Chris Van Egeraat (1-5) and Conducting Research with Lisa Orme (6-7)

Celtic Voyager Field Trip

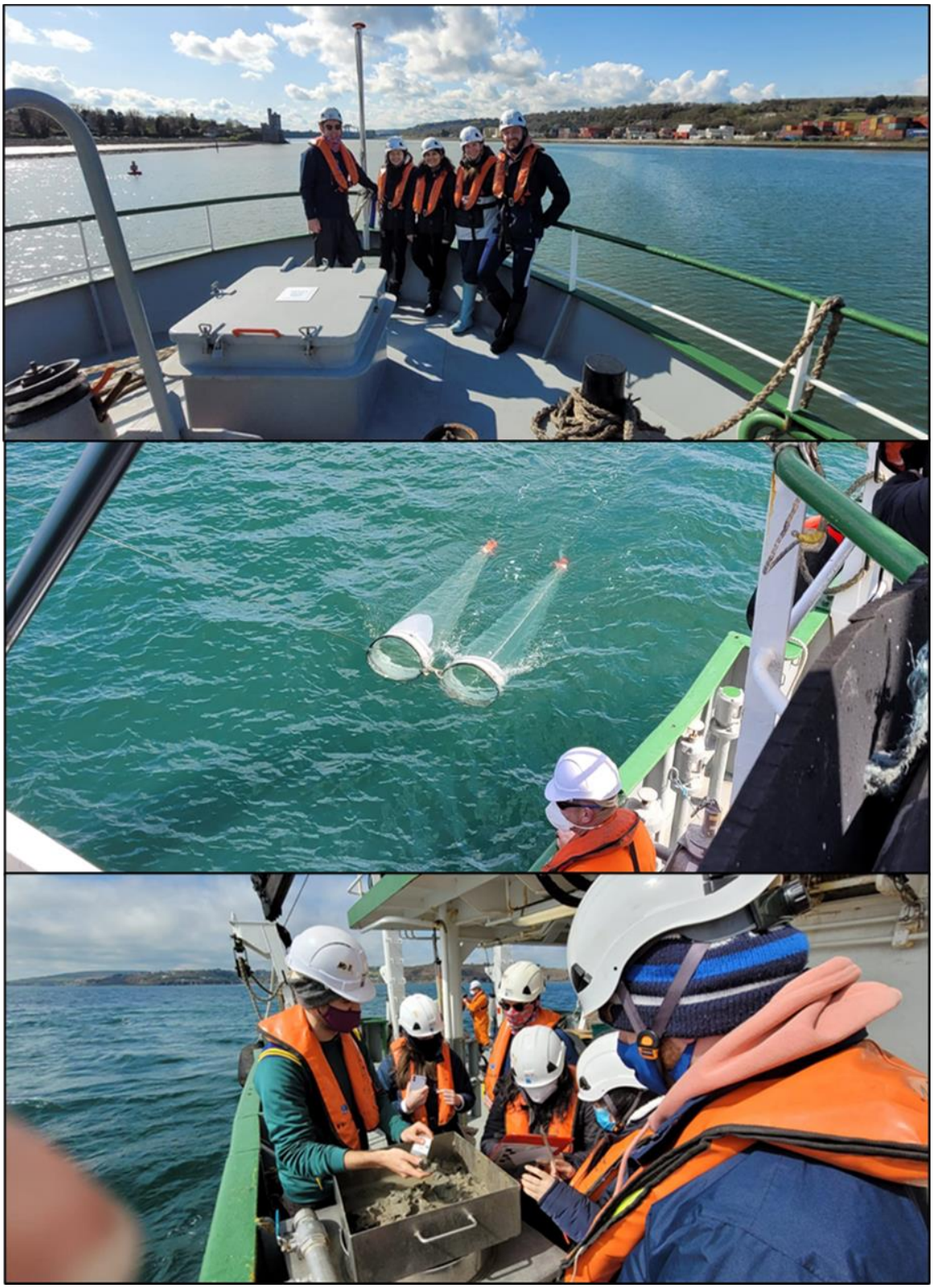
Author: Tasneem Ahmed

This field trip is organised as a part of the MSc climate change GY671-Field course module . This training is jointly arranged by ICARUS Maynooth and the Marine institute to impart training of the upcoming generation of climate scientists with state-of-the-art oceanographic data acquisition systems. This was the third attempt at making this training a success following the previous two cancellations due to COVID-19. Immense thanks to the tireless efforts of Dr. Gerard McCarthy and the Marine institute. This is a particularly important field trip as the Ocean has faced the brunt of climate change, acting as the largest sink for heat and carbon dioxide leading to rising ocean temperatures and acidification, invariably affecting marine life, not to mention the rising sea levels because of the thermal expansion of sea water and melting of land- based ice leading to devastating floods, as seen in cork last year.

We were divided into two groups to undertake this trip for the 13th and 14th of April, following strict COVID-19 protocols. We took off on the RV Celtic voyager from Horgan's Quay in Cork at 10 am covering five stations in the cork harbour and performing several hands-on experiments like temperature and salinity profiling with CTD, performing macrofauna and sediment analysis on samples grabbed from seafloors at different stations etc. The RV Celtic voyager is a 31.4m multi-purpose research vessel owned by the marine institute fitted with standard scientific equipment. Thanks to John Boyd and Luke O' Reilly for imparting such an immaculate training exercise.

We talked at length about the impact climate change has on the oceans and on good management practises to safeguard the marine animals. We also discussed if geoengineering techniques like ocean fertilisation using iron/nitrates could be used for phytoplankton blooms as a possible way to mitigate some aspects of climate change. The conversations really were food for thought, and last but not least, we talked about life in general. We returned at the port by 4:30 pm marking an end to this wonderful trip and taking with us a new set of skills and excellent memories! With everything conducted remotely so far, it was great to meet everyone in person and the excellent weather was like the cherry on top of the cake. We thoroughly enjoyed every bit of it and were glad that the trip was made possible in such trying times.

The Celtic Voyager and Crew



Fieldwork Aboard the Celtic Voyager

Third-Year Work Placement

Author: Chris Van Egeraat

Work Placement Co-ordinator

The Department of Geography offers a work placement module in third year (GY399). This module allows students to apply and enhance their geographic knowledge and skills in an external working environment. Apart from developing skills, students have used the experience to test out a career path, enhance their CVs and develop their professional network. The module consists of the equivalent of two weeks of full-time work with an employer. In previous years students have worked within, amongst others, local authorities, environmental organisations, within Government departments, in Leinster House, in a library, in consultancy firms, and with conservation organisations. Below Shauna Maher gives a great impression of her experiences during the 2020-21 academic year**.**

Work Placement: Waterways Ireland

Author: Shauna Maher

During the final semester of my undergraduate program I completed a 10-day work placement with Waterways Ireland, a navigation authority north and south of the Irish border with responsibility for the management, maintenance, development, and promotion of over 1000km of inland navigable waterways, mainly for recreational purposes. Waterways Ireland are one of six North-South implementation bodies established under the British-Irish Agreement of 1998. They are the Green Award winner in 2020 and, hopeful, will be winners in 2021. They are currently in the process of developing their own Climate Action Plan, making them the first Authority to do so, as well as a new 10-year Heritage Plan. I was lucky to be involved in both. During my placement, I worked alongside Cormac McCarthy, the Environment, Heritage and Climate Officer for Waterways Ireland, with responsibility for the Barrow Navigation.

Figure One: The Barrow Navigation

Finding a work placement during the COVID-19 lockdown was not easy. I sent emails to various organizations that, in 'normal times', would act as host institutions for the Department's work placement module. I contacted the EPA, the OPW, Local Authorities and other organizations that are involved in hydrology (my favourite subject in university). But, due to the COVID-19 lockdown, I was not able to secure a placement. Until, one day,

when I took a walk down a local canal near my home, I spotted engineers of Waterways Ireland working on the canal banks. Given the location of their offices, a short distance of my home, I thought a placement with them could possibly work under COVIID-19 restrictions.

A family member connected me to Cormac McCarthy. Cormac could not have been more helpful as he understood the value of experiencing the working environment as an undergraduate student. We agreed that I would start by the end of January, presuming that the restrictions would have lifted. Unfortunately, this was not the case, and by January all the members of the Waterways Ireland team were working from home. However, Cormac assured me that I could complete the work placement remotely and that he and his team would do their best to make sure that I had a worthwhile experience.

Together we developed a busy work plan for the placement. This included the following components:

1. Research into the impacts of climate change on inland waterways and how Waterways Ireland might mitigate or adapt to changes. Waterways Ireland are progressing their first Climate Action Plan so this was directly relevant to what they wished to achieve.

2. Conduct a literature review and use baseline ecological assessments to determine what nature-based solutions could be adopted to help combat climate change.

3. Attend the PIANC web-conference on Navigations and Climate Change and to collect information on natural capital and environmental economics and establish how this could inform Waterways Ireland.

4. Undertake a review of submissions to Waterways Ireland's Heritage Plan 2030 and Climate Action Plan.

5. Assist with the grant assessments for the Heritage Grant Scheme 2021

6. Assist with the development of social media content as part of Waterways Ireland's dedicated twice weekly slots on Heritage and Biodiversity.

7. Prepare a brief synopsis of the responses to Waterway Ireland's Climate Action Plan and Heritage Plan

8. Compile a list of scientific papers that are relevant to the preparation of Waterways Ireland's Climate Action Plan.

9. Attend all relevant online team meetings.

Although I worked closely with Cormac, and my main tasks were assigned by him, each day I would meet online with a member of the Waterways Ireland team, including Daireann, the team ecologist, Eamon, the Waterways Ireland Environmental Scientist and Paula, in the hydrology department.

These daily meetings were very interesting as I got the chance to learn about their roles, whilst also assisting them with their projects. Team members worked on different projects. One member worked on the introduction of soft engineering methods along the inland waterways. The hydrologists were

investigating alternative pumping methods which could work more efficiently and with a smaller impact on climate change. I assisted the different team members in their project work. For example, I read the literature on soft engineering methods for eroding banks and on more efficient hydraulic pumping methods for the canals. All team members were always on call to help me. It gave me a good insight into teamwork. Even though each member is assigned to their own area or project, all members helped each other when required.

This brings me to the skills acquired during my undergraduate geography programme at Maynooth University, which I found to be particularly valuable in the working environment. Prior to my work experience with Waterways Ireland, I had believed that there were too many research and essay writing assignments across most geography modules, and that we needed more practical assignments. However, I now fully understand the value of essay writing as the skill of effective writing is required for all kinds of work, tasks, and projects in a working environment.

Writing skills, along with analysing and interpreting numerical and statistical data, which are taught in many undergraduate geography modules, are extremely valuable in the working environment. The skill of effective research, gathering, organizing, and presenting information from a range of sources, including primary sources, is a very important skill. During my work placement, every task assigned to me required research skills, from researching the commercial history of the inland waterways of Ireland, gathering information from a range of sources, to preparing a piece of history for Waterways Ireland's social media platform.

Similar skills were applied during my research of soft engineering methods for eroding banks and my analysis of scientific reports that may inform the Climate Action Plan. I read and abstracted information from reports about climate action plans, biodiversity, nature conservation, carbon sequestration, and inland waterways' climate strategies, and I compiled a list of relevant literature. This is an important element of the work of the staff at Waterways Ireland, and it underlines the value of research skills taught at the undergraduate geography programme at Maynooth University. I also got to practice my verbal communication skills. Notably, during online meetings, where I had to present my analysis of survey responses.

The main issue that I experienced when completing the work placement remotely from home was not being able to meet the team face-to-face and visit the workplace and project sites. The prospect of conducting my work placement from home was daunting at first. Being a parent meant that I had to work, while also taking care of my child. I also thought I would feel alone working from home. However, Cormac and the team quickly made me feel super comfortable, with every team member offering help and guidance. Still, on occasion, I found the work challenging to complete without face-to-face guidance.

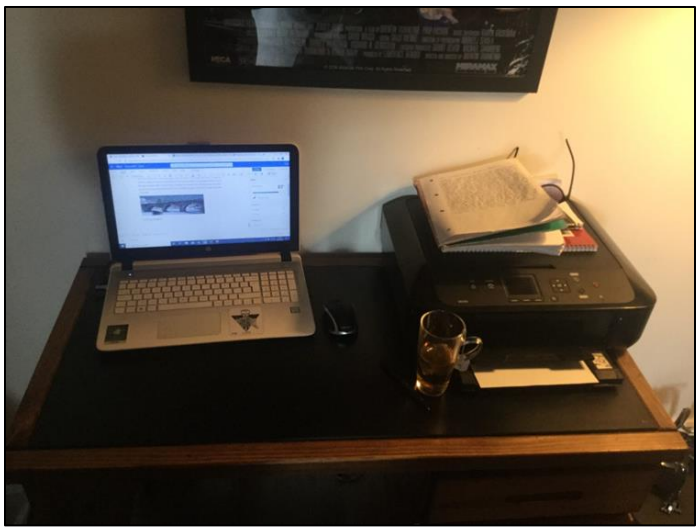


Figure Two: Where I completed my work placement!

All being said, I believe that a work placement during the lockdown probably benefited me. It definitely improved my self-confidence and my ability to work effectively as an individual, due to the fact that I had to learn and work through a difficult time. I learned probably one of the most valuable lessons: with drive and motivation you can overcome many obstacles. I know this will help me when I start working-life after my studies.

The General Circulation of the Earth's Atmosphere

Author: Leo McConnell

Low latitudes receive a higher amount of insolation compared to high latitudes (Barry and Chorley, 2009). The logical question that arises from this is 'why are lower latitudes not getting warmer, and why are higher latitudes not getting colder?'. The tricellular model of the general circulation of the atmosphere attempts to answer this question. Here, I will briefly outline the historical development of the model and provide an explanation of the three circulation cells described by the model. It has long been accepted that all models are wrong, the tricellular model is no exception, however, with an updated and improved understanding of upper-level air flow, particularly in the midlatitudes, the model provides a simplified framework for understanding the complex processes involved in redistribution heat and moisture around our atmosphere.

The inequalities in net radiation by latitude is a driving force in the general circulation of the atmosphere (Barry and Chorley, 2009). Models of general circulation, dating back to Edmund Halley in 1686, have attempted to tackle this phenomenon, with Halley proposing that easterly trade winds flowed towards lower latitudes, where solar insolation was highest (Linacre and Geerts, 1997). George Hadley improved this model in 1735 suggesting that the difference in temperature between the equator and poles creates a large

convection cell in both hemispheres, with warm equatorial air ascending to the tropopause, spreading to the poles before cooling and subsiding, and moving equatorward as wind at the surface (Lutgens et al., 2013). William Ferrel later contested the Hadley cell, suggesting that there was also a midlatitude cell rotating in the opposite direction, which meshed between the lower-latitudinal Hadley cell and with a Polar cell further afield (Linacre and Geerts, 1997). This is like three gears meshed together with the driver gear (Hadley cell) rotating in one direction, the idler gear in the middle turning in the reverse direction (Ferrel cell) and the driven gear (Polar cell) turning in the same direction as driver gear.

In the 1920s, Tor Bergeron outlined the tricellular model of general circulation (Linacre and Geerts, 1997). However, this model, at first was incorrect, implying that the boundary between the Ferrel and Polar cells was much higher than what it actually is and implying that winds aloft were easterly in midlatitudes (Linacre and Geerts, 1997). This model was improved by various people, including Rossby in 1941 (Linacre and Geerts, 1997). The tricellular model now incorporates much more complexities and processes that will be analysed and explained hereafter.

The tricellular model begins at the equator starting at the Intertropical Convergence Zone (ITCZ), moving poleward, and includes three cells: the Hadley, Ferrel and Polar cells. The combination of the three cells and the study of the processes within each cell gives meteorologists and climatologists a profound understanding of how net radiation is redistributed throughout the globe.

Hadley cells are thermally direct cells which lie between the ITCZ and 30° north/south of the equator (Barry and Chorley, 2009). At the ITCZ, warm, less dense air becomes buoyant and rises towards the tropopause via adiabatic cooling (Lutgens et al., 2013). This rising warm air reaches its dew point, creating an elongated line of clouds at the ITCZ stretching around the globe. The release of latent heat here provides energy to power the Hadley cells (Lutgens et al., 2013). As a result of the tropopause acting as a lid, the buoyant air is induced to move poleward until it reaches around 30° north/south, creating meridional winds before subsiding (Lutgens et al., 2013). Subsidence is due to the cooling of the air caused by a decrease in the amounts of insolation this far north/south and due to the strengthening of the Coriolis force deflecting the meridional winds, creating upper-level westerly winds, and preventing further movement poleward (Lutgens et al., 2013). The Coriolis force is caused by air accelerating to conserve angular momentum as it moves away from the equator (Barry and Chorley, 2009). The subsiding air becomes denser, sinking with gravity, and warming as it becomes closer to the surface through the dry adiabatic lapse rate (Lutgens et al., 2013). When this air sinks, dynamic convergence occurs aloft with thermal divergence below, causing high pressure at the surface (Lutgens et al., 2013). These high-pressure areas have created deserts like the Sahara Desert in North Africa and the Great Australian Desert in Australia (Lutgens et al., 2013).

Air moves from high pressure to low pressure (Barry and Chorley, 2009), allowing air at the subtropical high-pressure zone to move further poleward into the Ferrel cell, or towards the equatorial low at the ITCZ (Lutgens et al., 2013). The return of the winds to the equator results in the trade winds, which move slower than winds aloft, due to the force of friction (Foresman and Strahler, 2012). As seasonal variability causes a larger temperature gradient, winds in the Hadley cell move faster in winter than in summer (Barry and Chorley, 2009). Surface trade winds are north-easterly in the Northern Hemisphere and south-easterly in the Southern Hemisphere, meeting to form the equatorial low (Foresman and Strahler, 2012). The air then converges once again at the ITCZ and the process repeats itself. It is important to remember, that due to seasonal variations in the heating of the Earth, because of the Earth's tilt, the ITCZ moves north in the Northern Hemisphere's summer and south in the Northern Hemisphere's winter, with the Hadley cell being symmetrical around the equator only in spring and autumn (Barry and Chorley, 2009).

The Ferrel cell, introduced by William Ferrel in 1856, suggested that there was an indirect cell that was not driven directly by heating or cooling, but a cell that was powered by the descending limb of the Hadley cell (O'Hare et al., 2004). This cell is located between 30° and 60° north/south of the equator (Lutgens et al., 2013). The sinking and warming air of the Hadley cell, converges with that of the Ferrell cell, creating the high-pressure zones around 30° from the equator (Lutgens et al., 2013). Some air of the Hadley cell is displaced into the Ferrel cell and surface airflow moves poleward due to the pressure gradient force (O'Hare et al., 2004). This is deflected by the Coriolis force, creating surface westerly winds (Lutgens et al., 2013) and slowed by the force of friction, while transferring warm air from the subtropical highs to higher latitudes, where it cools (Mayhew, 2015). However, the westerlies can be obscured due to the dominance of land mass and changing seasonal pressure patterns in the Northern Hemisphere (Barry and Chorley, 2009). In contrast, these westerlies in the Southern Hemisphere are more powerful and consistent due to less land mass (Barry and Chorley, 2009). When subtropical westerlies reach around 60° north/south of the equator, they encounter the cold easterly winds of the polar cell at an area called the polar front (Foresman and Strahler, 2012). The cool polar easterlies meet the now cooler midlatitude westerlies, and the air converges and ascends. This is a result of the polar easterlies warming as they move toward the midlatitudes; therefore, air is less dense and is forced to rise and cool adiabatically (O'Hare et al., 2004). The air then reaches its dew point, creating midlatitude depressions, resulting in midlatitude locations experiencing high precipitation levels (O'Hare et al., 2004).

