"What Idiot got the team shirts mixed up?"

"They always let in one bloody hippy!"

Oh Rob, how we adore you!

Geography - the art of running fast and getting nowhere

"Get off my rocks"

"Glug!"

Feeding Frenzy at the Geo-zoo

Conservation ... who need it

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EDITORIAL

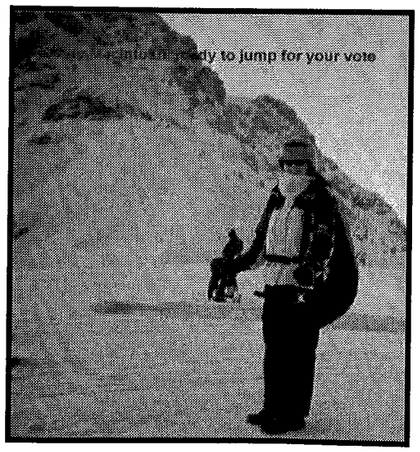
Mr. Conor Murphy and Ms. Karen Keaveney (with Dr. Adrian Kavanagh)

A very warm welcome one and all to the 29th Edition of *Milieu*, the Geography Society's annual journal, highlighting the research and interests of all those who comprise the Geography Department at NUI Maynooth. Twenty-nine years of publication is a major achievement and is testament to the dedication and proficiency expressed by all in the Department for more than a quarter of a century. Probably more remarkable is the high standard that has been maintained throughout these years and I think that the reader will agree that this year is no different. This edition of *Milieu* stands out for the range of geographical thought that it represents and the broad spectrum of interests that it encompasses; from Crop Circles to Climate Change, an accolade to the skills of those who contributed. Further to the advancement of academic prowess, *Milieu* has also offered an insight into life as an NUIM Geography student. Central to this has been the role of the Geography Society. This year the Society, under the capable leadership of Aisling, Gemma and Robert, have both enlightened and entertained us throughout the year, many compliments and thanks are extended to them. In compiling this edition of *Milieu* our gratitude must be expressed to those who helped along the way. First and foremost thank you to those who contributed to this edition, in the form of essays, field trip reports, photographs and funny bits. Thanks also to the Geography Society for the enthusiasm you have shown, as well as to the tutors and lecturers for constantly harassing students for the submission of articles. A special thank you must also be extended to the visiting and new lecturers, who have taken time to exhibit their wares to us. Finally thank you to you, the reader, for parting with your hard earned cash, without you the continued publication of *Milieu* would not be possible. On behalf of the Editorial Team we hope you enjoy this edition of *Milieu*, may it bring some new ideas and fresh perspectives to the way you view the subject of Geography and may it bring a smile to your face. It has been a privilege.

WELCOME TO MILIEU

Robert Grace (President of the Geography Society 2004)

Hi there, and welcome to the 29th edition of *Milieu*, the geography society's annual publication. You know, 29 is an odd number, it doesn't mean anything, it's not a landmark number like 21 or 50, and it doesn't get the recognition it deserves. Yet this year's *Milieu* I'm sure has been the toughest yet. The reason for this is that there has been 28 quality years of the magazine before now, and that's a tough reputation to keep going. Although I never had any personal input into the publication until this year, it represents a lot in my mind. *Milieu* on the face of it is about geographical issues, and occasionally poking fun at those on the wrong end of a camera. However, I think it is more than that. It is the representation of the social side to geography life at NUIM. It is after all the people around you who make college what it is- great fun. Whether you are just finishing your First Year and waiting for things to really kick off, or like myself, are finishing a BA, I'm sure you'll agree that Geography is not what you thought it would be. As you read through the following pages, keep in mind the side of life away from the stress and study of college. Me? I've had the time of my life, and that's because of the people I met through Geography. I hope you've had too. Enjoy.



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FROM UNIVERSAL THEORY TO LOCAL KNOWLEDGE: THE CASE OF PSYCHOANALYSIS IN IRELAND

Professor David Sibley, Visiting Lecturer

Ideas have geographies. From stochastic modeling of the adoption of innovations by geographers in the 1970s, and sociological research on the resistance of scientific establishments to radically different perspectives, on medicine, for example, that were conducted by 'The Edinburgh School', through to recent work on psychiatric practice in colonial India, we can see that place and space have important roles. Thus, the power of the medical establishment in 19th century Edinburgh contributed to the side lining of phrenology; the colonial regime in India in the early 20th century supported dubious psychiatric theories which led to the unwarranted incarceration of Indian people in mental hospitals, and so on. My research on psychoanalytical theory and practice in Ireland similarly demonstrates a role for place and, because of the particular characteristics of 'place' as opposed to 'space', place associations serve to destabilise ideas about the universality of theory, something which has been a defining feature of modernism.

Diasporic movements and the placing of knowledge

While theories of the unconscious have diverse origins, psychoanalysis as a discipline and distinctive set of therapeutic practices, clearly owes its existence to Sigmund Freud and we can identify the locus of original thinking in a central European core zone in the early 20th century, a space closely associated with Freud, his students and associates, including Sandor Ferenczi in Budapest, and Melanie Klein, who worked both in Budapest and Berlin (Carl Jung, in Zurich, was outside this circle, following his split with Freud). Because most early psychoanalysts were Jewish, the Nazi regime's persecution of Jews in Germany and, after annexation, Austria, had a huge impact on the profession, encouraging flight to cities where professional life could continue. Thus, eighty Jewish analysts, including Sigmund Freud and his daughter Anna, arrived in London in 1936. Ironically, Melanie Klein had moved to Berlin partly to escape anti-Semitism in Budapest, but she also moved to London, a few years before the main exodus. Thus, London became a major world centre for psychoanalysis and its role was strengthened by the Second World War, which provided an opportunity for Klein and Anna Freud to test their theories of mother-child separation and trauma, in clinics for evacuees and children who had experienced the bombing of the capital. Post-war, the National Health Service provided specialist clinics and hospital-based psychotherapy services, which consolidated the position of psychoanalysis, particularly in London. Elsewhere, cities in the Americas – New York, Los Angeles, Buenos Aires and Montreal, for example - constituted important destinations for diasporic Jewish psychoanalysts, although all these places already had their own professional organisations and they were not exclusively Jewish. The diaspora, however, was a major factor in producing a geography of psychoanalytical thought and practice which was almost exclusively metropolitan and western. We could also argue that it is the urban middle-class who feel a need for therapy (and can afford it), notwithstanding some early attempts in the Soviet Union to bring psychotherapy to the working-class, but academic and cultural institutions in western cities have also provided important supports for psychoanalytical thinking as well as providing spaces for therapeutic practice.

Psychoanalysis in Ireland

The first notable feature of Irish psychoanalysis is that it arrived late, by comparison with most other European countries and some British colonial territories, particularly India. There was a pioneering effort by an English Freudian, Jonathan Hanaghan, who established the Irish Analytical Association in 1942, and he attracted a small group of followers in Monkstown, Dublin, a group which is still active. Interestingly, Hanaghan tried to give Freud a Christian slant which resulted in him not being accepted by the International Psychoanalytical Association but, at the same time, he advocated a spontaneous sexuality, which brought him into conflict with the Catholic church. The Catholic church in Ireland had been primarily responsible for providing therapy and, according to Bill Callanan, a Jesuit priest and practicing Jungian analyst, it played a significant role in delaying the arrival of psychoanalysis. In fact, it was not until the mid-1980s, about 60 years after the establishment of psychoanalysis in cities like London, Paris, Berlin, Budapest and Calcutta, that psychoanalysis acquired in role in therapy and a place in the academy.

There are now two main groups, both centred on Dublin, and one, I would argue, is more Irish than the other. The first group, which was established in the mid-1980s, is Jungian, applying and developing the ideas of Carl Jung. Interestingly, Jung believed that, in addition to the personal unconscious, part of our psyche is an element of a *collective unconscious*, which has echoes within it of archetypal images. Thus, in the Irish collective unconscious, a 'mother archetype' could be manifest in such figures as Cathleen Ni Houlihan, as an image of Mother Ireland, or the Virgin Mary. Although most Jungian therapists work in the Dublin region, the importance attached to religion and mythology as a source of archetypes in Jung's writing has taken Jungian analysis (what he termed analytical psychology) westwards so we now have a number of fusions of Jung and folklore, explored through workshops and courses in locations like Clare Island, and the Dingle peninsula. These are in part Irish initiatives but they are also sponsored by American groups, such as the New York Centre for Jungian Studies. They attract not only Jungian analysts but also writers and poets. Such events are an important part of an attempt to give Jungian analysis an Irish dimension.

The second group consists of followers of the French analyst, Jacques Lacan. The existence of the Lacanian group, also active since the mid 1980s, almost exclusively in Dublin, is due to the initiatives of a small number of individuals with connections with continental Europe. These include Cormac Gallagher, who trained in Paris, and Rik Loose, a Dutch analyst who trained in Ghent and Louvain in Belgium and who now runs undergraduate and postgraduate courses in Lacanian analysis at the Dublin

Business School. In terms of networks and migrations, this group could be characterised as European and unconnected to Irish culture. For the Lacanians, Dublin is one node in a wider metropolitan network but an important one because it provides both supporting medical institutions, primarily St. Vincent's hospital, and academic bases for the development of psychoanalytical theory and practice, principally, the Business School, University College, Dublin, and Trinity College. In a sense, then, Lacanian analysis in Ireland is an element of what Melvyn Webber, in 1964, termed 'the non-place urban realm', essentially a global space constructed by specialist interests. The Lacanians and the Jungians occupy the same space, both are primarily Dublin-based, but the first is placeless while the second is exploring relations to place, particularly the west of Ireland. Incidentally, the Lacanians are quite dismissive of Jungian thought, emphasising what they see as logical rigour as opposed to Jungian mysticism, so intellectually they occupy different spaces.

Conclusion

This study is suggesting that knowledge can become territorialised in different ways, even within the same disciplinary field. In a European context, Ireland appears to be exceptional in the sense that psychoanalysis arrived much later than elsewhere but this cannot be attributed solely to the role of the Catholic church because other Catholic countries, like Italy and Spain, have a much longer association with the profession. Bill Callanan suggests that a lack of connection to continental European philosophical traditions may also be a factor. The place/space distinction does seem useful as a means of understanding the different positions of Jungian and Lacanian analysis in Ireland, the former becoming culturally embedded and the latter remaining rather placeless. It is noticeable also that, unlike London and other major centres in Europe, there are no Kleinians, although a few Jungian analysts have had some Kleinian training. While we might suspect that this absence has something to do with Melanie Klein's association with the 'English school' of object relations (a major element of psychoanalysis, particularly in relation to child psychotherapy), it is more likely that it simply reflects the educational background of those Irish analysts and immigrants who have established the profession in this country. The research certainly suggests that the geographies of psychoanalytical knowledge – its presences, absences and associations with place – are quite complex.

Acknowledgements

I would like to thank the following for their help with this study:

Patricia Stewart, Diane Fassett, Jose Castilho, Rik Loose, and Fr Bill Callanan, SJ.

LAND, SEA AND HOT AIR: AN IRISH DIPLOMAT'S ODYSSEY IN 18TH CENTURY

Mr.Thomas Byrne, Postgraduate, Department of History

On a summer's day in June 1711, three men on horseback crossed the bridge over the River Elbe into the Dresden. To those enquiring they claimed to be travellers from Paris, grown tired of that city and embarking on another stage of a European tour. This was partially true. They were indeed travellers from Paris, however they were not the idle and indolent gentlemen of leisure they professed themselves to be. In reality, one of them was an agent on a secret mission for King Louis XIV of France.

The agent travelling incognito was an Irishman named Nathaniel Hooke. He had been born far from the River Elbe, some 800 miles west near the Boyne as it flows into the Irish Sea at Drogheda. In the same vein as the journey that had brought him to the gates of Dresden, his life had not been one straight path but one marked by many abrupt and unexpected twists and turns. Hooke, while indeed being one of the renowned 'Wild Geese' émigrés from Ireland to France, had a very different background to any of his comrades on the continent. These were almost invariably Catholic, of Gaelic or Old English ethnicity and the officer class were in social terms, almost exclusively, from a landowning background.

Hooke however was born to a Protestant, New English, middle class merchant family of recent settlers in Dublin. Little in his background would indicate the path his later life would take. His grandfather, Thomas, had been a strong supporter of the most nefarious figure in Irish history, Oliver Cromwell and his campaign in Ireland. His father had been a minister. Hooke's family were radical Protestants and strongly committed to their faith. He himself studied at TCD, Glasgow University and Cambridge without ever managing to graduate. It may be that he had, in the best traditions of studentdom, become distracted by his passionate involvement with radical politics. His radicalism had deepened to such an extent by 1684 that he was forced to flee into exile from England, making the 90-mile sea voyage to Holland. Generally, in good weather, this took about 24 hours on a well-built packet boat from the port of Harwich. However in some cases storms were known to maroon would be passengers onshore for weeks at a time. The overriding disadvantage of Harwich for many people was the expense involved in securing a berth; in addition for those politically suspect, who sought to leave England with as little fanfare as possible, the requirement for mandatory passports was another, more serious, stumbling block. A cheaper and more low profile departure method was to pay for transportation on a merchantman bound for Holland from one of the smaller ports such as Yarmouth. After surviving the sea crossing, potential piracy, capricious currents and the tender mercies of erratic pilots the intrepid traveller was rowed ashore (more or less in one piece) at Den Briel or Helvevoetsluis on the Dutch coast.

He soon made a much more epic and exciting, not to mention dangerous, voyage. In June 1685 he was on board a small flotilla of ships carrying exiled English dissidents sailing from Amsterdam to invade England. Following the 600-mile sea passage, successfully evading the patrolling ships of the Royal Navy, the rebellion on land in the South West of

England against the Catholic King James II proved an ill-starred venture. In a last desperate gamble to retrieve the situation Hooke was sent the 160 miles to London to rouse supporters in the city. However the King's troops had by this stage defeated the main force of rebels and 'Hanging Judge' Jefferies was earning his nickname in disposing of those left alive. Hooke was fortunate to evade the government forces hunting down those suspected of involvement in the rebellion and took ship for Holland once again.

At this stage his life took a very different turn. Those rebels who escaped to the continent were hunted and harried by the King's agents. Prominent dissidents were, by legal extradition where possible or kidnap where necessary, taken back to England, tried and executed. For those remaining at large life on the run meant a continual fear of being spotted and captured, of constantly being on guard against saying the wrong thing, of not falling victim to a trickery or entrapment. Nowhere was safe and no one could be trusted. Living in a state of perpetual fear, uncertainty and constant worry for long periods of time caused immense psychological stress, tension, strain and anxiety. The immense pressures are highlighted by Hooke's personal experience and actions. From his own testimony it appears he suffered something like a nervous breakdown, no longer able to cope with the life he was living. Taking his fate in his hands he secured passage and sailed back to England where he surrendered to the authorities. On hearing his story King James granted him a pardon. The 'born again' Hooke converted to Catholicism, joined the English army and became a loyal supporter of James II. He remained loyal during the Revolution of 1688, fought at the Boyne in 1690, Limerick in 1691 and sailed the 500 miles to France after the Treaty of Limerick.

By the time he landed in France at the age of twenty-seven his travels had taken him a distance of at least 5000 miles on journeys by land and sea, taking in Ireland, Scotland, England, Netherlands, Spanish Netherlands (Belgium), and France. Over the course of the closing years of the seventeenth century and the first decades of the eighteenth Hooke made many more dramatic excursions, including an attempted sea borne invasion of Britain. His presence in at the gates of Dresden marked a stage in one of his longest and most varied expeditions in the service of King Louis XIV: a diplomatic odyssey of negotiations through the most politically important states of central and northern Germany, Saxony, Brandenburg and Hannover, extending over 2000 miles in total and lasting for two years.

We can see the role travel played in Hooke's life and personal development. At the age of twenty he had already travelled and lived in four countries. By the time he was fifty he had visited or lived in eight countries, spent periods of time in cities and towns from Drogheda, Kilkenny, Limerick, Dublin, Glasgow, Edinburgh, Cambridge, London, Rotterdam, Amsterdam, Utrecht, Leiden, The Hague, Brussels, Paris, Dresden, Berlin, to Hannover and spoke at least four languages. At a conservative estimate he had journeyed somewhere in the region of 30,000 miles by land and sea in Western Europe.

In the Early modern period of European history this was a significant accomplishment. In an era long before the tender mercies of Michael O'Leary's Ryanair, travel across the continent was slow, quite often an uncomfortable experience and usually undertaken only from necessity. However necessity in this case was the mother of observation. The traveller became far more intimately acquainted with the locales through which his (the great majority of travellers were men) itinerary took him. One of the very plentiful travel guides of the period recommended that particular attention be paid to the following:

'the climate, government, places of strength, cities of note, religion, language, coins, trade, manufactures, wealth, bishoprics, universities, antiquities, libraries, collections of rarities, arts and artists, public structures, roads, bridges, woods, mountains, customs, habits, laws, privileges, strange adventures, surprising accidents, rarities both natural and artificial, the soil, plants, animals and whatsoever may be curious, diverting or profitable'.

With the keen observer picking up at least a smattering of climatology, political science, military engineering, theology, linguistics, numismatics, economics, education, archaeology, folklore, civic governance, civil engineering, botany, law, history, etiquette, agriculture, geology, and geography, it is easy to see why travel in this era was seen as being at least as beneficial as a university education. The broadening of the mind in this fashion was highly ironical in the case of Nathaniel Hooke who, despite attending three universities in three countries, never managed to graduate.

In addition to the pleasant rewards of travel there were less savoury encounters awaiting the unwary voyager. For much of the seventeenth and early eighteenth centuries travel through Europe was a hazardous venture, with prolonged warfare a feature in many areas. (For reasons of safety Hooke made his way back to France by sea from Denmark). Even in the periods after peace had returned many regions harboured groups of demobilised soldiers seeking a means of survival and an unprotected passing traveller was a tempting target. If these perils were not enough the unsuspecting wayfarer was in some instances faced with unscrupulous innkeepers, unreliable guides, dubious travelling companions and the ever-present vagaries of the weather.

Our intrepid Irish adventurer Hooke however survived all these challenges and pitfalls to die a peaceful death in his own bed in Paris in 1738. After travelling so many miles in seventy-five years of life this was a well-earned 'rest in peace'.

THE LAGUNA MOUNTAINS SKIPPER

Ms. Caroline Crowley, Postgraduate Research

Butterflies - feather-weight umbrella species

Insects have been presented as useful tools in conservation planning because of their intimate, and in some cases specialized, association with plants (Launer and Murphy 1994). Disruption of insect-plant associations may endanger not only the species involved (via pollination, seed dispersal) but whole ecosystems (Samways 1998). Butterflies are commonly used as bioindicators due to their sensitivity to changes in their environment (Newman 1967) to which they respond quicker than plants (McLean et al 1995). Their value in this regard only increases when they are rare and endemic (Munguira 1995), as in the case of the Laguna Mountains Skipper. Butterflies are also effective as bioindicators because of the volume of knowledge regarding them (Harding et al 1995) due in no small part to their beauty and popularity (Pyle 1988). Thanks to the allure and high visibility of butterflies combined with their environmental sensitivity, they can be used as tools both to promote and measure conservation effort success while at the same time benefiting

from it (Samways 1998).

Umbrella species are to conservation plans as the headline acts are to a concert, they draw the crowds and the money. But, to drain the analogy, supporting acts or other species in the same ecosystem benefit from this attention by default. In this article, the potential of the Laguna Mountain Skipper (LMS) butterfly in Southern California, to act as an umbrella species is considered, in terms of what its decline may be signaling regarding the effects of land management practices on the entire ecosystem. This paper summarizes research on the LMS, particularly since it was listed as a critically endangered species in January 1997 (USDI 1997) and the butterfly conservation literature is reviewed to shed light on appropriate conservation strategies.

Description: The Laguna Mountains skipper (LMS) is found only in San Diego county (Scott 1986). An average adult lifespan may be as long as 2 weeks (Levy 1994). The butterfly is a small skipper (Scott 1986), 25-28mm long (Tilden and Smith 1986) with a checkered blackish-brown and creamy-white appearance (Scott 1981). The small greenish white eggs (cited in Pratt 1999) are laid singly (Scott 1986) on the underside of outer large leaves of the host-plant *Horkelia clevelandii* (HoCl) (Mattoni and Longcore 1998).

Distribution and populations

LMS populations have declined and disappeared from many historic sites and the species was actually thought to be extinct by the 1990s (Levy 1997). Although most extant populations are known from publicly owned lands, the largest and most persistent population is found in the Mendenhall Valley of Palomar Mountains, half of which is on private ranchland and has been grazed since it was homesteaded in 1869 (Levy 1994). According to Ehrlich and Murphy (1987) population density is the best indicator of habitat quality and whether Mendenhall Valley is the most productive site due to, or despite of, private land management practices is an important question for conservation biologists.

Population structure and dynamics

The LMS is a species that exploits an ephemeral early successional stage of vegetation (Levy 1994). Dispersal ability is an important factor limiting persistence of species that exploit these short-lived vegetation communities (Shreeve 1995) and which are prone to local extinction (Harrison 1989). Even when habitat loss through natural changes in the composition of vegetation (succession) is matched by regeneration, local butterfly population extinction rates may exceed recolonization rates (Thomas 1991). This type of population structure with colonizations and extinctions over time necessitating migration between population units for persistence is called a metapopulation (Gilpin and Hanski 1991) as first described by Levins (1970). The metapopulation structure facilitates species persistence in light of the transitional nature of its food resources (Mattoni et al 1997). The most isolated populations within a metapopulation represent the extent of that species dispersal ability and these populations are either short-lived or develop into new metapopulations (Thomas 1995). LMS is believed to occur as metapopulations (Mattoni and Longcore 1998, Pratt 1999) and may have what Mattoni et al (1997) described as a core-satellite organization of a persistent reservoir population surrounded by intermittent satellite units. Launer and Murphy (1994) emphasized the influence core populations have in the distribution of butterflies and in their regional persistence after environmental perturbances, both of which entitle such core populations to conservation priority.

Butterfly population dynamics compound the effect endemicity, habitat loss and habitat degradation have on species decline. The fragmentation of suitable habitat caused by human disturbance may lead to selection against dispersal in affected populations thereby increasing their isolation (Pollard and Eversham 1995). Declines in localized or endemic butterfly species in Britain, which occurred at the same time widespread species expanded their ranges, troubled Pollard and Eversham (1995). They concluded despite favourable climatic conditions, localized populations continued to falter, possibly as a result of isolation.

Even if the ephemeral habitat of LMS is regenerated at an appropriate rate and LMS dispersal abilities are adequate, there are additional hurdles. A successful colonist must not only be inclined to emigrate from its natal habitat, migrate over non-habitat, and locate new suitable habitat but also be able to establish a colony with few individuals (Harrison 1989). Isolation of a population due to habitat fragmentation, degradation, or vegetational succession can lead to reduced genetic variability within populations. The long-term consequences for a species with reduced genetic variability in the event of enhanced CO_2 levels and global climate change may be very serious. Without adequate genetic diversity, populations cannot adapt successfully to new environmental conditions, competitors, predators, parasites (Lacy 1987) and disease (Cunningham 1996). The immigration of just one or two individuals per generation can significantly reduce loss of genetic variation in small populations from one of its major causes, genetic drift (Lacy 1987).

Habitat description and ecological relationships

The LMS occurs in the interface between wet montane meadows and dry upland grasslands in pine forest openings where its primary larval host-plant grows (Levy 1994). This host-plant is a perennial found only in the peninsular mountain ranges of southwestern California and northwestern Baja California, Mexico (Hickman 1993). The plant may flourish as succession progresses with lush growth that gives the impression of sufficient habitat but insect responses to host plant abundance are not always positive and fewer insects may be found in larger or denser stands (Capman et al 1990). This is attributed to predator-herbivore interactions because large plant patches that attract a lot of herbivore colonists may also attract abundant predators and parasitoids (Thomas 1989).

Fires create bare spots where LMS habitat is being filled in by grasses and shrubs, enhancing habitat for egg-laying females which preferentially select large leaves overhanging bare ground for depositing their eggs (Pratt 1999). This preference may be explained by accelerated development rates, for example, larvae and pupae of Edith's Checkerspot butterfly develop faster on warmer slopes (Weiss et al 1988). LMS adults of both sexes have been observed basking in bare spots where temperatures can be 15°C to 25°C warmer than surrounding vegetated areas (Levy 1997). Adults have also been observed nectaring (feeding on nectar), laying eggs, and displaying courtship behavior along dirt roads (Levy 1997). Thus, bare ground appears to be important in butterfly thermoregulation both for developing larvae and for adults active in the cooler temperatures of higher elevations (Levy 1997). Due to the variety of LMS activities researchers have noted in association with dirt roads, they may also serve as important migration corridors for this species.

Levy (1994) believed LMS was an indicator species for various plant and animal species as follows. Its primary host plant, HoCl, is an important nectar source for many

invertebrates during the summer months when it is in flower after other plants have senesced (dried out). Therefore, if causes of LMS decline are associated with this plant it has implications for other invertebrates. Similarly, land management practices or environmental changes negatively affecting HoCl may be impacting other plants that likewise flourish in early successional stages.

Ecological considerations regarding endemic butterfly species

In the U.S., the greatest butterfly diversity is found near the Mexican border and in the western mountains (Opler 1995). Southern California, a biodiversity hotspot (Meffe et al 1997), is home to many endemic invertebrate species (Samways 1998) due to the confluence of ocean, mountains, and desert (Hafernik 1992). Isolated (Davies et al 2000) and rare species with small ranges in such areas of concentrated endemism are at a higher risk of decline and extinction (Manne et al 1999) and plant-insect associations are especially at risk (Samways 1998).

Host-plant distribution fine-tuned by specific larval environmental requirements is a significant limiting factor of butterfly ecology (Thomas 1991) especially when these conditions are only met in an ephemeral successional stage. Habitat modification, such as the loss of warm microclimates due to succession (Warren 1995, Levy 1997), may render it unsuitable for the butterfly even when its food plants persist (Pollard and Eversham 1995). It follows that succession may not only reduce LMS habitat but also the dispersal of butterflies between remaining suitable habitat patches. These changes are often the result of human interference with natural disturbances (Opler 1995). Nevertheless, some localized butterfly species in southern England, with main ranges on the European continent, have persisted in warm man-made refugia (Ravenscroft and Young 1996) as a result of just such interference.

Global climate change: Important conservation implications of endemicity and isolation are highlighted by recent global-warming induced range shifts of Edith's Checkerspot butterfly. A range-wide survey of historically occupied sites revealed a higher number of population extinctions at the southern latitudes while populations at northern latitudes and higher elevations were significantly more persistent (Parmesan 1996). Similar results were also found for a number of European butterfly species (Parmesan et al 1999) and both studies fingered global climate change as the main cause. The threat of climate change implies the greatest area and elevational range of endangered species habitat should be protected to allow for shifting plant and butterfly populations as the plants track appropriate growth conditions and the butterflies follow them in turn. This response is key to a population's persistence, and failure to track a changing habitat mosaic will lead to extinction (Thomas 1994). According to Pollard and Eversham (1995), the ultimate effect of climatic change on isolated populations like those of the LMS would be negative. For example, Britten et al (1994) warned of elimination of mountain peak habitat used by relictual endangered Uncompahgre Fritillary butterfly populations in a scenario of regional warming. Mattoni and Longcore (1998) predicted extinction for LMS with a 3°C rise in temperature. This dire prediction is supported by estimations (cited in Wilcove et al 1998) that with a 3°C increase as many as 7-11% of vascular plants and 10-18% of rare plants in North America would be excluded from suitable climatic regimes. A rise in temperature may accelerate host-plant senescence, not allowing enough time for successful larval development. Conversely, global warming could actually have a positive effect on populations because warmer temperatures may accelerate the development rates of larvae and pupae (e.g., Weiss et al 1988). The use of a perennial by LMS, for its larval host-plant, that is slow to senesce may provide some buffer to warming trends, but probably not a large one. Ultimately, the potential for global climate change calls for the protection of a broad elevational range of suitable LMS habitat.

Fire: Land transformation is the main cause of biological extinctions followed by exotic (not native) plant and animal invasions (Vitousek et al 1997). Overgrazing, introduction of exotic flora and fauna, and alteration of landscape-level processes e.g., fire frequency and hydrological regimes, have rendered Mediterranean-type ecosystems, such as Southern California, some of the world's most disturbed and threatened ecosystems (Rundel 1998, Samways 1998). In an extensive investigation of multiple threats to almost 1,900 imperiled species, subspecies, and populations, Wilcove et al (1998) found fire regime interference responsible for 14% of threatened species - 7% through fire suppression and 7% due to fires themselves.

Habitat quality for the LMS appears to have declined and possible causes include alteration of fire frequency and intensity patterns due to fire suppression policies (Levy 1997). Native Americans have lived in Southern California since the end of the last ice age approximately 10,000 years before present (Fox and Fox 1986). Until their displacement by settlers at the end of the 19th century, Native Americans burned areas selectively, encouraging the growth of grasses and forbs (e.g. dandelion) which attracted hunted herbivores such as mule deer and facilitated the sowing of human food crops (Shipek 1993). These practices would have created suitable habitat conditions for HoCl which grows in an early successional stage of montane meadows. For example, Levy (1994) found that most of the HoCl in Palomar Mountain State Park, one of the few locations the LMS remains, occurred in an area which was accidentally burned in 1987.

Fire suppression policies in the U.S. originated with the establishment of the first forest reserve in 1892 and persisted through much of the 20th century (Minnich 1983). Sedentary races of butterflies like LMS evolved in habitats where suitable patches are regenerated continually over time and space (as, for example, under historical Native American burning practices) and such adaptation leaves populations trapped when these practices are stopped (Thomas and Morris 1995). The LMS could have experienced entrapment as a result of fire suppression. Under these policies, successional patches essential for thermophilic (heat-loving) species become rare and isolated (Thomas and Morris 1995). Fire suppression may allow succession to continue until habitat patches are no longer suitable for LMS larval development and eventually the larval host plant is out-competed by other vegetation altogether.

Grazing: European settlement of California began with the arrival of missionaries and their military accompaniment in 1769 (Aschmann 1991). Soon, large herds of introduced sheep and cattle grazed the California grasslands making them vulnerable to invasion from exotic plants (Rundel 1998), brought in both accidentally and deliberately (Rejmanek et al 1991). Wilcove et al (1998) found livestock grazing negatively affected 33% of threatened plant and 14% of threatened animal species and populations in the U.S. Hanski et al (1995) calculated that ungrazed meadows were more likely to be colonized by the Glanville Fritillary

butterfly than meadows grazed by cattle or sheep while cattle grazing is thought to have contributed to the extinction of the Atossa Fritillary butterfly (Hafernik 1992). Selective grazing can have a negative impact on invertebrates associated with palatable plants (Morris 1971) and according to Levy's (1994) and Pratt's (1999) observations, cattle preferentially graze HoCl. Thus, grazing not only reduces availability of LMS' main larval host-plant and summer nectar source but presumably cattle ingest eggs and larvae along with vegetation (e.g., Gutiérrez et al 1999), while trampling plants and organisms left behind.

Ehrlich and Murphy (1987) underlined the difference between the detrimental effects of livestock grazing currently and the beneficial grazing patterns of native ruminants historically on habitat suitability for Edith's Checkerspot butterfly. Similarly, Mattoni et al (1997) suggested light grazing that mimics native ungulates may benefit the habitat of the Quino Checkerspot. Fox and Fox (1986) cautioned that grazers should not be unconditionally eliminated from management plans because they may be important in maintaining species richness in systems which historically experienced high fire frequencies. For example, more butterfly host and nectar plants have been noted on light to moderately grazed grasslands than ungrazed or heavily grazed ones (cited in Harrison et al 1988). In just 4 years, annuals and low-growing perennials can be eliminated via succession after grazing is stopped (cited in Morris 1971). There are several examples in the literature to support the use of grazing as a butterfly conservation management tool. In Britain, the Large Blue butterfly was driven to extinction when reserves were created which excluded cattle. Cattle grazing maintained ideal habitat conditions for the ant species on which the butterfly larvae depended and without this grazing pressure the ant species was out-competed and the butterfly perished (Thomas 1991). A decline in grazing resulted in the range contraction of the Slender Scotch Burnet moth in western Scotland (Ravenscroft and Young 1996) while ploughing in addition to livestock reduction led to a range contraction southward for the Skipper butterfly in Britain (Thomas and Jones 1993). Conservation managers there restored habitat by reintroducing domestic grazers and through the recovery of rabbits (also grazers) from the viral disease, myxomatosis (Thomas and Jones 1993, Hill et al 1996).

Active management in butterfly conservation: Active management is whereby land managers implement practices and actions to assist in a species, or its habitats, conservation. This is in contrast to the preservationist approach which is to fence off the habitat and not interfere with natural processes. The greatest criticism of the latter is that because such areas are often artificially small and unnatural due to preceding human disturbance and surrounding human encroachment, the return of natural processes will lead to the loss of the ecosystem that one existed, along with vulnerable species of animals and plants. The U.S. Fish and Wildlife Service has directed the Forest Service to fence off all patches of HoCl (critical habitat of LMS) in the Cleveland National Forest of San Diego County, to protect the plant from disturbance. This assumes the habitat quality of the remaining HoCl patches is adequate to sustain LMS populations and has not itself been a factor in LMS decline. The preceding sections on fire and grazing disturbance, our knowledge of the undesirable consequences succession has on the LMS primary larval host-plant suitability and skipper mate location (Ravenscroft 1994) along with a review of failed butterfly reserves in Britain indicate this is not the appropriate management response. Thomas (1994) pointed out if a population extinction occurs as a deterministic response to unsuitable habitat conditions, as in the case of succession, vacated habitat patches may not be available for recolonization. Therefore, a preservationist approach alone such as fencing off patches of HoCl without habitat management, will not advance LMS conservation in the long-term. Bean (1999) described such a response as an assumption of "stasis where dynamism often prevails". Researchers and environmental writers have urged the restoration of disturbance regimes and active management practices (Budiansky 1996, Samways 1998, Wilcove et al 1998, Bean 1999). Furthermore, because existing populations may be limited to sub-optimal habitat and in decline, basing management efforts on current habitat conditions is questionable (Hodder and Bullock 1997). Foin et al (1998) determined 42% of the 305 threatened U.S. species recovery plans reviewed fell into the active management category, compared with 37% in habitat preservation, and 21% in habitat restoration. Additionally, 92% of species whose primary threat was succession or exotics were in the active management category, and insect species were more likely to need active management because succession was one of their most frequent underlying threats (Foin et al 1998).

In 30 of the 31 listed species recovery plans where fire was an important ecosystem process, active management was required (Foin et al 1998). The pattern of frequent fires generated by the Kumeyaay tribe in the region that includes current LMS range before the arrival of European settlers is comparable to that found in N. Baja California currently (see Keeley 2000) which Minnich (1983) believed "serves as a model for prescribed burning *(fires which are planned and carried out by land managers)* in Southern California". Mattoni et al (1997) recommended conserving enough area to allow natural fire patterns maintain a diversity of habitat patches for the Quino Checkerspot. In Oregon, the Nature Conservancy is using prescribed burns to improve habitat quality for the endangered Oregon Silverspot butterfly. Seedlings of the Silverspot's larval host-plant have dramatically increased although it will take years for this to benefit critically low butterfly populations (Pickering 1999, letter to USFWS on file). A cycle of small prescribed burns in different montane meadows within the forest over a period of years may sustain LMS metapopulations by creating new patches of habitat within colonization range where vegetation is returned to an early stage suitable for HoCl. Perennial herbs like HoCl can undergo population expansions in early post-fire years, readily resprouting from underground bulbs while annuals germinate from long-term seedbanks insulated in the soil from fires (Keeley 2000). As a result, fires can generate not only an abundance of larval host-plants but nectar sources too. However, the restoration of a natural fire pattern is made more challenging by the occurrence of nearby human habitation and fire-adapted exotic plant species (Foin et al 1998) both of which apply in LMS range. Another concern, is the direct risk of fire to rare and isolated endangered species populations including those that would be expected to benefit from such restoration in the long-term. This risk is magnified when fuel has built up over years of fire suppression. For instance, Minnich (1983) warned of the potential for a catastrophic 100,000 hectare fire at Mount Palomar (within LMS range) in aging stands of chaparral. Research on fire regimes in LMS habitat is unlikely to go ahead, at least while population surveys continue to show bleak returns (Beyers 2000).

The Forest Service and San Diego State University are currently conducting research to compare vegetation in populated versus unpopulated sites and grazed versus ungrazed sites, but work is limited by the rarity of sites still occupied by the LMS. Ravenscroft and Young (1996) suggested exposure of bare ground in overly vegetated host plant patches may be sufficient for survival of the Slender Scotch Burnet moth which like LMS lays eggs over patches of bare soil, colonizes early successional vegetation, and does not persist as vegetation fills in. They advocated cattle grazing, a type of disturbance not favoured by the U.S. Fish and Wildlife Service for LMS conservation. But, under policies of fire suppression, cattle may actually serve as a disturbance agent necessary for maintenance of favourable HoCl growth conditions (Levy 1994) because HoCl is often overgrown in areas where cattle are kept out (Gordon Pratt, pers. comm.). Nevertheless, without careful management, grazed patches could merely serve as sinks for the butterfly if after attracting females to lay eggs in areas grazed earlier, cattle return and subsequently destroy their reproductive output (Gordon Pratt, pers. comm.). An appropriate management strategy may be rotational grazing which gives rise to vegetation at different successional stages. This can provide suitable conditions for a range of species (Morris 1971) and would allow LMS to complete their lifecycle before cattle are given access again. Alternatively, perhaps a more effective and beneficial native grazer could be employed. For example, Pratt (1999) noted healthy, lush HoCl, well turned soils, and a dearth of competing grasses in areas of gopher (large burrowing rodent) disturbance and went on to suggest gophers were responsible for LMS habitat improvement. It seems, from his observations, that gophers not only avoided the butterflys' host plant but ate other plants around it while their burrowing activities produced beneficial bare ground. Could LMS conservation measures include the enhancement of gopher populations in currently unoccupied but suitable habitat patches to investigate the potential of this disturbance agent? Support for investigations into the positive effect of gophers on butterfly habitat comes from Ehrlich and Murphy (1987) who noted the high incidence of survival among eggs of the Bay Checkerspot butterfly laid on host-plants where soil was worked by gophers.

Conclusion

LMS breeding habitat is recreated through disturbance by fire and light grazing, and is also found in eroded areas along trails and roadsides. Environmental practices of the Kumeyaay Native Americans prior to European settlement of Southern California most likely supported both plant and animal species that require open, sunlit, sparsely vegetated habitat as in the case of the LMS and its larval host-plant, HoCl. Prescribed burns, lit to regenerate grasslands rich with flowering forbs, served not only to attract mule deer for hunting but undoubtedly also drew in LMS. Without relevant data we can only speculate that LMS populations began to decline under a policy of fire suppression, due to a decline in suitable breeding habitat resulting from succession. Post-European environmental management included the introduction of a new disturbance agent - cattle. At low stocking densities, emulating the influence of native herbivores, cattle would have kept the vegetation in check, essential for maintenance of the ephemeral breeding habitat of the LMS, while possibly not degrading it beyond the butterflys' use. However, as livestock densities rose compounded by habitat fragmentation, habitat loss, and encroaching human development, presumably habitat quality from the perspective of the LMS declined due to increased grazing, trampling of plants, and ingestion of juvenile stages. The result of these obvious environmental changes, if not also some subtle and as yet undetected ones, is the threat to the persistence of the LMS today. Natural resource management agencies are left with questions common throughout the environmental field. Do they mimic the anthropogenic disturbances that have created niches to which species over the millenia, including threatened ones, have adapted (Budiansky 1996)? Do they manage the land to maximize the use of often limited financial resources for conservation of the remaining ecosystem, recognizing that landscape-level management practices may result in the loss of some endangered species, particularly endemic specialists like the LMS (e.g., Launer and Murphy 1994)?

While artificially maintaining habitat at an early successional stage may benefit LMS what of species that require mature vegetation? LMS by itself may not be an appropriate umbrella species or effective bioindicator, as Ricketts (1999) cautioned regarding butterflies. Nonetheless, the efficacy of organisms as umbrella species also depends on the type of conservation responses implemented (Launer and Murphy 1994). Budiansky (1996) distinguished between focusing on a single species (i.e. the current LMS conservation approach) and planning a conservation strategy at the landscape level. The public coffers cannot afford many single species recovery plans in the ballpark of the Quino Checkerspot butterfly of San Diego county with an estimated cost of more than $7,678,000 (U.S. Fish and Wildlife Service 2000) especially when the record of the single species approach has been so poor (Budiansky 1996). Foin et al (1998) concluded from their review of recovery plans that when altered biological dynamics threaten species, and extended, intensive management is needed, there is no assurance of success. Budiansky (1996) saw the basis of a general theory of conservation in the concepts of metapopulations and disturbance patterns and stated "...disturbance processes are in most cases not unique to a single species, and the ecological processes that create one sort of habitat creates others, too. Disturbance is the key to the diversity of habitats that supports a diversity of life." The conservation literature of the 1990's appears to be indicating a new philosophy of 'umbrella processes' such as the restoration of natural disturbance cycles, in lieu of umbrella species.

Although Opler (1995) considered the potential of butterfly conservation and management "almost unlimited", recovery teams, such as the LMS working group, made up of biologists from various natural resource agencies, academics, and consultants are hampered by small financial budgets, different interests, the need for a rapid response (Foin et al 1998) and a deficit of information (Withgott 1999). Hodder and Bullock (1997) underlined the importance of effective communication and cooperation within such groups. Fleishman et al (1999) revealed that conservation biologists, although satisfied with the quality of their research, were frustrated with difficulties encountered at the implementation stage. The most common difficulties were "organizational psychology, administrative structure, individual personalities, and politics". As Hutchins and Conway (1995) wrote, "Wildlife conservation is primarily a social problem which must take into account legal, political, cultural, economic and ethical considerations". For instance, the threats which led to the endangered status of the Quino Checkerspot butterfly (habitat loss, fragmentation and changes in land management practices), were all "...the results of intensive human

economic development of ever diminishing resources" bringing a once common and widespread species to the brink of extinction within decades (Mattoni et al 1997). Gutiérrez et al (1999) summarized research into conservation strategies for the Dingy Skipper, similar to LMS in behavior and ecology, with the recommendation to conserve a habitat patch network rather than one reserve. Ehrlich and Murphy (1987) concluded a reserve should comprise several population units within a diversity of habitats to facilitate natural recolonization or translocation subjects after extinction of individual units. Reserve design should also reflect Hanski's (1989) prediction that a metapopulation which includes many independent populations robust to demographic stochasticity (e.g. the extinction of only one population among several) may be more secure in the long-term than a single large population, due to environmental stochasticity (e.g. a fire or hurricane could wipe out even a large population in one area) which can increase the correlation of local population extinctions. Metapopulation dynamics require the protection of viable networks of habitat patches (Thomas et al 1992), and the changing pattern of metapopulation occupancy over time calls for an organic approach to the development and management of reserves. Since metapopulations and disturbance processes do not recognize land ownership boundaries, their conservation and restoration respectively involves complex social and political factors and may only be truly successful with the cooperation of most landowners involved.

The need to build alliances with farmers is a challenge for conservation biologists (Withgott 1999). Due to the land mass taken up by farmland, its management may be more significant to conservation than that of protected areas (Budiansky 1996). Thus, agri-environmental alliances would facilitate not only educating locals to value threatened species and their habitat (Hutchins and Conway 1995) and monitoring of habitat outside the reserve into which rare species can disperse (Ehrlich and Murphy 1987) but conservation-friendly agriculture such as the Rural Environmental Protection Scheme found in Ireland. The Rural Environmental Protection Scheme works by providing farmers with financial incentives to protect endangered flora and fauna and includes a land and waste management plan, reduction of overgrazing, and encouragement of extensive farming (Lafferty et al 1999). Almost one third of Irish farmland (Lafferty et al 1999) is now under this governmental scheme. Ready availability of grants to subsidize beneficial private farming practices (e.g., low stocking densities, rotational grazing, reduction of pesticide use, and prescribed burns) in land adjoining critical habitat on public lands should be basic tools available to governmental biologists dealing with recovery plans. Such teamwork among traditional antagonists requires liaison specialists to build trust and mediate meetings. Natural resource agencies can enlist the aid of experienced groups like the Nature Conservancy, a conservation organization that has formed successful alliances with private landowners including farmers to support environmentally-friendly practices and oppose encroaching development. Developing conservation planning and management strategies that are environmentally ethical, economically viable, and socially responsible must remain the clear objectives of recovery plans.

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TEMPLATE: THE DEVELOPMENT OF THE BIOTECHNOLOGY INDUSTRY.

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Introduction

The modern biotechnology industry was founded in California in 1976. Since its inception, the development of the global biotechnology industry is based on the manner in which the US developed its own industry. Yet what model was developed in the US? This article looks at the template used through out the global biotechnology industry; the industry's geographic patterns and structures that have been copied by other countries as they try to develop their own biotechnology industries. The first section gives a bit of detail on some of the main technological advancements that have aided the rapid development of the industry, the second section looks at the US industry and some of its experiences since the mid 1970s, and the third section contrasts the main US cluster (the Bay Area of San Francisco) and the main UK clusters (Oxford/Cambridge and Scotland).

The development of new biotechnology

The foundation of modern (new) biotechnology can be traced back to 1940, when Oswald Avery (of the Rockefeller Institute in New York) demonstrated that deoxyribonucleic acid (DNA) was the transferring factor in genetic information and was the component of genetic material. Avery's work took ten years before its importance was recognised by Francis Crick, James Watson (of Cambridge University) and Rosalind Franklin (of King's College, London). Their research led to the discovery of the genetic code by which the DNA double helix (the basic structure of life) (Diagram 1.) governs the reproduction of cells in all living organisms (Access Excellence, 2002a: Biotechnology Industry Organization, 2001: Evers, 2002: Time.com, 2000)

This break through was followed by several landmark discoveries, the most important being the development of recombinant DNA (rDNA) technologies in 1973 by Walter Gilbert (Harvard University). This discovery meant that DNA could now be designed to give a micro-organism specific qualities not ordinarily found in nature through allowing scientists to alter genetic code(s) i.e. genetic engineering (Food and Agriculture Organization of the United Nations, 1999: Wallman, 1997).

Many other developments have taken place since the 1940s, yet the developments discussed above are the two most important innovations which have facilitated the rapid technological advancements of the biotechnology industry.

The development of the US biotechnology industry

For many years, biotechnology existed solely in the scientific laboratories of the scientists engaged in this ground-breaking research. Ironically, it was an educated guess led to the development of one of the global biotechnology industry. Robert Swanson (a venture capitalist) had come to the conclusion that the many biotechnology-related research projects being conducted in the laboratories of the US universities/research centres had to have some commercial promise. Swanson (who had a background in chemistry) conducted detailed interviews in order to see whether this research could be easily

commercialised. Through a meeting with Herbert Boyer (who co-developed recombinant DNA in 1973) Swanson's suspicions about the potential of commercialising this type of research were confirmed (Access Excellence, 2002b, 2002c; The Bancroft Library, 2002). Both men established the worlds first biotechnology firm (Genentech) in 1976 and created the template by which most biotechnology firms (internationally) have been established. This "template" can be summarised as follows: (1) encourage academic researchers to commercialise their research, (2) nurture and develop their business with venture capital support, (3) solidify their business activities and then (4) float their activities on the stock market in order to access the massive sources of revenue needed to develop biotechnology products, while also funding the generation of high quality research in order to continue the process of expansion. This simplified/simplistic linear progression is logical, yet the

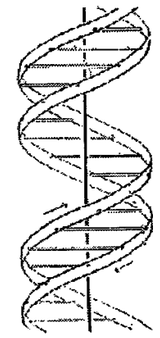

Diagram 1.: Structure of the DNA double helix (Watson and Crick, 1953).

manner in which individual countries deal with the finer details differ greatly. Most countries that have developed their own biotechnology sectors have established their own versions of US institutions and organisational structures (Biotechnology Industry Organization, 2002).

The main reason behind the global reach of the industry, according to Abate (2001), is due to the "raw materials" needed to develop a successful biotechnology sector (i.e. high quality scientific research and significant sums of intelligently invested money) are not the sole province of a single country or region. Heavy support by/through major Governmental and trans national corporation (TNC) funding has also facilitated the development of the industry on a global scale, leading to various technologies used in biotechnology being introduced in most industrial areas further aiding its development.

The biotechnology industry template

The geography of the US biotechnology industry is distinctive, created as a result of the US industry being established and developed close to the research laboratories of major research institutions. As the US industry has developed into a structurally complex industry, it has also developed a complex cluster-based geography around these research centers (Feldman, 1985).

Clusters of biotechnological activity in the US have developed at several key locations: California, San Diego, Seattle, Boston, the New York City area, Philadelphia, and the Maryland suburbs of Washington DC (Figure 2.). Each area has significant scientific communities, supported by various universities and U.S. government research facilities. This section discusses the history, location and activities of the main cluster; San Francisco (Baik, 1997:California Healthcare Institute, 2000).

Figure 2. Dedicated US Biotechnology Firms, 1998 (After Powell, Koput, Bowie, and Smith-Doerr, 2002).

San Francisco

The largest and oldest biotechnology cluster is the Bay Area of San Francisco (Figure 2) due to the industry being established here in 1976 with the foundation of Genentech. The area developed a cluster of biotechnology activity (with a focus mainly on biopharmaceuticals) in a short period of time, benefiting from the close geographic proximity to Silicon Valley. Biotechnology firms were able to access its established networks of support for the regions new electronics firms including venture capital firms that had experience and the desire to invest in new and (relatively) unproven technology.

Most of the main players in the US (and global) industry (including Genentech, Immunex and the Chiron corporation) are/were located in, or in the immediate vicinity of, the bay area developing out of the research conducted in the areas major research centers (which include Stanford University, UCSF, and UC Berkeley). Today, the cluster contains over six hundred and forty companies, employing over eighty thousand (five of the top ten employers in the Bay Area are biotechnology firms) (Baik, 1997: The Electronic Newsletter of the California Office of Trade and Investment-Mexico City, 2001: Moline, 1998).

The manner in which the San Francisco cluster has developed has been repeated in the other American clusters and throughout the global industry. This is due, in part, to the common origins of most new biotechnology firms (i.e. commercialised university research), and also due to the organisations over seeing their development having, in some cases, deliberately copied the organisations and structures in San Francisco in order to optimise the development of their clusters.