The Polar cell lies between 60° north/south of the equator and the poles (Linacre and Geerts, 1997). Just like how the driven gear turns in the same direction as the driver gear, the Polar cell has easterly winds, like the Hadley cell (Linacre and Geerts, 1997). Net radiation deficit, energy loss and cold

temperatures, are dominant characteristics of the polar cell (Barry and Chorley, 2009). As a result of the cold, dense air, the air subsides to the surface, creating a high-pressure zone at the poles (Lutgens et al., 2013), resulting in the Earth's largest desert being located in Antarctica (Goldsworthy and Hemmings, 2009). The diverging air then moves northwards/southwards from the poles, coming under the influence of the Coriolis force and deflecting westward (easterly winds) (Linacre and Geerts, 1997). These cold winds eventually meet the subtropical winds of the Ferrel cell at the polar front, where they converge and create depressions (O'Hare et al., 2004). This air eventually moves back to the pole, finalizing the meridional course of the Polar cell (Linacre and Geerts, 1997).

However, the tricellular model had a fatal flaw; suggesting winds aloft were easterly in midlatitudes (Lutgens et al., 2013). It was discovered in the 1940s that winds aloft in the midlatitudes were strong westerlies (O'Hare et al., 2004). Upper-level wind processes must be observed to fully understand the global energy transfer.

The difference in net radiation between the equator and poles has resulted in the tropopause being higher above the surface at the equator and closer to the surface at the poles (O'Hare et al., 2004). This is due to warm, less dense air being able to rise further at the equator than the cold, dense air at the poles, and this causes large pressure differences between lower and higher latitudes (Barry and Chorley, 2009). A poleward pressure gradient occurs, with winds being deflected to the left/right in proportion to wind speed (Lutgens et al., 2013). When the pressure gradient force and Coriolis force balance, an idealised geostrophic wind is created that flows parallel to the isobars (Barry and Chorley, 2009), causing westerly winds in all three cells, contrary to the original tricellular model (O'Hare et al., 2004). Rossby attempted to explain these waves and suggested they are very important as they explain the horizontal transfer of warm and cold air (O'Hare et al., 2004). Sometimes, these waves move further north/south than their usual position, creating a meridional flow and refuse mixing, as warm and cold air parcels cannot mix, just like oil and water. This creates large meanders in the Rossby waves allowing warm air further north and cool air further south (Lutgens et al., 2013). The sharpness of the meanders is a result of wind strength and wave length (Linacre and Geerts, 1997). As the pressure gradient increases toward the tropopause, due to density, wind speeds are strongest at the top of the troposphere (Lutgens et al., 2013). These fast flowing, meandering winds embedded aloft are known as Jet Streams (Chelton and Schlax, 1996).

There are two dominant jet streams: the subtropical and the polar jet streams. The subtropical jet is formed on the descending limb of the Hadley cell, above the border between the subtropical and subpolar air masses (Linacre and Geerts, 1997). The subtropical jet stream is mainly a winter phenomenon that moves from west to east, transferring warm air from the tropics northward/southward (Lutgens et al., 2013). The polar jet stream is found at the polar front between

the Ferrel and polar cells, where a large temperature gradient is present (O'Hare et al., 2004). Like the subtropical jet, the polar jet usually meanders meridionally while moving westerly (Lutgens et al., 2013). As the zone of maximum heating moves seasonally, so do the jet streams, moving further north during the Northern Hemisphere's summer – bringing warmer air to higher latitudes, and moving further south during the Northern Hemisphere's winter – allowing colder air further south (Lutgens et al., 2013). The polar jet is important when it comes to energy transfer, transferring tropical storms to midlatitudes during the Northern Hemisphere winter (Lutgens et al., 2013). The position of the jet stream affects the weather experienced at the surface.

In conclusion, it is clear that numerous processes at the surface and aloft combine to transfer energy from the equator to the poles, allowing the Earth's energy to balance. The transfer of energy also explains why places found on the descending limb of the Hadley cell experience such dry conditions, and why places like Ireland in the midlatitudes receive so many winter storms. As a result, it is evident that the explanation of global circulation of the atmosphere is fundamental to predicting and understanding the weather and climates of various latitudes.

Thank you to Dr. Rowan Fealy for your help editing this essay for Milieu 2021.

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Briefly Assessing the Evidence of Solar Activity as a Cause of Past Climate Change

Author: Tasneem Ahmed

The sun undergoes an 11-year periodic cycle of solar activity called the solar cycle, during which the solar activity goes from a minimum (solar minimum) to a maximum (solar maximum). One major indicator of this solar activity is the sunspot number which increases as the solar activity increases. The solar cycle is seen to modulate the galactic cosmic rays (GCR), which in turn influence the cloud cover creating an impact on the Earth's climate (Svensmark & Friis-Christensen, 1997). The GCRs ionise the gases in the atmosphere to produce secondary particles that can be measured by neutron monitors. Figure One elucidates the correlation between the cosmic ray flux (neutron counts by the neutron monitor at Climax, Colorado, USA) and the sunspot numbers from 1951-2006.

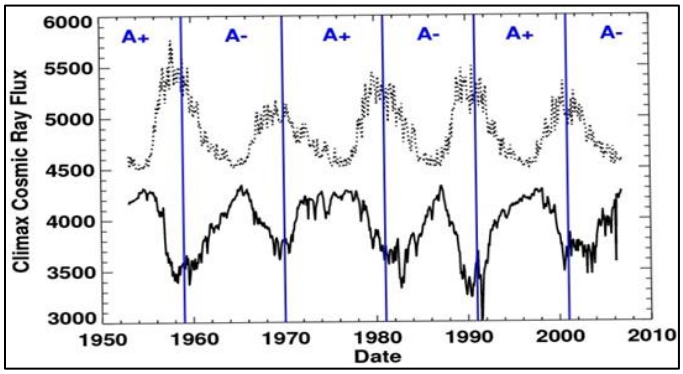

Figure One: Correlation between cosmic ray flux (dotted) and sunspot number (solid).

Source: Masarik and Beer, 1999.

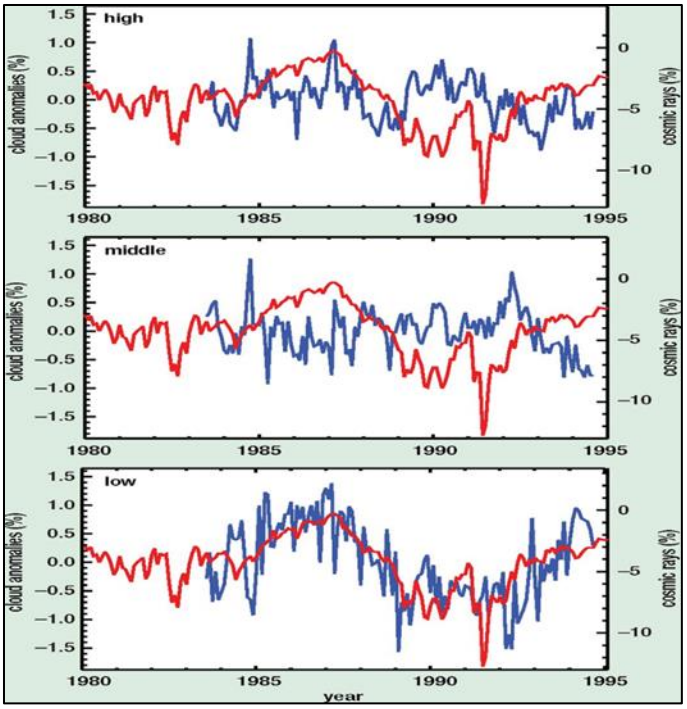

Figure Two: Variation of cosmic rays (red) along with the variation in cloud cover for clouds at a different altitude (blue).

Source: Marsh & Svensmark,2000.

From Figure Two, although the variation of the high and middle altitude cloud cover does not agree with the variations of the cosmic rays, the variations of the low altitude cloud cover(<3km) is in an excellent match with the cosmic ray variation (Marsh &Svensmark,2000). From both figures it could be inferred that solar activity modulates the GCRs which in turn influences the low cloud cover, thereby impacting the earth's climate.

Since Carbon-14 (14C) is produced in the atmosphere as a result of GCR, it can be used as a proxy for the variation of cosmic rays thousands of years ago. In Figure Three, it is seen that from 1000-

1300 AD 14C concentrations were very low, indicating a very high solar activity, which also coincided with the medieval warm period. There was a decrease of 14C post 1300 AD pointing towards a decrease in solar activity, which is seen to coincide with the Little Ice Age, also marked by the maunder minimum when there were very few observed sunspots. Solar activity is again seen to increase from 1700.

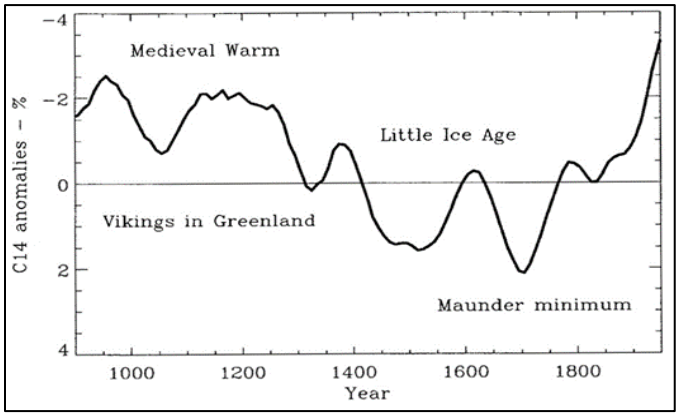

Figure Three: 14C variation in the last millennium. (inverted 14C scale)

Source: Svensmark, 2000

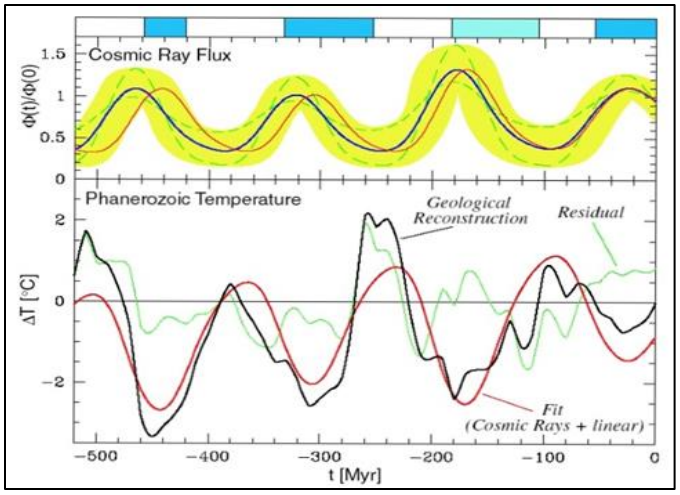

Figure Four: Cosmic ray flux(Φ) and tropical temperature anomaly(ΔT) over the Phanerozoic Eon

Source: Shaviv and Veizer, 2003.

For the Phanerozoic period, cosmic ray fluxes can be reconstructed from iron meteorites exposure age data. Figure Four shows a strong correlation between the reconstructed cosmic ray fluxes and the temperature variations of the phanerozoic era. This observed relationship suggests that solar activity has played a significant role in climate fluctuations over the past millennium and must be considered as a contributory component in any understanding of contemporary climactic examinations.

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Global Environmental Change: Understanding Human and Physical Geography

Author: Ciaran Burns

We cannot fully understand global environmental change without an understanding of both human and physical geography.

Currently, drastic changes to the global environment are perhaps the most pressing issues of this twenty-first century, and it is humans that have caused them. In this light, this essay argues that for one to fully grasp global environmental change, they must understand that both physical and human geography are inextricably linked. After thorough review of available literature, it has become clear that that although inherently different, their importance to one another cannot be understated. This is especially true when studying phenomena such as climate change and biodiversity loss. The same is true for the Anthropocene, a concept highlighting humans as the primary forces of environmental transformations. This idea lies on the brink of popular knowledge and upon investigation of this concept it becomes evident that the physical effects of these changes are not equally felt by all in society. Epitomising the unity of physical and human geography, the Anthropocene illuminates how human impacts on Earth's environment are part of nature, unified with the physical world. This essay argues that without both human and physical geography, society will struggle to fully understand the effects of global environmental change and consequently how to respond.

Scholars reason that this is especially true when examining issues like climate change and biodiversity loss. This view is supported by Licker et al. (2019) who find that eighty-eight of the main human carbon producers are responsible for over half of Earth's ocean acidification occurring in the one hundred and thirty years before 2015, also contributing to over half of the world's ocean pH decline between 1881 and 2015. The importance of climate responsibility among humans cannot be understated, but also highlighted here are the inequalities associated with responsibility for such impacts. Ellis (2017) adds that through the Anthropocene framework, Earth system structures are intertwined with human society. Human factors have dwarfed the effects of natural erosional agents, as Hecht (2018) holds that more rock and sediment have been moved by human processes than by any other forces put together, including weather erosion and rivers. Loftus (2017) provides an interesting narrative to the discussion on humanity's relationship with nature, claiming that they are inseparable. In doing so he offers the abstract notion that humans have changed their own concept of nature. Humans are part of nature, but it is sometimes uncertain if they are an exterior force exaggerating changes within the Earth system. Thus, a proportion of the human population has had a significant effect on the physical Earth. Understanding both is vital, as they are reciprocal and have the capacity to impact each other equally.

Human effect on the physical world has become so pronounced that they are now two sides of the one coin. Though human influence is currently more significant than other forces of change in terms of climate change, biodiversity loss, and geological markers, this does not remove them from nature outright. Ellis (2017) believes that people and their societies have developed into an essential part of the natural world, but in contrast their extractive impacts on the Earth are greater than all remaining biodiversity. Humans, as living things, are by definition part of the physical world. For this reason, they play a role in both causing and solving issues of environmental change on a global scale. Further, Moore (2017) adds to what Loftus (2017) and Hecht (2018) see as the convergence of humanity and nature being led by societal structures including capitalism and power. That is not to say that all humans are equally responsible, but it does support the idea that to appreciate the gravity of global environmental change, one must examine human geography in conjunction with the physical. Echoing this, Hecht (2018) ascertains that the responsibility the Anthropocene's effects are unevenly distributed and thus, there are serious questions to be answered on who the 'we' are, especially when laying the responsibility for changes in Earth's system. This is supported by Ellis (2017) who accounts that global environmental change is caused by different human communities, not by all. Interestingly, among the available literature there are opposing views on who is to blame for such problems.

Often, it is those in poverty who are thrust the responsibility for Earth's resource strain. This is the case in the Tragedy of the Commons thesis by Garrett Hardin, who believed that Earth's resources, shared by everyone, was a means to an end, and that human greed would bring doom to all (Buck Cox, 1985). This is contrasted by Elinor Ostrom who was convinced that 'local people collectively owning a resource tend to conserve it' (Wall, 2017). Human geography is necessary to get to the bottom of these debates. Therefore, it is extremely useful to tie this discipline with physical geography to understand changes occurring in the environment and where human responsibility truly lies. This point is reinforced as Ellis (2017), who notes that pioneers studying and conceptualising the Anthropocene were themselves originally geographers and scientists. After all, the term 'Anthropocene' was coined by ecologist Eugene Stoermer, and its thesis pushed by earth system scientist Will Steffen and geologist Jan Zalasiewicz (Ellis, 2017). Many interdisciplinary scholars have contributed to the conversation on both global environmental change and the Anthropocene. Neither can be studied efficiently without a knowledge of both physical and human geography. The human and physical effects on the environment are often equally significant when it comes to its transformations. Regarding climate change, humans debate extensively their own involvement in alterations to Earth's climate.

It could be argued that climate change represents an important aspect of global environmental change. With that, the fossil fuel industry has been cited as a

key driver in this process. Moore (2017) outlines how the commodification of oil, a naturally occurring resource, has become highly valuable in global trade networks. At its most basic, oil is a fossil fuel. Formed over millions of years, oil is a key component in Earth's carbon cycle (Berner, 2003). It is also one among many samples of earth's natural resource extracted by humans. In Africa, the environmental consequences from resource extraction are shocking. The Niger Delta has witnessed 7,000 oil spills which have been sourced back to petroleum extraction in the region, it has affected nearby water, land, and its people (Hecht, 2018). On a similar issue, atmospheric carbon dioxide (CO2) concentration, from the burning of fossil fuels, has risen significantly from the years 1800 to 2019 (National Academy of Sciences and Royal Society, 2020). It is widely agreed by scholars that excessive emissions of CO2 in Earth's atmosphere contribute greatly to increases in surface temperature, and sea level rise, among other issues (Licker et al., 2019). With all this in mind, the goal of this paper is not to inform readers what they undoubtedly already know. Rather, it is to demonstrate how human drivers can be equally responsible in saving the environment. Thus, it is essential that an understanding of human geography should be paired with that of the physical in order to fully grasp the challenges at hand.

In Ireland there have been cases where people have successfully challenged these industries and their effects on the environment. In 2017, the Republic of Ireland's government passed an act banning a process called fracking (O'Halloran, 2017). According to a BBC News article (2018), fracking is the process of drilling or breaking rock in search of gas or oil from shale rock, which can be then extracted. As a result, the underlying rock becomes fractured (BBC News, 2018). Fracking is costly to the environment as it requires huge quantities of water to work effectively (BBC News, 2018). This demonstrates a human element to climate change, both in driving it and trying to delay it. The same can be said of convivial conservation, Buscher et al. (2017) offer a positive option for conservation which sees human society integrate with what is often referred to as nature, or the wild. This approach seeks to consider human inequalities, tackling the root causes of biodiversity loss as opposed to alternatives that neglect this side of environmental change. Again, society pushes back against changes caused by other humans, which can alter Earth's hydrosphere, geosphere, biosphere, and atmosphere. Equally important is safeguarding all human societies, so that they may be protected from danger and vulnerability. It is those within the biosphere, including humans, who must face these consequences. Thus, the fossil fuel industry, due to its value in global trade networks and energy requirements, is a key human driven system which cannot be divorced from physical geography. Both are vital in efforts achieve greater success in tackling environmental change.

When one analyses data on climate change, as one of various environmental shifts, it is evident that the human effect is a greater driver than any other natural

force. The issue of climate change as an example, is one of grave concern. Humans have self-inspired themselves as being both the perpetrators and the victims. Essential in attempting to tackle such a challenge is an understanding of global environmental change. Whether it is because many subdisciplines have overlapped to make up the current literature or since global environmental change is ultimately a change to the physical world. What research finds is that because humans are so inextricably linked with nature, and the physical world, their own geographies must be understood too. The changes that occur across the world in many of its environments are undoubtedly being interfered with by humans, whether it is in fuelling them or in attempts to stop them. In each case, having a grasp on human geography, paired with that of the physical, is the only way to fully appreciate the complexities of global environmental change. From the literature analysed here, one can be confident that the task, as monumental as it may appear, is already underway.

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The Ecological Effects of Habitat Fragmentation

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Habitat fragmentation has caused global habitat loss, species extinction, and is a key contributor to the decline in biodiversity (McCallum and Dobson, 2002). This paper aims to present the ecological impacts of habitat fragmentation on biotic and abiotic factors in ecosystems and on species populations, and it will discuss the critical importance of conservation actions to reduce the negative impacts of fragmentation. It will give a brief overview of the causes of habitat fragmentation and will proceed to explain the ecological effects it has on ecosystem functions such as interactions, keystone species loss and the effect it has on species, such as genetic and evolutionary change. It will then consider the island biogeography theory, acknowledge the 'single large or several small' debate and will discuss conservation strategies to mitigate these impacts.

Human activities such as deforestation, infrastructural activities, road construction, urban development, and railways are amongst some of the barriers that divide habitats and cause population isolation (Haddad, 2015). Similarly, there are several natural barriers that cause fragmentation, as seen in Figure One, like physical barriers such as mountains or rivers, climatic barriers such as drought, or biological barriers such as risks of predation (Cox et al., 2016). Fragmentation limits the distribution of organisms reducing recolonization after the

extinction of a species (Haddad et al., 2015) and reducing gene flow within populations (Cox et al., 2016).

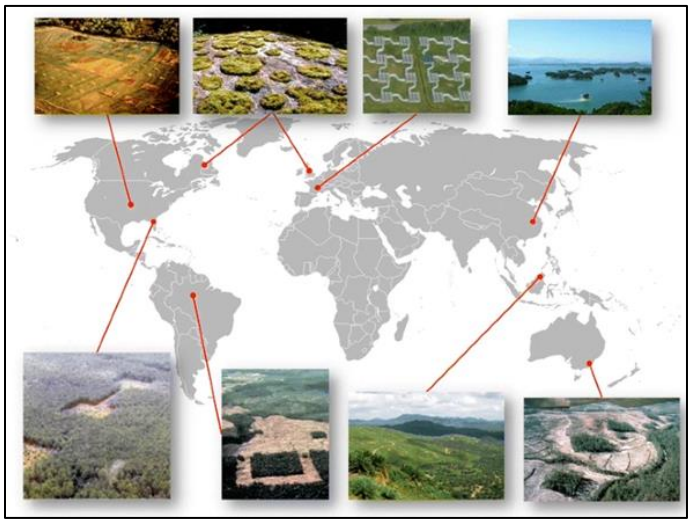

Figure One: Global habitat fragmentation

Source: Wilson, M., 2015

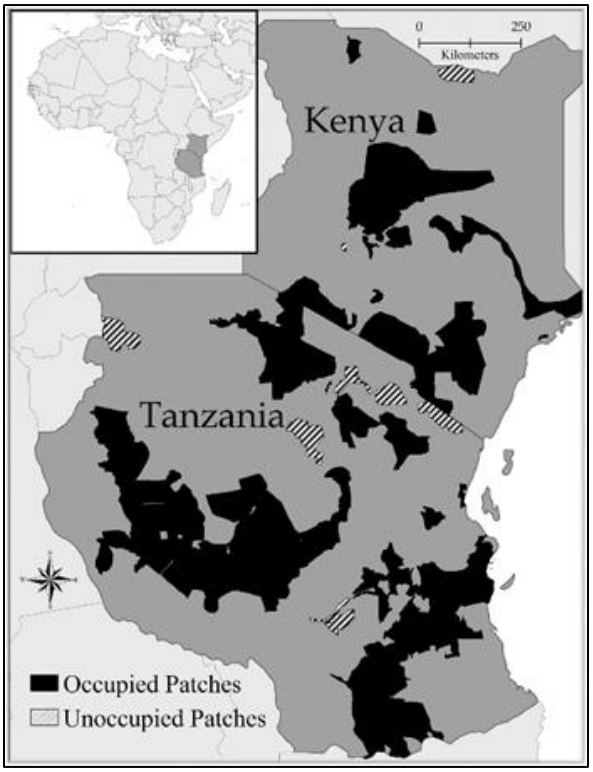

Figure Two: Fragmented Panthera leo populations in Kenya and Tanzania

Source: Dolrenry et al., 2014

Metapopulations occur due to the limited migration between populations (Dolrenry, 2014), such as the Lion, or Panthera leo, in Figure Two. This population isolation can lead to genetic differences or subspecies (Cox et al., 2016). Ring species can occur as a result of dispersal barriers where the genetic change from isolation means interbreeding is not possible, and thus creates subspeciation in the form of a ring such as the Asian greenish warbler in Figure Three (Schweizer and Yang, 2018). Additionally, there are four subspecies of chimpanzee or Pan troglodytes in Congo such as the Pan troglodytes verus subspecies that is isolated to the west of the other populations (Cox et al., 2016). Genetic development over time can change a subspecies into a full separate species such as the Pan paniscus that was isolated south of the Congo River from the other chimpanzees (Cox et al., 2016). The interbreeding of isolated species that have undergone a reduced gene flow can lead to sterile hybrids that are not favoured by natural selection and could lead to species loss (Cox et al., 2016).

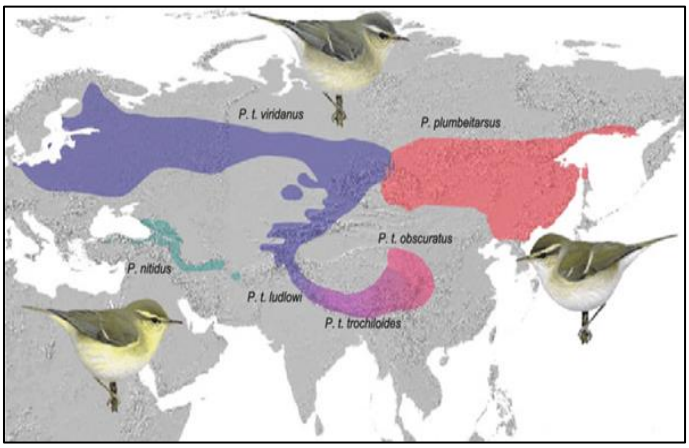

Figure Three: Breeding distribution of the greenish-warbler ring species around Asia

Source: Schweizer, M. and Liu, Yang, 2018.

Biotic factors within ecosystems can be changed through fragmentation as population extinctions and a loss of keystone species would greatly impact an ecosystem by affecting competition, symbiosis, and niche construction (Cox et al., 2016). Additionally, fragmented landscapes could affect the trophic cascades and top-down or bottom-up processes in ecosystems (Wilson, 2015). Fragmentation can affect food chains such as the species loss of a predator in a predator-controlled ecosystem, or a change in abiotic factors due to fragmentation that influences the environment of producer-controlled ecosystems, such as increased sunlight in a fragmented habitat affecting tree growth (Wilson, 2015).

Many species must adapt to living in fragmented habitats which often includes dietary and behavioural change due to an increase in competition amongst populations, and this alteration of community interactions can alter ecosystem processes (Cox et al., 2016). Habitat fragmentation can threaten species and enhance their risk of becoming endangered or extinct (Cox et al., 2016). The northern subspecies of the spotted owl is endangered due to fragmentation of the forest habitat where it is at risk of predation while crossing open areas to different patches of forest (Cox et al., 2016). The mortality of the Florida panther is at risk while crossing busy roads or railway tracks (Maehr et al., 2002). Species such as the Puma concolor coryi can undergo a loss if the patch they live in does not satisfy their niche requirements, for example, nutrients that are no longer bioavailable (Maehr et al., 2002). Exhausting food and prey resources provokes the Florida panther to attempt moving to another fragment, although anthropogenic landscape features like highways and canals have forced the dispersing species to return to their fragments (Maehr et al., 2002). If conditions in habitat fragments deteriorate, there is often nowhere for species to go, which leads to local extinctions (Cox et al., 2016).

Habitat fragmentation can alter ecosystem functions by isolating species and changing the abiotic factors of the ecosystem. Core functions such as carbon and nitrogen absorption in an ecosystem are negatively affected by fragmentation (Haddad et al., 2015), and studies of Argentinian dry forest shows declines in pollination rates in ecosystems due to fragmentation (Brudvig, 2015). Ecological succession can be affected by habitat fragmentation as a change in abiotic factors, such as increased sunlight penetration, light availability, and an increase or decrease in air temperature of a fragment can delay the succession rates (Haddad et al., 2015), and thus change the structure of communities (Ibanez, 2017). Furthermore, studies on woodland vegetation demonstrates that smaller fragments have slower succession rates than larger fragments due to an increase in edge (Wilson, 2015). Understanding these effects of habitat fragmentation through long-term studies is vital for conservation, and the island biogeography theory can be used as guidance (Cox et al., 2016).

Fragments in a matrix of unsuitable habitat (Dolrenry et al., 2014) are similar to islands surrounded by

water as a dispersal barrier, and they correspond to the theory suggesting that there is lower biodiversity in isolated islands and the extinction rate is higher for smaller islands (Cox et al., 2016). This promotes a discussion about conservation, asking whether it is best to target an area or a particular species as an effective method of mitigating habitat fragmentation.

Conservation action is vital to mitigate the effects of habitat fragmentation and to reduce further species extinction and habitat loss. It has been argued that conserving several small reserves such as habitat fragments is most effective in mitigating species loss and increasing biodiversity (Lindenmayer et al., 2015). Small fragments encountering more edge effect may support more microhabitats and biodiversity than larger habitats (Lindenmayer et al., 2015), such as lichen growth, where the edge effect leads to a higher plant reproduction rate around the edge (Brudvig, 2015). Additionally, large habitats may be at risk of anthropogenic threats where small patches of stable communities may add to the endurance of the species and thus should be protected (Akcakaya et al., 2009) The 'several small' conservation approach is also relevant when considering disease outbreaks (McCallum and Dobson, 2002). Although small patches and are at a higher risk of extinction with local outbreaks of diseases, the isolation and restricted movement of infected species within fragments can prevent the spread of the disease to other populations such as the chlamydial infection of Koala bears in Australia (McCallum and Dobson, 2002). However, studies on metapopulations have suggested the benefits of species dispersal through landscapes outweighs the benefits of isolating the disease and the risk of increased disease transmission (McCallum and Dobson, 2002). It has been widely suggested that both approaches to the SLOSS debate could be used when mitigating biodiversity and species loss from habitat fragmentation (Akcakaya et al., 2009).

Monitoring metapopulations is a key aspect of conservation as it helps to plan different approaches and to maintain a population structure within patches (Akcakaya et al, 2009). The reintroduction strategy has been used as part of the conservation of the endangered Puma concolor coryi in Florida, where natural gene flow has been simulated through the reintroduction of female species since 1995 (Maehr et al., 2002). Public awareness, restoring the habitat and establishing a Puma concolor coryi range outside of south-central Florida have also been effective conservation strategies (Florida Panther recovery plan, 2008). Allowing species to disperse and connect by creating corridors to increase colonization and reduce extinction has been considered an adequate conservation method (McCallum and Dobson, 2002). The fragmented lion population of Kenya and Tanzania is declining due to limited female dispersal and reproduction, where an estimated 75% decrease in the lions' range has occurred due to anthropogenic habitat fragmentation (Dolrenry et al., 2014). A successful recolonization of species into suitable habitats after local extinctions and increasing connectivity between populations, focusing on female dispersal, is a vital approach to conserving the species and mitigating negative

fragmentation effects (Dolrenry et al., 2014). Establishing protected areas and a lion sightings database to monitor the species are favourable mitigation strategies to conserve these top predators in their habitat and reduce the potential impacts on the ecosystem (Dolrenry et al., 2014).

To conclude, this paper has explained the ecological and ecosystem impacts of habitat fragmentation on genetics, threats to individual species, community interactions and biotic and abiotic factors of ecosystems. It has also considered the island biogeography theory and SLOSS debate when planning conservation action and has discussed many conservation strategies that can be used to mitigate these impacts.

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Human Impacts on Woodland in the Last Six Thousand Years

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Impacts that have led to the levels of woodland seen today are the result of several factors including human involvement, natural events, and climate change. This discussion will describe human impacts on woodland with the support of palaeoecological studies. Ireland and Britain will be compared with other areas of Europe, in order to understand the nature, timing, and intensity of events. Differences will be explored in relation to differing uses of woodland that occur between the two study areas as a result of anthropogenic actions.

Prior to the Neolithic period, Mesolithic peoples began a gradual transition from the life of hunting-fishing-gathering to one of farming as agricultural practices spread across Europe from southwest Asia. Human impacts on woodland across Europe became significant from the start of the Neolithic period around 6000 years ago. Reconstructions of land cover for that time in Ireland suggest that woodland, mainly deciduous trees, covered 80-90% of the land (Whitehouse et al., 2018). Cultivation of crops and controlled grazing of domesticated animals brought the need to clear existing vegetation cover and so the decimation of woodland in Ireland and Britain commenced. Such clearance is recognised by the phrase, 'landnám', meaning the 'taking of land', whereby woodland was either cut down, burnt, or killed to provide suitable conditions for farming (Molloy and O'Connell, 1988). One of the first features noted in pollen diagrams is the decline in elm pollen, around 5800 BP, which is the subject of debate as to whether it was caused by anthropogenic activity, disease, or a combination of both (Molloy and O'Connell, 1998; Mitchell and Maldonado-Ruiz, 2018). In this earlier Neolithic period, lasting until 5200 BP, there were also significant decreases in canopy forming Quercus and Pinus, along with the understory shrub Corylus. O'Connell and Molloy (2001) tabulate a number of sites where there is evidence of both strong woodland clearance and intensive pastoral farming.

Woodbridge et al. (2014) have examined the impact of the Neolithic transition in Britain by comparing pollen-based land cover and population change. Their findings are that an increase in population levels coupled with Neolithic farming practice drove the decline in woodland. This started around the same time as in Ireland and reached a peak between 5700 and 5400 BP. The elm decline is also identified as a factor in pollen diagrams around 6050 to 5850 BP, with the conclusion that human impact was a factor in the decline (Grosvenor et al., 2017). Prior to 6400 BP, 75% of Britain's land cover was deciduous woodland. The period from 6,000 to 5,400 BP showed a substantial decline in pollen attributed to deciduous areas – from 85% to 65% - reflecting a rapid clearance of woodland (Woodbridge et al., 2014). Close parallels exist with Ireland during the remainder of the Neolithic. In Ireland, the later Neolithic shows low levels of farming and woodland

begins to recover (O'Connell and Molloy, 2011). The British archaeological Carbon 14 (14C) record, between 5300 and 4400 BP shows a decrease in population, linking with the pollen record showing a recovering woodland (Woodbridge et al., 2014). This was to be short lived, as the start of the Bronze Age, 4500 BP, would bring renewed pressure on woodland.

The population of Britain is estimated to have risen from some 200,000 in the early Bronze Age up to perhaps two million by 2000 BP. The effect of this population increase and the opening up of land for arable farming, as well as grazing, led to the most serious era of woodland destruction up to that time (Roberts, 2014). Deteriorating climate around 2600 BP forced the population to lower ground causing further loss of woodland. The landscape reorganisation, coupled with an increasing population, led to enclosure of productive land, which necessitated permanent removal of trees (Roberts, 2014). The Bronze Age was a period of development in metallurgy, and this required additional timber which was used to make fires to melt the metal. Trackways made of timber also consumed significant amounts of timber to allow access across the boggy areas of England, and more so Ireland. The demand for timber increased further with the advent of the Iron Age which lasted until AD 400. Greater need for defences resulted in the construction of an estimated 45,000 ringforts in Ireland, many using substantial amounts of timber.

As well as palaeoecological records, one has the benefit of archaeological and documentary records for more recent history. The latter provide a very useful source of information, especially the Domesday survey of AD 1086. Summarising the information, Roberts (2014) outlines that by then lowland England was densely populated. Over most of the eastern counties, woodland accounted for less than 5% of the total land area, perhaps increasing to 15% of the country as a whole. This reduced further to 10% by AD 1350 following the Norman invasion. It is clear most of the woodland had been removed before their arrival. Moving from medieval times and through the Industrial Revolution, many more uses arose for timber in terms of storage vessels, large ships, railway sleepers, and construction timber. Woodlands were now a commercial cash crop. Illustrations of the Glendalough Valley in the early nineteenth century show little woodland, resulting from the location of a monastery and charcoal/iron production. Before woodland had a chance to recover, lead mining started in the area. Due to the lack of timber the Mining Company of Ireland planted 620 acres of Pinus which are evident today, as the mines are long closed (Mitchell and Maldonado-Ruiz, 2018). Woodlands had become a source for commercial exploitation as evidenced above and by the use of the Argyll oakwood in Scotland to provide tanbark and charcoal for the iron and tanning sector (Sansum, 2005). The advent of modern materials such as thermoplastics, concrete, and engineered steel, lessened the pressure on wood, as did the use of coal and oil for fuel. Nonetheless, what might be regarded as 'culturally native'

woodland now remains at 10% in Britain, and a lowly 1% in Ireland (Shaw, 2020).

Humans had major impacts on the woodlands of Europe in a similar way to the described practices in Ireland and Britain. In a similar manner, woodland was cleared for agriculture and commercial exploitation. Roberts et al. (2018), using the REVEALS approach (Regional Estimates of Vegetation Abundance from Large Sites) calculated that the forest cover for mid-latitude and northern Europe was 73% at 6000 BP. That had dropped to 65% by 3000 BP and in the last 750 years to between 46% and 51.5%. The European Union estimates that forest cover in the EU area is now 43%, with significant regional variances. Forests in Finland, Sweden and Slovenia cover 60% of the country (European Union, 2020) This compares with figures of 11% for Britain, Ireland, and the Netherlands, indicating the severity of impacts on woodland in those countries. Only 4% of European forested area has not been modified by human intervention (EU, 2020).

The impacts differ both spatially and temporally. This is illustrated in Figure One (Zanon et al. 2018). The diagrams show reconstructions of the percentages of forest cover and arboreal pollen over the last 12,000 years. Europe is divided into eight regions, culminating in a total study area diagram. The total area diagram shows a peak in woodland development between 8500 BP and 6000 BP, at which time a gradual decline starts, accelerating after 1500 BP. No major recovery phase is evident, although the timing and intensity of forest loss is different between the eight individual areas. The Dinaro-Carpathian area shows a steady level of forest cover until 1500 BP when there is a dramatic collapse. Similar collapses took place in already declining areas such as Central Europe and the British Isles at that time - the onset of the early medieval period. Forests were cleared not only for farming purposes but for the establishment of villages, and in due course towns. The Eastern European plain and the Alpine regions were affected by this steep decline around 750 BP (Zanon et al., 2018). The boreal forests changed little between 5000 BP and 1700 BP but then showed a rapid reduction to today's values of 55% - 60%, coincident with Viking expansion (Roberts et al., 2018). The Mediterranean was the least forested area, reaching a maximum of 40%, with the drier climate being an influence. Declines in forest cover appear much more gradual (Zanon et al., 2018).

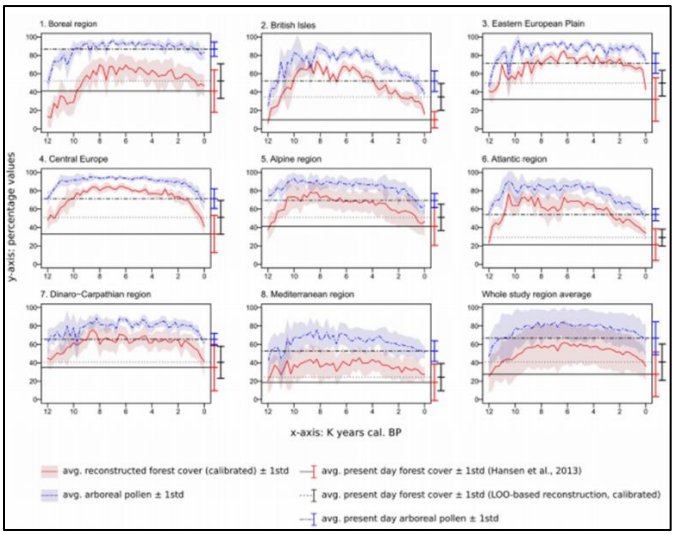

Figure One: Time series of eight regions and whole study region of Europe – showing percentages of reconstructed forest cover and percentage of arboreal pollen.

Source: Zanon et al., 2018.

A big difference between Irish and British woodlands compared to some of those in Europe is that the latter show multi-functional use, particularly in the warmer regions. There is evidence of this in Ireland and Britain during the Neolithic, through the practice of coppicing Corylus to increase hazelnut production, as noted in finds at many archaeological sites (Roberts, 2014). In Europe, the use of woodland to produce olive oil, walnuts, chestnuts, and cork remain valuable industries today. The spread of trees such as Olea, Juglans, and Castanea are useful indicators of human intervention in the Mediterranean area. Both pollen and archaeological records reveal the widespread nature of these trees in Italy during the last four thousand years, and this correlation supports the anthropogenic influence. They are common in records from the Bronze Age in northern Italy. Later, in Greek and Roman times the level of Olea is high in the south of Italy. Highest levels of the OJC triad were recorded in the Middle Ages (Mercuri et al., 2013). Castanea is a tree which provides evidence of human activity and Greek and Roman civilisations were implicit in its spread on a European scale (Conedera et al., 2004). Cork oak, Quercus sober, is an important tree in the Iberian Peninsula, southern France, Italy, and islands such as Sicily and Corsica. The bark is stripped off every seven to nine years. Not only does the tree provide cork, but also acorns, fuelwood, charcoal, browsing, and shelter for animals. This agro-sylvo-pastoral model provides for high biodiversity and effective resource renewal (Carriòn et al., 2000). Human interference is evidenced in the pollen sequences for the Iberian Peninsula. These sequences suggest that Quercus sober should develop in multi-species forests including deciduous Quercus and Pinus pinaster, were it not for human selection (Carriòn et al., 2000). The above examples show the different manner in which natural landscapes changed into cultural landscapes in parts of Europe and how this differed from the landscape transformation in Ireland and Britain.