UK biotechnology clusters

After the US, the United Kingdom is the second largest biotechnology sector in the world; it too has developed biotechnology clusters in key locations with the Department of Trade and Industry (DTI) encouraging cluster formation. The UK's biotechnology sector displays several distinct clusters with similar structure/patterns to the US. This section

discusses the main two UK clusters: Oxford and Cambridge and Scotland (Figure 4).

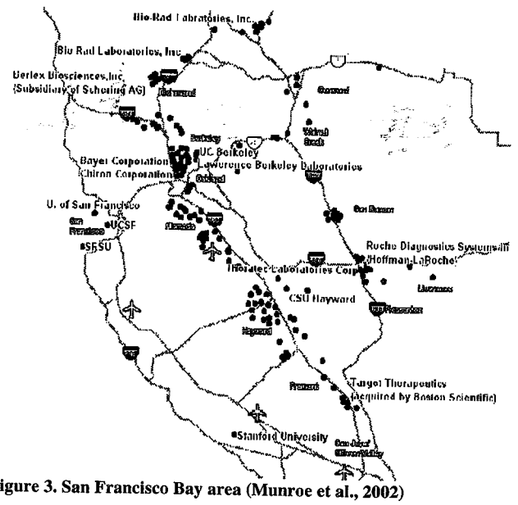

Figure 3. San Francisco Bay area (Munroe et al., 2002)

Oxford and Cambridge

Oxford and Cambridge developed biotechnology firms in the early 1980s and have since gone on to develop extensive support structures and network based alliances/collaboration, including NBF spinouts from universities located in the areas (an important development for the cluster). Both areas benefit massively from their close geographic proximity to London (DTI, 1999).

Key research institutes are located in both areas: Oxford is home to the John Radcliffe hospital, the Institute for Molecular Medicine, and the Wellcome Trust Human Genetics Centre. Cambridge is home to the Addenbrookes hospital, the Laboratory of Molecular Biology, the European Bioinformatics Institute, the Babraham Bioincubator, and the Bioscience Centre at St. John's Innovation Park (DTI, 1999).

Scotland

Scotland's biotechnology cluster is located in Central Scotland (embracing Glasgow, Dundee and Edinburgh). It contains over 420 organisations (including 80 NBFs and over 190 support firms), and employs over 12,000. The main focus of Scottish biotechnology research is in the areas of genomics and medical research (Biotech Scotland, 2001a: DTI, 1999b).

A proactive approach has been pursued by the various industry organisations (including Scottish Enterprise and Biotech Scotland) towards the formation of new biotechnology firms in Scotland. A very detailed support network has been put in place to facilitate the formation of new firms meaning that since early 1999, 28 new biotechnology firms have been established in Scotland. The support network includes business advisors, the SMART programme, Incubators and Science Parks, and a joint programme between Scottish Enterprise and the Scottish Institute for Sustainable Technology (SISTECH) in order to support the application of biotechnological practices/procedures in other sectors (Biotech Scotland, 2001a).

The Scottish cluster displays a distinct geographic concentration around universities and is supported by a strong infrastructure of support services bringing together local firms, academic institutions, specialist development institutions and Government agencies (Invest.UK, 2001).

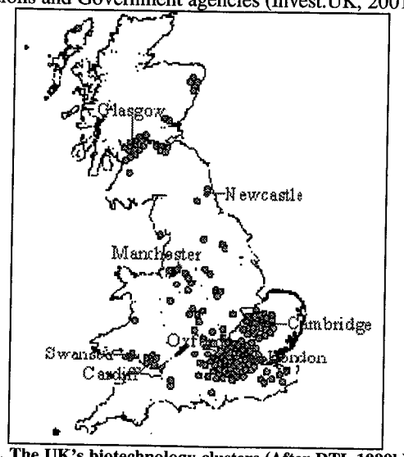

Figure 4. The UK's biotechnology clusters (After DTI, 1999b) based on Ernst and Young, 1999.

Conclusion

Despite the biotechnology industry being less than thirty years old, its development has been quite rapid. This has been due to the conditions in which the industry was formed being easily reproducible. While the template was established in San Francisco, its application elsewhere has been altered and customised to optimise the development of indigenous clusters. While the individual clusters may differ in their over all focus, they all share a common heritage.

Bibliography

Access Excellence (2002a) Biotechnology Timeline 1977 - Present, http://www.accessexcellence.org/AB/BC/1977-Present.html, accessed 12/08/02

Access Excellence (2002b) Herbert Boyer (1936-), http://www.accessexcellence.org/AB/BC/Herbert_Boyer.html, accessed 2/09/02

Access Excellence (2002c) Robert Swanson (1947-1999), http://www.accessexcellence.org/AB/BC/Robert_Swanson.html, accessed 2/09/02

Baik, Y. (1997) The Evolution of Geographic Clusters in the US Biotechnology Industry, http://www.aombd.pacxe.edu/InteractivePapers/pdf/32835.pdf, accessed 16/02/02

The Bancroft Library (2002) The Bancroft Library's Program in the History of the Biological Sciences and Biotechnology, http://bancroft.berkeley.edu/Biotech/bancroft_program/, accessed 30/08/02

Biotechnology Industry Organization (2001) A timeline of biotechnology, http://www.bio.org/timeline/timeline.html, accessed 12/08/02

Biotechnology Industry Organization (2002) Guide to Biotechnology: Biotechnology Industry Statistics, http://www.bio.org/er/statistics.asp, accessed 10/09/02

Biotech Scotland (2001a) Biotech Scotland-Framework for Action 2001-2002, http://www.biotech-scotland.org/doclibrary/Framework_For_Action_2002-02L.pdf, accessed 5/12/01

California Healthcare Institute (2000) California Healthcare Institute, http://www.chi.org/pdf/CHI_Bayarea.pdf, accessed 9/03/01

Department of Trade and Industry (1999a) Appendix 4: Areas visited in UK and US, http://www.dti.gov.uk/biotechclusters/appen04.pdf, accessed 16/02/02

Department of Trade and Industry (1999b) Chapter 1: The Importance of Clusters, http://www.dti.gov.uk/biotechclusters/chapt01.pdf, accessed 16/02/02

The Electronic Newsletter of the California Office of Trade and Investment-Mexico City (2001) California: International Leader in Biotechnology, http://www.california.org.mx/News/Newsletter/Issue2/article3.html, accessed 22/10/03

Evers, C. (2002) Legacies-Transformation and DNA, http://www.accessexcellence.org/AB/BC/Transformation_and_DNA.html, accessed 14/08/02

Feldman, M. M. A. (1985) Biotechnology and local economic growth: the American pattern, in Hall, P. and Markusen, A. (eds.) Silicon Landscapes. Allen & Unwin, London, 65-79

Food and Agriculture Organization of the United Nations (1999) FAO Research and Technology Paper No. 7: Glossary of biotechnology and genetic engineering, http://www.fao.org/DOCREP/003/X3910E/X3910E00.htm, accessed 21/08/02 This Glossary is written by A. Zaid, H.G. Hughes, E. Porceddu, and F. Nicholas

Invest.UK (2001) Biotechnology: Investment Opportunities in the UK, http://www.invest.uk.com/uploads/publications/pdfs/Biotechnology_final.pdf, accessed 5/12/01

Moline, A. (1998) Biotech Boom: Rx for Success: Stay close to Capital, Brains, http://biotech.about.com/gi/dynamic/offsite.htm?site=http%3A%2F%2Fwww.bizsites.com%2F1998%2FAM98%2Findout.html, accessed 16/02/02

Munroe, T., Craft, G. W. and Hutton, D. (2002) A Critical Analysis of the Local Biotechnology Industry Cluster - Counties of Alameda, Contra Costa, & Solano Volume II - Analysis, http://www.edab.org/study/East%20Bay%20Biotechnology%20Study%20Anlysis.pdf, accessed 27/11/02

Powell, W. W., Koput, K. W., Bowie, J. I. and Smith-Doerr, L. (2002) The Spatial Clustering of Science and Cpaital: Accounting for Biotech Firm - Venture Capital Relationships, Regional Studies 36, 291-305

Time.com (2002?) Time 100: Scientists & Thinkers - James Watson & Francis Crick, http://www.time.com/time/time100/scientist/profile/watsoncrick.html, accessed 14/08/02

Wallman, S. (1997) A Short History of Biotechnology, http://biotech.tec.nh.us/BT210/Intro1.html, accessed 13/08/02

Rational Comprehensive Planning: A Critique

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The era of Enlightenment that began in Europe in the eighteenth century informed a new modern thinking that had social need at its core. The era was characterised by an optimism that can be seen later in the writings of Utopian thinkers such as Kropotkin, Howard and Unwin. Such optimism was carried into the twentieth century, examples being Le Corbusier's utopian 'radiant city'. It was because of this optimism that planners began to realise that human beings could shape their own existence:

> *". . . the belief that, with a proper scientific understanding of the environment as a 'system', coupled with the application of a rational method of decision-making and action, cities and the environment generally could be planned to improve – even 'maximise' – human well-being"*
> (Taylor, p74, 1998)

It was Perloff who initially introduced the theory of Rational Comprehensive Planning (although he does not explicitly describe or name the model) based on Auguste Compte's theory of Logical Positivism. Herbert Simon first proposed the Synoptic model of planning in 1945, which later became known as Rational Comprehensive Planning.

Rational Comprehensive Planning arose in the 1950s in response to the problems brought on by urban growth in the late nineteenth and early twentieth century when scientific methods were used to find solutions to urban problems. Rational Comprehensive Planning put an end to the once dominant theories of Environmental Determinism in the 1950s. Central to the theory is the need for intervention by the state and spontaneous social processes. Through Rational Comprehensive Planning the planner can make rational and comprehensive decisions using scientific methods and by collecting and analysing all the necessary information and data. From this process better policy will ensue, meaning in the long-term a better society (Russell, 2001). The objective of Rational Comprehensive Planning was the:

> *". . .optimization (sic) and allocation of resources among various public activities according to objective standards rather than solely on the basis of political pressure"*
> (Perloff, 1957, cited in Sandercock, p26, 1998)

Whether knowingly or not the majority of planners today practice a refined version of Rational Comprehensive Planning. This is evident in planning practices in Local Authorities by the application of the main elements of the Rational Comprehensive model namely goal setting, identification of policy alternatives, evaluation of means against ends, implementation of decisions, and continued monitoring through the repetition of the previous steps (Hudson, 1979).

The Rational Comprehensive Planning Model

The requirements and procedure for Rational Comprehensive Planning are as follows:

1. A well-defined problem
2. A full array of alternatives to consider (by logical generation)
3. Full baseline information
4. Complete information about the consequences of each alternative by systematic evaluation of them
5. Implementation
6. Monitoring performance

This procedure can only be carried out on the assumption that there is full knowledge about the values and preferences of citizens and that there is adequate time and skill, and sufficient resources (Forester, 1987, cited in MacLeod, 1996). The ideal Rational Comprehensive planning process involves exhaustive information gathering and analysis. Objectivity, the public interest, and critical analysis are necessary to allow planners to identify the best possible course of action. The ideal Rational Comprehensive process will involve:

1. Formulation of goals and ideals
2. Identification and design of major alternatives for reaching the goals identified within the given decision-making process
3. Prediction of major sets of consequences in relation to desired objectives and other important values
4. Decision / plan based on information provided in preceding steps
5. Implementation of this decision / plan through appropriate institutions
6. Feedback from the actual programme results and their assessment in light of the new decision situation

(Friedmann, 1987, cited in MacLeod, 1996)

Through this process Rational Comprehensive Planning aims to be objective, technical and to exclude subjective and notional discussion. This is achieved by avoiding

issues of conflict that arise from varying public views, and by presuming a certain level of consensus.

Geddes Model Rational Comprehensive Model(from Taylor, 1998)

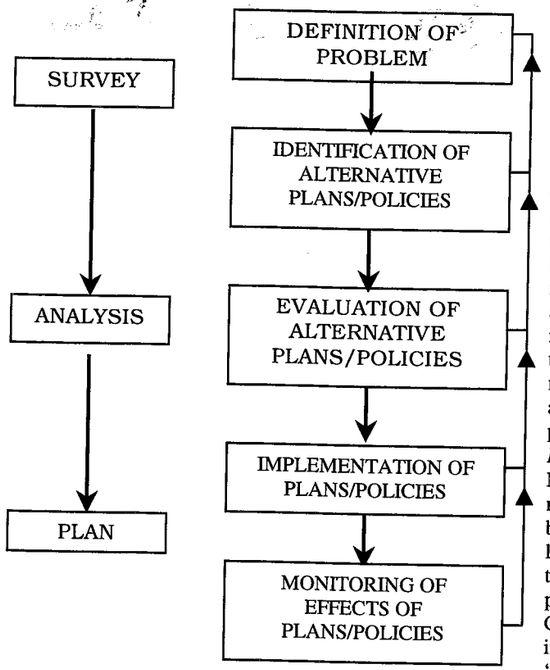


Fig. 1

Rational Comprehensive Planning is concerned with the process of making an effective, good plan. Since the 1960s distinctions have been drawn between and arguments have arisen about procedural and substantive planning (for example Webber, 1963, cited in Faludi, 1973). Indeed such discourses are a whole other issue in themselves! It is important however to note the distinction because the tenets of Rational Comprehensive Planning have arisen from criticisms of previous and other planning processes. The most appropriate comparative model is that of Patrick Geddes. As an early planner Geddes promoted the 'Survey-Analysis-Plan' model. The model was deficient in that it begins without the identification of a problem therefore giving no reason for the carrying out of the survey in the first place; the singular use of the word 'plan' suggests no possible alternative; and by no further steps past 'plan' stage it suggests the process ends there without implementation of monitoring (Taylor, 1998). Rational Comprehensive Planning attempts to fill in the gaps left by the Geddes model by recognising that the planning process should be ongoing and cyclical (see Fig. 1).

Critique Of Rational Comprehensive Planning

The Rational Comprehensive model of planning is the ideal method of decision-making in planning. By striving to achieve Rational Comprehensive Planning there can undoubtedly be improvements to the process of plan making. However it is in the very idealism of Rational Comprehensive Planning that its weaknesses can be found. Rational Comprehensive Planning aims in the first instance to be rational. To achieve this the planner must evaluate every option, alternative and the views of all interest groups equally. By doing this, the derived plan must take into account every aspect of the problem and 'solve' it. In doing so the plan must keep everyone equally happy as well. However ultimately this is impossible. A plan must be based on a certain objective. In other words it is based on a set of values that will please some groups and not others. So the reasoning behind a decision based on the given values will not be persuasive to all groups affected (Taylor, 1998). Therefore what one person sees as the rational, logical solution to a problem, another will see as inappropriate.

The achievement of comprehensiveness also causes difficulties in using the Rational Comprehensive model of planning. To be truly comprehensive means to evaluate all alternatives and to consider all points-of-view. In practice limited time and resources can make such an evaluation impossible. The end result, if comprehensiveness is attempted and achieved, can mean confusion and thus be less rational (Taylor, 1998: 72). Thus a pragmatic stance is often taken when plan-making under the Rational Comprehensive model. The fact that not all issues can be covered is acknowledged and the planner tries to be as comprehensive as possible.

Does rationality require comprehensiveness?

Many contemporary adherents to the Rational Comprehensive model of planning opt for dealing with the model in an 'as best we can' way (Taylor, 1998). In other words the highest level of rationality and comprehensiveness is achieved with the acknowledgement that such an undertaking cannot be perfect. Lindbolm (1959) suggested that Rational Comprehensive Planning is an ideal that is unattainable. He instead suggests that in practical terms planning is 'disjointed' and 'incremental' not 'rational' and ''comprehensive' (Lindbolm, 1959).

> *"From this point of view, rationality does not require comprehensiveness: in certain circumstances it can be rational to 'go through' a rational process of decision-making quickly, even 'disjointedly' and 'incrementally' "*
>
> (Taylor, 1998, p72).

Although Lindbolm rejects Rational Comprehensive Planning due to the difficulty of achieving comprehensiveness, this is not enough to reject it. Decision-making, no matter what model is used, should try to be as rational and comprehensive as possible (Faludi, 1973).

Incrementalism – a means of criticising Rational Comprehensive Planning

Central to Lindbolm's critique of Rational Comprehensive Planning was that the ideal of comprehensiveness was unachievable in reality. Lindbolm believed that true comprehensiveness could not be achieved in reality. His 1959 article 'The Science of "Muddling Through" '[1] denies the validity of Rational Comprehensive Planning (Faludi, 1973), and is an early acknowledgement of the limits to Rational Comprehensive Planning. Based on the recognition of the limits within decision-making, and the scope and cost required to gather the necessary

[1] *First published in the Public Administration Review, Spring 1959*

information for Rational Comprehensive Planning, Lindbolm introduced the theory of Incremental Planning. Incrementalism arose as a criticism of Rational Comprehensive Planning and is a theory / method of procedural planning.

Incrementalism arose in response to the limitations of Rational Comprehensive Planning in the 1960s. A key element of the Incremental Planning is a pluralistic view of a society composed of competing interest groups with varying views. In this model plans are not constructed by a strict process but by a series of consultations largely based on peoples' actual experiences (Hudson, 1979). Rather than attempting a comprehensive study and evaluation of all possible alternatives, the decision-maker focuses only on those policies which differ incrementally from existing policies. In doing this a small number of policy alternatives are evaluated and only a restricted number of 'important' consequences / impacts are considered. Through Incrementalism the problem confronting the planner is constantly redefined making the problem more manageable. Thus there is no one solution, but a series of solutions through continual monitoring (Etzioni, 1967, in Faludi, 1973[2]). In a number of ways Incrementalism marked a change in the relationship between planners as professionals and the public, which has continued to characterise planning practice in the late twentieth and early twenty-first century.

Critique of Incrementalism

Incrementalism recognises that policy undergoes continual change. This recognition means that instead of making one radical alteration it makes minor adjustments as the policy 'evolves', i.e. incrementalism practices a much more organic approach to decision-making than the Rational Comprehensive model. It attempts to stay within the predictive capability of a plan (Lindbolm, 1959). Such a method has fewer demands on resources, concentrating instead on limited change while still responding to change as it occurs.

Etzioni (1967), in his criticism of both Rational Comprehensive Planning and Incrementalism, questions Lindbolm's assumption that the pluralistic society comprises small, equally voiced groups. Etzioni argues that certain groups dominate society and that the decisions made using the incremental model will reflect the interests of those dominant groups.

Rational Comprehensive Planning – Strengths

Despite its capacity for great methodological refinement and elaboration, the real strength of the Rational Comprehensive model of planning is its basic simplicity. Although Rational Comprehensive Planning may come under attack for its obvious short-comings and high level of idealism, the elements of ends and means, trade-offs and action-taking are admirable and are, at least in a historical sense significant because of the model's marking of a watershed in the theory of planning (Hudson, 1979).

Rational Comprehensive Planning – Weaknesses

The ideal of Rational Comprehensive Planning is, in practical terms, unrealistic. Limits to resources, time and data make the achievement of Rational Comprehensive Planning impossible. As a methodology it can only be applied to simple problems. In reality decisions are often dealing with:

- Ambiguous and poorly defined alternatives
- Incomplete information about alternatives
- Incomplete information about the baseline, the background of 'the problem'
- Incomplete information about the consequences of supposed alternatives
- Incomplete information about the range and content of values, preferences and interests
- Limited time, skills and resources

(from Forester, 1989, cited in MacLeod, 1996).

Lindbolm (1959) in fact suggests that "decision-makers do not, cannot, and as a matter of fact have no chance of ever being able to, decide in ways outlined by the Rational Comprehensive model" (Faludi, p 117, 1973). A number of weaknesses of the Rational Comprehensive model are identified as follows:

1. The difficulty of identifying and clarifying common objectives: Rational Comprehensive Planning relies on consensus among the public interest. In reality all groups in society have different and often conflicting values and perspectives
2. The difficulty of identifying all possible alternatives and ranking them accordingly: how are they to be ranked?
3. The difficulty in ascertaining which alternatives will best achieve each objective
4. The difficulty in ranking each objective because of varying values attached to each objective

Endurance Of Rational Comprehensive Planning

The realisation that Rational Comprehensive Planning cannot be truly achieved in reality has come to be accepted by contemporary planners. However, the idealistic notion of a truly rational and comprehensive process of decision and plan making has meant that planners still adhere to the basic principles of Rational Comprehensive Planning. Although Incrementalism may be viewed, and indeed, used as a refined or more manageable version of Rational Comprehensive Planning, it should not be mistaken as such. A contemporary example of Rational Comprehensive Planning is the Irish system of the Development Plan. Every six years (according to the new Planning and Development Act 2000) each Local Authority prepares a Development Plan for their functional area. The basic process of Rational Comprehensive Planning (as set out in diagrammatic form in Fig. 1) is followed in the preparation of the Local Authority Development Plan. Thus, although there may not be a consensus agreement on the objectives of the final Plan, the decision-makers have attempted to be as rational as possible in their final decision, and as comprehensive as possible given their limited resources and time.

The assumption of the consensus of values and objectives that is central to the Rational Comprehensive model of planning is probably its weakest point. Planning in the late twentieth and early twenty-first century has acknowledged that no decision can be made without public consultation (see for example the writings of

[2] *First published in the Public Administration Review, December 1967*

Healey and Forester as cited in Sadercock, 1998). Schön (1991) recognises that by the mid-1960s:

> *"the public at large, and planners themselves, were becoming increasingly aware of the counterintuitive consequences, the harmful side effects and the unwanted by-products of implemented plans. Plans designed to solve problems either failed to solve them or created problems worse than the problems they had been designed to solve"* (Schön, p206, 1991)

And later:

> *"Planning 'problems' came to seem more like dilemmas made of conflicts of values, interests, and ideologies unresolvable by recourse to the facts"*(Schön, p206, 1991)

Contemporary adherents to Rational Comprehensive Planning have taken into account the need for public consultation and have acknowledged the pluralistic society in which we live, where there will undoubtedly always be conflicting values and objectives. Thus in planning today a 'best-fit' model of Rational Comprehensive Planning is carried out, whereby decision-makers try to be as rational and comprehensive as possible taking into account that there will never be a common objective.

Both supporters (such as Simon and Perloff) and opposers (Lindbolm and Etzioni) of Rational Comprehensive Planning alike have one principle in common, namely the need for rationality. What was central to their arguments was the achievement of comprehensiveness. In reality planners working on Development Plan preparation try to be as comprehensive as possible. Planners, by the nature of their work, attempt to co-ordinate specialised and narrowly defined activities. In doing so they are part of an "ambitiously comprehensive public policy process" (Sandercock, p87, 1998). Despite the model's weaknesses, as outlined above, Rational Comprehensive Planning has continued to win new adherents and theorists from Faludi to Franco Archibugi and Earnest Alexander (Sandercock, 1998). Rational Comprehensive Planning allows a framework within which decisions and plans can be made logically, alternatives and consequences can be evaluated, and the reason for the final decision can be shown clearly.

References

ETZIONI, A (1967) 'Mixed Scanning: A "Third" Approach to decision-making' *in* Faludi, A (1973) *A Reader in Planning Theory* Oxford: Pergamon Press

FALUDI, A (1973) *A Reader in Planning Theory* Oxford: Pergamon Press

FORESTER, J. (1987) *Planning in the Face of Power* University of California Press *in* MacLeod, D. (1996) www3.sympatico.ca/david.macleod

FRIEDMANN, J. (1987) *Planning in the Public Domain: from knowledge to action* Princeton University Press *in* MacLeod, D. (1996) www3.sympatico.ca/david.macleod

HUDSON, B. (1979) 'Comparison of Current Planning Theories: counterparts and contradictions' in *Journal of the American Planning Association,* October 1979, pp387 –398

LINDBOLM, C. E. (1959) 'The Science of "Muddling Through" ' *in* Faludi, A (1973) *A Reader in Planning Theory* Oxford: Pergamon Press

PERLOFF, H. (1957) *Education for Planning: city, state and regional* Baltimore: John Hopkins Press *in* Sandercock, L (1998) *Towards Cosmopolis* Chicester: John Wiley & Sons

RUSSELL, P (2001) Planning Theory and Philosophy Lecture Course

SANDERCOCK, L (1998) *Towards Cosmopolis* Chicester: John Wiley & Sons

SCHöN, D. A. (1991) *The Reflective Practitioner: how professionals think in action* Aldershot: Arena

TAYLOR, N. (1998) *Urban Planning Theory since 1945* London: Sage

WEBBER, M. (1963) 'Comprehensive Planning and Social Responsibility: towards an AIP consensus on the profession's roles and purposes' *in* Faludi, A (1973) *A Reader in Planning Theory* Oxford: Pergamon Press

CROP CIRCLES INVESTIGATED

Mr. Darren Stephens, 3rd Arts

Welcome to the world of crop circles, a tantalizing phenomena that has captured the imagination and thoughts of countless people worldwide for several decades. Hopefully from reading this article you will have a better understanding of what crop circles are all about, and for those of you who are unfamiliar with the phenomena an insight gained into their interesting and somewhat mysterious origin.