Human activity and landscape transformation is an ongoing process. It is important to note that human impact on forestry is now changing in Europe with concerns that have arisen over climate change. Forests are recognised as important carbon sinks and each member state of the European Union must produce a National Forestry Accounting Plan for managed forest lands setting out the greenhouse gas changes from this area. Ireland has an active forestry plan, having moved from a virtually treeless landscape one hundred years ago to a forested area of 11% today, the highest in 350 years, with a target of 18% cover by 2050 (Houses of the Oireachtas, 2019). Both climate concerns and recognition of the commercial and amenity value of woodland will serve to guide human impacts in the future.

In conclusion, this discussion has described the manner in which humans have contributed to forest decline in Ireland, Britain, and Europe over the last six thousand years. The impacts on woodland in Ireland and Britain have been considerably in excess of those in most other European Union countries, with very low forest levels remaining in both. Impacts occurred on a synchronous basis within

Ireland and Britain but differed from some parts of Europe, both in timing and intensity. Management of woodland in Ireland and Britain also differs from some areas of Europe, particularly those of warmer and Mediterranean regions. In the latter areas, woodland is used in a multi-functional way, combining pastoral activities with harvesting produce from the trees. This has been facilitated by human intervention over a long period, encouraging biodiversity and the renewal of resources. The importance of woodland in the context of climate change should guide future human impacts on woodland in a more considered manner.

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The Issue-Attention Cycle and Environmental Issues

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For the purpose of this essay, I will be critically assessing the potential impact of the 'Issue attention Cycle' (Downs, 1991) in the context of modern environmental policy challenges. I will discuss what the issue-attention cycle is, how it can be applied to environmental issues throughout the last number of decades and if this phenomenon can be used as an excuse for the difficulties of green policy implementation in western democracies, or if it is really to blame for any difficulties experienced.

Explaining how issues enter and exit public realms is a challenging prospect and despite the efforts of researchers to explain the process of public inattentiveness the issue persists (Petersen, 2009). 'Up and Down with Ecology: The Issue Attention Cycle' by Anthony Downs (1972) provides a stringent model that tracks public opinion. In Downs' piece, he focuses primarily on domestic issues with great emphasis placed on environmental issues. However, Downs' model has the ability to contribute to the understanding of the relationship between the public and policymakers over critical issues internationally (Petersen, 2009). This model is also applicable to western democracies and the relationships between the public and governing bodies.

The attention of the public will rarely focus upon one issue for a long period of time regardless of the importance or longevity of the problem (Downs, 1972). There appears to be the presence of a systematic cycle by which issues leap to the forefront of public attention, remain there for a short period of time, and gradually fade away even though the problems persist (Downs, 1972). The Issue-Attention Cycle can be divided into five main stages describing this process in more detail, as viewed in Figure One.

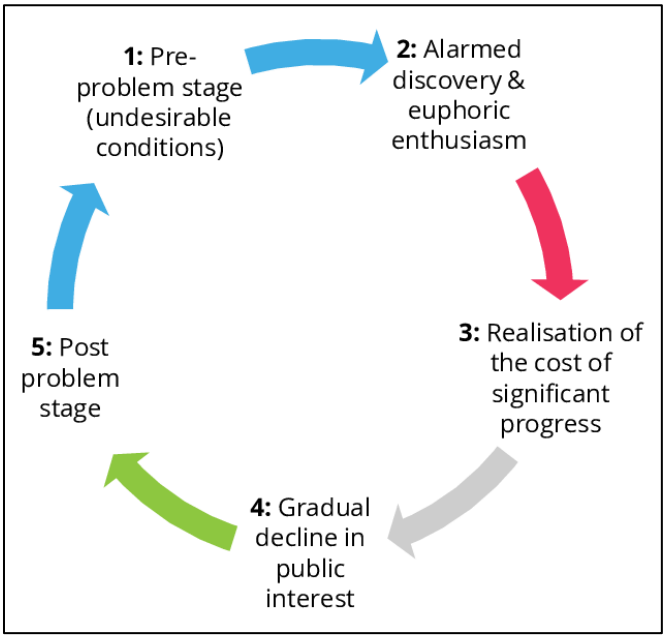

Figure One: The Issue-Attention Cycle

Source: Cook et al. (2018)

The first stage of the cycle is the pre-problem stage. At this point, an undesirable social condition exists that is causing significant concern, but has not yet gained much public attention. As a result of dramatic events or attention being drawn to the matter, the public become aware of the issue and are alarmed by the problems that may exist. This concern is coupled

with an enthusiasm to resolve the issue as quickly as possible (Downs, 1972). The third stage of the cycle is the realisation of the cost of significant progress. This stage involves the realisation of the high cost of solving the social issue. Not only would the problem require significant amounts of money, but it would also require sacrifices from large proportions of the public. The realisation of this slowly spreads and leads to the fourth stage of the cycle which is the gradual decline of public interest. As the realisation of the difficulties of solving the issue spread, people become bored or discouraged and the public attention has usually been placed on another issue that is going through the same cycle (Downs, 1972). The fifth stage is the post-problem stage and by this point the issue has been replaced by another prevailing issue at the forefront of public attention. Despite the declining interest of the public, the time that the issue spent at the forefront of people's minds may have created new policies, programs or institutions that may continue working positively to resolve the issue and so the problem is in a better place than it was at the beginning of the cycle (Downs, 1972).

Although Downs' claims that not all issues will go through this cycle, he does believe that the future of the environment is well on its way through the cycle. However, certain aspects of the environmental issue are protecting it from a rapid decline in public interest and slowing down the process (Downs, 1972). Downs felt that the public and media concerns for the environment had reached the post-problem stage, however, there is a long-term interest in environmental issues, and it seems as though people have been through the cycle several times (Fox, 1994). There is research evidence to suggest that recurring metacycles have been a feature of environmental news for the last five decades and that the extent to which reporting occurs in cycles can be seen as an indication of the institutionalisation of environmental concern among the public (Djerf-Pierre, 2013).

An obvious conclusion from continuous research on the implementation of policy is that it is very difficult to make something happen. This is not only because social issues are so complex, but also because policymakers cannot control what is important (Wallin Mclaughlin, 1987). However, reviewing some of the history of the issue in the US presents a more accurate barometer of the effect of the phenomenon on policy implementation. Before 1988, climate change was a larger concern to scientists and top policy makers, but the issue was young and clearly in the pre-problem stage of Downs' model (Trumbo, 1996). Around this time, significant scientific activity was taking place and early attention that was drawn to this in the form of policy caused major controversy, gaining attention, and gathering momentum for the concern, however public awareness remained low due to the lack of news coverage (Trumbo, 1996). Between 1985 and 1988, environmental concerns began to interest Congresspersons in the US and many began to adopt climate change as a topic of concern. This was coupled with a general rise in concern for the

environment among society and added a legitimacy to the issue (Trumbo, 1996).

Optimism began to take over at this point which is congruent with Downs' theory. President Bush pledged to fight the greenhouse effect with the 'White House effect' (Trumbo, 1996). All of this optimism is part of the second stage of the cycle and quickly lead to the third stage, promoted by people of influence, science bashing, and discouragement. Due to the enormous price tag as and the realisation of the severe complexity of the issue as nations of the world began to form treaties and unify in attempts to slow the effects of greenhouse gases, public motivation weaned. (Trumbo, 1996). Once society became aware of the sacrifice required, stage three and four quickly run their course, but stage five operated differently to the expected norm of the model. News coverage of climate change has fluctuated over the years following the first major discoveries as different people and events have drawn attention to the concerns (Trumbo, 1996). The fluctuating coverage and attention received by the public does suggest that the cycle is continuously on repeat, presenting an ever-difficult challenge to implement policy and promote continuous awareness and attentiveness.

While the phenomenon in western democracies makes it difficult to implement policy, there are a number of differences with the issues surrounding climate change and the environment and (Fox, 1994), despite the cycle, there is a long-term interest in environmental issues. In a study conducted by Newig (2004), a number of hypotheses were created to measure public attention and opinion. When these hypotheses were applied to real situations it was found that an Issue-Attention Cycle existed and while the issue flowed through the cycle naturally, it was discovered that political action had positive impacts on the decline of public attention (Newig, 2004). This hypothesis is strongly backed by the example of the Ozone Act, as its passing signified a sharp decline in public interest (Newig, 2004). The example of summer smog used by Newig (2004) regained public attention multiple times as the problem has remained unsolved, but while issues such as industrial pollution emissions in Germany have been reduced due to the implemented policy and legislator acts, public interest has declined due to the little incentive to maintain any focus (Newig, 2004).

It is without a doubt that the Issue-Attention Cycle is a very real phenomenon and while it has its critiques, it is widely applied and referred to when studying the awareness and attentiveness of the public regarding social issues. The constant cycle of public attention and declining interest would make it difficult for any governing body or policymaker to implement environmental policies as the majority of environmental issues are long-term and require long-term solutions to address the problems. While this makes it difficult, there is clearly a repetitive cycle of environmental issues re-entering the Issue-Attention Cycle and the long-term nature of climate change and the environment means that interest is constantly peaking and declining. Green policies will be difficult to implement because of this, however, there

is an argument to be made that strategic timing, coinciding with events that generate public awareness, will make it easier to introduce green policies.

Given the relative prominence of environmental concerns in the past decade, progressive policy changes have arguably been mooted. In the face of the current COVID-19 pandemic and subsequent economic repercussions, taking action to keep environmental concerns at the forefront of public and political debate is essential in order to actively generate policy that can address serious global environmental challenges.

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Ecofeminism and the Environment

Author: Hannah Joy Treacy

The focus of this essay is to define and explain ecofeminism, the gender theory which addresses feminism in the context of environmental issues. The Chipko movement is used as an example of the mobilisation of the ecofeminism, to bring its nuances to life. Secondly, the essay will address how ecofeminism has challenged popular understandings of global environmental politics and policy generation, using the example of the UNCED (United Nations Conference on Environmental Development) in Rio in 1992.

The theory of ecofeminism describes the link between the hierarchical gender systems between men and women, to the hierarchy of the needs of man over the protection of environment (McHugh, 2007). It draws similarities between the dominance and perceived importance of men's needs over the needs and rights of women and the environment. In other words, both women and the environment are subject to similar processes of oppression and exploitation, exerted on them by a society that empowers men and their economic needs.

Buckingham (2004) highlights two approaches to understanding ecofeminism. The first, the Constructivist Approach; believes the same dominating and exploitive structures in society that place women in low-paying, low-status caregiving roles, also serve to degrade and overconsume the natural environment, and consequently, women are better suited to advocate on behalf of the environment. The second approach, the essentialist argument; proposes that women's biological ability to give birth, situates them closer to the natural world. As a result, women are better suited to understand and advocate on behalf of this natural world. However, the validity of this argument has been criticised, as it is impossible to determine the strength or weakness of the relationship between people and nature, based solely on the ability to birth children. Women are not a homogenous group, some women cannot or do not want to have children, some identify as male despite their assigned gender at birth. Alternatively, some men identify as women, yet cannot procreate. Another critique asks how can there be a shared experience between a human and non-human? (Buckingham, 2004).

The constructivist perspective of ecofeminism therefore identifies the issues of oppression that women and the environment face due to economic and societal structures of inequality. Structures that undermine their power in the favour of men's demands. In this context ecofeminism challenges understandings of environmental policies. It believes that in order for politics and policies to protect the environment, gender inequalities must also be addressed simultaneously. The Chipko movement can be used as an example to further clarify this perspective.

The Chipko movement occurred in the Uttar Pradesh region in India, where women identified the direct relationship between economic development of their

forests and environmental disasters that threatened their survival (Jain, 1984). In their villages, women were the main cultivators and carers of livestock and children. Men also depended on them, as culturally males did not engage in women's roles, they needed women to feed them. This afforded women some status and protection. When women lost their ability to fulfil their roles, due to increased environmental degradation; floods, and landslides caused by deforestation and soil erosion, direct action was required to restore an ecological balance by protecting their forests, to allow women to provide for their families and maintain cultural protection. However, when women used their agency to achieve more favourable environmental policies, the men in their communities resisted these efforts. Conflict arose because men wanted economic development to allow them to move away from subsistence living and dependency on women. Economic freedom benefitted men by affording cultural benefits, they now held all the decision-making power, they owned the land and became educated, while women's social and economic agency deteriorated.

The environmental degradation exacerbated gender inequality in this community, as the people who suffered due to environmental damage were women. While environmental protection policies were needed to protect women's security, they potentially undermined men's social and economic status, by enforcing a regression to a subsistence lifestyle. Environmental policy benefitted women, but undermined male autonomy in this community. In this case, ecofeminism discloses the gender inequalities in decision-making in relation to environmental politics and policy development. This example challenges mainstream understandings of global environmental politics, which often aim to address environmental issues, without recognising or addressing gender inequality (Jain, 1984).

This section discusses the effect of ecofeminism on the politics and policy making within the United Nations (UN) regarding environmental development. Nhanenge (2011) outlines the 'Women's agenda 21' as an ecofeminist manifesto which was created prior to the UNCED (1992) to address ecofeminist issues in agenda 21, for the Rio conference. The aim was to highlight the negative effect that economic development was having on the environment and the lives of women, particularly women in the developing world. During the conference women shared narratives about industrial pollution and oil drilling that was poisoning people and environments, and nuclear testing that correlated with the birth of deformed babies. Ecofeminists stated that the cause of these issues stemmed from overconsumption of natural resources by developed nations. Women were not benefiting, but instead were suffering cruel biological consequences and increased dependence on men (Nhanenge, 2011). These reports demonstrate how globally both women and the environment are often exploited in the pursuit of economic development. This is reflected in the example of the Chipko movement, where development was destroying a previously positive relationship with the forest environment and undermining women's livelihoods.

The women's agenda 21 and the Chipko movement highlight how patriarchal structures in society that oppress women by undermining or excluding their agency and destroying natural environments by ignoring the detrimental impact of increased development were spreading from developed to developing countries and disproportionately affecting female populations. Women's subsistence lifestyles and environmentally sustainable practices are being forced to adapt into the capitalist model, which has already been recognised as flawed due to its unequal treatment of women and over-consumption of the environment (Buckingham, 2004).

Nhanenge (2011) states that although some recognition of the ecofeminist argument was accepted by participants of the UNCED, the results of the conference were not as successful as environmentalists and women's groups had hoped. Conference participants did not go away and spend time imagining how to restructure western development. For example, the US did not support much needed funding for environmental protection projects, TNCs (Transnational corporations) are still free to operate outside the confines of nation states and the regulation of nuclear waste and testing was not in the agenda. Ultimately, although informative and relevant, the agenda is not a legally binding one (Nhanenge 2011).

Thus, we observe through narrative sharing, how ecofeminist perspectives were used to expose the negative impact of environmental degradation on women's lives to endorse change in environmental policymaking. However, although some recognition was gained by the work of these ecofeminists, not much was achieved in making real change.

Similarly, Buckingham (2004) comments on a perspective of political and policy-makers recognition of gender equality in environmental issues, referring to it as gender mainstreaming. The ecofeminist influence on international policy has created an approach to eco-policy development which aims to examine and address the effects of a policy on both men and women, before it is accepted. However, this approach has been criticised by ecofeminists as a veneer of equality on a 'business and usual' model. What this means is that the priorities of the economy remain focused on growth and profit, while claiming to be addressing inequality and environmental issues by writing about gender mainstreaming policies, such as in agenda 21, without making any binding or impactful change (Buckingham, 2004).

Ecofeminism argues that no amount of gender mainstreaming will make progress towards gender equality or sustainability unless there is a restructuring in the power and organisation of decision-making. In order to create real change, there needs to be far more female representation in decision-making roles, so that women can influence changes in policy to secure their own livelihoods, while protecting the environment (Buckingham, 2004).

Gender imbalance in decision-making roles significantly contributes to the inequality faced by

women as their issues have not been awarded any real or lasting change, due to male-dominated power positions in global business and politics. Ecofeminism, therefore, challenges the understanding that current approaches to environmental policy generation, as demonstrated in Rio, is not enough to protect the environment. Ecofeminism looks past policy making and calls for structural changes in gender equality and capitalist development instead, to generate effective change in environmental and feminist issues.

Ecofeminism is a gender theory which challenges mainstream understandings of global environmental politics by connecting gender inequality and human induced degradation of the environment to the same cause; the hierarchical dominant patriarchal system and therefore they should be addressed at the same time. An example of this can be seen in the Chipko movement which demonstrated how the cultural role of women, strongly reliant on the natural environment, was being destroyed along with their forests. Their social movement to restore the positive environmental balance and livelihoods was resisted by the men, who benefitted from the economic development that degraded their forests.

Ecofeminist movements have tried to create change in international platforms such as the UN by speaking about the inequalities and degradation women and the environment endure. However, little meaningful change was made, and ecofeminists argue this is because there are not enough female representation decision-making roles. The future challenge for gender equity and environmental sustainability is that they are inextricably linked and their agency for change is continually hindered by male-dominated social and economic structures that resist any demands on their power and authority.

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Jobs for the boys: Multi-generational employment at the Inchicore Railway Works in 1911

Author: Robert Keogh

The establishment of the Railway Works (RW) at Inchicore in 1845 by the Great Southern and Western Railway Company (GS&WR) transformed Inchicore from a predominantly rural area, on the periphery of Dublin city, to a small industrial village central to the processes of commercialisation that would occur in post-Famine Ireland. One of the major spatial transformations that occurred in Inchicore at this time was the construction of an extensive development of housing beside the RW by the GS&WR for its skilled workers and their families. Only a small proportion of company employees however lived in these high-quality houses.

This essay examines the extent of multi-generational male employment at the RW in the early twentieth century using 1901 and 1911 Census data for families living in GS&WR housing. The first section provides an overview of the economic context of Dublin at this time. The second section of the essay provides an overview of the worker housing built in Inchicore by the GS&WR. The final section outlines the findings of the Census data analysis. The analysis finds that in households where there were two generations of males in employment contemporaneously, these jobs were very likely to be GS&WR jobs in the vast majority of cases. This finding suggests that the sons and nephews of GS&WR employees may have had a relative advantage in gaining employment at the company. Indeed, there is some evidence that the labour market at the time was rather uncompetitive. As Ó Gráda (1994: 239) writes: 'businessmen were in a good position to land railway and banking jobs for trusted clients and friends.' As families were at risk of eviction from these houses upon the retirement of the head of household from the GS&WR, the evidence below suggests that families may have negotiated this economic uncertainty by ensuring their tenancy rights through the employment of a son or nephew at the company.

Late nineteenth-century Ireland witnessed a period of commercialisation and urbanisation that was facilitated by the railways. As one of the fastest growing economic regions of the United Kingdom (UK) from 1870 to 1911 (McLaughlin, 2017), the freight tonnage on Irish railways doubled between the early 1870s and the early 1910s (Ó Gráda, 1995: 266). Dublin, unlike Belfast, did not have a large industrial sector; it was a commercial city (Smyth, 2017). Manufacturing activity was concentrated in stout (Guinness), biscuits (Jacob's), and engineering (Crowe, 2017).

The development of the railway network in Ireland in the nineteenth century also created new demand for heavy engineering and iron work. Dublin, as the hub of these railway lines, became a centre for railway engineering activity. The railways, 'the first major modern technological innovation to be widely and rapidly diffused in Ireland' (Lee, 2006: 638), were central to the history of Inchicore, a history

which reveals in part the uneven nature of development in Dublin at this time. By the end of the nineteenth century, the majority of engineering workers in Dublin were employed in railway workshops (Bielenberg, 2009: 118). The Inchicore RW were the largest engineering works in Dublin and the south of Ireland at the time (Bielenberg, 2009; Ryan, 1996).