So what exactly are crop circles? A crop circle is a design or configuration that is left down gently in a growing crop, which leaves the crop outside the formation growing naturally. The crop that is affected by the formation is bent towards the ground, but what's interesting is that the crop is not broken, burnt, bruised or prevented from growing any further. Each stalk that is affected continues to grow and ripen, parallel to the ground. These fascinating formations have been discovered in many countries around the world and have been recorded numerous times. Crop circles can take place in many types of crop, such as wheat, barley, oats, rapeseed, hay, corn, rice and so on. Some of the countries that have been affected by these formations are Canada, the United States, Holland, Germany, Russia, Italy, Japan, and the United Kingdom.

During August of last year, as part of my thesis preparation, I decided to travel to England, Wiltshire County to be exact, to get a closer look at these formations and try to establish some understanding of their possible origin. I wanted to investigate the phenomena from a geographical point of view.

The unusual circumstances surrounding the phenomena is that nobody can tell when the next formation will occur, or where it will form, what time of year or what extent of land will be affected by the formation. They vary form the very large intricate configurations, to the smallest and simplest designs. Due to the fact that there has been no international reporting facility set up for recording the arrival of new circles, it is very possible that many are not discovered at all form one year to the next, but over 10,000 formations have been recorded from 1980-2000, this is not accounting for those that were not discovered or formations before this time period, so really it is unknown how many circles have formed worldwide in the past 60-100 years. In Wiltshire an attempt to investigate and record these remarkable formations has taken place, as it is here that the majority of these formations appear each year.

The area that I was based in was that of a small village called Avebury; this quaint village is steeped in history, and along with its surrounding countryside the site for thousands of crop formations since records began. When I

arrived I contacted the local reporting centre to find out the location of the nearest and latest formations. The nearest to the village was that of a formation sited at Kenneth Avenue, this is a stone avenue just south of the village. At the end of this avenue I got my first glimpse of a crop circle. My first impression of the phenomena was the sheer size and complexity of its design. I couldn't believe how intricate it was. Most of the photographs that I had seen before then didn't quite convey the impact that these formations have on their surrounding landscape. Standing on the ground next to the formation, it is virtually impossible to make out the overall design. In some cases it would be very simple to not even realise the presence of a formation in a field as you drive past.

From examining the formation up close what I had expected to see was very different to what I actually did. The formation was perfect. Formed exactly as I explained earlier. None of the stalks were broken and all of them growing parallel to the ground. The formation was located near the centre of a large field of wheat, with only one entrance from an adjoining similar field that lay between it and the nearest roadway.

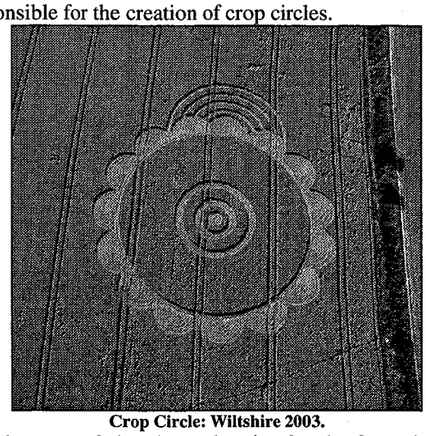
A problem that I knew I would encounter was that I wouldn't get to experience the impact of their design, or the overall size of the formations from examining the crop circles just from the ground, so before I travelled to Wiltshire I got in contact with a pilot who agreed to take me on a flight over the local area and get a bird's eye view of the formations there. Just before we taxied to the runway and we were cleared for take off I was asked an important question… "Would you like your door on or door off?" I knew that if the door was attached, It wouldn't be possible to take clear pictures of the formations or the surrounding landscape. I was also informed by the pilot that if I didn't lean out slightly I was going to catch the wing in every photo. After all the necessary decisions were made we took off. Without the door attached to the twin seated micro light aircraft it got quite cold, but it was well worth it. The flight showed the full impact that these huge formations have on the local landscape and just how geometrically intricate they actually are. During the flight the pilot told me how the area has been affected by these crop circles for years. I questioned him on what he believed to be the origin of the formations and he told me that he has been flying in the area for the past twenty years, and has never witnessed the formation of any crop circle or hasn't seen any unusual activity in the skies over Wiltshire. This leads us to the explanation of the possible origin or theories that lie behind these mysterious crop designs.

The theories that are involved or associated with the creation of crop circles cover a wide range of ideas and genesis, both of the human, non-human, natural and environmental origins.

One of the theories that is, in some ways, believed to be the force behind the creation of these crop circles is that of the Plasma Vortex Theory. This is the work of a former British professor of physics, Dr. George Terence Meaden, according to Dr. Meaden the formations are created when "highly ionised air high in the atmosphere creates a vortex of plasma, the plasma spins very intensely and starts descending to the surface, this forms an event similar to a mini-tornado". He believes that it is in fact this action that leaves the imprinted circles in the landscape.

Another theory behind the formation of crop circles is the idea of a human created origin. This theory stipulates that crop circles are no more than the artwork of talented people, using different methods unknown to all to generate these interesting designs. Documented evidence has shown that a lot of these formations are in fact hoaxes. Due to the amount of media coverage the phenomena now attracts, individuals try to steal some of the limelight, they come forward and own up to creating the crop circles or indeed claim that they were involved. But there have also been cases where it was not confirmed that certain crop circles were created in this manner. Photographic evidence, eyewitness accounts, differences in the lay of the crop all lead to evaluating the difference between what is fabricated and what is unexplainable.

Another extreme theory is that of the Extra-Terrestrial Theory. This is a very difficult theory to try and approach due to the lack of evidence on the possible existence of extra-terrestrial life or indeed evidence that the earth is visited or affected in any given way by other life forms unknown to us all. The theory is based solely on what way we as humans perceive extra-terrestrial technologies to operate, if in fact they exist in the first place. The theory identifies the possibility of alien life or intelligence and tries to adopt a basic understanding of possible extra-terrestrial technology i.e. the possibility that it is in fact some form of extra-terrestrial propulsion system that is responsible for the creation of crop circles.



Crop Circle: Wiltshire 2003.

Whether any of the above theories for the formations of crop circles (which are only some of many) are plausible, that of meteorological explanations forms of artwork, or in fact visitors from another world remain to be seen. It is interesting though to explore these different theories, possibilities and enigmas that puzzle us, make us question and try to contemplate a possible explanation for something that maybe a lot of us find difficult to understand.

Climate Reconstruction in Patagonia 2002-2003

Mr. Rod Teck, Postgraduate Research

A casual remark made over coffee at the Climatic Research Unit of the University of East Anglia, regarding the lack of climate data coming out of South America. A meeting of the Royal Geographical Society at which, it was said 'funding could be found for the *right project*'. Put the two together and we were almost on our way.

The PUCCER expedition, an acronym for 'Patagonia University of East Anglia Climate and Environmental Reconnaissance expedition' took place over the winter of 2002–2003. The expedition was to be light-weight, a maximum of six people each having some expertise in 'climatology, ecology, glaciology and atmospheric chemistry. They also needed to be reasonably fit as we were going to ascend the Marconi Glacier in the Fitzroy region of Patagonia. This is an isolated area in the Hielo Patagonico Sur National Park situated between the border of Argentina and Chile. We planned to live and work for two months collecting climate data. Due to a restrictive time scale and logistic resources our scientific aims were quite modest. It was decided to undertake a dendrocronology assessment of the forest leading up to the glacier, and to assess part of the Marconi Glacier.

Understanding how Glaciers work.

Over the past 60-100 years, glaciers worldwide have tended toward retreat. Alpine glaciers, which are typically smaller and less stable to begin with, seem particularly susceptible to glacial retreat. Whether this is due to a natural variability or because of increased human impacts on global climate remains to be unequivocally determined. However the Intergovernmental Panel on Climate Change (IPCC) states that anthropogenic factors as well as natural variability are the likely causes of climate change.

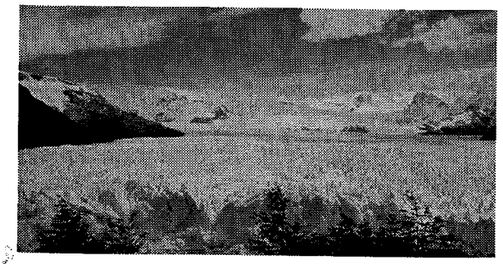


Figure 1. The south facing side of the Perito Moreno glacier Argentina.

Glaciers have been studied for many years. Examples include the flow and storage of waters in glaciers and dye tracing experiments trying to understand the mechanics and bed deformations. Glacier flows are known to change from location to location within an individual glacier, but usually show greatest flow at the centre. One of the first recorded 'interest' in glaciers was by Altmann in 1751, who first thought that they moved by the force of gravity alone. Although this is partially true, movement is also due to the modulated gradients in the viscosity of the ice. Scientists argued for many years about the flow of glaciers and it wasn't until the last 40 years that a mechanism was agreed upon based upon solid-state physics and metallurgy. Ice is a crystalline solid either mono or polycrystalline, usually the latter, and flows like metals and like other crystalline solids at temperatures near their melting points.

Before the last 10 years remarkably little was known about the ice caps of Patagonia, despite the fact that their combined ice volume is third only to Greenland and Antarctica. In light of recent global warming, monitoring the behaviour of glaciers, in particular that of the temperate glaciers has become increasingly important for understanding climate change. Glaciers are controlled by both precipitation and temperature and are therefore potentially useful proxies for both of these variables.

There are two icefields located in Patagonia, the first (Hielo Patagónico Norte) is between latitudes of 46°30′S and 47°30′S and stretches for about 100km. It is 45km wide and has an area of 4200 km^2. This icecap consists of 28 outlet glaciers, which terminate almost entirely on land. The south Patagonian Ice-field known locally as Hielo Continental Patagonico or Hielo Patagonico Sur is approx. 13000 km^2 in area. It stretches for 360km between latitudes of 48°20′S and 51°30′S although the width is generally only about 45 km wide, with the narrowest part being 8 km and consists of about 48 outlet glaciers. Systematic studies of both these ice caps are still sparse due to (1) few local inhabitants, (2) A general lack of interest until recent time, (3) distance from North America and Europe where glacial studies are most active and (4) Its remote, inaccessible location and persistent inclement weather. Both glacial regions only exist because of the high precipitation rates in the region – the temperature is too warm to maintain the ice caps should precipitation be reduced. However, changes in the precipitation probably dominate the ice cap on long timescales, whereas, changes in temperature will dominate the mass balance in the glacier ablation outlet region in the short-term. Under a warmer, wetter climate predicted by climate models, we may see these outlet glaciers retreat due to temperature pressure in the short-term, followed, by a re-advance caused by higher accumulation rates over the ice caps in the longer term.

Although there are many glaciers within the Patagonian region the Perito Moreno glacier (Figure1) is the most extensively studied glacier in the whole of the region. This is because it is relatively easy to gain access to. It is an imposing ice river, 3 km in width and 60 m in height that descends rapidly from the Hielo Continental Patagonico (Patagonian Continental Ice) to the shore of the lake, in the Canal de los Tempanos (Icebergs Channel). The rate of advance is 1-2 metres per day – equivalent to the rate that many glaciers advance in a whole year. The snout floats upon the lake and there is regular and spectacular calving off of huge chunks of the highly contorted and fractured honeycomb ice into the lake. Periodically the mass balance of this glacier changes and it advances all the way across to the opposite bank of the lake (from where Figure 1 is taken). This causes a damming of the lake to the east, which rises several metres, as is evident by the dead trees we saw from the last such event in 1989. As the water has no-where to escape to, it eventually breaches the ice dam with catastrophic results. It is unclear whether such an event is likely to occur in the future given the likely influence of humans on the global climate system.

Results and summary from the glacial site

The North of Los Glaciares National Park is dominated by an imposing group of granite mountains featuring the Fitzroy and the Torre Range. Our first base camp was organised on the Southeast side of the Parque Nacional Los Glaciares, just south of the Marconi glacier near to Lago eléctrico and north of the only habitation El Chalten. This was to be the main study area of the glacier project. Here we planned to study landscape features to construct a picture of recent changes in the glacier movement. We also planned to spend time on the glacier itself to build up an understanding of its size and likely dynamics however, there had recently been a landslide of lateral snout glacier material left by the receding glacier. Crossing onto the glacier itself over this unstable region was deemed as too large a risk (Two of us did eventually manage to cross and ascend the Marconi Glacier only to be forced back by extreme winds and snow conditions). From a private communication with the park wardens it is believed that, 10 years ago the snout of the glacier was roughly where the photograph in Figure 2 was taken and no lake was present. The park ranger said that this was why the lake was not present on the topographic maps of the region. This would be a clear indication of glacial recession.

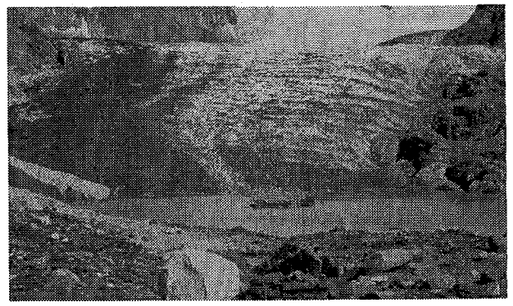


Figure 2. The Hielo Patagonia Sur South facing side of the Marconi glacier.

Our second base camp was set-up on the 24th December at camp Bridwell on the Southwest side of the Torre range, within a kilometre of the Torre glacier to study for evidence of recent changes in the glaciers mass balance.

The Torre glacier was observed to be more than 150 metres in width with a depth of about 5 metres at its snout. The glacier was constantly breaking apart (calving) into the Lago (lake) Torre. These calving periods were observed twice within a 4-hour period and must have consisted of more than 100 kg of ice being deposited into the lake with a 5-second period.

A short walk on the glacier found many areas of sharp and steep sided blocks of ice made by calving between crevasses and are known as seracs (too numerous to count but more than 100 over a 500 square metre area). The seracs were less than 5 metres in length and 1 metre in width (usually occur with increased flow velocity of the glacier, pulling it apart). An indication along with the continual calving of the glacier into the lake the movement of this glacier is fairly rapid during the summer periods. It was observed that there was no snow coverage on the glacier at this time. Although we could make such observations directly during our visit, further studies and investigations are necessary to establish a continual timeline of the glaciers movements. Reports from the rangers lead us to believe that the glacier has indeed retreated over the past 10 years.

In the valley, the most important features of this study are the height and the position of the various moraines and a horizontal trim-line marking a change in vegetation. This lateral moraine was found to consist mainly of ill-sorted, mixed fine and coarse rock (till) and glaciofluvial debris. It was observed that the lateral moraine on the east-side of the glaciated lake is up to 70 metres in height and extends at least 400 meters down valley from the present-day glacier front.

The moraine is up to 20 metres above Lago Torre. Most of the moraine consists of stones that are less than 10 cm in width and are angular in topography due to the mechanical grinding and rubbing of the glacier's movement. There are a few larger stones that have been transported either on top of or within the glacier as it moved. Since the moraine feature is fairly large it would signify some stability of the ice sheet to allow the transport of such a mass of material.

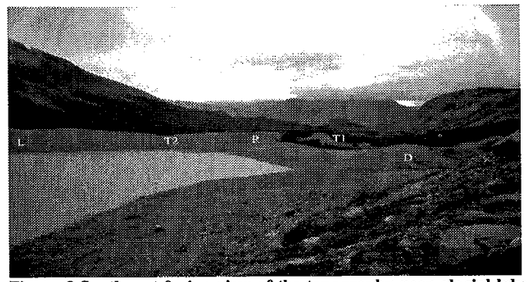


Figure 3 South-east facing view of the topography near glacial lake Lateral moraine (L), terminal moraines (T1 and T2), recessional moraine (R) and drumlin (D).

A couple of kilometres further down the valley floor there are ridges of glacial debris, which were deposited by a major episode of glacial advance. This is known as a terminal moraine (T1) and can be observed in Figure 3. This terminal moraine was not accurately measured but was thought from estimates to be of a height of 45 metres and at a width of 20 metres at a distance of 1 kilometre from the present-day glacial snout. This terminal moraine is larger than the most recent terminal moraine (T2 which hems in Lago Torre) suggesting that the glacier was stable for a longer period in this locale.

These terminal moraines most likely reflect changing climate stages: Dryas Younger (11K yr BP) and little ice age (500 yr BP) respectively, although we did not have the necessary instrumentation to accurately date these moraine features. There was circumstantial evidence from the coach journey into El Chalten that at the last glacial maximum the caps extended at least approx. 150 km east onto the Argentinian side of the Andes. From the photo in Figure 3 we can observe a few recessional moraines (R), of varying height between 7 and 15 metres, outside of the higher older moraines where deposits have been made as the receding glacier paused or had a slight re-advance. These moraines do not have the width or the height of the terminal moraines but consist of the same glaciofluvial material. Apart from the moraines there was evidence of low, streamlined ridges of glacial drift otherwise known as drumlins (D). These were smaller in size and height than the terminal and lateral moraines (less than 5

metres in height) but sometimes greater than the recessional moraines. These were also mainly made up of till and fragmented boulders. The most recent moraine features effectively dam the lake, increasing its area and water capacity. Due to time restraints and the weather conditions a study of the lakes depth and the outflow from it were not possible but it was assumed that the depth was greater than 50 metres at its maximum. The lake was about 150 metres by 500 metres in area. A meltwater stream has cut a gap in the lateral moraine, which has deepened and widened to form the outflow. This stream flows from about half way down (300 metres from the glacial head) on the western side. It is approximately 6 metres wide and around this area many large boulders were observed (greater than 2 metres in length), the smaller rocks having been transported and eroded by the flow.

The older terminal moraines were covered with trees and grass showing that the glacier had retreated from this area quite some time ago. Even on the recent lateral moraines, especially on the west-side of the lake, there were visible signs of vegetation (10-15% coverage) by hardy resilient plants. About one kilometre due north from the terminal moraines is a small vegetation boundary to the south of the lake. In this area up to the glacial snout on the western side of the lake we looked at rock topography and tree types as well as trying to assess the vegetation that was growing. The first observation was that most of the stones were small covering the lateral moraine in this area (about 70 % were less than 200 mm in length) although we found large boulders that were greater than 5 metres in length (20 in approx. 2 sq. km). They were mostly smooth with parts of the rock actively growing with lichen (placopsis perrugosa). There were many signs of lichen near to the river on many rocks but a lot of it was old growth.

On the lower slopes of the lateral moraine on the eastern facing side there was more undergrowth than on the west facing side. The most likely reason is that east facing exposures gain the morning sun whereas west-facing slopes are shaded from the afternoon sun by the Andes range. This vegetation was mainly composed of shrubs and tussock grasses. A lot of the stones and alluvial deposits were covered with small vegetation that had set root in the fine silt deposits. On many rocks there was moss (Azorella gummifera) and lichen It was observed that most of the lichen around this area varied in size between 10 mm and 250 mm, the size of the lichen increasing with age. Some of the lichen measured is shown in Figure 4 below.

Ten lichen measurements were made, with sampling carried out across selected boulders on terraces and recently exposed valley sides, usually within 50 metres of the glacier snout. In the photograph the lichen shown were less than 100 mm in diameter. The boulders chosen were those carrying the largest number of healthy, approximately circular lichen. Notes were made on the location and boulder size, surface aspect for each population for the purpose of comparison with each population. Measurements were taken of the longest cross section of the species using a flexible scale accurate to the nearest millimetre. The results are shown in table 1 below. Given the small sample size it is difficult to make any meaningful conclusions although there was no significant correlation between the lichen size and the distance from the glacier snout. The lichen that were measured were found to have grown between 20 mm to 80 mm although they did not seem to grow to the larger size found at other glacial sites. It is worth noting that lichen growth depends on the climate conditions but it is usually very slow, less than 4 mm per year. This would indicate that glacial retreat over this area was within the last 50 years.

Lichen and plant life can be used as a rough indication of the rate of climate change and retreat of the glaciated area. Capachito (calceolaria biflora) and Cardamine glacialis were found to be fairly common in the researched area but quite specific to certain patches. They were observed in areas where vegetation had taken a good hold on the system and no individual species were found in sparsely vegetated areas This area was not a prominent feature of the work that was undertaken on climate change of the Patagonian region but it is worth noting that many moss and lichen were clearly visible around the area and the region as a whole was being regenerated. It was also observed that there was moss and vegetation starting to grow on the lower parts of the moraines.

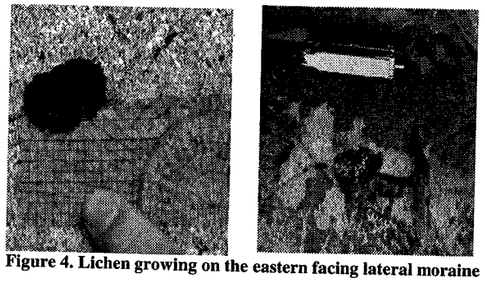


Figure 4. Lichen growing on the eastern facing lateral moraine

Location from snout	Boulder size	Lichen Diameter
20m	30cm	28mm
25m	65cm	52mm
10m	65cm	24mm
25m	80cm	39mm
30m	45cm	48mm
50m	20cm	25mm
30m	30cm	74mm
10m	55cm	30mm
20m	75cm	12mm
40m	85cm	25mm

Table 1. Lichen growth around Glacier Torre with location from glacier and diameter size.

It could be envisaged that within 40 years most of the area would be covered in some type of vegetation. In reality the dating of glaciers using lichenometry is not that simple and many problems are associated with it such as deformation of the diameters as well as colonisation by other algae. Using tree coring, as a cross correlation with lichenometry is able to provide a much more supportive dating framework.

At this juncture in the narrative the weather turned extremely hostile and we had to retreat to our base-camp where, we were able to turn our attention to the dendrocronology aspect of the scientific programme. As this is another story it will feature as another article in Milieu Magazine at some future date.

GEOMORPHOLOGICAL CHARACTER OF THE NORTH ANTRIM COASTLINE

Ms. Yvonne Mary Smith, 2nd Year

The Antrim Coastline is a spectacular scenic location situated along the northern tip of Ireland. During a recent weekend field trip to Antrim, our geography group travelled from the Holocene coastline of Portrush across to Ballycastle (visiting the magnificent Giant's Causeway in between). From there we went on to Cushendun and Cushendall. Each stop offered a wide variety of geomorphological characteristics, all of which have been shaped over time, over millions of years by the extensive activity of our earth's crust. These activities have been carried out by various agents such as the sea, glacial ice and the forces of tectonic movements. Also, as we moved from place to place we experienced a surprising variation in geological rock characteristics.

We started our trip off in Whitepark Bay situated between Portrush and Ballintoy. Here you can see Lias rocks which were formed around 200 million years ago, at the end of the Triassic time period, when Ireland sank beneath the ocean. These Lias rocks formed beneath the bay and are like green mudstones, being very soft and easily broken. During the Cretaceous period, there was a massive rise in sea level from Ireland to Russia. It was here that the chalk found along Whitepark Bay's coast. During the Tertiary period lava formed over this chalk, resulting in a sequence of Lias rock, chalk on top of this and then basalt on top of this rock. Because we have evidence that basalt formed after the chalk, we therefore had to ask ourselves the question: then why were we in fact standing on the chalk in Whitepark Bay? The answer lies in the fact that we were actually standing on a huge fault in the bay. In the past the sea level used to go right to the top of the cliff, but during glacial periods, sea levels varied dramatically. Due to the movement of this fault the land on the seaward side was moved down and the land on the landward side moved upwards. The basalt on the landward side was eroded away, leaving the chalk exposed on top as we see it today.

Our next stop was Ballintoy. Here we saw evidence of volcanic activity, where an explosion occurred at the time the ocean was opening. The lava flow showed a similar viscosity to that of volcanoes found in Hawaii. There are two main types of basalts, lower basalts and upper basalts. In Ballintoy we stood upon the lower basalts which would have come out first. The upper basalts have been weathered and eroded away. Between these upper and lower basalt layers there is a 2-3 metre thick layer of red beds known as interbasaltic layers. Weathering and erosion occurred between these.

As these basalts started to cool and solidify, gases, which tend to be at the top of the flow of lava try to escape but become trapped, forming what are known as "vesiciles". Zeolites are the crystals, which were left after the fluid flow. These basalts are extremely hard and resistant, but the results of a big storm can do more damage than 20 years of erosion. Boulders have fallen down from the cliff face on a regular occurrence. Some have attempted to map the movement of these boulders. Features are visible along the coastline, which were formed due to the erosive power of these boulders. We also saw laterite horizons here, these are short and flat in nature and tend to weather and erode away at different levels as the sea attempts to constantly maintain a balanced coastline.

From Ballintoy we moved onto Mill Strand, a town that is actually built on a dolorite sill. A sill has a similar composition to basalt but with coarser grains. On Mill Strand we saw the detrimental effect that human development can have. In 1825 a harbour wall was built in this area, altering the natural wave regime. This resulted in the severe erosion of the sandy beaches. Sand dunes also suffered due to locals disturbing their structure. Other measures to avert erosion have also had adverse effects on the coastline environment. A prominent example is that of Castle Erin House, a settlement built on a cliff top. In order to stop this cliff eroding to within dangerous proximity to the building, huge boulders were placed at the base of the cliff. Wave energy was consequently spent on either side of this obstacle and whereas the bay was originally concave in shape, human interference with the natural environment has resulted in the generation of two smaller bays. In more recent times the construction of sea walls has further destroyed the sand dunes and beaches. When the waves hit the sea wall, they bounce back with equal energy without losing their erosive power. Whereas Mill Strand once boasted one of Ireland's most magnificent beaches, 40-50 years ago, and was home to many spectacular sand dunes, human activity has meant that the existence of the beach in the future is in doubt.