Overall, Dublin was characterised by low wages and a low-skilled workforce, with a working poor that accounted for 40 percent of the population (Yeates, 2017). While over a third of the city's residents lived in one-room tenements (CSO, 2016), the housing conditions in Inchicore, particularly in the railway village, were far superior. Evidence from 1914 suggests that the wages of skilled and semi-skilled workers in the railways were around double the wages of male labourers, and similar to comparable workers in Great Britain (Ó Gráda, 1994: 238). Thus, the households captured in these data represent the relatively well-paid section of the working class in Dublin.

There was a lack of housing in Inchicore when GS&WR established the RW in the mid-nineteenth century. In response, the company decided to build housing for its skilled workers and their families. If demand for skilled labour outstripped supply at the time, the provision of housing might have made employment at the RW more attractive for workers, who could have taken up employment elsewhere. The company might have had other motives too for building the housing. For example, providing housing for employees might have been seen as a means to deter workers from taking industrial action against the company. Not all employees lived in this housing, however. In the early twentieth century, the RW employed about 2,000 individuals (McLeod, 2004: 94), but there were only 145 houses. McLeod (2004: 45) notes that there was considerable competition amongst employees for these houses, even though residents paid rent to the company for the housing.

This housing development was separated from the rest of Inchicore by high stone walls (McLeod, 2004: 36), physical structures that could be considered as symbolic boundaries of privilege, where the skilled workers of the company lived in relative comfort, unlike the rest of Inchicore and Dublin City. They might also be considered walls of control, however, where the workers lived in the ever-present shadow of the RW and under the eye of their employer. Figure One provides the year of construction and number of houses on each street.

STREET	YEAR OF CONSTRUCTION	NUMBER OF HOUSES
NORTH TERRACE	1846	26
SOUTH TERRACE	1847	30
INCHICORE SQUARE	1847	31
WEST TERRACE	1868	10
ABERCORN TERRACE	1869	20
ST. PATRICK'S TERRACE	1877	14
GRANITE TERRACE	1881/1889	10
ST. GEORGE'S VILLAS	No date	4

Figure One: Year of construction and number of houses by street

Source: McLeod, 2004: 80.

The map of the area (Figure Two) shows the allotments to the rear of the houses where residents could grow their own food. It also reveals the variance in the size of both the front garden and the allotments. McLeod (2004) provides some evidence that there was a hierarchy of housing amongst the resident workers; the size of the garden and allotment might have been one dimension of that hierarchy.

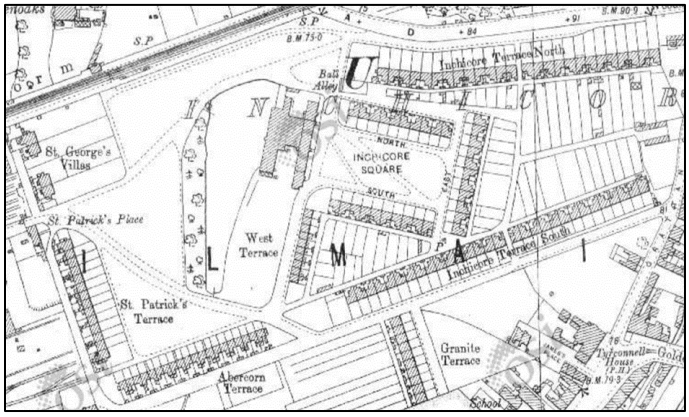

Figure Two: Map of the GS&WR worker housing. **Source:** Ordinance Survey Ireland, Historic Map 25-inch 1888 - 1913.

While the Census data lists the occupation of an individual, it does not always list the place of employment. Therefore, an alternative method is required in order to identify the place of work of an individual. First, as the housing was built by GS&WR for its employees, this analysis assumes that the head of household is an employee of GS&WR. Second, the likelihood of multi-generational employment in a household being associated with the RW was determined by the occupation of the son or nephew. Households with at least one son/nephew with the following occupations were identified as very likely cases of multi-generational employment at the RW: apprentice black smith; apprentice engineer; boiler maker; coach builder; core maker (iron foundry); electric engine man; engine driver; engine fitter; engine stocker; fitter; iron moulder; iron turner; railway clerk; (railway) fireman; railway fitting shop machinist; railway labourer; railway millwright fitter; smith's helper at works. Many of these occupations were obviously railway jobs, such as engine driver or railway clerk. Others, such as iron moulder, were identified as railway jobs using information in the literature on the Inchicore RW. For example, the literature reveals that there was an iron foundry and blacksmith's workshop at the Works (Córas Iompair Éireann, 1989). The presence of the following occupations amongst the younger generation of a household was used to identify possible cases of multi-generational RW employment: accountant clerk; clerk; hammer boy; labourer; office boy; and machine boy. These occupations could be associated with the GS&WR, but they are arguably more general occupations that could have been associated with other employers as well.

Multi-generational employment at the Railway Works was clearly a significant feature of family life in the housing developments built by the GS&WR in Inchicore, as indicated in Figure Three. The first column shows the total number of households on each street; the second, the number of households with multiple generations of males in employment with any employer; the third, households with multi-

generational employment very likely associated with the RW; the fourth, households with multi-generational employment possibly associated with the RW; and the last, households with multi-generational employment not likely associated with the RW. Overall, there were 151 households living on these streets in 1911. In 56 of the total 67 households that had two generations of males in employment, it is very likely that these men were employed at the RW. In a further 9 households with two generations of males in employment, it is possible that these men were employed at the RW. There were only two households identified where the multi-generational employment is not likely to have been associated with the RW.

In many of the households with multi-generational employment at the RW, more than one son or nephew was employed by the company. Therefore, it appears that the family members of GS&WR employees might have had a relative advantage in accessing employment at the Railway Works. As these jobs were relatively well-paid, it may have been in the economic self-interest of sons and nephews to seek employment at the RW. The particular spatiality of this pattern, however, suggests another possible reason. Parents may have encouraged their sons or nephews to take up RW employment to ensure that the family could continue to live in worker housing after the head of household retired from employment or lost his job. Otherwise, the family would have faced the threat of eviction (McLeod, 2004).

Street	Total No. of Households	Households with MGE	MGE at GS&WR very likely	MGE at GS&WR possible	MGE at GS&WR not likely
South Terrace	31	12	10	2	-
North Terrace	27	11	7	4	-
Inchicore Square	33	12	10	2	-
West Terrace	11	7	6	-	1
Abercorn Terrace	20	11	10	1	-
St. Patrick's Terrace	15	6	5	-	1
St. George's Villas	4	4	4	-	-
Granite Terrace	10	4	4	-	-
All streets	**151**	**67**	**56**	**9**	**2**

Figure Three: Total number of households, including multi-generational employment (MGE), and likelihood of MGE at GS&WR, by street.

Source: 1911 Census, National Archives.

It is worth briefly considering a number of examples to illustrate the heterogeneity of these households. The McDonnell family, who lived at 18 Abercorn Terrace in 1911, included: James, aged 55, employed as an engine fitter; his wife, Marianne; their two sons, aged 25 and 17, both employed as engine fitters; and daughter, Mary, aged 15 and a student at the time. The McDonnagh family at 27 South Terrace included: John, aged 71, a retired railway engine driver; his wife; and four of seven living children. All of the children were born in Inchicore. The two sons, John and James, aged 46 and 40 respectively, were employed as an engine fitter and a railway engine driver. The family would not have been able to stay living in the house upon John's retirement had the sons not been employed at the

RW. It would be interesting to know how the housing allocation decisions were made in these cases.

There was only one generation of males in employment in 84 of these households in 1911. The vast majority of these households did not have a son or nephew of employable age living in the household at the time. If time-series data were available, a more detailed analysis could follow these households over time as the younger generation grew older, in order to find how many sons or nephews progressed to employment at the RW in later years. While this analysis provides one snapshot in time, it appears probable that for any households with young males, at least one would take up employment at the RW upon leaving school.

This essay has examined the extent of father-son and uncle-nephew employment at the Inchicore Railway Works amongst families living in company-owned housing in 1911. The analysis suggests that multi-generational employment at the RW is likely to have been widespread in this area of Inchicore at the time. It appears that skilled jobs at the RW were often filled by the family members of existing employees. It may have been relatively difficult for anyone without a connection to find work there if they were generally competing with the family members of company employees. Given that these jobs were relatively well-paid, this evidence points to a certain social and economic immobility that might have existed in Dublin in the early twentieth century. It is possible that some families living in worker housing encouraged their sons or nephews to take up employment at the RW so that the family would not lose the house upon the retirement or death of the head of household. It is not clear from the data how widespread this phenomenon was, although a small number of such cases were identified. Further examination of this pattern and how housing allocation decisions were made by the company would be important questions for future research. It is evident that the railway village is unique in the historical geography of Dublin and the Railway Works loomed large in the lives and decisions of these families. There is a rich and diverse history behind the granite walls of the railway village, and this portrait of employment is only one thread in the tapestry waiting to be revealed.

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Comparing the Iconography of Goldenbridge Cemetery and Mount Jerome Cemetery

Author: Sophie Thiesen

This article will discuss the iconography of Goldenbridge Cemetery in Inchicore, County Dublin and Mount Jerome Cemetery in Harold's Cross, County Dublin. Iconography is a process through which the description and interpretation of how representations of the landscape have been socially constructed, situating them in 'their cultural, historical, and political contexts' to reveal symbolic meanings (Hoelscher, 2009: 132). To examine the cemeteries, I will give an overview of their respective histories followed by an analysis of their locations. I will then discuss the layout of the spaces as garden cemeteries, comparing their adaptations of the style. To finish I will examine the architectural and art styles used in the cemeteries in the construction of chapels and tombstones.

Goldenbridge Cemetery was opened in 1829, six months after the passing of the Catholic Emancipation Act. It was the first non-denominational cemetery in Ireland since the Reformation. Before this Catholics had no formal burial grounds unless they paid extortionate fees in Protestant graveyards (O'Meara, 2018a). The three main graveyards used by Catholics were St. James, Bully's Acre, and St. Kevin's. Bully's Acre was an area of open ground typically used to bury Catholics and criminals (ibid). The coffins were often left uncovered, and the area was levelled in 1755, but this

did not deter people from burying their loved ones at the site. In St. Kevin's on Camden Row, the funeral of Mr Arthur D'Arcy in 1823 was interrupted and not allowed to continue as the priest was Catholic, even though his family had paid the burial fee (ibid). Following this, the Catholic Association, chaired by Daniel O'Connell started to look for land on which they could place a non-denominational burial site. It is said that the first person buried in Goldenbridge Cemetery was Margaret Lowry and over the next two years 12,000 people were buried there (ibid).

In the early 19th century, the population of Ireland was growing and so too was the mortality rates. In the 1830s the British Parliament established commercial cemetery companies in urban centres called General Cemetery Companies (Mount Jerome, 2020a). The General Cemetery Company of Dublin was established in 1834. Mount Jerome Cemetery was created as a non-denominational cemetery but was quickly associated with Protestants, as they were the largest population in the area (ibid). Mount Jerome Cemetery started as twenty-six-acre plot, expanding to forty-eight acres by 1874 (ibid). In 1984 the company went into voluntary liquidation and fell into disrepair throughout the late 1990s. In 1998 it was taken over by new owners who reversed the damage of disregard and opened a crematorium; the cemetery is still operational and open to the public today (ibid).

The location of both cemeteries offers insight into the social and political standing of the groups wishing to establish them. The General Cemetery Company of Dublin tried to open a cemetery in a part of the Phoenix Park, but the application was turned down (Mount Jerome, 2020a). The company then bought the lands and house of Mount Jerome in Harold's Cross on the 23rd of January 1836 (Figure One). The General Cemetery Company of Dublin put £12,000 into opening the cemetery (Richmond Barracks, 2020a). The locating of Mount Jerome Cemetery near the urban centre of Dublin displays the company's wealth, as land was more expensive in the city, but also their wit. In 1855 a burial act forced older, over-crowded graveyards to close, particularly in the city centre (ibid). This pushed business out towards the cemeteries, like Mount Jerome.

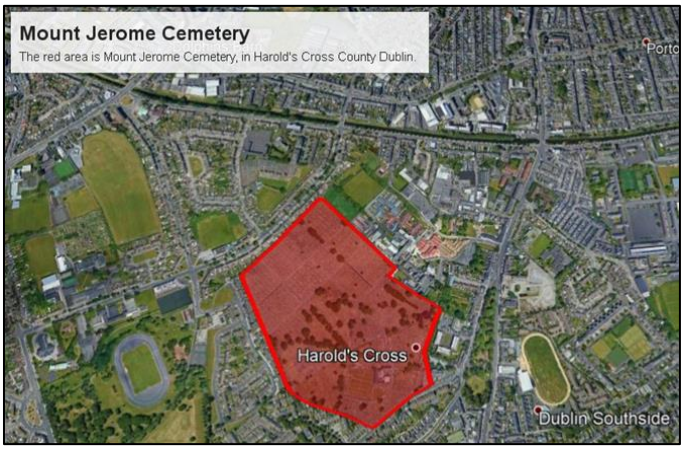

Figure One: Mount Jerome Cemetery Location Map
Source: Google Earth (2020a)

The Catholic Association established the special cemetery committee in 1828 and received a substantial loan but could not find a landowner willing to sell to them. During this time, the penal laws were adapted to allow Catholics to bury their dead in abandoned monasteries, but no formal laws were preventing them from making a graveyard outside the city limits (Richmond Barracks, 2020a,

O'Meara, 2018). The association bought a piece of land off Luke Teeling, a protestant landowner, for £600. The situating of the cemetery in Goldenbridge, rather than closer to the city centre, displays the lack of social power Catholics had, despite being led by well-respected members of society. The existing stone walls were raised to between thirteen and fifteen feet in places, a house was built for the sextant near the entrance and a temporary wooden chapel was constructed (O'Meara, 2018a). The walls were to prevent grave robbers, as there was a high demand for bodies within the Dublin medical schools.

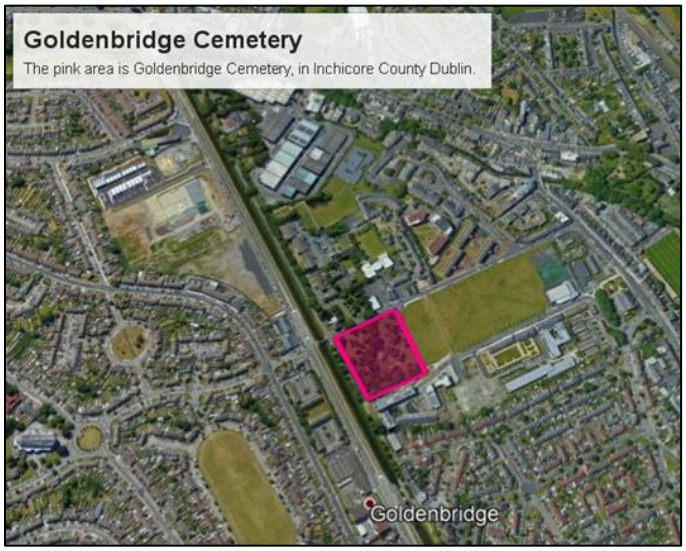

Figure Two: Goldenbridge Cemetery Location.

Source: Google Earth (2020b)

The cemeteries were both designed to emulate the Père Lachaise in Paris, as it was the hottest international trend in burial fashion (Richmond Barracks, 2020a). The creation of cemeteries, separate from churches, was developed by businesspeople or philanthropic investment, but made for profit. The space was designed for burials and took on a style known as the garden cemetery (ibid). The garden cemetery features a grid system with numbered graves, walls and gates for security, ledgers recording burials, vistas for leisurely strolling through and celebrity burials (ibid). Although both Mount Jerome and Goldenbridge Cemetery were inspired by the Père Lachaise there are some differences between them.

From my virtual fieldwork using google earth I was able to attempt to get a feeling for both places, their size, layout, and the apparent class structure. Mount Jerome is much bigger than Goldenbridge, as the General Cemetery Company of Dublin had access to more funds. It also has paved roads with signposts directing you to different sections of the cemetery, such as the crypts, vaults, and tearooms. It has a clear grid system with graves organised in rows, making it feel more urban than garden-like.

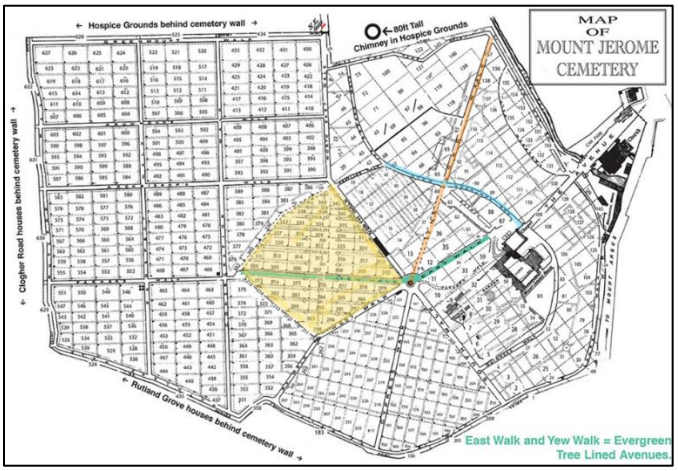

Figure Three: Map of Mount Jerome Cemetery

Source: Mount Jerome (2020b)

The 'common graves' or communal family plots are mainly located in the middle sections of the cemetery (yellow section in Figure Three). It could be deduced that these graves would have been for those of the working or lower classes. The orange line on the map shows the Long Walk and the blue line shows the Hawthorn Walk, it is along these two 'streets' that most of the vaults can be found. These vaults are highly decorative and were constructed for well-known and well-respected families or individuals, for example, the Gresham Vault (Figure Four).

Figure Four: The Gresham Vault

Source: Mount Jerome (2020c)

The pedestal on top of the tapered column once housed a bell as the women buried within it had a fear of being buried alive. She wished for her tomb to have a bell so she could ring it if she awoke in her grave (Mount Jerome, 2020c). The construction of vaults and decorative graves was a result of the rising middle class and the upper classes wanting to display their wealth and accomplishments post-mortem. The processes could also be described as the 'Theatrum Mortis' or the theatre of the dead, according to Witoszek and Sheeran (1998: 36) the culture of 'post-mortem display and splendour' was believed to raise the status of the dead.

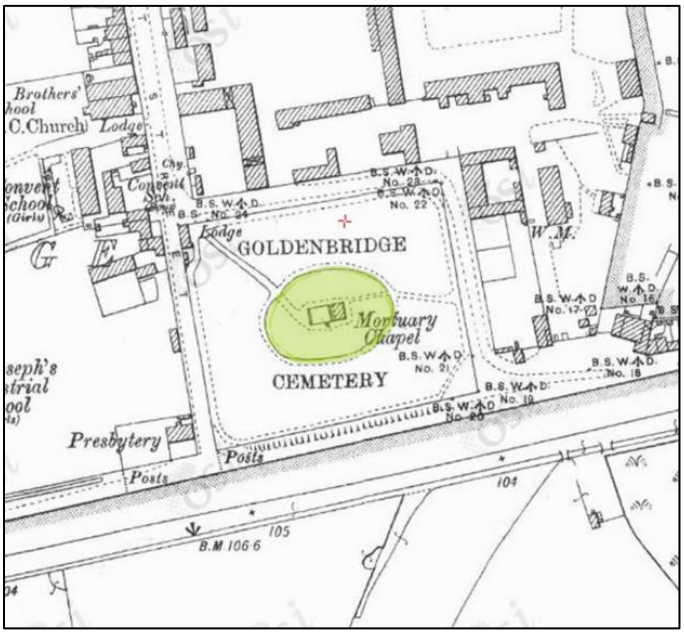

Figure Five: Goldenbridge Cemetery Map

Source: Ordnance Survey (1883-1913)

Though Goldenbridge Cemetery is smaller, as seen in Figure Five, it too was designed in the garden cemetery style. I did virtual fieldwork in Goldenbridge Cemetery using Google Earth. I saw

the mortuary chapel was in the centre and there were not as many paths as in Mount Jerome. The cemetery is bordered by the canal and Richmond Barracks, meaning there would be no room to expand. This cemetery felt much more garden-like with more green space, plants, and trees. Garden cemeteries were part of the park movement, to create open spaces with fresh air on the outskirts of the city for people to visit and use as a respite from the polluted city centre (Richmond Barracks, 2020a).