Portrush is situated on an igneous sill. In Bluepool we walked over this. In the 1700's two schools of thought existed as to where the basalts and fossils came from: the Neptunist theory and the Volcanist theory. Ring fossils were found in the rock in Bluepool, these are known as aminites. Aminites were found in the sea, so the former theory held that basalt must also come from the sea. These aminite-imprinted rocks are part of the lias rocks which started off as mud in the Jurassic period. After the explosion of the volcanoes, the lava baked over these muds, which gradually, over time, became solid, hard, metamorphic rock known as hornfels.

Also in this area we came across a series of volcanic vents which were up to ten metres in diameter. The Cretaceous chalk found here is baked solid and is very resistant to erosion. Lava flowed out on top of this chalk, solidified and formed basalt. As the lava spewed up through the chalk, some material fell back down and shattered into pieces, which can still be seen. These are known as elephant feet. Flint can also be found here. Basalts here underwent extreme heating and are very heavy, because of this there is a big demand for them in the construction industry were they are used to build roads.

Port Ballintray ('tray' meaning strand), like Mill Strand, was once home to one of the most well known beaches from Victorian times. However, disaster struck when a man called Leslie built a pier in 1895, which completely disrupted the wave regime. A wave pattern involving long shore drift evolved. Waves collected the sand from the beach and brought it over the scarp and today, as a result, very little sand remains. The community is pumping huge amounts of money into the area in an attempt to try and

cease or slow down erosion of the cliffs and of the glacial sediment, on which many houses are located. Structures such as groynes have been built in an effort to control the wave action.

We visited the world famous Giant's Causeway on Saturday afternoon. The sequence found here in the Causeway were lower basalts, red interbasaltic beds with a purple lithomarge, causeway basalt, more interbasaltic and then upper basalt. We saw features such as colinades, where water from a river valley trickled through the lava, causing it to cool quickly. Elsewhere, the lava cooled very slowly but very regularly, and as it did it contracted with some of the lava pulling upwards and some of it downwards, forming smooth hexagonal columns with a ball and socket like appearance. You could see evidence of sphereoidal weathering and remnants of onion weathering. We also came across an amazing igneous dyke, jutting up through the sea and cutting right into the cliff.

On Sunday we travelled on to Ballycastle where we experienced a change in geological rock. We studied the Tow River, which is a canalised river, with a sheer concrete face on both sides and a concrete base. In 1990 a flood with a twenty-year return period occurred here. The bigger the interval the greater the flood. This flood caused the Tow to reach a height three or four time the height of the river Liffey in Dublin- a disastrous flood that lasted a week and took the life of one man. This disaster was, once again the result of human development. The valley situated on one of the banks of the river was originally forested, but humans removed trees there. The weight of the machinery on the land caused the compaction of the soil, thus reducing the soils infiltration capacity. Water began to run downhill and into the river.

The tow valley represents a fundamental boundary of geology. Small 'micro-continents' were moving at the same time as the American plates and this terrain or boundary got caught in between, about 400-500 million years ago.

The town of Bally Castle was organised and planned in the eighteenth century by a man called Boyd Arms. It was a very well planned town in terms of industrial relationships, with lots of the industries complementing each other. It exploited resources such as lime from the chalk cliffs, soda from the burning of certain types of seaweed, sand from the beaches and coal mined from nearby rocks. However, over exploitation of the towns natural raw materials took place and coal supplies for example were quickly exhausted.

Our last visits were to Cuchendun and then on to Cushendall. In the former, rolled quartz pebbles can be seen, which came from Elsecraig, granite that was found in Cork which came from Scotland. Glaciers transported them down the Irish sea and deposited them here. Metamorphic rocks such as mica can also be found here, which formed during the Caledonian Orogeny. These rocks underwent extreme pressure and high temperatures. As has been stated the geology varied greatly from place to place, and the mica found on the surface here can also be found in Whitepark Bay but four kilometers below the surface. The area is home to a highland boundary ridge. The Iapetus Ocean closed here 400 million years ago and Ireland was uplifted well above the ocean surface. A raised beach platform is also evident here which was formed during the glacial period over 100 million years ago.

Without doubt, the Antrim coast is home to a splendid array of geological features, many unique from any other part of the Irish Coastline. It has suffered many problems over the years and in places some of the Irish Coastal features have been greatly altered. However, it may still remain one of the more scenic locations in Ireland, and, if it is carefully monitored and managed, will hopefully still boast many of the spectacular sights we enjoyed on this trip for many generations to come.

A Good Place to Talk: Mapping Mental Health Advocacy Services in London using a GIS.

Dr. Ronan Foley (Lecturer) & Hazel Platzer

Introduction

The NHS Executive London Regional Office established the Advocacy Advisory Group in October 2000 with the aim of integrating advocacy within the scope and remit of the London Mental Health *Strategy for Action* (NHSE 2001). As a part of this process, a research project was commissioned to look at mapping Mental Health Advocacy Services in London (Johnson 1998, Fitzpatrick & Jacobson 2001).

The particular focus of the exercise was to look at capacity, stability and funding and particularly to identify gaps in relation to service provision, unmet need and accessibility (Lewis 2001, Pyke et. al. 2001). Examples included provision to ethnic and other minority and disadvantaged groups (Silvera & Kapasi 2000, Sproston et. al. 2001). GIS was used as a key element of both the service mapping and gap identification parts of the project but was also integrated with qualitative research to provide a fuller picture of the current position (Gatrell & Senior 1999, Richards et. al. 1999, Stevenson 2001). GIS is also an underused resource in a developing geography of mental health with little or no application within the UK (Bhana & Pillay 1998).

Aims & Objectives

The initial aim of the project was to use the GIS to aid decision-making and policy development on a specific aspect of mental health service provision, advocacy. This was broken down into a number of objectives namely; 1) Identifying the capacity of Mental Health Advocacy services across London; 2) Establishing the financial stability of Mental Health Advocacy Services across London and 3)

Identifying gaps in Mental Health Advocacy services across London in terms of service provision and unmet need. There are a variety of models of advocacy provision ranging from individual and group advocacy to non-instructed advocacy. It was hoped that the mapping of existing services would identify the extent to which different models of advocacy were used across the city and the extent to which each model of advocacy was available to meet potential need.

Methodology & Data Issues

The methodology for the project involved collecting detailed information on existing advocacy provision initially based on a 1998 database of agencies providing mental health advocacy as collated by the Greater London Mental Health Advocacy Network. The database was saved in electronic format and sent back by the authors in 2002, to each of the 57 original agencies for updating with additional information on location, funding and specific types of advocacy provision. Additionally, the agencies providing advocacy in 1998 were checked in consultation with nine additional bodies to check their 2002 status as well as through direct phone calls. Around 51% responded directly and the data updating process also identified that around a quarter of groups providing advocacy four years previously were either no longer functioning or were operating in a different way. This highlighted the fact that one of the key factors in the original aim, the stability and capacity of service provision remained a problem due to on-going difficulties with short-term funding and fluidity in service provision.

From the point of view of modelling need, a large amount of data was collected at ward, district and health authority level on actual mental health acute admission rates as well as extensive data variables which related to 'at-risk' populations. These ranged from measures of deprivation to levels of homelessness, ethnicity, levels of alcohol consumption as well as key age and gender demographic data. Existing literature on advocacy and mental health identified a series of key groups included the elderly, the young, black and minority ethnic groups, Refugees and asylum seekers, lesbians and gay men, the homeless, carers and offenders (Thornicroft 1991, Harrison 1995, Harvey 1996).

The revised database of service information was then geo-referenced from an Access database and fed into the GIS and matched against background data maps on mental health risk factors and need mapped against a number of geographical levels from ward up to health authority level. Obvious geographical issues here include the difficulty of access and in some cases, the complete lack of any primary mental health data at a detailed geographical scale below district level The is issue of access to detailed data in a wider joint public health/social care context is an on-going issue for GIS work in this area (Dunn et. al. 2001, Foley 2002). Additional GIS based data was collected from the NHS, Office of National Statistics and the London Public Health Observatory. Advocacy workers, service users, user groups and commissioners were also consulted through direct communication and focus groups to identify gaps in services, funding arrangements and approaches to providing advocacy (GLMHAN 2001). This was particularly significant in terms of discussing existing provision in terms of different models of advocacy and how successful or otherwise these were perceived to be. Quality and appropriateness of service provision came up as a significant issue based on these focus groups and remains an issue, which has perhaps not always been grasped within mental health.

The key demographic data on mental health need were identified and entered into the GIS. The process of data identification, collation and management identified a number of key issues, which were particularly relevant to GIS use in mental health service mapping. These include data access, confidentiality and data protection, currency, comparability and gaps in linking up primary and acute mental health care data (O'Dwyer & Burton 1998). All of these issues need to be considered in any work on service delivery. A particularly important issues which arose related to data and information on community mental health data and the relationship between this data and acute data.

Analysis & Results

The mapping exercise and consultation showed that there is a reasonably broad provision of mental health advocacy across the capital with each borough being served by at least one local service as well as by London wide specialist schemes. However at local level, no borough has the full range of specialist provision, which matches local demography. Furthermore, no one organisation has a full range of specialist provision or delivered their services in a full range of settings based within both acute and community care. There are gaps in provision for many groups who are minorities and/or have specialist needs (Buston 2002). Many of these groups benefit most from a style of advocacy, which incorporates both personal advocacy with support and working with communities. It is perhaps also the most likely approach to enable closer working with communities and in the community and the most likely method to increase capacity for user involvement and empowerment. GIS outcomes also included detailed mapping and overlay of service catchments as well as identification of levels of service, ward level mapping of mental health need and point mapping of costs associated with each service (Fig. 1 below). From a geographical point of view, this visualisation of relative funding caused a lot of debate within the project steering committee as it was interpreted in two completely contrasting ways for planning purposes. One group felt that the map might give the message that there was adequate funding (based on the highest values), where another group felt that it showed the highest funding as being optimal and the extent to which other services were receiving sub-optimal funding.

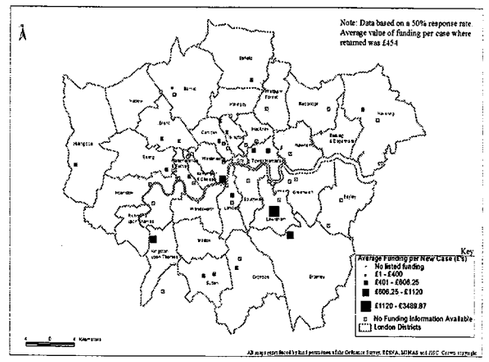


Figure 1. Average Funding per Advocacy Case, London 2002

In terms of the original aims and objectives of the project that related to service capacity, stability and funding there

were a number of key outcomes. There is a wide range in the level of funding which partly reflects provision of specialist services as well as models of advocacy provision. For those organisations who provided funding information, the average amount of funding for each new case was approximately £450 while the average number of new cases taken on by each advocate each year was 206. The average number of cases that each advocate currently worked with was 43. For the funding source it was identified that most mental health advocacy in the capital is funded by the statutory sector (76%) with a further 21% from charities and 3% from central government funding. More significantly the average amount of time for which such funding is secured is 2 and a quarter years, which has a significant impact on service delivery. A number of organisations additionally commented that a significant amount of staff time and resources, which should have been focused directly on service provision, was spent instead on trying to guarantee additional and on-going funding.

Conclusion

The mapping showed that where there is higher need in inner London this is matched by a clustering of mental health advocacy provision. However, some outer London boroughs with high needs have relatively less advocacy provision (this pattern is the same for specialist provision for minority-ethnic populations). This outcome linked to relative financing provoked considerable internal discussion among the steering group and pointed to some interesting issues associated with presentation of findings from a GIS in a service delivery and planning framework, especially one where GIS has not been previously used.

Ultimately the report will assist the Advisory Group to provide Health and Social Care commissioning agencies with clear guidelines in relation to the development of local mental health advocacy services and on gaps in current advocacy provision and previously unconsidered geographical dimensions of that provision. Additional discussions with service users and providers identified a number of important issues relating to existing service provision that feeds into decision-making and mental health policy. Existing advocacy services were operating in a climate of instability and uncertainty, which seriously affected future service planning. The political nature of advocacy as a broad subject area also identified on-going tensions between need and provision.

References

Bhana A. and Pillay Y.G. (1998). Use of the Geographical Information System (GIS) to determine potential access and allocation of public mental health resources in KwaZulu-Natal. *South African Journal of Psychology* 28:4, pp222-233.

Buston K. (2002). Adolescents with mental health problems: what do they say about health services? *Journal of Adolescence*, 25:2, pp231-242.

Dunn CE, Kingham SP, Rowlingson B, Bhopal RS, Cockings S, Foy CJW, Acquilla SD, Halpin J, Diggle P, Walker D (2001). Analysing spatially referenced public health data: a comparison of three methodological approaches. *Health & Place,* 7:1, pp1-12.

Fitzpatrick J. & Jacobson B. (2001). *Mapping Health Inequalities across London*. London: London Public Health Observatory.

Foley R (2002). Assessing the applicability of GIS in a health and social care setting: planning services for informal carers in East Sussex, England. *Social Science & Medicine*, 55:1, pp79-96.

Gatrell A. and Senior M. (1999). Health and health care applications. In. Longley P. et al. (eds.) *Geographical Information Systems: Principles, Techniques, Applications and Management* London, Wiley: pp925-938.

Greater London Mental Health Advocacy Network (2001). *The Greater London Mental Health Advocacy Network: Who We Are and Where We're Going - Plans for 2001 - 2005*. London, GLMHAN.

Harrison, J., S. Barrow, and F. Creed (1995). Social deprivation and psychiatric admission rates among different diagnostic groups. *British Journal of Psychiatry*, 167, pp 456-462.

Harvey, C. (1996). The Camden Schizophrenia Surveys I. The psychiatric, behavioural and social characteristics of the severely mentally ill in Inner London. *British Journal of Psychiatry*, 168, pp 410-417.

Higgs G, Gould M (2001). Is there a role for GIS in the 'new NHS'? *Health & Place*, 7:3, pp247-259.

Johnson S., Ramsay R., Thornicroft G., Brooks L., Lelliott P., Peck, E., Smith H., Chisholm D., Audini B., Knapp M. and Goldberg D. (1998). *London's Mental Health: The Report to the London King's Fund Commission*. London: King's Fund Publishing.

Lewis L. (2001). The role of mental health patient organisations in disease management – Focus on the US National Depressive and Manic-Depressive Association. *Disease Management and Health Outcomes*, 9:11, pp607-617.

NHS Executive and Social Services Inspectorate (2001). *Mental Health in London: A Strategy for Action*. London: NHS Executive London

O'Dwyer L. and Burton D. (1998). Potential meets reality: GIS and public health research in Australia. *Australian and New Zealand Journal of Public Health,* 22:7, pp819-823.

Phillips R.L., Kinman E.L., Schnitzer P.G., Lindbloom E.J. and Ewigman B. (2000). Using geographic information systems to understand health care access. *Archives Of Family Medicine*, 9:10, pp971-978.

Pyke J., Morris L., Rabin K. & Sabriye A.A. (2001). Improving accessibility: The experience of a Canadian mental health agency. *Psychiatric Rehabilitation Journal*, 25:2, pp180-185.

Richards T. B., Croner C.M., Rushton G., Brown C.K. and Fowler L.(1999). Geographic Information Systems and Public Health: Mapping the Future. *Public Health Reports* 114:4, pp359-373.

Silvera, M. and R. Kapasi (2000). *Health Advocacy for Minority Ethnic Londoners: Putting services on the map*. London: King's Fund Publishing.

Sproston K.A., Pitson L.B. & Walker E. (2001). The use of primary care services by the Chinese population living in London: examining inequalities. *Ethnicity & Health*, 6:3-4, pp189-196.

Stevenson, J. (2001). *Mapping Local Rehabilitation and Intermediate Care Services; A whole systems approach to understanding service capacity and planning change*. London: King's Fund Publishing.

Thornicroft, G. (1991). Social Deprivation and rates of treated mental disorder, developing statistical models to predict psychiatric service utilisation. *British Journal of Psychiatry*, 1991. 158, pp 475-484.

CLIMATE CHANGE AND WATER RESOURCES

Mr. Conor Murphy, Postgraduate Research

Water Resources

Water is used for many beneficial purposes in Ireland. These uses range from off stream requirements such as water for abstraction to serve industries, domestic demand and agricultural requirements, as well as for on-stream or in-situ demands such as navigation, recreation and fishing. Further to these pressures water resources in Ireland are employed for the disposal and dilution of wastes arising from domestic, agricultural and industrial uses. In recent times it is not just these inter-related and oft times complicated factors that pose obstacles for water resource management, external factors such as land-use change, flood plain development, increasing population and the predicted impacts of climate change all serve to further complicate the task of water resource management in Ireland. This paper is concerned with the process of assessing the effect of a predicted change in Irish climate

on indigenous water resources, but first it is beneficial to take a brief look at water resources in Ireland.

The most central concept in hydrology and water resource management is that of the hydrological cycle. Mills (2000) defines this as the passage of water in gaseous, liquid and solid forms between the oceans, atmosphere, lithosphere and biosphere. Mathematically it is possible to describe the processes operating within the land phase of the hydrological cycle in the form of the water balance, where:

$$P \pm E \pm \Delta S \pm Q = 0$$

Where: Q = runoff, P = precipitation, E = evapotranspiration and ΔS = change in storage. In comparison with much of Europe, Ireland is relatively well endowed with respect to water resources. This is due to a temperate maritime climate moderated by the warming influence of the Gulf Stream. In relation to precipitation most rain bearing winds come from the south west and there exists an east west divide in annual receipts with parts of the west and south west receiving over 3000mm annually while parts of Dublin and the east coast receive less than 750mm. Some of this contrast can be attributable to a seasonal imbalance in precipitation trends, with the west of the Island experiencing a more seasonal regime in precipitation receipts than the east (Sweeney, 1985). There is also a close relationship between altitude and precipitation amounts with areas such as the Wicklow Mountains receiving well above the average for the east coast (Sweeney, 1985). Mean evapo-transpiration losses for the country are estimated to be in the order of 450mm per annum (McCumiskey,1991). The storage term of the water balance includes water stored as groundwater, in lakes and reservoirs and soil moisture. The amount of water in any one storage reservoir is dependant on a surplus or deficit regarding precipitation input to, and evaporative losses from the water balance. Consequently, for Ireland water shortages or deficits are very small. For most of the country there is an annual deficit (accumulated during the summer months) of less than 15mm (Mills, 2000).

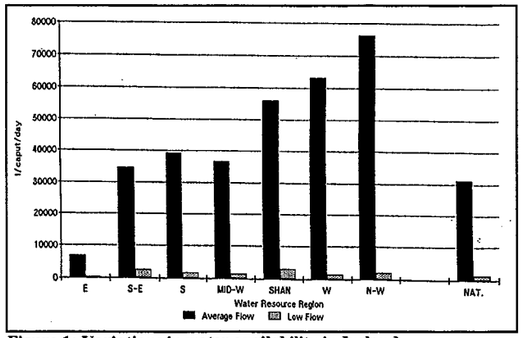


Figure 1: Variations in water availability in Ireland

When assessing water resources the Island of Ireland may be broken down into seven water resource regions. These regions comprise entire river catchments or groups of catchments and are of such a size that all the water requirements of each region can be supplied from within each region. Although water resources as a whole are abundant and each water resource region is deemed self sufficient in meeting water demands, McCumiskey (1991) recognises the fact that there are wide variations in the availability of water throughout the country. It is shown in figure 1 that "the region with the lowest availability of water per head of population is the Eastern Region. The availability of surface water per head of population in the Eastern Region is less than 10% of its availability per head of population in the North Western Region" (McCumiskey, 1991, 468).

Consequently it can be seen that the distribution and availability of water resources in Ireland does not coincide with the distribution of the population, with the east coast being the most densely populated region of the island. Obviously then, a marked change in climate could have huge and diverse implications for individual water resource regions with conflicting water demands providing obstacles for efficient resource management.

Observed changes in Irish Climate

The Third Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) concluded that there has been marked warming on a global scale over the last fifty years. This warming can be largely attributed to the build up of greenhouse gases in the atmosphere as a direct result of anthropogenic activity. In Ireland, Sweeney et al (2002) have used primary and secondary climatic indicators to assess the degree of change over the last number of decades. Primary indicators in the form of temperature records indicate that global trends have largely been replicated in Ireland, with the 1990's being the warmest decade in the Irish instrumental record. In midland locations such as Birr and Kilkenny, the number of cold days has halved over the past five decades while the number of hot days has roughly doubled (Sweeney et al, 2002). In the context of precipitation, changes in annual totals reflect changes in seasonal receipt with wetter winters in the west and north contrasting strongly with drier summers in the east and south of the country (Sweeney et al, 2002).

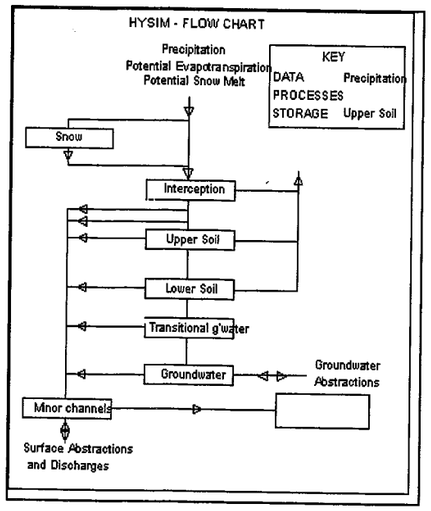
Given the changes in temperature and precipitation, river discharge has also been affected. Kiely (1999) used change point analysis on annual mean daily flows for four river gauges in major Irish catchments as well as on a number of precipitation stations. This research found that there is a change point year around the mid 1970's, after which both precipitation and stream flow increase. Furthermore, this change has been accompanied by an increase in the frequency of extreme events as well as in the rain depth for most storm durations and return periods (Kiely, 1999, 148). Kiely relates these changes in Irish climate to a teleconnection known as the North Atlantic Oscillation (NAO), a large-scale alteration of atmospheric mass with a quasi-cyclical pattern of approximately 10 years, with centres of action around the Icelandic low and the Azores high. This mode of natural variability affects westerly airflows and is most prevalent during winter months. This anomaly can explain a substantial portion of the variance in temperature and precipitation on the west coast and is thus capable of masking the forcing effect of anthropogenic influences on Irish climate (McElwain & Sweeney, 2004). Consequently the task of modelling

future climatic change and its effect on water resources becomes even more critical.

Given that it is widely accepted that climate change due to anthropogenic influences is occurring, it is desirable to evaluate what effect such a change would have on the quantity of water available to meet future demands. One of the first to approach this question was the McWilliams Report (1991), in which the hydrological effects of four scenarios were considered using the case study of the river Brosna at Ferbane. The main findings of the report are that lower average summer flow rates may result in less recharge for reservoirs during the summer period as well as higher winter river flows which could prove problematic for flooding and channel erosion (Cunnane & Regan, 1991).

More recently Charlton and Moore (2000) have also considered the impacts of climate change on water resources in Ireland. This research divided the land surface of the island into 10 x 10 Km grid squares with each square being adopted as the basic hydrological unit. Downscaled climatic data of a monthly time step, for two future scenarios (2041-2070 & 2061-2090) were derived for each grid square and were in turn used to drive a hydrological model in order to assess future water resources (Charlton & Moore, 2000). This research found that under both scenarios considered, there will be a widespread reduction in annual runoff, with this reduction being most marked in the east and southeast of the country. Furthermore, winter runoff is expected to increase in the west of the country (Charlton & Moore, 2000).

Figure 2 Structure of HYSIM



From the research considered above it can be concluded that comprehensive work has been conducted on the effects of climate change on water resources in Ireland, especially by Charlton & Moore (2000), where the entire country has been considered. However, from the point of view of water resource management more information is required in relation to the frequency and magnitude of extreme events. In order to satisfactorily answer these questions a smaller scale approach to each water resource region is necessary. Thus a catchment based approach using daily data, rather than a grid-based approach using monthly data is required. The remainder of this paper will detail the preparation of a rainfall runoff model for use in assessing the effects of climate change on water resources.

Model Preparation for future simulation

In order to prepare a rainfall runoff model for the simulation of future stream flow it is necessary to train the model on baseline or available data. When carrying out this process it is necessary to follow a strict methodology in order to avoid introducing user errors into the modelling process.

This methodology involves the sequential completion of a sensitivity analysis of model parameters, parameterisation (initial estimation of catchment characteristics), calibration (fine tuning of model parameters) and finally the validation of model results by means of calculating the goodness of fit between the observed hydrograph and the modelled hydrograph.

The rainfall runoff model used is HYSIM (see fig.2). HYSIM is a hydrological simulation model, which uses rainfall and potential evaporation data to simulate river flow and parameters for hydrology and hydraulics that define the river basin and channels in a realistic way. Although spatially lumped and hydrologically conceptual in nature, the model contains many parameters that can be measured from physical reality.

Historically, HYSIM stems from the soil moisture accounting genre. It is a versatile model and has been used for a variety of hydrological applications including assessing the impacts of climate change on the hydrological cycle. The mathematical model is built around two Fortran sub-routines. The first of these simulates the hydrology of a catchment while the second simulates the hydraulics. In relation to catchment hydrology the model conceptually represents seven natural stores, these are: snow, interception, upper soil horizon, lower soil horizon, transitional groundwater, groundwater and minor channels. Within HYSIM the hydraulic component involves the routing of flow in an open channel. Once the model was decided upon, the process of training the model to a baseline hydrology began.

Sensitivity Analysis

Sensitivity analysis is a modelling tool that can provide the modeller with a better understanding of the relationship between the model and the physical processes being modelled. This is most readily achieved by examining the effect of altering the initial parameter values of the model. This process highlights parameters whose values need to be accurately assessed due to their significant impact on model output as well as those that do not influence output as greatly, thus optimising the time spent on the calibration process. The presentation of the results of the sensitivity analysis conducted is beyond the scope of this paper.

Parameterisation

HYSIM is a physically realistic, lumped conceptual model. As such, many of the parameters can be acquired through knowledge of catchment characteristics. For the purpose of this work it was important that a methodology be established that would result in efficient and accurate

parameterisation of the model, especially of those most sensitive parameters highlighted in the sensitivity analysis. Traditionally, such information has been derived manually from maps, aerial photographs and field surveys. Since all of these factors vary in both space and time, the use of geographical information systems offers considerable potential.

The first method to consider when parameterising the model is that of catchment delineation. Figure 3 depicts some of the catchments that have been delineated. In order to derive catchments a Digital Elevation Model (DEM) was used. Automated digital terrain analysis methods we used to derive catchment outlines and physical attributes such as the stream network, channel length and slope.

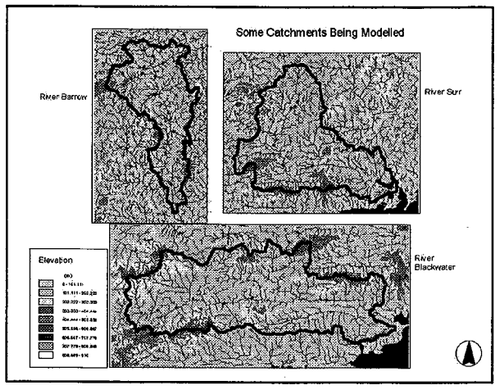


Figure 3 Catchment Delineation, Elevation and Stream Network

Model parameters were then divided into categories consisting of soil parameters, vegetation and land use parameters, groundwater parameters and hydraulic parameters. Data sets used to derive parameter values included the General Soils Map of Ireland (Gardiner & Radford, 1980) figure 4 shows those derived for the Suir Catchment, CORINE (Coordination of Information on the Environment) (O'Sullivan, 1994) as well as the Aquifer map of Ireland data set, compiled by the Geological Survey of Ireland (GSI). Once the catchment outline was derived it was used to cookie-cut the relevant data out of each individual data set. Having derived values for each parameter the parameterisation technique was validated in order to ensure that a certain degree of confidence could be placed in estimated values.

Calibration

Due to the physically realistic nature of HYSIM only a few parameters that are not directly measurable need to be calibrated. For the procedure of calibration a multi-parameter optimization technique known as the Rosenbrock method was employed. The Rosenbrock method is a direct search algorithm, these algorithms search along trial directions from a point (initial parameter value) until an improvement in the objective function is found (Beven, 2000, 227). Different algorithms vary in the search strategies used. The Rosenbrock method can be imagined as searching for a minimum contour in multi-dimensional space (Manley, 1993, 46). The incorporation of an objective function enables the determination of how a solution (calibrated parameter value) is, by assessing the goodness of fit between modelled and observed flow. The objective function used in this work is the Extremes Error of Estimate (EEE). This function gives much greater weight to extremes, be they high or low flows and is therefore a general-purpose objective function. Once the calibration process was complete, the final phase of the model preparation process was commenced.

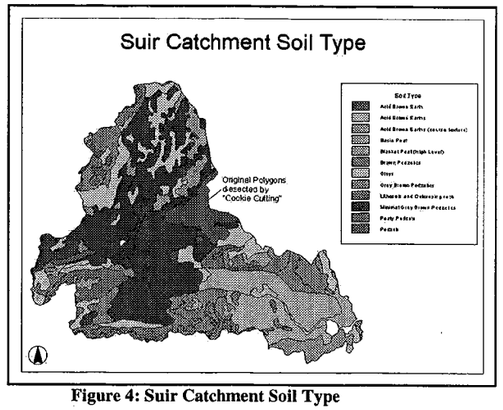


Figure 4: Suir Catchment Soil Type

Validation

This is the final process in the model preparation methodology. Validation consists of calculating the degree of accuracy associated with model output. There are numerous ways of validating a model but by far the most common method used is the comparison of model output with observed measurements. In doing this the goodness of fit between observed and simulated flows were assessed by the incorporation of error measurements. These measurements consist of relative error measures, correlation based error measures and actual error measures. In order to gain a comprehensive insight into model performance four error measures were employed. These are: the coefficient of determination (R^2), the coefficient of efficiency (CE), the mean actual error (MAE) and the percent bias (PB).

The coefficient of determination is the square of the Pearson's product-moment correlation coefficient and describes the proportion of the total variance in the observed data that can be explained by the model. . It ranges from 0.0-1.0, with higher values indicating better agreement. The coefficient of determination is limited in that it standardises for differences between the observed and predicted means and variances since it only evaluates linear relationships between the variables. Thus the coefficient of determination is insensitive to additive and proportional differences between the model simulations and observations (Legates & Gregory, 1999).

The coefficient of efficiency ranges from minus infinity to one, with higher values indicating a better agreement. Physically E is the ratio of the mean squared error to the variance of the observed data, subtracted from unity. A value of zero for the coefficient of efficiency indicates that the observed mean is as good a predictor as the model, while negative values indicate that the observed mean is a better predictor than the model. The mean

absolute error calculates the average amount by which the predicted outputs deviate from the target outputs and thus the absolute deviation across all the data records (Legates & Gregory, 1999).

Catchment	Test Period	OMean	MMean	CE	r2	d	MAE	RMSE	PBIAS
Barrow	*Calibration*	21.51	19.47	0.66	0.70	0.90	2.04	128.12	9.46
	Validation	*21.83*	*20.33*	*0.66*	*0.75*	*0.92*	*1.51*	*83.75*	*6.90*
Blackwater	*Calibration*	*65.21*	*65.32*	*0.92*	*0.92*	*0.95*	*-0.11*	*575.23*	*-0.17*
	Validation	*59.40*	*57.99*	*0.76*	*0.78*	*0.94*	*1.41*	*639.71*	*2.38*
Bonet	*Calibration*	*11.50*	*11.70*	*0.83*	*0.85*	*0.85*	*-1.51*	*83.79*	*-14.87*
	Validation	*11.02*	*10.74*	*0.73*	*0.74*	*0.92*	*0.27*	*35.31*	*2.49*
Boyne	*Calibration*	*39.02*	*39.01*	*0.71*	*0.72*	*0.92*	*0.00*	*369.55*	*0.01*
	Validation	*58.58*	*62.19*	*0.73*	*0.75*	*0.93*	*-3.61*	*349.27*	*-6.16*
Brosna	*Calibration*	*17.74*	*17.75*	*0.64*	*0.67*	*0.90*	*-0.01*	*83.37*	*-0.08*
	Validation	*16.34*	*16.12*	*0.75*	*0.76*	*0.93*	*0.22*	*45.07*	*1.37*
Inny	*Calibration*	*18.95*	*18.95*	*0.80*	*0.80*	*0.94*	*0.00*	*41.64*	*0.00*
	Validation	*18.29*	*16.71*	*0.80*	*0.82*	*0.94*	*1.58*	*34.44*	*8.64*
Moy	*Calibration*	*60.19*	*59.77*	*0.76*	*0.78*	*0.94*	*0.41*	*466.38*	*0.69*
	Validation	*54.70*	*53.10*	*0.77*	*0.79*	*0.94*	*1.60*	*375.43*	*2.92*
Ryewater	*Calibration*	*4.59*	*3.97*	*0.70*	*0.70*	*0.91*	*0.24*	*3.51*	*5.63*
	Validation	*4.32*	*4.24*	*0.77*	*0.77*	*0.92*	*0.08*	*4.80*	*1.96*
Suck	*Calibration*	*24.98*	*24.77*	*0.77*	*0.79*	*0.94*	*0.21*	*115.67*	*0.84*
	Validation	*41.82*	*37.12*	*0.72*	*0.80*	*0.93*	*4.70*	*100.25*	*11.24*
Suir	*Calibration*	*84.66*	*82.34*	*0.71*	*0.73*	*0.92*	*2.32*	*710.65*	*2.75*
	Validation	*42.72*	*38.51*	*0.71*	*0.74*	*0.91*	*4.22*	*199.66*	*9.87*

Table 1 Model Efficiency Results

The results of these error measurements can be seen in table 1 above. For the validation period it can be seen that good results have been achieved in training the model for a baseline data set. Coefficient of determination values are consistently over .7 and C.E. values are consistently over .6 (a value of .6 for this measure indicated a good model). Further, with the exception of the river Suck percent bias statistics are consistently under 10%.

Conclusion

Given the validation results in table 1, the methodology presented above can be employed to train a model using present day climate variables and catchment characteristics. Furthermore an efficient and easily reproducible parameterisation process reduces the amount of user errors that can be introduced. Pending further work on reducing the uncertainty attributed to such conceptual model output, HYSIM will be used in conjunction with downscaled future climatic data in order to simulate future water resources for a suite of catchments throughout Ireland.

References

Beven, K.J. (2000), Rainfall-Runoff Modelling, The Primer, Wiley & Sons Ltd., New York.

Charlton & Moore (2003) "The Impact of Climate Change on Water Resources in Ireland" in Sweeney et al "Climate Change, Scenarios and Impacts for Ireland", EPA Publication, 81-102.

Gardiner, M.J. and Radford, T. (1980) Ireland, General Soil Map. National Soil Survey, Dublin.

Kiely, G., Climate Change in Ireland from precipitation and streamflow observations, Advances in Water Resources, 23 (1999) 141-151.

Legates, D.R., Gregory, J., McCabe, J.R., "Evaluating the use of "goodness of fit" measures in hydrologic and hydroclimatic model validation", Water resources research, Vol. 35, No. 1, Pgs. 233-241, January 1999.

McCumiskey, B., (1991), Review of Environmental trends in Surface Freshwater Resources, In Feehan (1991), Environment and Development in Ireland, The Environmental Institute UCD.

McElwain, L, Sweeney, J., (2003), Climate Change in Ireland; recent trends in temperature and precipitation, 36(2), 97-111.

Mills, G. (2000), Modelling the water balance of Ireland, evapotranspiration and soil moisture, Irish Geography, 33(2), 99-116

Sweeney, J.C., (1985) The changing synoptic origins of Irish precipitation, Transactions of the Institute of British Geographers, N.S. 10, 467-480

Sweeney et al (2002), Climate Change Indicators for Ireland, Environmental Protection Agency Publication.

Celtic Tiger, Hidden Dragon: Space, Place and Gender in Irish Judo Dojos.

Mr Brian Conway, Postgraduate Research

Introduction

Globalisation is a series of processes, which are possibly leading to cultural, economic and political homogenisation (Short and Kim, 1999). This article utilises work, which illustrates that globalisation and scale are socially produced phenomena (Kelly 1999). Globalisation is a set of processes, which are tying the world closer together. These processes take the form of flows; flows of trade, flows of people and flows of ideas around the world. However the flows most commonly used in contemporary geographic studies of globalisation are homogenising flows. In other words geographers have mainly concerned themselves with flows of information and media from the economic North and Anglo-American tradition to the rest of the globe. This article concentrates on a flow that occurs in the opposite direction; the adoption of judo, which has spread from Asia, Japan in particular, to the West.

The rest of this article is broken into two main sections, firstly, the historical development of judo. Secondly the experiences of female judoka in the traditionally Japanese and male environment of the dojo is analysed. This will be investigated through the use of a focus group of both male and female judoka.

The Historical development of judo

Judo as a sport and martial art has developed out of the older combat system of ju jutsu. Ju jutsu was the main battlefield system of armed and unarmed combat of the samurai class of feudal Japan. Consequently it is a highly effective combat system; consisting of atemi waza (strikes) nage waza (throws) kansetsu waza (joint locks) and shimewaza (strangles). The end result of using these techniques was the crippling, maiming or killing of your opponent. However, schools of ju-jutsu were becoming less popular during the late nineteenth century. At this time Japan was going through its Migei restoration where the country was opening up to foreign influence (Kano, 1986). The ideology of this new era was different to the past. Greater emphasis was now being placed on public goods like education and the creation of new social norms within Japanese society, norms more akin to foreign societies. Consequently it is not surprising that the overt, although controlled, violence of ju jutsu was becoming less socially acceptable. This is known in the martial arts community as the transformation from Bujutsu, (The way of the warrior class in Japan) to Budo; the fighting techniques of the previous system had a spiritual layer added to them (Cavalcanti, 2004). The transformation of ju jutsu to judo was only one of the transformations in

Japan's martial geography. During the Migei restoration iai-jutsu became iaido (this is a sword based discipline), aiki-jutsu became aikido, another system of unarmed combat, invent by Hanshi Uisheiba.

With this acceptance of outside influence in Japan, the scene was set for a change in the countries martial tradition. The development of judo is traced back to one key individual, Professor Jiagro Kano, judo's founder. Judo, which translates as (ju) gentle (do) way, was a modernisation of selected ju jutsu techniques. The techniques borrowed for judo were the less violent techniques. For example ju jutsu techniques that involve throwing a partner while they are in an armlock, or in another highly vulnerable position are not taught. This allows all techniques to be taught and practised with full speed and power, without much threat to the life of your training partner. However the principles of judo and ju jutsu are very similar, both are based on the concept of yielding or softness - ju. This means when attacked the defender uses the attacker's momentum to unbalance and throw them. This is in contrast to Shotokan Karate or Wing Chun Kung Fu that are hard striking arts. Hard martial arts are based on strength and power compared to soft arts that are based on movement, yielding and control. This is best illustrated by a quote from Professor Kano:

"Suppose we estimate the strength of a man is ten units, whereas my strength, less than his, is seven units. Then if he pushes me with all his force, I shall certainly be pushed back or thrown down, even if I use all my strength against him. This would happen from opposing strength to strength. But if, instead of opposing him, I leave him unresisted, withdrawing my body just as much as he pushes, at the same time keeping my balance, he will naturally lean forward and lose his balance. In this new position he may become so weak (not in actual physical strength, but because of his awkward position) as to reduce his strength for the moment, say to three units only instead of ten. Meanwhile, by keeping my balance, I retain my full strength available for any emergency. Had I greater strength than my opponent, I could of course have pushed him back; but even if I wished to push him back, I should first have left him unresisted, as by so doing I should greatly economise my energy. This is one instance showing how an opponent may be beaten by being left unresisted." (Kano, 1986:16-17)

The next crucial development in Judo's fortune was the United States's occupation of Japan following the Second World War. During the occupation (1945-1951) the US authorities banned the practice of martial arts. However Judo was not considered a key martial art because of its close integration with the physical education system in Japan. Resultantly the practice of judo returned to the Japanese curriculum as of mid 1946.

Judo is more than just a fighting system; there are many key elements to it that are linked to the Buddhist and Shinto religions. Some of these basic elements are things like the fundamental principle of 'Mutual welfare and well being' and the concept of softness overcoming hardness. For these cultural reasons and the nature in which judoka are trained it was not considered a threat by the US authorities. This is despite the fact that the Kodokan, against Kano's wishes, was a main centre for training the Japanese Military during the Second World War.

The Internationalisation of Judo: Olympic Sport

Since Professor Kano had developed judo as a relatively safe combat system, judo competitions started to appear on the sporting landscape of Japan. The first of these competitions was the Red vs. White match in the Kodokan (Literally translated as the place to study the way), Professor Kano's dojo, in 1884. This match pitched the Kodokan School of judo against other ju jutsu schools. These matches still happen today, although between judo practitioners, and is one of the longest running sporting events in the world. This match was highly important for the sporting and educational landscape of Japan, since whichever system won this match would be chosen as the system for use for physical education in the Japanese school system. Initially judo was mainly concentrated to the shores of Japan, however it started to grow internationally with the first world championships being held in 1954. However the internationalisation of judo stepped up a gear with the granting of Olympic status.

In the Tokyo Olympics of 1962 Judo was introduced as a demonstration sport. Judo, when stripped of its intellectual and philosophical underpinnings is nothing more than a form of wrestling. Consequently many different forms of Judo have evolved over the years. All of which have developed due to the cultural traditions of the particular geographies of each country. Japanese judo is traditionally played in a very upright stance, using what have become standard grips, usually one hand on a competitor's sleeve the other on their lapel (See plate 1) thus allowing ease of throwing (Sugai, 1994; Swain, 1994). In contrast is 'Russian judo' which is characterised by bent over stances and unorthodox grips, commonly using over the back grips and belt grips (see plate 2). The 'Russian' tradition judo developed in the Soviet Union as an amalgamation of traditional styles from the constitute countries of Georgia and Uzbekistan among otheres (Ianivish, 1997). In the 1930s the Soviet authorities created a system of unarmed combat for its military and citizens called Sambo. This is similar to Judo in many respects but allows locking of legs as well as arms. When judo was made an Olympic sport a lot of the Soviet players changed their emphasis from sambo to judo since there is greater international recognition for judo. However the lessons learned in sambo were subsequently applied to judo and as a result the former USSR and newly independent countries such as Georgia and Belarus have always ranked highly at international competitions.

France was one of the countries that has developed a hybrid - although highly successful - form of judo. This approach is more upright than 'Russian' judo but it also uses the unorthodox grips of that tradition (Adams, 1996).

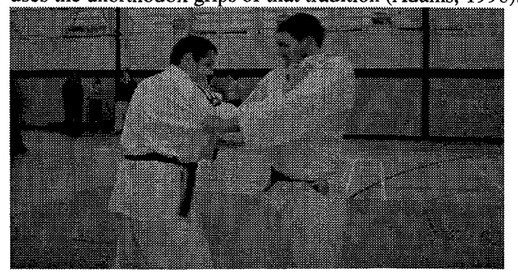


Plate 1: Traditional Japanese Grips

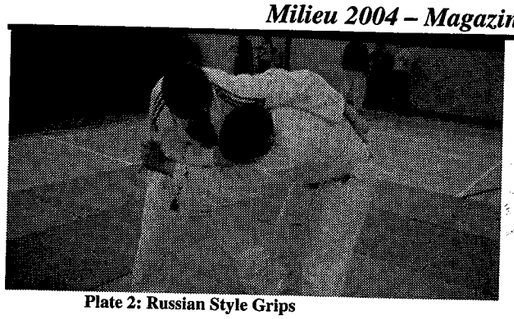


Plate 2: Russian Style Grips

This approach attempts to combine the benefits of both the Japanese and Russian approaches to Judo. This approach has seen France benefit hugely with the establishment of World Superstars such as David Douillet, Twice Olympic champion (1996, 2000) and three time World Champion (1993, 1995, 1997), who, along with other French judoka have become national heroes; as well as global icons.

Enter the Geography: the concepts of space and place.

The discipline of Geography has under gone a cultural turn over the past decade (Crang, 1997). Fundamental to this turn has been a revaluation of geographic space and recognition of the amplified importance of place.

Space was once thought to be a homogeneous container of social interactions. The use of Euclidean geometry as the basis of geographic investigation during the subject's quantitative revolution of the 1960s and 1970s has recently been challenged as the discipline of geography has undergone its cultural turn during the past 15 years (Hubbard et al, 2002). Space is not an absolutist entity; it is actually created by the social processes which occur in it. Consequently space is contested, there can be a number of issues or processes or groups that are attempting to make a territory their space.

Place is another concept which has grown in importance during the disciplines cultural turn. Place is usually thought of in three manners, firstly, the locale this is the setting in which social relations are established. The second way of looking at place is via its location – this is its physical location on a map, in other words it is the territory of the place. The final manner in which place can be viewed is the sense of place which people have of an area. This approach depends on the subjective feelings of the people who have a lived experience of a place (Hubbard et al, 2002). The rest of this article looks at two distinct, yet interrelated, concepts of place. The locale of a dojo is established to give a dojo sense of place, then its space is explored. However, then via a focus group female judokas sense of place for a specific dojo is investigated.

Judoka's experience in an Irish Dojo: Japanese Place, Male Space.

There is no one uniform dojo (training hall), although all dojos share common characteristics. Dojos can be located in specialist buildings or can be portable mats, which create the training area. The most important aspect of research into judo is to recognise that while the dojo is physically located in Ireland it is a Japanese place. In the dojo Japanese traditions and rituals replace their Irish counterparts. Many simultaneous processes carry out the creation of the dojo as a Japanese place; the first of these is the dress of each judoka. All judoka must be dressed in judogi. This is a heavy cotton suit, which is based on a Japanese Kimono. This uniform is completed with the addition of a coloured belt (obi) which denotes the rank of a judoka. This system globally goes from white belt, which is for a total beginner, to blackbelt, which is to signify that a student is at an advanced stage; but is not yet a master. This system of ranking is in contrast to western methods of unarmed combat such as boxing and wrestling where there are no official markings which give away the skill level of a participant.

These ranks have a highly important formal aspect; this formality divides up the dojo into spaces for higher grades and lower grades. At the beginning and end of class all students are asked to line up in order of grade, this means that all judoka line up from the most experienced on the right hand side to the newest on the extreme left hand side. The students do a kneeling bow, once the call of seiza is made by the sensei. This involves each person sitting on his or her ankles and bowing to sensei. This is a position that most Japanese would be more used to compared to Westerners, since it is the position in which meals are consumed. Bowing is a big part of Japanese culture; as a result it is a vital part of judo's etiquette. Judoka bow to sensei when he has completed demonstrating a technique. When a call of change partners is made each judoka bows to his or her counterpart, as a sign of thanks and respect.

The third manner in which a dojo is a Japanese place is through language. Classes are conducted in a hybrid of English-Japanese. This depends on the level of Japanese of both the instructor as well as the students. However while the warm-up is conducted through English, the technical parts of the sport/system are referred to in their native language. Simple instructions are also given in Japanese for example 'hajame' or start 'matte' or stop and final stop/end of class 'sore matte'. However in competition all of the instructions are given in Japanese. Consequently it is each judoka's responsibility to know all the competition terminology. A frequent result of new judoka not knowing their terminology is that they get an accumulation of penalties in competition, which results in their forfeiting a match. If a serious breach of the rules has occurred they will be disqualified via 'Hansoko Make'. Consequently it can be argued that the higher up in judo a person gets the more Japanese their judo becomes.

While the dojo is a Japanese place it is also a male dominated space. This is one of the vital differences between the theoretical study of judo and the real world study of the way; size matters. In its original incarnation judo was meant, through its yielding techniques to favour the smaller person. But if two players are of the same skill level the heavier will usually win. This problem was rectified by the introduction of weight categories in the 1964 Olympics. Three weight categories were introduced, under 68 kilos, under 80 kilos and over 80 kilos (Ohlenkamp 2004). This was in contrast to the world championships, which were in operation every two years since 1956, which had only the open weight category. In other words, there were no weight restrictions. The system of weight categories was later expanded to six as of the 1968 Olympics (Ohlenkamp 2004). Currently in Olympic judo there are seven categories for both men and women, but no open category. This introduction of weight

categories was done so as to make sure that competition judo did not become a space for big men and women only. However training in class is not divided up by weight. This is usually because clubs are smaller, with a mean attendance of 15, in Ireland anyway. In Ireland judo appears to be a big mans game. Since judo is physically a high impact sport this can be discouraging for smaller players. While players are taught to use breakfalls (ukemi), which lessen the impact from throws, there is still a difference between being thrown by someone who is 60 kilos and someone who weighs 100 kilos. This is not to say that lighter players are not as good as bigger players, they just have to have more skill to get the same results as a heavier player does.

As well as this judo is a sport/martial art that requires a lot of very close intimate, yet violent contact. The manner of winning in judo are via throw (where the other competitor lands completely on his/her back), strangle, armlock (where the joint locked is the elbow) and holddown. The latter three of these techniques are completed while the competitors are involved in groundwork (newaza) and a judoka wins when other competitor taps out from a strangle or armlock, or is held with one shoulder pinned for thirty seconds. This involves very close contact as seen in plate 4. Here tori (the attacking judoka) has armlocked uki (the defending judoka) via tori pulling uki's extended arm, at the elbow joint, over his left inner thigh. This particular armlock is the highest scoring technique in competition groundwork (Adams, 1989). In plate 3 tori has uki in a distinct classical holddown; kesa gatame, from this position it is very easy to work your way into either an armlock or strangle. In plate 5 note that tori has uki in a combination of hold down/strangle this technique if applied incorrectly can result in a break of the neck. The close body contact is worth noticing; tori has uki pinned and is using uki's own arm to strangle him.