The green area on the map in Figure Five was known as the 'inner circle' (Richmond Barracks, 2020a). It was the most expensive area in the cemetery to be buried and was ringed with a fence to create a physical separation between the upper and lower classes (ibid). The cemetery was closed to the public in 1869 meaning only those with relatives within the cemetery walls could be buried there. The closure of the cemetery resulted in many babies who had died being left secretly in the cemetery; 'where possible the children were also buried within the walls of the cemetery despite its closure', though most were never identified (O'Meara, 2018a: 41). These unmarked graves can be read as not only a symbol of religious status but also class status. To have been able to afford a family plot within would cost a large sum of money which most working-class people could not afford.

The iconography in the two cemeteries differs in terms of the styles in which the chapels and gravestones were created. The funerary chapel in Mount Jerome was designed by William Atkins, an architect from Cork (Directory of Irish Architects, 2020). Atkins designed the chapel in a classic Victorian or neo-Puginain style (Figure Six). The chapel is ornate with high vaulted ceilings and many plaques on the inner walls, resembling a church more so than the chapel in Goldenbridge Cemetery (Mount Jerome, 2020d).

Figure Six: The Victorian Chapel

Source: Mount Jerome (2020d)

The Victorian style of the chapel that sits just inside the entrance gates is mirrored by the monuments within the cemetery itself. The monuments became a 'materialistic expression of the success of the Victorian middle classes from that period' (Mount Jerome, 2020a). The decadence of the monuments in Mount Jerome Cemetery is best captured in the architecture of the vaults, such as the Cusack Vault (Figure Seven). The vault was constructed in memory of James William Cusack, a widely respected surgeon. His position within society and professional career are immortalised in a miniature temple, been built in a classical design, typical of Protestant and Catholic churches in the 18th century (Grimes, 2005). Goldenbridge Cemetery, on the

other hand, had a completely different architectural style. The mortuary temple in the centre of the cemetery was designed by Patrick Byrne in a neo-classical style featuring iconic columns (Craven, 2019) (Figure Eight). According to Grimes (2005) by building in a classical style the Catholics were trying to emulate and out-do the classical churches built by Protestants in the 18th century.

Figure Seven: The Cusack Vault

Source: Geraghty-Gorman, J. (2010).

Figure Eight: The Goldenbridge Chapel

Source: Richmond Barracks (2020b)

The pictures available online of graves from the period between the initial opening and closure of Goldenbridge Cemetery were difficult to find. Most of the notable historical figures like W.T. Cosgrave were buried after the cemetery closed. However, the proximity to Richmond Barracks meant that many children of serving soldiers were buried there (O'Meara, 2018a: 41). The grave of William Thompson can be seen in Figure Nine. He was the son of Sergeant of the Royal Regiment Michael Thompson. According to O'Meara (2018: 41), the 2nd Battalion of the 1st Royal Regiment arrived in Richmond Barracks in 1884 and his son had died just a month after their arrival.

Figure Nine: The Grave of Michael Thompson

Source: O'Meara (2018b)

Unlike Mount Jerome, Goldenbridge Cemetery does not have highly decorated vaults or large headstones. The juxtaposition of architectural styles conveys cultural and religious differences. The styles they chose represent who they viewed as influential. For Protestants, it is the classic Victorian style seen all over England and Wales (Hill, 2006). For Catholics, it was the Greco-Roman influences of the Vatican and a harking back to a pre-enlightenment era (Grimes, 2005).

In conclusion the location, layout, architectural styles of chapels, and art styles of tombs differed between Goldenbridge and Mount Jerome. The similarities that come from the garden cemetery movement are that of layout but not much else. Both cemeteries approached the style differently, adapting the architecture of their chapels and the designs of graves and monuments to emulate the social, cultural, and religious backgrounds of the creators.

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Article Review: Should I Stay, or should I go? Negotiating township tours in post-apartheid South Africa

Author: Emma McGrath

Butler, S.R. (2010). Should I stay or should I go? Negotiating township tours in post-apartheid South Africa. *Journal of Tourism and Cultural Change.* 8(1–2), 15–29.

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The article 'Should I stay, or should I go? Negotiating township tours in post-apartheid South Africa' was written by a cultural anthropologist named Shelley Ruth Butler (2010). The article title is descriptive, precise, and appropriate. From an initial reading of this article there is a focus on township tours on the outskirts of Cape Town and Johannesburg where Butler (2010) conducted ethnographic research (Butler, 2010: 16). Booyens (2010) stated that 'Township tours mostly involve taking visitors to areas of poverty to see how people live and to symbolic struggle sites associated with apartheid' (Booyens, 2010: 276). The question of whether these tours are bordering on voyeurism is raised throughout and juxtaposed with the charity brought alongside tourists. Butler (2010) argues that township tours raise ethical, developmental, and representational predicaments which have now become intertwined with these tours allowing townships to be analysed, criticized, and reshaped by tourists and guides with little to no say from residents

(Butler, 2010: 16). Voyeurism is a prominent ethical concern regarding township tours.

This article reviews how township tours are ethically questionable as Butler (2010) raises the question of whether these townships and their population are being exploited and subjected to voyeurism by knowing tourists and companies. ‘They ask: is it grotesque and patronizing to drive through townships in a tourist bus?’ (Butler, 2010: 16) while it is suggested that were these tours truly morally correct, companies wouldn’t feel obligated to provide reassurance. This article discusses how companies running such tours lure tourists in, promising an authentic experience, and banish any question of morality, yet these companies aren’t solely to blame. Butler argues that poor communities are scrutinized and subjected to unwanted exposure from tourists while the main beneficiaries remain tour companies, profiting from the poverty and circumstances of others. Butler also examines how these tours are not giving light to every aspect of the townships. ‘The tours take advantage of a sociality that characterizes township street life’ (Bremner, 2004: 523). This may give an incomplete representation of townships during tours.

The credibility of sources such as Bremner (2004) were not discussed nor was the level of rigour and thoroughness practiced during this study, yet sources such as Bremner were correctly and appropriately referenced. Butlers writing throughout the article is concise and organized leading to a flow from each point to the next. This study involves the perspective of tourists, tour company workers, and residents alike, all of whom Butler interacts with. ‘In an interview following the tour, the guide admitted to me that inevitably a tourist would buy the children candy’ (Butler, 2010: 23). The identities of all participants in this study are kept confidential, proving the good ethics of this study

Butler (2010: 20) states that ‘many tourists acknowledge the performative aspect of their township tours’, an aspect that may leave them with an out-of-context representation of the community and result in tourists' critique and perception of township communities being distorted. Butler (2010) discusses how guides and tourists characterize townships solely on representation which may also contribute to an out-of-context view of the community. During these tours Butler (2010) describes how tourists want to submerge themselves in the poor communities as ‘poverty is a new sign of authenticity’ (Butler, 2010: 20). This poverty tourists seek is found in the form of ‘children wearing charity cast-off clothes’ and ‘images of shacks’ (Butler, 2010: 20) which fails to provide tourists with an in-depth and accurate insight into townships, leaving tourists with a contorted critique created by tour companies to satisfy tourists. The development and progress of townships is also often ignored or overshadowed by the poverty.

In relation to development, Butler successfully articulates both positive and negative impacts of township tours. Township tours can often lead to slumming, defined by Seaton as ‘visitation of slums, especially for charitable and philanthropic purposes’ (Seaton, 2012: 21). Butler discusses the philanthropy

of tourists resulting in donations to the Tourism Community Development Trust (TCD), while tour companies often also donate a percentage of their profit to the TCD. Butler (2010: 21) states however that 'poverty is now understood in relation to development', with the development of community resources such as schools and clean water being overlooked in favour of 'photogenic poverty' by tourists.

The theoretical framework that township tours can be harmful to residents is accurately described and only limited by sample size. The sample size is clearly identified as two townships (Cape Town and Johannesburg) which was only justified due to prior research being carried out by Butler in these townships, however the small sample size was not justified regarding allowing sample error and population size. A small sample size as used in this study decreases the power of the study as it lessens the study's ability to detect an impact in townships and their population which reduces the confidence level of the article as a result (Deziel, 2018). Limitations such as time constraints, cultural bias, and limited access to data are not apparent in this study.

When comparing Butler (2010) and Booyens (2010) articles on townships in South Africa, both include heritage and discuss its involvements and impact on townships and tourism. Butler (2010: 22) addresses heritage considering companies use of 'their unique relationship to actors in political history' in order to distinguish themselves and notes the increasing involvement of local histories within tourism and communities, a point which Booyens (2010: 275) develops, stating the inclusion of heritage in tours enriches the experience for tourists and explains that 'using heritage resources to develop tourism attractions in townships will help conserve these resources' for tourism, education, and reconciliation, providing a more in-depth explanation of heritage concerning township tourism. A main argument in Butler's (2010) article highlights how tourists impression of townships has direct impact on communities and the importance of this impression to be based off an authentic experience. Richards (2004: 13) also recognises 'the danger of staging for the tourist gaze' to townships as it may result in a lack of discernment for tourists allowing them to criticize and reshape townships.

To conclude, Butler's 'Should I stay, or should I go? Negotiating township tours in post-apartheid South Africa' (2010) successfully argues that township tours create ethical, developmental, and representational issues resulting in township communities being examined and assessed by tourists and guides. This article also confronts apparent voyeurism existing in township tours. While this article faces the limitation of a small sample size it is not limited by any other factor and each point is well developed. In comparison to similar articles, this article has a rounded view of the subject and recognizes all relevant aspects of township tours.

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In Film: *Modern Times*

Author: Kate Smyth

Modern Times. (1936) [film]. Directed by Charlie Chaplin. United States: United Artists Digital Studios.

Early filmmakers tackled the topic of the modern city in films such as Modern Times. Modern Times was directed by Charlie Chaplin in 1936 and is a 'comic-commentary on the machine age that still retains its bite' (Robinson, 1996). The machine age resulted in the rise of industrial cities which modernised. The purpose of this essay is to discuss how Chaplin and his character of The Tramp portrayed Georg Simmel's sociological idea of the metropolis and the modern city. The modern city is defined followed by a discussion of Taylorism, Fordism, sub-urbanism, and moralism and how each of these are portrayed in Chaplin's Modern Times. Modern Times depicts the industrial city and shows the effects of the modernisation of the city.

A modern city develops from innovations in the economy, society, and culture. Modernisation in cities stemmed from industrialisation, demographic change, and urbanisation. The term modern city is synonymous with industrial city and industrial cities began to develop in the nineteenth century and the early twentieth century. This urbanisation changed the landscape, creating suburbs on the outskirts of urban cities and a greater contrast in persons.

Modernity had impacts on more than just the landscape affecting humans too. Georg Simmel analyses this 'relationship between the individual and the modern city in the context of the rapidly industrialising world of the early twentieth century' (AlSayyad, 2006: 19). The changing industrialisation and modernisation of cities affected people leading an 'urban personality to feel socially freer but economically dependent and hence vulnerable' (AlSayyad, 2006: 20). A person in a modern city is more blasé, which is 'a deep contrast with the slower more habitual, more smoothly flowing rhythm of the sensory-mental phase of small town and rural existence' (Simmel, 1903: 12). Simmel also focuses on how the modernised individual is more concerned with quantity than quality, and how everything is understood through monetary terms, 'Money, with its colourlessness and its indifferent quality, can become a common denominator of all values' (Simmel, 1903: 14). The modern city was a major development which enabled opportunity but also created increased superficiality.

Modernism occurred through time-space compression. The modern city was changed as 'distance was measured in time' (Mohl, 1985: 65). Increased transit options with decreased travel times allowed cities to expand and the urban landscape changed. Suburbs developed. Time became conscious for workers and was a 'structuring factor in the lives of people' (AlSayyad, 2006: 22). The importance of time was emphasised by employers and many adopted Taylorist attitudes. Taylorism focused on producing the greatest amount of produce in the shortest time possible and it 'demanded perfect timing for workers' (Mohl, 1985: 65). This was aided through assembly line production. Assembly line workers were cogs in the machine of mass production in the modern city. It was clear 'the way of life for the working class became dictated by the factory clock' (Gold, 2009: 150).

Modern Times shows a Taylorist factory with mass mechanisation where 'the average worker is a slave to the accelerated rhythms of the assembly line' (AlSayyad, 2006: 25). Mise en scene shows the factory with its assembly line production and its employees at work. Charlie Chaplin's character of The Tramp works in unison with other workers. They are timed and monotonous. The employer shouting at him to work is the capitalistic and intellectualistic character. He enforces 'punctuality, calculability and exactness' (Simmel, 1903: 13). The Tramp becomes overwhelmed at the speed necessary for the menial and repetitive work of assembly line production. The sound of the music speeding up as the work speed increases conveys to the audience the increased pressure of the industrial worker. The Tramp metaphorically shows how the industrial worker is a cog in the machine of mass production by being sucked into the machine's gears. Simmel says how 'the most exact punctuality in promises and performances would cause the [production] to break down into extricable chaos' (1903: 13). The Tramp shows this by bringing production to a halt through his mistake. It is somewhat cynical of the modernisation of the workplace and the city as a whole. Just as the industrial modernity overwhelmed

The Tramp, it overwhelmed the real workers of the early twentieth century.

Along with Taylorism creating production, Fordism allowed consumption. Fordism also followed large-scale mechanised production. It was a change in worker's lives that they would now have the ability to consume the goods they produced. Fordism created a 'consumer culture' in modernised cities (AlSayyad, 2006: 25). The modern city's centre was the focus for employment opportunities in both the production and consumer economies. Taylorism and Fordism created a new life in the cities in a society of industrial modernity. Simmel says the modern city's production was 'for the market… of entirely unknown purchasers who never appear in the actual field of vision of the producers themselves', but Fordism allows the producers to become consumers also (Simmel, 1903: 12).

The Tramp is unable to be a part of this consumer society as he becomes unemployed. To play a part in the consumer society, one had to be a producer too. In Modern Times, The Tramp is unable to be a producer so he cannot afford the luxury of being a consumer. Similarly to how he has no relationship with the Taylorist production line, he has no relationship with the Fordist consumerism. Home ownership increased in these modernising times. It is only when The Tramp is arrested he experiences the consumption of a home. This is clearly shown through the words on screen from The Tramp, 'Can't I stay a little longer? I'm so happy here' (Chaplin, 1936). The scene shows dismay over The Tramp's face as the prison officer tells him 'well you're free' (Chaplin, 1936). The life without a home is a condition of the freedom the modern city entails. The Tramp is unable to fulfil the desires of the modern city life. The Tramp shows Simmel's ideas that although 'the citizen of the metropolis is "free" in contrast with the trivialities and prejudices which bind the "small-town person" it is true that one never feels as lonely and as deserted as in the metropolitan crush of persons' (Simmel, 1903: 16).

Consumerism is emphasised through the desire to relocate to the suburbs for many industrial workers. Suburbanisation occurred as people were now able to commute to industrial cities for work due to time-space compression. The dream of a consumer in the modern city was 'to own a house in the suburbs with conveniences and appliances handy' (AlSayyad, 2006: 37). Gender roles were also emphasised at this time of modernisation, with the man going to the city to work and the woman staying behind as the homemaker. The spheres of life are different between suburban and urban living. There is also a different 'general psychic trait of the metropolis' (Simmel, 1903: 15). The city dweller is viewed as freer than the suburban as 'individualized personalities were in constant struggle against the incessant inner and external oppression of a de-individualising small town' (Simmel, 1903:16). The suburban is more enclosed within itself with less individuality. The emotions associated with suburban living also differs to that of the metropolis, 'instead of reacting emotionally, the metropolitan type reacts primarily in a rational manner' (Simmel, 1903: 12). Urban dwellers are 'least sensitive' and 'furthest removed

from the depths of the personality' (Simmel, 1903: 12).

The Dream House scene in Modern Times depicts The Tramp and his companion The Gamine experiencing the dream Fordist consumer life in the suburbs. The two live the ideal life, a house full of consumerist goods, supplies of food in the forms of a fruit tree and a cow ready for milking, and the beautiful home in the suburbs. The Gamine also follows the stereotyped role as she is the homemaker cooking the steak. As Simmel says, the housewife possessed 'natural characteristics' (Rowe, 2003: 65). The different psychic trait of the suburban person is show in this scene. The wife expresses major emotion flouncing and cheering her husband off to work. It mirrors the 'sensory-mental phase of small-town rural existence' (Simmel, 1903: 12) and the 'warm primary social relationships of community' in suburban environments (Gold, 2009: 151). In another scene, Chaplin directs a different perspective. The Gamine takes The Tramp to a parody of the suburban life. The duo eats bland and tasteless food and experience a dilapidating home. It is a mockery of the great life promised with Fordist consumption in the suburbs.

Simmel was majorly concerned with how consumerism and capitalism affected the morals and psyche of the people. Many were concerned life in the modern city affected a person's moral core (Rowe, 2003: 19). The capitalistic economy created a 'psychological intellectualistic attitude' surrounding money (Simmel, 1903: 13). Simmel feared that as everything became reduced to a quantitative term that people would lose their morality. He mentioned that 'the mind has become more and more a calculating one' (Simmel, 1903: 13). Simmel discusses how in modern cities, breaking of boundaries was more likely. City people had 'the possibility of transcending boundaries' (Simmel, 1903: 16). For industrial modernity to be effective, control of the urban population was necessary.

Chaplin produces a conflicting view of the law and order of the modern city. Jail, the place where wrongdoers go, is the only place The Tramp feels at ease. It is where The Tramp would rather be in the city. Although a city dweller, it is clear The Tramp still has a moral compass. In a scene where he holds a job as a night-watchman at a department store, The Tramp pities The Gamine, allowing her food and bed in the store. He is again arrested for such a crime, but it is clear he sympathises with the plight of those lost in the consumer cycle of the industrial city. The Tramp transcends the boundaries of authority in the city. He does this in numerous scenes, such as breaking the cycle of assembly line production, waving the red communist flag, and stealing bread. All these actions face repercussions and support Simmel's idea of how 'the individual passes beyond the boundaries of the city community' (Simmel, 1903: 16).

The industrial city and its suburbs are explained, and its modernisation is understood. The positive and pessimistic light is shown of the metropolis. The Tramp and The Gamine face Taylorism, Fordism, sub-urbanism, and moralism but ultimately the duo

fail in the cosmopolitan, capitalistic, consumeristic world. The couple fail to balance the newfound freedom of the anonymity of the modern city with the isolation of the new life. Chaplin's Modern Times remains iconic today and can be understood as an important portrayal of Simmel's analysis of metropolitan living.

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In Film: *Selma* and the Power Dynamics of Race

Author: Siobhan Behan

Selma (2014) [Film] Directed by A. DuVernay. America: Plan B Entertainment, Harpo Productions, Pathé, Cloud Eight Films, Ingenious Media.

'Power in many ways is the ability to make rules for others' (Cresswell, 1996: 25). This statement from Tim Cresswell shows how ideologies in a place can determine how people are perceived by society, such as through race. In the United States (U.S.), for example, this argument appears to be true today, raising questions such as one from journalist Jamil Smith who asked, 'Where Can We Be Black?' (Smith, 2018). This essay discusses how race and the power dynamics of race in American cities are depicted through cinematic landscapes, including how these cities have been segregated through race and class. Ava DuVernay answers this question through her depictions of race, power, and repression in segregated U.S. cities and society through her film Selma (2014). Selma (2014) is her first major debut film which is set on the backdrop of racial segregation and oppression in the southern states. Selma (2014) helps demonstrate how black people such as Dr. Martin Luther King Jr. used non-violent methods to secure the right to vote (Klein, 2015). In Selma (2014), she reflects on prominent events in history such as the Black Civil Rights Movement and thinks about them in the present day. Through categories such as race, issues of power can arise and

lead to the discrimination of black people through different forms of institutional racism and racial injustice, such as segregation, that are present in society. This essay is organised into three main concepts: race and how race ideologies are spatially expressed (Omi & Winant, 2014), how power geometries of the city according to race are depicted through the landscape (Massey, 1991) and how the 'othering' of people can occur and create concepts such as segregation (Sibley, 2009).