The Experience of female judoka in an Irish Dojo

It has been established that Irish judo dojos are Japanese places and male spaces. While the Japanese nature of a dojo is unusual for all western judoka, the fact that judo is so male dominated means that women are the less empowered group. It is not just at the scale of the dojo that women have been

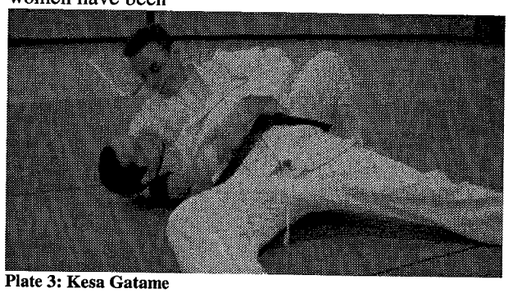


Plate 3: Kesa Gatame

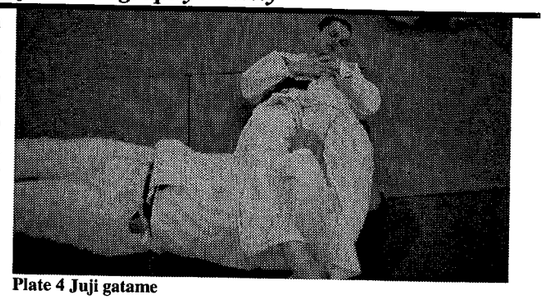


Plate 4 Juji gatame

Plate 5: Kata Gatame

secondary in the development of judo. In terms of international competition women's judo only became an Olympic sport as of the 1992 games in Barcelona. This is in direct contrast to Professor Kano's design for judo.

Consequently seeing these women's lived geography of judo is the best way to see the power relationships that exist in the martial art. A focus group was carried out with four judoka, two male and two female. Snowball sampling was used to gain access to these individuals. This section focuses more on the female judoka's responses although some highly interesting elements were brought up by the two male judoka as well.

The major topics covered were injuries, building a critical mass of female participants and attitudes of male judoka/experience of training with the other gender.

On the subject of training with the other gender all in all it was seen to be a good thing. Respondent A states 'the sport is great for men and women to partake in together'. This same respondent says that she' didn't mind fighting men to be honest, I enjoyed beating any of the lads when I knew that they tried.' Which is in contrast to the opinion of Respondent B who said that 'I didn't really like fighting boys ... or men.' However, the vital point to raise here is that it wasn't the physical impact of the throws as the reason why they had issues with training with men, it was because some of the men in the club would not try as hard when fighting the girls. Respondent A said that victory was twice as sweet when men had to increase their effort; thus proving 'their initial reaction wrong by actually providing a fight'.

However, Respondent C, a male, noted that when beginning judo, gender is not really an issue; experience Respondent C: 'When I first started doing Judo there was this girl Debbie and she beat me all the time, she was a brown belt. ... The worst was that I was 19 and she was 17'.

The next issue raised was that of attempting to raise a critical mass of female players. So the question was asked if the club had a greater number of female players, would they all would come training more regularly. Maynooth's built geography turned out to be a highly important factor. Having to walk through darkened estates at night was a major issue. Especially when a person would tend to be the only one of their group of friends going to judo.

However the main reason for not participating much in judo was; Respondent A 'I got sick of complaining about the injuries ... Especially because of the serious injuries in the club I didn't want to pick up any.' At this point it should be noted that over the past four years the following injuries have been picked up by club members; Two severe knee injuries, one bad neck injury, a dislocated elbow, shoulder injuries. These are all above the wear and tear associated with training in judo. Examples of this wear and tear would be bruised ribs, stubbed toes and mat burn. Other suggestions made about attempting to build this critical mass were to focus more on the self defence aspects of judo since Respondent B stated that 'most people don't know what judo is'.

However the location of the dojo; a set of portable mats in the centre of the sports hall, was also raised as a problem. Consequently among the group there was a feeling about being on display. Respondent B: stated that she 'hated doing the cartwheels' while respondent A: stated that 'it holds you back a bit, you're not as daring as you would be in a place by itself. While respondent C: stated that once he takes of his glasses he can't see beyond the dojo so is free 'to shout, roar and jump 'round the place like a mentaler'. The fact that the dojos is a Japanese place was liked by most; Respondent B: 'I like the phrases, and stuff, that's cool'. While Respondent A stated 'I liked the phrases and stuff, but found it a little pretentious ... the ju jutsu club are very kind of serious.' While respondent C noted that in some judo clubs it (the formal aspects) can be very strict ... our instructor is very lax' on those elements.' While respondent D reiterated 'That's for the best since we're a feeder club, we mainly introduce people to their first experience of judo, so want to keep it simple'.

Conclusion

It can be seen that despite the sports global appeal and philosophical underpinnings the world of a judo dojo is an uneven space in terms of power. It is a Japanese place while also being a male dominated space. The experiences of female judoka back this up. However this male domination is a problem. Physical power is the ability to control the space of the dojo. Consequently, until a player develops the necessary level of skill a dojo is a male dominated space. However, an interesting point raised out of the primary research was that a dojo is also emotionally a male space. With the female judoka, being made feel secondary because of the possibility of males thinking that they will end up causing female judoka injury. This meant that the female judoka interviewed often felt that they got very few genuine fights. However, this was not the main reason for people dropping out of judo, injuries were/are the main reason.

However, the degree to which a dojo is a Japanese place and male space depends on the sensei. Since practice does not have as many formal rules as competition it's up to the sensei to pair people together for practice. Their personal beliefs in relation to what is important in their dojo decides how male or Japanese a dojo is. For example the judo dojo in Lexilip is actually conducted through Russian as all the members there are from former Eastern Block nations. This dojo is a male dominated space, all male members, while being a Russian place. So consequently finding a dojo that is suited to the needs of each judoka is highly important. For example the dojo in Coolmine focuses heavily on competition, hence randori (one on one contests) makes up the majority of the class. This is in contrast to the club in Maynooth that focuses more on the development of the whole judoka by regularly doing non-competition elements such as kata. These are all solutions for the individual to look at, however, we must also look at the institution and practice of judo in Ireland, too see if changes can be made to make dojos less gendered spaces.

A possible solution to this is to re-introduce some of the original martial elements of judo. For example there is a kata (the name for a series of formal techniques) which deals with Goshin Jutsu, or in English, self defence techniques. All of the techniques here are exclusively for self-defence, while at the same time using the underlying concept of ju, and are illegal for use in Randori and competition judo. Examples of these non-contest techniques are spine locks and leg locks (Hoare, 1998). The good thing about these techniques is that size is not as big a factor as it is for Olympic judo. When someone is in an armlock they will move the way that you want them to move. This is because the person applying the technique is in control of the other person's nervous system. All that is required here is the ability to put torque on someone's arm. To apply these techniques little pure physical strength is needed and the physique of the person on the receiving end is immaterial. The skills learned, in terms of movement, to apply these techniques can then be brought into the Olympic form of judo thus making all judoka better at the way. This would be a method of retaining the sense of Japanese place in a dojo but at the same time making it a less gendered space. Since the dojo is less based on physical strength the psychology, which results from that would be lessoned.

Personal Thanks

I would like to thank all the people who participated in the focus group. And the judo clubs in the Maynooth hinterland, whose members contributed to this article.

References

Adams, N. (1989) Armlocks. Ippon Books, London

Adams, N. (1996) Tai-otoshi Ippon Books, London

Cavalcanti , K. The History of Kodokan Judo. http://www.judoinfo.com/jhist.htm accessed 2004-02-23

Kelly, P. The Geographies of politics of globalisation, Progress in Human Geography 23 (3), 379-400

Hoare, S. (1994) The A-Z of Judo. Ippon Books, London

Hubbard et al. (2002) Thinking Geographically. Continuum, London

Iatskevich, A. (1999) Russian Judo. Ippon Books, London

Kano, J. (1986) Kodokan Judo. Kodansha International, Kyoto

Melnik, Y., Schwartz, M. The History of Judo – Highlights http://www.judoyonah.com/history.htm accessed 2004-02-23

Ohlenkamp, N. The Evolution of Judo Contest Rules. http://www.judoinfo.com/rules2.htm accessed 2004-02-09

Short, J.R. and Kim, H-Y. (1999) Globalisation and the City Longman, Harlow

Sugai, H. (1991) Uchimata Ippon Books, London

Swain, M. (1994) Ashiwaza II Ippon Books, London.

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Fantasy Eurovision Song Contest in aid of Debra Ireland and Fighting Blindness charities.

For the second year in a row, the Fantasy Eurovision Song Contest is being run as a means to make money for charity and to test people's knowledge of European geopolitics and 'music'. This year there is a Qualifier round a few days before the actual Final. Each entrant is asked to pick a selection of FIVE countries: TWO from the 'pre-qualified' group of countries and THREE from the 'qualifier' countries. Also pick the country that you think is most likely to win NIL POINTS!

Pre-qualified countries: Turkey, Austria, Belgium, France, Germany, Iceland, Ireland, Norway, Poland, Romania, Russia, Spain, Sweden, United Kingdom.

Qualifier countries: Albania, Andorra, Belarus, Bosnia and Herzegovina, Croatia, Cyprus, Denmark, Estonia, Finland, FYR Macedonia, Greece, Israel, Latvia, Lithuania, Malta, Monaco, Netherlands, Portugal, Serbia and Montenegro, Slovenia, Switzerland, Ukraine.

Also pick a TEAM NAME for your selection!

A €5.00 entry fee should accompany each entry and you can enter as many selections as you like. Selections win points based on how well/how bad your selected countries do – look at notice boards for further details on the rules! The winning selection will win 25% of the 'pot', 10% goes to the second and third best selections and 5% goes to the best team name, while half of the pot goes to the charities.

Your selections should be forwarded, along with the €5.00 entry fee, to either Una Crowley or Adrian Kavanagh, c/o Geography Department, Rhetoric House before **5.00pm on Wed 12th May**.

HEADING TOWARDS PEACE IN LIBERIA?

Mr. Derek O'Halloran, 2nd Arts

Ireland's participation in the recently deployed UN mission to Liberia has focused our attention on the protracted civil war in the small West African state. 200,000 have died in the brutal conflict that has simmered on for 14 years and many hundreds of thousands more have been displaced (Guardian, 2003).

The Republic of Liberia was established in 1847 (Curtin et al, 1995) by freed American slaves. The capital Monrovia is named for former American President James Monroe. The Americo Liberians as they're known gradually came to dominate the indigenous populations (Gros, 1996). They controlled politics and the bulk of economic activity until overthrown in a bloody coup in 1980 led by Samuel Doe, an army sergeant. Doe's coup initiated the chain of events that have led to the failed state we're familiar with today (Gros, 1996). The new regime was characterised by corruption and violence against the citizenry, much of it perpetrated across ethnic lines (Davis, 1997). Charles Taylor rose through this chaos first as an ally then a challenger to Doe's leadership. He led a small force of NPFL guerrillas into the country in 1989 and sparked the long running conflict that still blights the region today. Liberia is home to 16 ethnic groups (Lange, 1994) and the conflict rapidly collapsed into inter tribal strife as various warlords and militias flooded the vacuum created by Doe's ousting (United Nations, 2003a).

The current faltering peace initiative is the latest of many, the most significant of which saw Taylor elected as president in 1997. However Liberia never truly experienced peace and the interim has been characterised by corruption, resource plunder and human rights abuses.The conflict in Liberia didn't take place in isolation. Rather it has been characterised by military activity across the various borders in the region. Taylor himself launched his initial assault into the country from Ivory Coast and according to the United Nations (2003a) he's played a role in the conflicts of several neighbouring states. Most famously he armed a marginal rebel force in neighbouring Sierra Leone, The Revolutionary United Front [RUF]. This enabled them to widen their campaign in a bush war defined by the use of child soldiers in addition to torture and mutilation as tools of control. The RUF under the leadership of Fodah Sankoh were thus able to take control of the Kono diamond fields.

The revenue generated from sales of the precious stones have enriched both regimes and provided them the resources to carry on extensive and prolonged campaigns. In fact it seems that in Sierra Leone amassing wealth and power ultimately became the end in itself with possession of the diamond fields becoming a major objective of the opposing factions (Klare, 2001, p200). Ultimately this aspect of the conflict was fuelled by demand for diamonds in the West. The international community has recognized this and placed restrictions on the sale of so-called "conflict diamonds" from this and other regions of Africa (United Nations, 2001).

Taylor fled into exile in Nigeria late in 2003 having lost control of most of the country to the recently emerged rebel factions Liberians United for Reconciliation and Democracy [LURD] and Movement for Democracy in Liberia [MODEL]. Both Liberia and Sierra Leone are in the very early stages of what at best promise to be long and difficult journeys towards peace. Former Nigerian premier, General Abdulsalami Abubakar brokered a deal under the auspices of the Economic Community Of West African States [ECOWAS] (United Nations, 2003a). This culminated in the signing of the Accra peace accord on August 16th 2003. Nigeria is the most populous nation on the continent and the most powerful in the region. Its international status gives it influence in both the First and Third Worlds' positioning it as a natural mediator in regional conflicts. The 15 member ECOWAS has long played a role in the faltering peace initiatives of both Liberia and Sierra Leone. Its forces were the first into Liberia, securing some basic stability enabling the peace process to move forward. Crucially the ECOWAS charter allows for intervention in the internal affairs of any member state likely to destabilize the region (Dept of State). In his 2003 report on Liberia, Kofi Annan the Secretary General of the UN noted that this cross border activity was a consistent factor in the conflict that threatened to destabilize the whole sub-region (United Nations, 2003a).

The UN Security Council passed Resolution 1509 (United Nations, 2003b) last September, mandating the deployment of a 15,000 strong force to Liberia. The mission is designed to stabilise the country after the protracted civil war. It will draw upon the troops of several member states, including Namibia, Ethiopia, Pakistan and Jordan. The UN force has a mandate to support the installation of the interim government, to monitor adherence to the ceasefire agreement, and to support the delivery of humanitarian aid. 450 Irish personnel are participating in the mission with the main group in place by December 2003. According to Comdt. Brian Cleary (Author, 2003) of the army press office the Irish force will initially, *"act as an advance guard to path-find"* for the main UN force. Once the force becomes established the Irish personnel will take on the role of a quick reaction force responding to infractions of the ceasefire and associated security risks. Comdt. Cleary conceded that Liberia is, *"not a healthy environment"* for Irish troops, consequently the force will be of a, *"robust and suitable"* nature comprising engineers, ordnance experts, armoured units and the ranger wing, Irelands elite special forces. Importantly, the mission has been designated a Chapter Seven Peace Enforcement Mission. This means that if UN troops are fired upon they're entitled to return fire to protect themselves and civilians. In contrast, the Irish battalions that recently served in Lebanon were part of a peacekeeping force and hence operated under a much more restrictive mandate. In Lebanon Irish soldiers responded to incoming fire with red flares designed to alert the aggressors of their neutral status and provide them an opportunity to desist (Author, 2003). The UNMIL force will face no such restrictions.

The situation on the ground certainly seems to warrant the combat readiness of the Irish contingent. The United Nations Implementation Monitoring Committee has observed numerous breaches of the cease-fire involving all sides in the conflict. Particularly severe fighting was recorded in the village of Tapita, *"where all the buildings were burnt to the ground and the village was completely destroyed."* The IMC further noted that, *"a number of the violations have been characterised by ethnic violence, the killing of innocent civilians, as well as wanton and rampant looting."* The conflict is notorious for its use of child soldiers with 15,000 to 20,000 fighting for the various factions, some as young as nine. These children, usually kidnapped and pressed into service have often been exposed to physical and sexual abuse. Many have known nothing only war during their short lives and often the only family they know is the militia to which they belong. As part of the demobilisation process these children will be reunited with their families where possible.

A central feature of the peace process is the United Nations sponsored Disarmament, Demobilisation, Rehabilitation and Reintegration programme (NCDDRR). The programme is designed to provide for the welfare of former combatants providing income, vocational training and basic social services. All sides in the conflict walked out of the first NCDDRR implementation meeting late last year in an argument over the allocation of government positions. At the time of going to press the UN were reporting the successful establishment of only one Cantonment Camp. These camps will form the core of the disarmament process as the actual sites where combatants hand over their weapons. The troubled disarmament process provides a pertinent illustration of the difficulties that lie ahead for all sides in the conflict. The programme is of the utmost importance to the progress of any peace initiative, as former combatants must be given a viable alternative to armed conflict if the peace process is to have an opportunity of gaining purchase.

The challenges of the immediate future are immense. Infrastructure is virtually non-existent. Illiteracy rates are some of the highest in the world. Only 10% of arable land is being farmed. Life expectancy in Liberia is 48 years, one in five children die before reaching the age of five and currently 1.7 million people are in need of humanitarian assistance (United Nations news service).

The UN must continue to impose sanctions regarding the sales of arms. The easy availability of automatic weapons in the midst of such chaos has done much to sustain the conflict. The recognition that conflict diamonds are a major factor in fuelling war in the region is an encouraging and progressive step. The United Nations must consolidate these steps to ensure that such profiteering as we've seen in Liberia will cease.

It's clear that the cleavages that have characterised the past decade and a half won't fade easily. A sustained commitment from the international community will be necessary to foster an atmosphere of peace if Liberia is to move on from the tragedy of its war.

Various references are taken from interview by the author with Comdt Brian Cleary of the Army Press Office in October 2003.

References

Curtain et al. (1995) *African History From Earliest Times to Independence*, Longman, Essex

Davis, D. F. (1997) Liberian Election Modeling, Program on Peacekeeping Policy, http://www.gmu.edu/departments

Dept of State (2001), http://www.gov/pm/rls/fs/2001/4454.htm

Klare, Michael T (2001) *Resource Wars: The New Landscape of Global Conflict*. Henry Holt and Company, New York.

Lange, Karen, (1994) War and Reconciliation, *Africa Report*, Jul 94, 39 (4)

Gros, Jean Germain, (Sept 1996), Towards a Taxonomy of Failed States in the New World Order, *Third World Quarterly*, 17 (13)

Guardian (2004), Special Report on Conflict in West Africa, http://www.guardian.co.uk/westafrica

United Nations (2001) Conflict Diamonds, Sanctions and War http://www.un.org/peace/africadiamond.html

United Nations (2003a) Report of the Secretary General to the Security Council on Liberia, http://ods-dds-ny.un.org/doc/UNDOC

United Nations (2003b) Implementation Monitering Committee, http://www.un.org/Depts/dpko/missions

United Nations (2004) Special Report on Liberia, http://www.un.org/Depts/ocha/cap/liberia.html

United Nations news service, http://irinnews.org/reports

FANTASY FOOTBALL 2003/4

Monsieur Fantasy Football

All through the depths of winter – in between research, lectures and essay writing – the Staff and Students of the Geography Department have been engaged in a grim bid for ultimate hegemony of the soccer world. Dungeons and Dragons? Civilisation? A mere flight of fancy on the part of the writer? No (although some have suggested the latter): it's Fantasy Football 2003/4. This year it has been run on a season long basis for the first time ever, allowing the cream more time to rise to the surface and hogweeds to sink grimly to the bottom! The Top 15 on 18th March was as so:

1. **2,327 points: Dynamo LovliLaoiski (Adrian Kavanagh)** Nice guy too.
2. 2,175 points: Red Star Kilkennski (James Monagle) Three in a row for the Cats?
3. 2,162 points: (NI)RSA (Paddy Duffy) The dark horse. In Monaghan plotting strategy as we type.
4. 2,084 points: Morbidly Obese Hamsters (Damien McGrath) Rounding out well
5. 2,043 points: Mullingar Heifers (Catherine Duffy) Moo-ving up the field
6. 2,021 points: Personchester Utd. (Dennis Pringle) Blame Magaire
7. 2,020 points: Wexford Yella Bellies (Conor Murphy) Team names can be apt
8. 1,929 points: Shaktar Kazzalovich (Karen Keaveny) Moscow is proud!
9. 1,927 points: Head Of The Nail Hitters (John P. O'Byrne) Ouch!
10. 1,917 points: Carer Rangers (Andrew Power) A nicey wicey team name, bleurghhhh!
11. 1,881 points: Una Utd. (Una Crowley) Probably...the worst team name in the league!
12. 1,848 points: The Billy Boys (Billiam Thompson) Next gaffer of the Gers?
13. 1,840 points: The Rockettes (Bridín Feeney) Rock? Rock it? Geddit? No? Ah forget it...
14. 1,794 points: Sentimental Rovers (Brendan Bartley) See above re Carer Rangers
15. 1,771 points: The Jelly Babies (Cian O'Connor) Second at start but wobbled since then

No matter what Forrest Gump tells you, life is not all about chocolates and stuff like that; things can be hard for some teams; including these, the worst of the worst:

37. **1,007 points: Hogweed Utd. (Denise Grassick)** Blame Laura McElwain!
36. 1,217 points: Julia Rovers (Maeve O'Reilly) Julia is the cow's name...Maeve's cow that is!
35. 1,329 points: TKDs (Terese Kennedy) Totally Krap...er Ducks?
34. 1,429 points: Anto Utd. (Antoinette Toolis) Una has opposition!
33. 1,459 points: Vlad's Impalers (Rob Kitchin) Vladdy bad.
32. 1,515 points: Langar Utd. (Tom Conniffe) The man with the sadim touch: opposite of Midas
31. 1,516 points: Real Yankee (Brian Conway) Real...Crap
30. 1,521 points: My Left Feet (Robert Grace) He really put them in it...
29. 1,533 points: Fox Trotters (Gemma Moore/Fiona Fox) The hunt is...off.
28. 1,561 points: Oh Crap! (Gearóid Moroney) Couldn't have put it better myself...

As for the other thirteen team, well it's just bland mid-table obscurity for them. But it's been an up and down sort of season. New boy Ronan Foley's Eleven Men In Flight started off at top but faded as fast as Man City's defensive pretensions and now occupy 23rd spot! Yella Bellies were top for most of the winter, but cracked in the face of probable victory, just like their county hurlers. Next on top were Personchester Utd., but they didn't bank on some lump of horsemeat getting in the way and as Man Utd. leaked goals, so too did Personchester leak points, leaving the Arsenal-axis to rise to the top and the potential of early silverware for Laois, ahead of the end of September.

As well as the league, there's also the SFA Cup (called after what the winners are going to get!) Anything can happen in the cup and Altletico Loz did for table-topping Dynamo (thank you Francis Jeffers) before succumbing to Fealy's Foes. The Hun Busters outed Help Me Denise! Red Star fell to the Obese Hamsters (painful) and (NI)RSA did for

Personchester in a 71 to –9 hammering. This leaves just (NI)RSA and the Hamsters with realistic double ambitions.
The draw for the semi finals is as follows:

(NI)RSA v The Hun Busters, *Outside the Hume Building*
Fealy's Foes v Morbidly Obese Hamsters, *In Kerreh boy!*

KEEP ON FOOTBALLIN'

Monsieur Fantasy Football.

NORTH ANTRIM FIELDTRIP

Mr. Philip Horan, 2nd Arts

On 19th of November last, myself and 40 other geomorphology nuts embarked on a three day expedition to one of the most northerly outreaches of the island of Ireland; the north Antrim coastline. Apart from the obvious astounding geomorphologic features of the region, this trip will live long in the memory as the time when Arctic-like weather conditions and cheap alcohol met in the rather depressing backdrop of Nationalist and Loyalist intransigence.

Devastated at the prospect of missing Political Geography, we set off from Maynooth at 1200 and, four hours later, we approached the border. The skyline seemed imposed upon by the dominating watchtowers, indicating that the border between north and south is, for some people, more than just a detail of geography. We became surrounded by symbols of division and intolerance; ten crosses for the Hunger Strikers offset by a Loyalist enclave surrounded by orange flags and red/blue painted kerbs as we entered Newry. We later came to Bushmills, famous for its distillery. With the prevalent Union Jack and various assortments of orange flags, we elected not to stop to sample the local produce. This was a Loyalist heartland. Dr. Gibson reassuringly advised us that if we went there in search of a night on the tear, because of our accents, the expense might be our lives! We were told, comfortingly, that Bushmills was the closest town to where we were staying!

Our trip to a pub in Ballycastle, in a Nationalist area, was just what was required after a five-hour bus journey. Christmas had come early for the barman, as forty students trundled in to a previously deserted bar. For that night, the Roost relocated to Ballycastle.

The next morning, with the mother and father of all hangovers, we proceeded to tour the coastline. But Copa Cobana this was not. Post Cretatious chalk never looked as good as it did at 0900 on that freezing, wind-swept hillside! Back home, in my ignorance, I had packed a Celtic scarf. It wasn't until we were walking through a village and I SAW AN orange Lodge that it dawned on me that Ian Paisley's constituency of North Antrim was perhaps not the best place to show my Glasgow football allegiance! Tired, cold and hungry, we reached the Giant's Causeway that seemed, in terms of size, amazingly under whelming. The bus that hurtles by every few minutes means that it is prudent to watch one's back whilst admiring the image of the lady in the basaltic rock formation! That night, we went to a Loyalist part of town. Suffice to say that a lot of us got the bus home at half ten but in fairness, there were no visible signs of intimidation.

All in all, it was a decent trip. The weather conditions were, as expected, inclement to say the least, but beer was cheap. One final incident that I won't forget for a while happened as we stopped in a shopping centre in Belfast on the way home (not sure if it was east or west!). With loose British change that is unusable down here in the south, I went to a vending machine to get a bottle of Coke. Beside this there was a sweet machine, where a woman and child were trying to come up with the 50p needed to make a purchase. The machine wasn't taking her £1, so the lady asked me if I had any 50ps in change. Happy to oblige, I attempted to give her two. But, for some reason (my accent, perhaps), she declined my offer and sent the child to the counter to get change. So, I guess this incident, in common with some of what we had seen over the weekend, proves that however Ireland formed physically, people's attitudes and beliefs will divide the island socially.