The first key concept that will be discussed is race and how ideologies based upon race are spatially expressed. Race is not easily defined, and it has been described as a social construct as well as the process of 'making up people' and 'othering' individuals (Omi & Winant, 2014: 105). In addition to race acting as a set of 'constructs', race can also be seen as a set of 'practices' which inform and are informed by everyday life (Winders, 2009: 53). Omi and Winant (2014), together with Winders (2009), agree that the understanding of race can change over time and space. Winders also believes that there is nothing 'natural' about organising individuals into categories based on skin colour (Winders, 2009: 53). Race is everchanging and tied to other key concepts such as power geometries, self and other, and segregation, as it is challenged by those that are oppressed. In the U.S., for example, due to a history of often 'internal' colonialism as well as the transatlantic slave trade, race has become the main organising concept (Omi & Winant, 2014: 91). In the 18th century, slavery became part of the Constitution and even when slavery did get abolished in the 19th century, the confederacy of which were the southern states did not agree with this (Omi & Winant, 2014: 101). These southern states introduced Jim Crow Laws that were institutionalised in the United States causing a racially separated society and continued the denial of black voting rights (Omi & Winant, 2014: 108). This promoted unequal social, political, and economic relations across different spaces and scales regarded as racism (Winders, 2009). Racism was further escalated in the 20th century by technologies such as the national census in which racial categories were generated (Winders, 2009).

In response to this racism, these people protested in non-violent means in the south of the U.S. to try and make a change as they used their bodies to dominate spaces (Omi & Winant, 2014). Actions such as sit-ins, freedom rides, and marches such as the monumental turning point of the Civil Rights Movement march, from Selma to Montgomery, Alabama in 1965, were all used to try undo this inequality (Klein, 2015). In Selma (2014), DuVernay shows how the Civil Rights march was not successful the first time it was conducted. The opening shot of the scene at (01hr10mins28sec) shows 525 black individuals ready for their long march from Selma to Montgomery. On their march through the town of Selma, they pass white people on the street, the scene has been edited to highlight the disdain of these white individuals as they spit and stare at the black folk. The music is quite light and indicates to the viewer possible prosperity and hopefulness as they walk through the town and approach the bridge in Selma (DuVernay, 2014). On this bridge, the black people

are met by a barrier of white men including the sheriff, the local police along with the national guard who block their path. At (01:14:32), the cheerful music is replaced by gunshots and violence that ensued on the innocent black citizens, indicated by their screams. The film cuts to multiple edited shots of people, both black and white, watching in horror as the media is broadcasting this footage to 70 million viewers all around America. This included a skull fracture that John Lewis, a young man, and member of SNCC (Student Non-violent Coordinating Committee) endured, in (01:17:05), which highlights the brutality of the police force (Duvernay, 2014). In a later part of the film (01:53:20), these courageous black people were allowed on their third attempt, to complete their march from Selma to Montgomery. This event proved significant and move Congress to approve the 'Voting Rights Act', which President Johnson authorised into law on August 6, 1965 (Klein, 2015).

The second key concept that will be discussed is how power geometries of the city according to race are depicted through the landscape. Doreen Massey (1991) devised the term 'power geometry' in an assessment and critique of David Harvey's work. Harvey believed time and space could be compressed and understood, solely through capitalist means. Massey felt that this concept was oversimplified and other factors such as race could also influence our experience within the community (Massey, 1991). Power geometries occur through systematic and uneven ways in which different individuals and groups are positioned within a network of flows and interactions (Corbridge, 2009). The creation of power and space can vary between various actors, locations, and levels of independence (Corbridge, 2009). The concept of 'power geometry' emphasises the diverse relations within place that bring people together, subject to who they are and where they are in the world. Massey emphasised their vitality as they work together in often unpredicted ways (Massey, 1991). Some people are more in charge of the power geometries than others. These 'others' can be spatially imprisoned and classed in a certain way (Massey, 1991). Corbridge draws upon Massey and understands that within power geometries, it is important to consider both historical and geographical viewpoints as places are 'woven together out of ongoing stories, as a particular constellation within the wider topographies of space' (Corbridge, 2009: 577). DuVernay shows these power geometries and network of flows that are present in the film Selma (2014). At (00:11:44) Dr. King and President Johnson, accompanied by his aide, sit in the Oval Office. Using cinematography, the scene is composed and framed in an interview style. Dr. King expresses the issue of black voting rights in the south as these people are often intimidated or harassed. This shot is combined with the sound of Dr. King's firm tone to communicate to the audience the seriousness and urgency of this matter. Dr. King wants federal legislation to tackle the issue, from the mise en scene it can be observed the president is visibly uncomfortable and wants to focus on poverty, as desegregation in the south is still too much of an issue. At (00:11:49) Dr. King argues

that this is an issue that cannot wait. This scene is edited to show the power geometries of politics and dynamic of their relationship. Power geometries are further highlighted at (00:41:34) when Dr. King and his followers are in jail. Dr. King describes how he and his fellow prisoners descended from great people, who were slaves and overcame diversity such as torture, and that they can too, as it is in their bloodstream. He uses their history, in relation to power geometry, to bring people together despite the constraints that are in place, persevering and exposing the inconsistency of society and the powers within (DuVernay, 2014).

The final key concept that will be looked at is how the 'othering' of people can occur and create concepts such as segregation. Self and 'other' generally reflects the power inequality that exists and involves negative stereotyping. Groups can be considered as 'othered' through factors such as race (Sibley, 2009). DuVernay's depiction in Selma (2014) questions forms of 'othering' through inequalities such as segregation. At (00:14:20), segregation can be seen as the shot focuses in on the Hotel Albert sign, that has served white people only since 1855. This scene is edited to follow Dr. King and his party as they enter Hotel Albert. The scene has been spliced together to convey unspoken emotions of nervousness from black people along with unwelcoming body language, including stares from white people. (DuVernay, 2014). Segregation comes in many forms and is commonplace for these black people in this period. It can cause these people to try break free of their boundaries. This is evident in Selma (2014) as they try and overcome the inequalities of segregation in the south and obtain their voting right without persecution. At (00:06:30), this can be seen with the introduction of Annie Lee Cooper, a black woman, who was 'stirring fuss' over trying to register to vote. The man behind the counter, who is white, questions her and tries to find mistakes in her application. His authoritative nature and attitude towards Annie highlights how power and control can be seen in terms of race in the U.S. and how it is held by one dominant group, that are white (Cresswell, 1996). In the south at this time, black people like Annie are seen as a threat to the 'dominant' white people (Sibley, 2009). This is due to their white privilege and their social, economic, political, and cultural advantages, solely for being white (Winders, 2009: 54). The oppression of this black woman can also be used to evoke emotions from the viewer as she is eventually denied. The scene particularly highlights segregation and the powerlessness of her situation (DuVernay, 2014).

Selma (2014) brings up complex issues and links with the theme of race and the power dynamics of ethnic groups in American cities and how they are expressed through the cinematic landscapes, including segregation through race and class. This does not mean segregation was in anyway eliminated. Following the establishment of the Voting Rights Act, the next challenge was housing. Despite the Fair Housing Act in 1968, black people were segregated as this Act was structurally and fundamentally flawed. Through segregation, power relations and struggles had serious consequences for

black people (Denton & Massey, 1993). It can cause poverty and emphasise concepts such as the underclass, a group of people who often inhabit the impoverished urban areas in places such as the U.S. (Haylett, 2009). The dynamics of power and DuVernay's depiction in Selma (2014) of true stories, showcases events of racism. The song used in the credits of Selma (2014) called 'Glory', reflects on the past of Civil Rights to illustrate that racism is still present in modern society in ways such as police brutality (Common & Legend 2014). This is as past events are all cumulative towards the history of place and it can only be progressive if individuals recognise that place must be constructed by linking multiple locations without segregation or being threatened by it (Massey, 1991).

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In Film: *Selma* and a Racialised America

Author: Nomonde Majola

Selma (2014) [Film] Directed by A. DuVernay. America: Plan B Entertainment, Harpo Productions, Pathé, Cloud Eight Films, Ingenious Media.

Selma (2014) by Ava DuVernay is a film that explores the pivotal stages of the Civil rights movement in the 1960s. This film highlights how in American society it is the concept of race that almost always seems to be the basis of understanding how people navigate and relate to public spaces. This can be seen historically and in more recent times. 'The trajectory of racial politics is a process of cumulative and cyclical development taking place over centuries' (Omi, Winant, 2014). The Civil rights movement acts as another phase in this trajectory in which slavery, (the former phase of black oppression) was simply regenerated and replaced with new oppressive laws. It is then we are forced to question if African Americans and other minority groups ever truly achieved the right to self-determination. This essay will define and discuss concepts such as race, power geometries and class. The film Selma (2014) will then be used to make the argument that race has a profound effect on class divisions and consequently seems to be the dominant determining factor which influences how power geometries are formed. Spaces in Selma (2014) therefore act as a medium of communicating racial ideologies in which people can feel included and secure, or marginalised and excluded.

In Selma (2014), DuVernay depicts icons such as Martin Luther King Jr. in a humanistic and accessible way. By normalising these icons we get an insight into their every-day life in which a familial and communal bond is showcased in the black community. This is a deliberate strategy by DuVernay as we see the ordinary lives of African American people back dropped against an oppressive and racist system. It is then we can recognise these grave injustices in a more empathetic way. 'DuVernay subscribes to the ethos that art serves a social purpose, debunks demeaning and normative assumptions about black people, and renders black humanity in all manner of genres and complexity' (Martin, 2014). It is through the commemorative nature of Selma (2014) in which the film can be held up as a criterion in which progress can be seen today. It is important to note however that this reflection on history can simultaneously act as a critique of the present, and it is here where an audience can recognise how far we have come and simultaneously how far we have to go.

By understanding how race is defined, it is then we can recognise its ability to define society over a long period of time, and this is particularly evident in Selma (2014). According to Jamie Winders (2020) race is a collection of ideas and practices through which people and places have been organised and ranked across time and space and it is structured by unequal power relations. It is this broad definition of race in which we can begin to see the illogicality of

its use as a basis for defining society, and its discrepancies are laid bare. The inability to define race in a concrete way bound by time and meaning gives the concept the autonomy to shift in its definitions and move on a temporal scale. 'Race...is socially constructed and historically fluid' (Omi, Winant, 2014). The only permanent result that remains is its continuous ability to still affect members of society in our modern day. Therefore we see the danger that the position of race has in a society. Those who wield power have a major role to play in defining not only an individual's race but what implications this will have in their ability to self-determine. 'So racialised is the development of American society that virtually no social analysis can take place without a recognition of this reality' (Kobayashi et al., 2000).

In our conceptualising of race and its ability to hinder those who are classed in the inferior category, we can then begin to see its societal effects, which essentially creates an underclass. According to Christine Haylett (2009), underclass is a concept which represents the poorest working class groups during times of social change in which poverty is seen to be caused, exacerbated, and perpetuated by working class cultures. It is through this lens we can begin to look at Selma (2014), in which by identifying who holds power and who is trying to attain it, we are simultaneously able to identify an underclass which is evidently the African American population.

In Selma (2014) we can begin to identify the links between race and power geometries in which power geometries act as a medium to represent the inequalities of race. Doreen Massey (2010) argues that in time-space compression, different social groups are placed in distinct ways in which some groups are in charge of it, while some groups are imprisoned by it. In Selma (2014) power structures that are showcased represent the ever-present burden of being black in America. No matter how much agency one attains, this is always contradicted and diminished in favour of maintaining the status quo. It is perhaps the plight of Annie Lee Cooper (Oprah Winfrey) and Martin Luther King Jr. (David Olowoyo) that epitomises this. The juxtaposition of these two scenes simultaneously reveals certain truths, as in the sixth minute of the film Annie Cooper, a black woman, is attempting to register to vote, and we can see this is not her first time. Du Vernay offers a close shot of Annie filling in her race on the application form and this acts as a precursor in what her experience will be like in the registrar's office. We can already recognise the power relations in this scene between Annie and the registrar in which the registrar has the power to deny or approve her application, and we see him abuse this power as her request is denied. The scene transitions to the White House and similarly in King's case (00:11:20), he is advocating for the protection of the black population in exercising their right to vote. Here it is President Lyndon B. Johnson who holds the power to essentially grant King what he is asking for, but once again this request is denied. It is not the fact that the registrar has said no to Annie and similarly that the President has denied Martin Luther

King's request, instead it is the allusion that they will be given power and the subterfuge used to deny this power which truly symbolises the insidious nature that unequal power structures are maintained. It is also interesting to note that Annie Cooper, a lower class middle aged black woman, is somehow able to face the same indignities as Martin Luther King, an esteemed national figure who has just recently won the Nobel Peace prize. It is in this sequence that we are left with no other conclusion other than while class and power structures are important components of how society is made, race remains the major determining factor. It is by also recognising the spaces in which these events occur, whether in the highest office of the land, or the local registrar's office that we see the prevalence of racial injustice on both a local and national scale.

In Selma (2014) we are able to identify spaces as mediators of a status quo in which black Americans feel marginalised or excluded. Doreen Massey argues that power geometries can be seen in time-space compression which refers to the movement and communication across spaces and our experiences of these spaces. Du Vernay is able to portray how different people experience spaces and race seems to be the determining factor. It is the march on the Selma courthouse in which places act not only as representations of a hierarchal racial structure but can simultaneously be seen as a potential space of contestation. Martin Luther King capitalises on this explicitly clear exclusion of African Americans in which the courthouse becomes the perfect stage for political demonstration. 'A citadel, defended by fanatics, Selma courthouse, the perfect stage' (Selma, 2014: 00:33:50). It is then that we begin to see the importance of clearly defined spaces, in which places where racist ideologies are represented act as a perfect stage in which a counter narrative can be told. Du Vernay showcases this in not only a physical but a metaphorical sense. In the beginning of the scene (00:33:58) we see a physical oppositional stance of the black protestors and Officers. Sheriff Clark and his officers are standing high on the steps of the courthouse while protestors are kneeling. While this is to show their aim of non-violence it simultaneously highlights their position in society, which is a vulnerable one. It is perhaps the uniformed image of the Sheriff and his officers which act as a direct representation of how power relations are unequal. Here, those that represent the state are essentially denying their citizens' rights in registering to vote. It is this chasm in American society during the Civil rights movement in which definitive narratives could be told. DuVernay's creation of dichotomies in this scene between the state and its citizens, the black Americans and white officers simultaneously highlights how race was the determining factor in which these protestors in Selma were hindered from registering. It is through non-violent methods that African Americans demonstrated this injustice in which, from the objective view of the general public, no other understanding of the unfair and brutal treatment of the African American people could be suggested than the issue of race. It is interesting how Du Vernay

communicates this and also highlights how Martin Luther King understood this also.

Doreen Massey (2010) then argues that the time-space compression causes insecurity for those who control it which leads to reactionary nationalisms and obsessions with 'heritage'. Governor Wallace perhaps epitomises this value of heritage in Selma, and this is seen in his national address (00:36:10). As the scene cuts from the protests to the national address, DuVernay effectively mimics the oppositional structures that stood in the way of equality for African Americans as we see it transition from the local level with Sheriff Clarke to a state level with Governor Wallace. In Wallace's bigoted speech he essentially personifies and exacerbates the attitudes that according to Massey become the downfalls of the time-space compression. In this particular scene, Wallace's hateful speech is enough to inform the audience of his stance regarding racial hierarchies in America. DuVernay goes further as she presents a visual image of Governor Wallace making this speech, supported by confederate flags in the background. 'Concepts associated with the Confederate flag, such as racist behaviour and negativity toward Blacks, become accessible in people's minds when they are exposed to the flag' (Ehrlinger et al., 2011). Governor Wallace's speech not only echoes the inequalities of power structures during the Civil rights movement but the racist precipice that they were formed by in which a characteristic unwillingness to change becomes the dominant theme. It is perhaps pertinent to note that it is the fact that Governor Wallace has the agency and platform to spread information in a quick and effective way which highlights the agency one was awarded according to their race.

In conclusion, race seems to be the most tangible way in which we can understand the formation of American society. It is through commemorative works like Selma (2014) in which we are able to reflect on the dominant role race had in determining how a person related to space and other members of society. It is then we are able to recognise and critique how these methods of oppression are simply being recreated in more sinister and duplicitous ways in our modern day. It is perhaps the fact that the question of race in America is still as charged as it was during the Civil rights Movement in which we can perhaps begin to have a pessimistic view for the future. DuVernay's work, among many others, recognises the focal points of power structures, their implications for the black community and also the long-lasting effects it has on its descendants. This representation of black figures in film by black directors is when we can begin to have hope for the future where a social and racial consciousness can be raised which finally debunks and de mythicises old, historic, and racial traditions. The question of race is a shifting one and operates on a temporal scale, however it is the persistence of those willing to recreate these stories over time in which ideas and attitudes can simultaneously be shifted.

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Student Survey Results

Author: Adrian Kavanagh

(Figures page 117-119)

Back in December 2020, we asked our Second and Third/Final Year Geography students to answer questions in a survey, which focused on their experiences of the Geography programme and of their time with us as undergraduate students, as well as highlighting aspects that they thought could be improved on. 181 students took the time to answer this survey and we thank them for the time they took to do so; their inputs were invaluable and are something that we, as a Department, are learning from and will help shape our approaches to teaching, whether online or in person, in the coming year(s). Thanks to all the Staff members who encouraged their students. As promised we have held a draw (among the list of all the students who responded to this survey) to decide which students will be winning book vouchers and the winning students are: Philip Cassidy (Year 3), Sean Savage (Year 2), Briana Alford (Year 2), Colin Sims (Year 2), Meadbh Gallagher (Year 2) and Aoife Ward (Year 2).

General views on the teaching of Geography

There was a generally strong agreement among the respondents (124 respondents for Year 2, 57 respondents for Year 3) that teaching within the subject of Geography was good, although a small percentage of Second Year respondents either

disagreed or strongly disagreed. In total, across both years, 46.2% of respondents strongly agreed that the teaching of Geography was good and 48.3% agreed, while 4.1% disagreed and 1.4% strongly disagreed. Most respondents agreed that the subject information that was provided to them was clear, although a small percentage of respondents in both years either disagreed or strongly disagreed. In total, across both years, 42.9% of respondents strongly agreed that the subject information that was provided to them was clear and 46.1% agreed, while 9.7% disagreed and 1.3% strongly disagreed.

There was a notably higher level of disagreement across the next three categories/for the next three questions. 85.0% of respondents across both strongly agreed or agreed that they received useful feedback on the work that they submitted, but 11.9% disagreed and 3.1% strongly disagreed. The percentage that disagreed or strongly disagreed was higher among the Year 3/Final Year cohort (18.0%) than among the Year 2 cohort (13.6%). When asked if they believed that there was a consistent workload level across Geography modules, 77.1% of all respondents either agreed or strongly agreed, but 19.0% disagreed and 3.9% strongly disagreed. Again, in this instance the percentage of students who disagreed or strongly disagreed was notably higher in the Year 3 cohort (29.8%) than it was in the Year 2 cohort (19.8%). Just over three-quarter of all respondents (76.6%) said that they were able to keep up with work in the subject of Geography – with 28.7% strongly agreeing and 47.9% agreeing – while 18.6% disagreed and 4.8% strongly disagreed. Again, there was a higher proportion of Year 3 respondents (26.0%) than Year 2 respondents (22.2%) who either disagreed or strongly disagreed.

Nearly all the respondents (97.8%) either agreed or strongly agreed that there was equal opportunity within the Geography Department for all genders to develop their potential – 64.4% strongly agreed and 33.3% agreed. The small proportion of respondents who either disagreed (2.1%) or strongly disagreed (1.0%) with this statement all came from the Year 2 cohort. A similarly high proportion of respondents (96.8%) either agreed or strongly agreed that there was equal opportunity within the Geography Department for students from different social and cultural backgrounds to develop their potential – 63.2% strongly agreed and 33.7% agreed. As with the previous question, the small proportion of respondents who either disagreed (1.1%) or strongly disagreed (2.1%) with this statement all came from the Year 2 cohort.

What students like most about the Geography Department

Students were asked as to what they liked the most about the Geography Department and they could select a number of options in doing do. Three of the options came out as especially strong/popular. 60.2% of all respondents claimed that the especially liked the fact that there is a good range of Geography modules to choose from across the Second and Third Year Geography programmes – this was an especially attractive factor for the Year 2

respondents, with 66.9% of these selecting this as an option, as compared with 45.6% of Year 3 respondents. 60.2% of all respondents also claimed that the especially liked the interesting module content being offered across the Second and Third Year Geography programmes – this was again a somewhat more attractive factor with the Year 2 respondents (although to a lesser degree than with the module choice factor), with 62.9% of Year 2 respondents selecting this as an option, as compared with 54.4% of Year 3 respondents. 59.7% of all respondents said that they liked the fact that Geography lecturing staff were approachable and helpful. In this instance, a slightly higher proportion of Year 3 respondents (60.5%) selected this option as compared with Year 2 respondents (57.9%).

Almost half of the respondents (47.0%) said they liked the way that the Department made use of Moodle and Teams in its teaching. Over thirty percent of all respondents opted for one of five other options, with 39.8% liking the mixture of examinations and continuous assessment, as part of the Geography Department's assessment formats, 37.6% noting the assistance offered by Departmental administrative staff, 34.8% observing that they were learning skills that would be useful to them after they leave university, 31.8% admiring the quality of the communication offered by the Department, and 30.9% choosing the fact that they got good feedback on continuous assessment work as an option. The least popular option out of the range of options offered related to those who especially liked the fact that they were encouraged to make use of Staff members' student consultation hours.

Preferred Assessment Model

Students across both years (Year 2 and Year 3) were asked as to their preferred models of assessment (in this instance the respondents could select one or two options). The general trend was one in which students tended to prefer assessment models that involved a higher weighting of continuous assessment, relative to the weighting afforded to an end-of-module examination. This was especially the case with the Year 2 survey responses, with Year 3 respondents being slightly more amenable towards modules that involved a higher examination component. The timing of the survey is especially notable here – the surveys opened towards the end of Semester 1; a point in time in which students might have been especially aware of the increased workloads during a semester that are associated with modules that have higher continuous assessment weighting. The fact that so many students still preferred Geography modules to have higher continuous assessment weightings is especially notable, given that particular context. The most popular option was one that involved modules that were wholly assessed by means of continuous assessment – an option that was selected by just over two thirds of all the respondents (66.9%) and by 68.5% of Year 2 respondents and 63.2% of Year 3 respondents. The next most popular option was for an assessment model where two-thirds of the marks were decided on the basis of continuous assessment, with an end-of-module examination accounting for

the remaining one third of the marks. This option was selected by 56.9% of all the respondents and by 56.5% of Year 2 respondents and 57.9% of Year 3 respondents. The next most popular option involved an even split between continuous assessment and an end-of-module examination, although this was significantly less popular that the first two options. In this instance, this option was selected by 18.8% of all the respondents, with 16.1% of Year 2 respondents and 24.6% of Year 3 respondents selecting this. Very few respondents selected the option in which only one-third of the marks were decided on the basis of continuous assessment, with an end-of-module examination accounting for the remaining two-thirds of the marks. Only 1.7% of all the respondents selected this option, with this option being selected by 0.8% of Year 2 respondents and 3.5% of Year 3 respondents.

Preferred Method of Online Teaching

In light of the Department having to resort to an online-only teaching model for Semester 1 (and probably all of Semester 2 also), there was a strong level of interest within the Department as to which methods of online teaching were especially favoured by the student body. As illustrated by Table 1, the general consensus here, looking at the trends that emerged from both the Year 2 and Year 3 surveys, was that students in Second Year, by and large, preferred methods in which the use of Panopto figured heavily, whereas Third/Final Year students were more likely to prefer teaching methods that gave greater prominence to the use of Teams.

The use of Teams also seemed to be preferred for the purposes of live lectures and discussions, whereas Panopto was more preferred with respect to the hosting of recorded lectures. Both surveys asked students about the degree to which their studies, and their ability to study, had been impacted by the introduction of Covid-19 social distancing restrictions and the need to revert to an off-campus, online-only, approach of teaching delivery. The figures in Table 2 ultimately speak for themselves and point to the fact that large proportions of our students have experienced a number of serious difficulties and challenges since the decision to stop on-campus teaching was made exactly a year ago today. Roughly two-thirds of the respondents noted that they found it difficult to get motivated to do their studies/University-work and well over half of the respondents noted that they had difficulties in finding quiet spaces at home to study/do work for assignments, were finding it difficult to access/view online lecture content and were finding it difficult to complete assignments on time. Almost half of the respondents (and over half of the Year 3 respondents) noted that caring duties were placing added demands on their time in the wake of the Convid-19 restrictions being introduced.

Well over one quarter of all respondents noted that they had difficulties getting access to a PC/laptop (with a slightly higher proportion of Year 2 respondents falling in this category), while close to half of all the respondents (and close to two-thirds of

Year 3 respondents) noted that they faced difficulties due to poor internet/broadband. Significant numbers of respondents noted that they needed to leave their house/residence, either in order to get access to a PC/laptop (just under a fifth of all respondents) or to get access to (better) internet/broadband (almost a quarter of all respondents). Given the issues noted in relation to the lack of access to PCs/laptops, it has to be concerning that almost forty percent of all respondents noted that they were unaware of/had not received information about the University's laptop loan scheme.

(All Figures Overleaf)

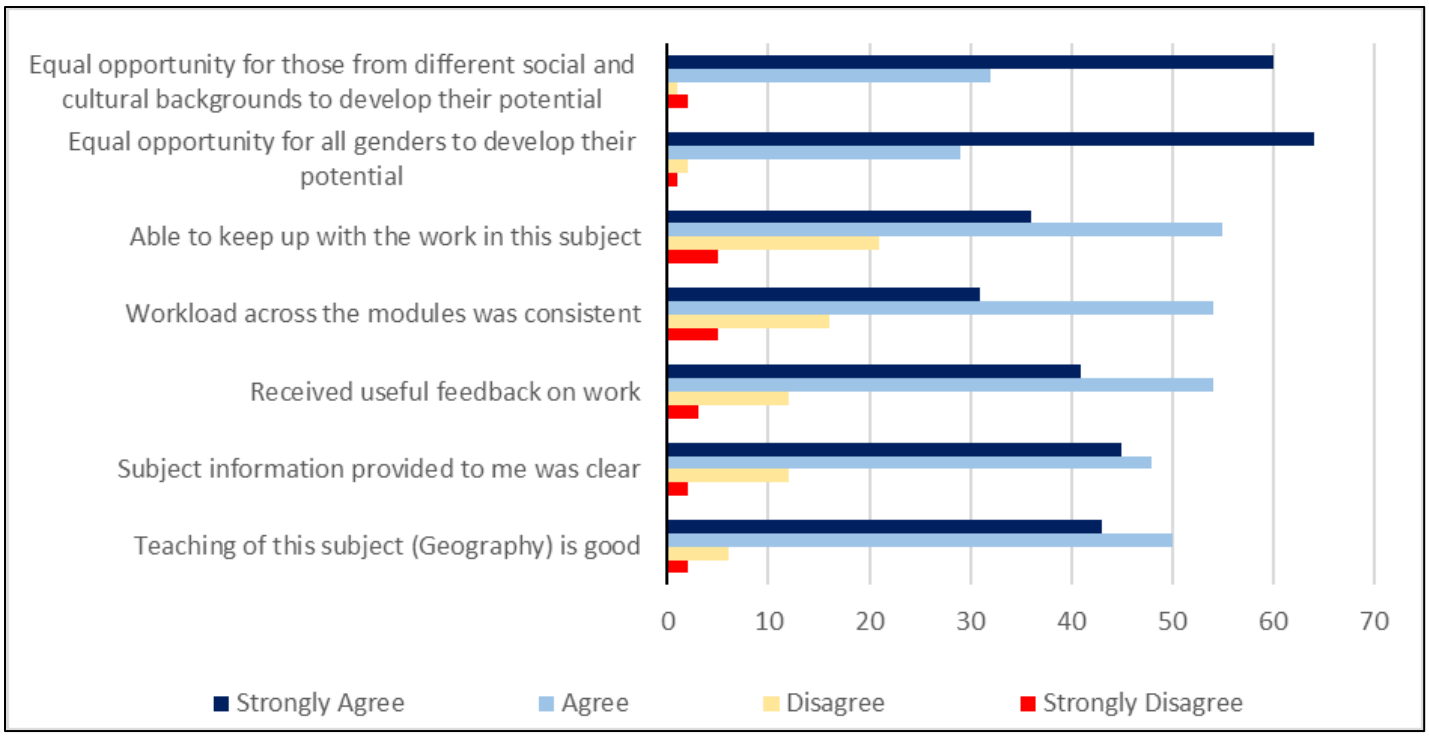

Figure 1a: Views of Second Year Geography respondents on their general experience of Geography as a subject

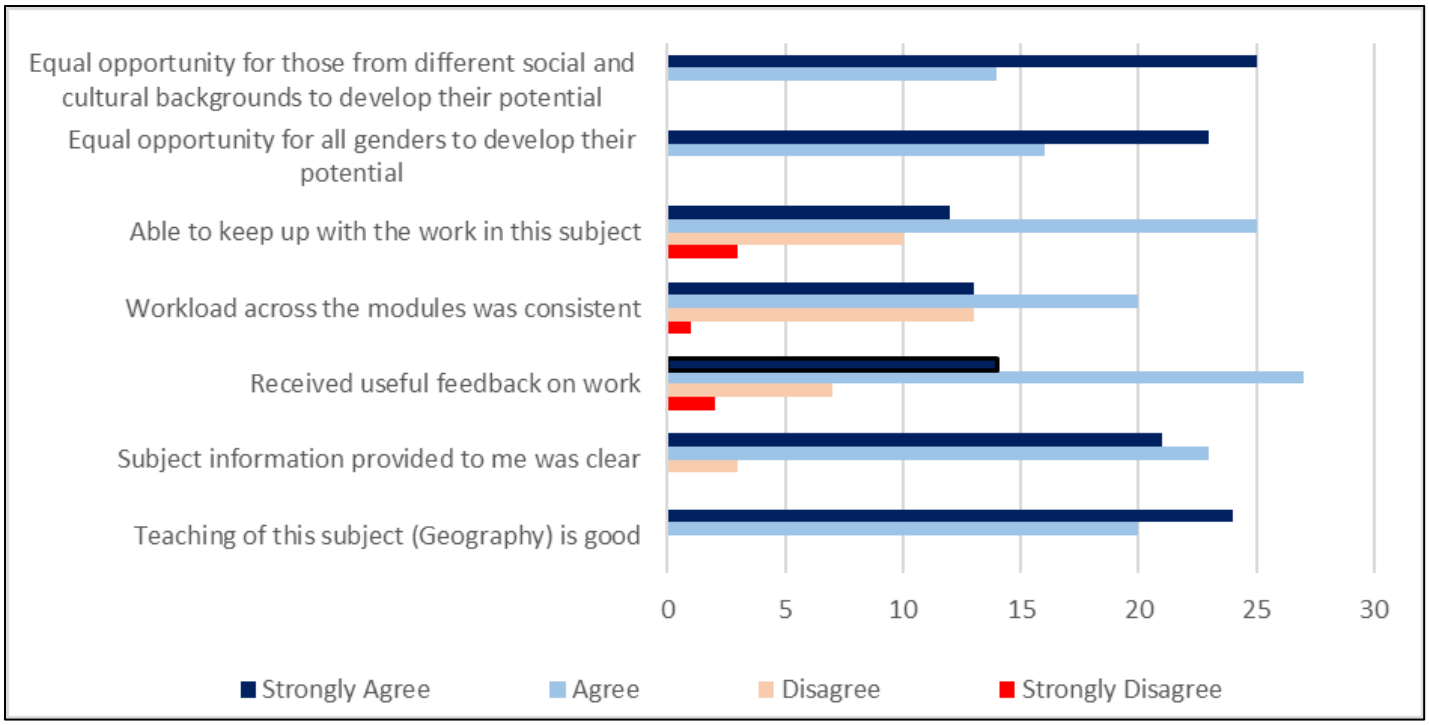

Figure 1b: Views of Third Year Geography respondents on their general experience of Geography as a subject

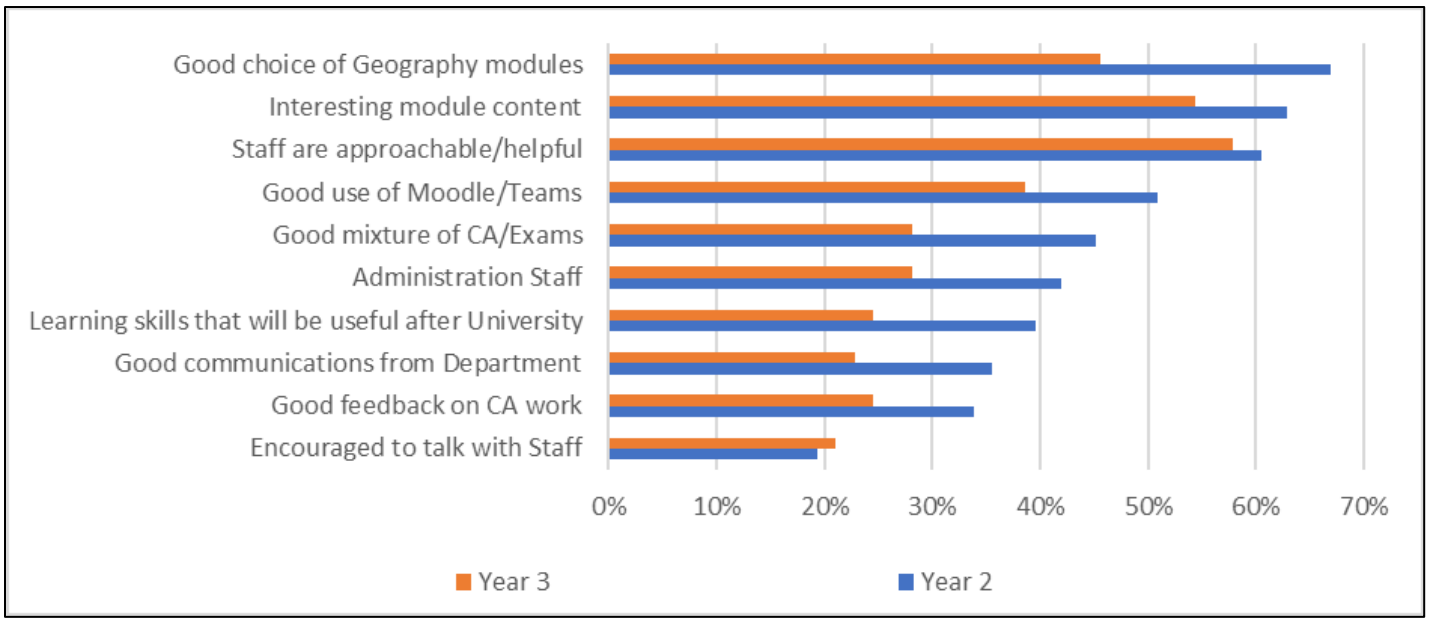

Figure 2: Views of Third Year and Second Year Geography respondents as to what they like most about the Geography Department

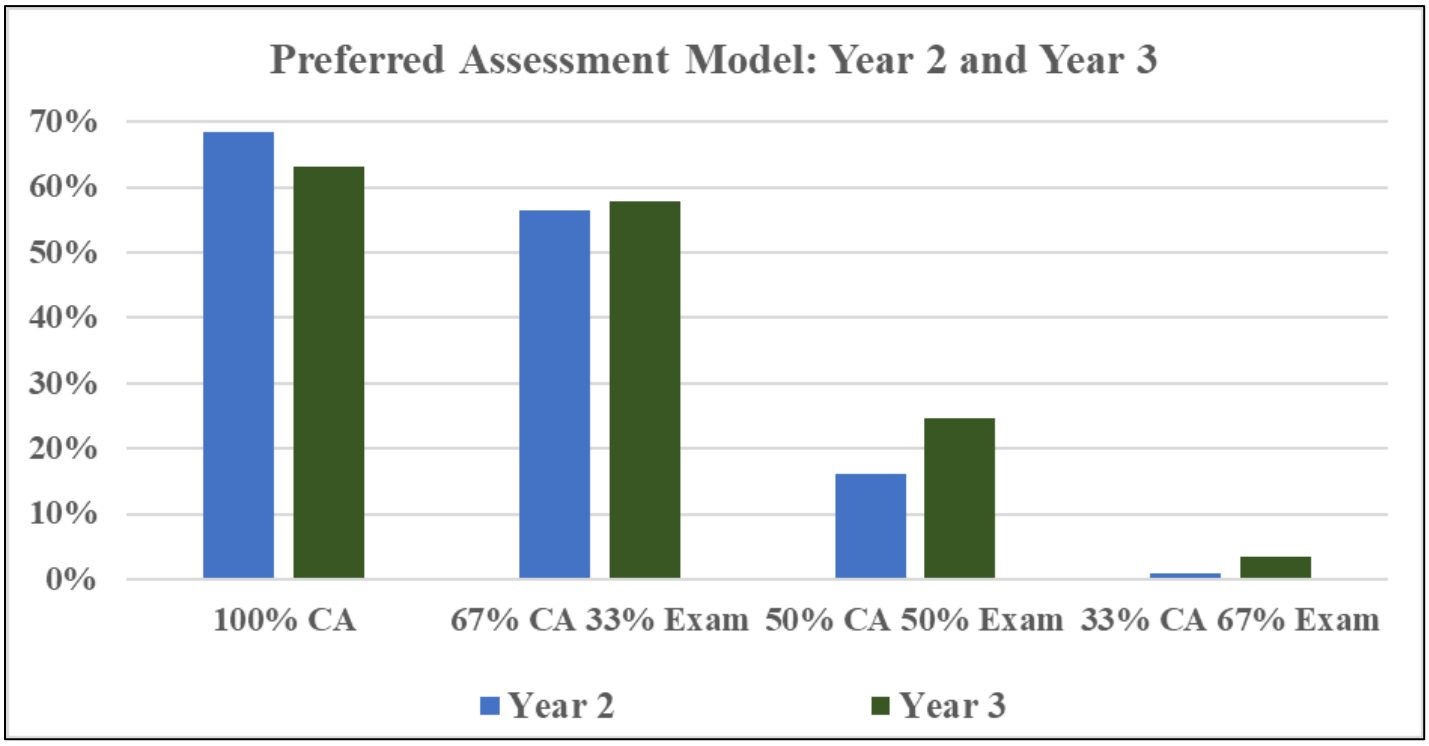

Figure 3: Views of Third/Second Year Geography respondents on preferred assessment models

Online Teaching Method	All	Year 2	Year 3
Panopto – Recorded Class	62.4	69.4	47.4
Teams – Live Lectures	52.5	45.2	68.4
Moodle – PowerPoint slides/lecture notes	40.9	38.7	45.6
Moodle - Pre-recorded lectures (PowerPoint plus Audio)	33.1	35.5	28.1
Pre-recorded lectures and Teams discussion	32.0	33.1	29.7
Teams – Live Discussion	27.1	26.6	28.1
Panopto – Live Lectures	9.9	12.1	5.3

Table 1: Preferred methods of online teaching – percentage of respondents selecting different options

Online Teaching Method	All	Year 2	Year 3
Getting access to a PC/laptop	27.6	29.0	24.6
Poor internet/broadband	48.1	41.9	61.4
Need to leave home to get access to a PC/laptop	18.2	20.2	14.0
Need to leave home to access (better) internet/broadband	24.3	25.8	21.1
No information on University laptop loan scheme	38.7	38.7	38.6
No quiet space at home/residence	56.4	58.9	50.9
Finding it difficult to get motivated	66.3	66.1	66.7
Finding it difficult to attend/view online lectures	50.3	52.4	45.6
Finding it difficult to complete assignments on time	54.1	54.0	54.4
Increased caring responsibilities	48.6	47.6	50.9

Table 2: Students experiencing difficulties with online teaching/due to Covid-19 social distancing restrictions – percentage of respondents selecting different options