TO SCHOOL THROUGH THE WAVES

Ms. Áine Ryan (Mother of Aisling O'Malley, 3rd Arts)

Winner of the Connacht Gold/John Healy National Journalism Award

Its 5.15 p.m. on a murky Friday in early March and there's a traffic jam on Louisburgh's main street. Two buses are attempting to squeeze past a tractor. There is a loud "Hurrah!" when after 10 minutes of hairs-breadth manoeuvring the first and larger bus liberates itself. "Get your skates on Michael or we'll miss our connection", shouts a cheeky voice from the rear. The peal of laughter vibrates up the bus. Meanwhile Michael has just taken a right for Roonagh Pier. It's no surprise to the long-suffering bus driver that spirits are even higher than usual. Horrific weather conditions had left the scholarly commuters weather-bound on the mainland for the previous two weekends.

"Will you meet me on Clare Island
Summer stars are in the sky
Get the ferry out from Roonagh
and we'll wave all our cares goodbye."

The Sawdoctors would be proud of the harmonious rendition of their Œ90s hit that's wafting over the boggy fields towards the Atlantic. Of course it was alright for the boys from Tuam, *Meet me on Clare Island* was penned in the middle of the summer, the sun was high in the sky and there were ferries to and from the mainland every couple of hours. Admittedly, Clare Island, County Mayo, isn't as far off the mainland as nearby Inisturk, or Donegal's Tory. That said, the three and a half mile journey to its nearest mainland landing point, Roonagh Pier, often proves treacherous and unnavigable during the winter months.

The *Ocean Star* is rolling towards the tiny harbour as the bus shudders to a relieved halt. A small group of intending passengers are huddled under the harbour wall. Minutes earlier they'd been saturated by a huge breaker. Mrs. Mary McCabe is wiping the salt-water from her three-year old daughter's eyes. Laura's unconcerned, she's busy tearing the

plastic wrapper off her latest Barbie. Meanwhile, Mary's in stitches laughing. Better than crying, I suppose, the 65 euro she had just spent on a brand new hairstyle is a burgundy stream running down the back of her neck.

Nobody was more surprised than Mary McCabe herself when she settled on Clare Island after graduating from St. Pats, Drumcondra, as a National School teacher in 1975. The plan was that herself and two friends would apply for jobs on offshore islands, just for the craic! Hippy, Mary, would be back in the big smoke within a couple of years buying cheesecloth shirts in the Dandelion Market, wearing patchouli perfume and clubbing in Leeson Street to her hearts content. Or so she thought. Little did she realise that Cupid in the guise of a burly red-haired islandman, one Bernard McCabe, was plotting a rather different voyage for her. This year Mary is on a well deserved career break and is in a position to regularly commute to the mainland to meet up with two of her children who attend Sancta Maria College in Lousiburgh. Ironically, the last official duty she'd undertaken before the career-break was to co-ordinate the official launch, by Minister Mary O'Rourke, of a Satellite Communications Network for Peripheral Communities.

With the piloting of the Satellite Communications Network, which entails instant access to the Internet, distance learning has become a real possibility. Mary McCabe, reserves judgement on this educational option which does not cater for the important socialisation factors that are so integral to a rounded education. "Of course I realise how tough it is for children to have to leave home aged 12 or 13 in order to attend secondary school," says Mary. Her three eldest sons, Rory (24), Michael (22), and Niall (21) have already survived that experience. Ian (18) is doing his Leaving Cert this year and Sarah (13) is in 1st Year.

The last quarter of a century has brought a revolutionary series of changes to Clare Island. The building in which Mary started out her career, St. Patrick's National School, was damp, old and had no electricity. The electrification of the island in 1983 heralded a roller-coaster of technological changes that have indelibly impacted on the community's socio-economic and cultural way of life. Today, Clare Island, like many of the offshore islands, is a thoroughly modern community. In Mary McCabe's estimation, it has effectively become "an extension of the mainland".

Well, not quite! Skipper Charles O'Malley is summoning his passengers to jump aboard whilst his son, Gerard, is preparing to loosen the maze of ropes and chains that hold the groaning craft. The entire harbour is like a boiling jacuzzi as adrenalin flushed, salt-soaked youngsters ballerina on to the deck. Bedraggled school bags, drenched boxes of groceries, a wooden crate of traumatised pullets have already been passed below deck. Mary McCabe is now safely ensconced in the cabin. Laura's having an animated conversation with Barbie.

The dramatic outline of Clare Island has been likened to "a great sleeping whale guarding the entrance to Clew Bay". Its rounded contours are in direct contrast to the imposing natural pyramid of Croagh Patrick, which overrules the mainland panorama. According to the Census of 1831, Clare Island, roughly 5 miles by 3, supported a population of over 1,600 people. The ravages of continuous potato blight and the treachery of landlordism meant that the population had dropped to under 500 by the turn of the 20th century. Today there are just over 160 inhabitants. Whilst the 21st century islander can indulge in all the trappings of modern living – mobile phones, satellite dishes microwaves – the island's landscape still remains a stern reminder of struggle and survival in the teeth of the odds. An archaeologist wouldn't need to dig deep; in fact, he wouldn't need his spade at all, to discover the ancient Rundale system of farming which prevailed until the island was bought by the Congested Districts Board in 1895. Until then, every morsel of earth had been colonised by an economy that relied on "the lazy-bed, the loy and the Connaught Lumpar potato". Up the sheer sides of Knockmore, known locally as The Big Hill, or deep into the boggy vales has been sculpted by lazy-beds. Potato blight may well continue to strike island gardens but today there's always the option of buying your "praties" in the local shop or by the 4 stone bag in Westport or Louisburgh.

"Attending secondary school for island children is really the start of the break- up of the family," states Mary. "We have no choice in the matter, unlike some of the other offshore islands where population numbers allow for the viability of small secondary schools. In the case of Clare Island our children board with local families in the Louisburgh or Westport areas. The situation is inevitable and can be heart-breaking".

The approach to Clare is guarded by a castle once inhabited by infamous pirate queen, Grace O'Malley. As you slip into the pier the next building of note is Granuaile House, home for the last century of the McCabe family. Until recently the McCabe's ran a pub, a shop and a post-office on the premises. "If only the walls of our rambling rookery could talk," says Mary. Over the years McCabe's was the hub of much of the island's social life. It wasn't unusual for the early morning fisherman to launch his *currach* to the sounds of lively polkas or husky *sean(o)s*. The weekends always seem to fly by for the island teenagers who attend secondary school in 2002. Their parents will be awaiting their excited arrival in a convoy of vehicles at the head of the island's pier. It's straight home then to blazing fires and turf-filled ranges. Dinnertime is a charged babble of the news and gossip from the previous week: Have the sheep started lambing? When will the annual play be staged? Is there anything on in the Community Centre this weekend...?

The Bayview Hotel, originally the landlord's lodge, and the recently built community centre are the two social outlets nowadays on the island. Last summer saw the establishment of a major music festival, which attracted over 1,000 visitors over a weekend. "The Pirate Queen Festval", the biggest event ever hosted on the island, is but one of a myriad of organised events held during the tourism season. The summer calendar is cluttered with "Singles Weekends", Fleadhs, Symposia and The Bard Summer School. Thousands of daytrippers and holidaymakers trek the winding roads to view the Cisterscian Abbey whose recently restored medieval wall paintings are deemed to be the most significant of their type in Ireland.

The happy chaos of the summer season, however, is still a season away as wintery snow lies on the top of the Big Hill, battering swells chew at the island's exterior and hailstone showers drive flocks of sheep and herds of cattle towards the draughty shelter of stone walls. Damp school bags still must be opened on Friday and Saturday evenings as Junior and Leaving Cert. mocks are ominously looming and the Sunday morning Mass bell peals the near-end of another rushed weekend at home ... all that remains now is for the tide to come in and the Skipper to loosen his ropes.

Spot the ball!

CODING NOMINAL VARIABLES & THE STATUS QUO

Dr. Frank Houghton, Health Geographer
NIRSA & Dept. of Public Health, MWHB

During 2003 the Irish state and judiciary (and by implication its citizens?) were responsible for a number of affronts to social justice. Leaving aside global factors such as aiding capitalism, globalisation and the continuing growth of a European (predominantly white) super-state, there are plenty of small-scale examples to explore. We remember for example that people from China were welcome to visit Ireland, even if they came from areas infected with the SARS virus, as long as they were not disabled (long live the true spirit of the Olympics!). We also remember the black and heavily pregnant woman refused entry to Ireland off a ferry from France who ended up going into labour on the return journey (Céad Míle Fáilte - Ireland of the Welcomes where art thou?). Lastly we note the Supreme Court judgement, which approved the forcible expulsion from the state of two foreign nationals even though their child is an Irish citizen. My understanding is that they were expected to take their Irish child with them (presumably this now effectively gives the state the right to exile its own citizens!).

However for the majority of the population living in Ireland (particularly its white population) a substantial number of safeguards exist to protect its population from discrimination. Therefore in theory at least we have legal protection from discrimination on the basis of gender, race, religion, disability status, ethnicity, sexual orientation and so forth.

It is perhaps more telling however to look at smaller more everyday things. Thus we can learn much from the work of the phenomenologists. It is equally enlightening to explore which topics and issues are <u>not</u> being discussed or debated in political or social arenas. In a similar vein much work for example has already been done highlighting the role of everyday things such as school textbooks in stereotyping women and/or rendering them largely invisible.

My contribution to exposing yet another example of such subtle manipulation is small, if not to say insignificant. And yet it is its seeming insignificance that makes it all the more insidious, particularly in the would-be scientific, objective and value free world of quantitative research.

The matter that I wish to discuss relates to the coding of nominal data. If you read almost any statistics textbook, or discuss this topic with most statisticians you will probably be reassured that unlike ordinal, interval or ratio data there is no element of hierarchy, order, or importance associated with coding of nominal data. Thus for example if one were choosing to code the gender of a number of questionnaire respondents into Male and Female (leaving aside for the moment the issue of transsexuals and a host of rather complicated genetic abnormalities) one could code females as 88 and males as 66. Equally any other numbers could be used to represent these two groups.

The trouble however with such claims of scientific objectivity and neutrality is that in my experience there are very regular a routine ways of coding data that serve to reinforce and reproduce existing hierarchies. Thus for example in almost all surveys males will tend to coded as 1 (i.e. first place/ the norm), while females will usually be assigned a 2 (i.e. second place/ not the norm). Equally during the seven years that I spent studying and working as a researcher in Northern Ireland I only came across one study that did not comply with the 'standard' coding of 1 for Protestant and 2 for Catholic. Although my research experience in England is limited to just one employer (Social Services Dept., London Borough of Newham), I would not be surprised to find out that ethnicity is coded in a similar format with 1 for white and so on. I know from working in New Zealand that this type of format was standard with White ex-Europeans (or Pakeha as they were known) being coded 1 and the Maori population 2 and so forth.

No doubt some people would argue that many of these variables are merely coded this way to reflect population numbers. They might suggest therefore that as whites in England and New Zealand and Protestants in Northern Ireland are the most numerous groups it is only sensible to have these options first on questionnaires and coding schedules. Organising responses and coding in this way can reduce completion and coding times. The crucial weakness however in this argument relates to gender. As females outnumber males in all countries it is clear that the primacy of males in such coding schemes relates not to numbers but to patriarchal hierarchies.

It is incumbent on us all to identify, expose and attempt to extinguish procedures, such as this style of coding, which are in effect a form of sexist and possibly racist language and practice. From personal experience though I would like to sincerely wish people good luck in this endeavour, as it is hard to change such 'time honoured' coding schemas without repeated mistakes and 'confusion'.

Ultimately of course though it will be worth it!

O LITTLE TOWN(LAND) OF BETHLEHEM

Ms. Siobhán Fox, 3rd Arts

Ireland has often been referred to as the land of saints and scholars and we are maybe more saintly than we thought

because 12 miles outside of Athlone, on the shores of Lough Ree we have our own piece of the Holy Land called Bethlehem! Bethlehem is a small townland, with only two or three families living in it. It is only marked today by the ruins of a convent. The Poor Clare nuns set up a convent there in 1631, as it was a secluded area where it would be hard for the English rulers to find them, as Catholics weren't really allowed practise their religion at this time. The nuns decided to call their place of refuge Bethlehem. The Poor Clares were in Bethlehem for 11 years until 1642, when the English rulers finally caught up with them during the Confederate Wars. They burnt the convent to the ground, while the nuns fled to Nuns Island. All that remains today is the ruins and during the summer has become a venue for open air mass. So I hope that this solves the mystery why there is a Bethlehem in Ireland.

GALWAY BAY FIELDTRIP

Sarah Mooney, Karen Naughten, Mairéad Murphy, Peter Sheehan, Dónal Mac Niocail, Sean Keenan, Jennifer O'Riordan, Sarah Murphy, Catríona McFadden, Taúna McCartan, Pamela Davey, Sarah Jane Cleary, Sinead Franks and Deirdre Jinks: 2nd Arts

Day 1: Friday 7th Nov. (And in the beginning…)

So the day finally dawned, the time of recognisance was here; our geography fieldtrip was upon us… There was an air of excitement from our fellow travellers as the unknown lay out beyond us, but there was no need to fear as our guides glided onto the bus, heads cocked to one side, hair tossled, wearing boots that were adorned with the mud of knowledge. Poised and ready, John took the stage, microphone dancing in the sunlight. There was one smart, brief, cough from our mentor and with that, the trip began…

As the bus took off, we were in for another surprise – the learning started here! John Sweeney and Adrian Kavanagh took turns in informing us about the geographical importance of what we were passing – John dealing with the physical elements and Adrian with the human geography. They kept going like a tag team all the way from the east of the country to the west! The inevitable happened – we started taking bets on how long we thing John and Adrian could keep talking for. "Another twenty minutes!" one shouts. "Half an hour" shouts another. Another yelled, "Ah come on folks, they're lecturers, give them an hour!" Then, suddenly, a bet of two hours came from the back row. We all looked around and thought "Oh, you fool! But if you want to lose your money, then no problem at all!"… Two hours passed. The two of them were still talking and everyone is looking rather sheepishly at the person who had suggested that they would still be talking. The money is handed over – unwillingly I may add!

We moved deeper and deeper into the heart of Ireland (for the less poetic among us, the Midlands of this fair green isle). We travelled along the canals, noting both the grandeur of the domiciles and the density of the public houses (most keenly noted in Westmeath). Around the town of Kilbeggan we noted the flat landscape, covered with golden barley for the distilling plant nearby, which plays a vital role in giving local residents the option of not having to commute to the Greater Dublin area to seek employment. As we trundled onwards and upwards, we passed through Offaly, where John pointed out some fine examples of eskers. We also began to see some fine examples of underlying carboniferous rock along the Central Plains.

With each kilometre travelled, we seemed to leave civilisation behind, roads got narrower, bridges got lower and our chocolate supply was verging on extinction. Around 6 o'clock, however, to our surprise and utter delight we saw the bright and welcoming lights of Galway City. There was a communal sigh of relief and our faith was restored in our guides, but there was one thing that was bothering us in that the lights were getting further away…. It wasn't until the headlights of the bus shone on the sign "Ballyvaghan" that we realised that towns and village along Galway Bay could actually be located in Co. Clare! We eventually stopped at Hylands Hotel. What a surprise we got! We were staying in luxury…well luxury compared to a hostel or a tent, which we had been expecting. Our rooms were fully equipped with a double and a single bed, TV, shower and even tea and biscuits if we got hungry during the night. We were all tired and hungry, but had to wait until 8.15pm for dinner to be served. However it was worth the wait because we got a beautiful three-course meal. Thankfully, there was even more good news – a residents' bar, to which we all retired afterwards to let our food digest. Unfortunately, word filtered round that there's no nite club, no chip shop and – wait for it! – No BankLink! The tears started to flow, but not from those who cleared their accounts out in Maynooth!

Day 2: Saturday 8th Nov. (The work begins…)

As dawn broke on an early Saturday morning, so too did the realisation that we were definitely not on holiday and, yes, 8 o'clock really did exist. Having spent the night in the cosy Hylands Hotel (either sleeping or in the bar) we awoke the next morning bright and early. The hot breakfast on the menu helped to cure many a sore head among the group – all the essential ingredients for a day in search of rocks – and by 9.30am we were all ready and waiting to begin our tour of the Burren! As it had been dark when we arrived in the town the night before we had not been able to see much of the landscape. However, in the daylight we immediately noticed the barren fields and vast plains of bare limestone rock. The few soils and field that could be seen looked very unfertile.

We all piled onto the bus, where John Sweeney did a head count, and were all amused when Adrian Kavanagh made the witty remark, "Anyone who is not here, please shout!" (*"Sarcasm me'thinks" – The Editor*). Firstly, we travelled due

west keeping Galway Bay on our right and the Burren on our left. Some of us were quite shocked, yet pleasantly amused too, to see a strange looking creature in someone's front garden, which John identified as a llama. Some of the girls were giggling at the "hairy looking cows" which were grazing in the fields – perhaps they weren't used to the countryside scenery and had never seen a hairy cow before! Our first taste of adventure was a friendly-looking limestone plateau, which seemed to fall off the coastline. Off the bus we descended, onto the smooth, flat rocks. We huddled around Mr. Sweeney, as we strained our ears to hear his pearls of wisdom about clints and grikes, and how many exotic plants find a happy home nestled in the limestone fractures, allowing the plants to bury themselves up to 100metres deep in the ground. There was a brief (10 whole seconds) examination of the limestone before heading back to the comfort of the bus. Onwards and upwards we travelled, finally stopping at an impressive storm beach. Once again, Sweeney took the lead, leaping over walls, dodging cowpats and scouring over rocks. The term beach could be used very loosely as there was no sand present, but there was an impressive array of rocks and boulders. The larger of the rocks could be found deposited the furthest away from the shoreline (swash and backwash mechanism). John Sweeney explained to us that the large boulders, which we were standing on, had been thrown upon the beach by the sea and waves during a violent storm. Such storms, he said, only occurred once every few centuries, and judging from the roughness and unevenness of the rocks, he claimed that this storm beach was relatively young. Retracing our steps back to the bus, we retraced our journey back in the direction we had came from, but turned off right before coming to the llamas and drove up the Caher Valley. Continuing up the valley, we came to our next stop. Adrian and John got off the bus and started to walk around a field, looking for something. We all looked on from the warm bus as John climbed up a muddy hill and then dramatically threw his leg over…a wall! He then started waving his hands as though he had found a treasure chest! The rest of us disembarked and ran over to where John was standing to discover a big depression in the ground. "This", he said, "is a swallow hole." John explained that water running downhill from the slate rocks above came upon this patch of limestone and so seeped through instead of staying above ground. This left the old path of the river as unused, thus forming a dry valley. The nearby cows were going crazy at the sight of us – they were jumping fences and running around us! After the "excitement" of seeing the swallow hole, we all hopped back into the bus shivering. There were numerous loud moans when we were told we had to get off the bus again a few yards down the road. This was to see the re-emerging river that had disappeared underground at the swallow hole. John also told us about the fluorescent dye that is used to follow the water path, but which once turned the area's entire water supply green! We encountered a crazy pony, who almost managed to give one of the group a heart attack! After this we were all starting to feel a bit hungry and scrambling back to the bus, we eagerly awaited our next stop – good old Lisdoonvarna!

This happening place of the west was suddenly hit with a busload of starving students. We all set out in different directions in search of food…and life! We noticed that the town was almost solely dependant on tourism as all the hotels had closed for the winter. All the females were engaged in the task of finding a man in 20 minutes, which had been set by John Sweeney. Although the village was well nigh deserted, Catriona McFadden's group prove victorious. They spent an extra two minutes walking to the end of the village to an empty restaurant, where they stepped a foot inside the door to see a group of men – all twenty five of them – clustered in a corner! "Maybe it's true what they say about Lisdoonvarna…that sight certainly gave me hope!" said Ms. McFadden afterwards. Having filled our bellies and emptied our bladders, we set off again, this time to the Cliffs of Moher. On the way there, a search was in place to find someone to sing the first verse of "Lisdoonvrna" – we all thought John Sweeney was going to give it a go, but he must have had a bit of stage fright! Arriving at the Cliffs of Moher we were blown away (*"Obviously not in the literal sense?" The Editor)* – the view was amazing, even with the freezing cold wind blowing in our faces! We were almost blown back down to the bus because of the strong gusts of wind, but stopped to nosey through the souvenir shop before heading off towards Kilfenora, the seat of the smallest diocese in Ireland. At 3.15pm we stopped at the Poulnabrone portal tomb, which is one of the oldest archaeological sites in Ireland. This tomb had something that no other tomb had – a farmer!!! Not content with guarding his cows, he also felt the need to guard his rocks from the dangerous group of students and their two geography lecturers. That farmer told us a thing or two about his rocks and his blue rope! John must have had a bout of shyness as he decided to return to the bus to finish his speech. As we drove off the theme tune from Father Ted was being sung by one of our fellow students down the back off the bus. We next arrived at Cahermore rath for another hike through a field, where John told us we had to be quick to avoid another encounter with the farming community, as we were trespassing on private property. Imagine our surprise and the daunting look on John's face, as we turned around to see what looked like an irate farmer with a peaked cap stomping over in our direction. To John's relief this "farmer" turned out to be none other than our bus driver playing a friendly prank! We headed for our final destination, which was the Ailwee Caves in Ballyvaghan Valley. Here Adrian passed us each a brown disk (*"???" - The Editor)* and we were led around the caves by a French tourguide. While in the caves we saw some interesting cave features, which included stalactites, stalagmites, curtains, straws and a waterfall, which splattered all over us. We must have looked exhausted at this stage and our tourguide decided to wake us up by turning off all the lights and telling us to make our way back. As you can imagine, panic struck! On returning to the bus John gave us all a laugh by putting on his finest French accent!

We returned to the hotel exhausted and well ready for the fantastic dinner that awaited us. Surprisingly though, many of the group still had the energy to get a bus into Galway City and hit the town for the night! This newfound-energy was probably brought on by our extremely smiley and happy waiter, who we later christened Percy!

Day 3 Sunday 9th Nov. (All good things must end…)

The morning of the 9th of November was spent wallowing in self-pity after the late night spent in the metropolis of Galway and an early morning of sporting disaster – France not only beat Ireland, they crushed us. After a quick bite and a power nap, we mounted the bus at 9.30am – delayed by one student who valued his sleep and was still in bed! – and bade farewell to Ballyvaghan. We drove around the southern perimeter of Galway Bay to Galway City and watched the beautiful view of the sea. Adrian Kavanagh traded places with John Sweeney and with mike in hand took centre stage for the day. We passed Bell Harbour, Dunguaire Castle and Kinvara, the

largest town on the southern side of Galway Bay, which was first inhabited by pirates from Co. Meath. Here we noticed the freshwater submarine springs bubbling up from under the sea level. As we approached Galway City Adrian Kavanagh spoke to us about the rapid population change over the last two decades in the Galway region. One of the main reasons for this rapid change was NUIG, which has influenced the growth of new industries in the area, while the number of students has also contributed to the population increase. Adrian also talked about voter turnout *("Quelle surprise!" – The Editor)*, noting that there was a high turnout in rural areas, such as North Connemara, but lower in part of Galway City, such as the inner city and Ballybaan, as well as Tuam and Ballinasloe. At 10.30am we arrived in the big city of Galway, having passed through Renmore and its many B&Bs. M ost of the major factories were located on the outskirts of the city, while the older and more commercial premises were located in the centre. The first place we raided in the city was the cafes! Most of us took a brief *("How brief?" – The Editor)* walking tour of Galway to view its historical sights, in which we wandered around and viewed the Spanish Arch, Eyre Square and River Corrib. This was followed, for some, by a sojourn in The Quays public house to watch Wales almost cause an upset in the World Cup, but unfortunately it wasn't to be as England came out victorious in the end as they have a tendency to do. A quick lunch, and perhaps a spot of shopping, was all that was left to do as our fieldtrip drew to a close and at 1 o'clock people began assembling for the long drive home. Adrian took sympathy on us on our return and kept quiet for most of the journey home…not until after he had informed us of our report and essay however! We arrived back in Maynooth, ahead of schedule, at 4 o'clock and a very interesting, informative and often funny (John Sweeney being told off by a farmer wielding a stick) fieldtrip concluded. We had enjoyed the accommodation, food and the night out, but collectively we now feel we have a better understanding of the physical geography of the Burren, Galway Bay and the Midlands. With the visual aids that the lecturers provided, it made geography come to life and so became easier to understand and fit the pieces together, as well as helping with the learning process.

A quoram (a small furry animal that eats oranges) has observed that there is not a children's section in Milieu. Here is presented, by that same quoram, a bedtime story for all the little geographers tucked up in bed. Drum roll please maestro.

WHY THE EARTH IS ROUND OR… HOW FLAMINGOS BECAME PINK

Anony-Mouse, 3rd Arts

Once upon a time oh best beloved long long ago when everyone, not just children, went about without shoes. As well as being shoeless, people and animals talked to each other and oh yes, the world was flat. Did I hear you laughing about the world being flat, even so long ago? I suppose you don't believe that animals once talked to humans either!! Just because the world is round now oh best beloved, doesn't mean it wasn't flat all those long long ages ago. There used to be a picture hanging in the Geographical Society of the flat earth where all the edges were crinkly and feathery with mist. In the picture flitting in and out of the mist were red and orange dragons. Although the dragons looked frightening they were really very silly and loved to sing even sillier songs about raspberries and bumblebees. Now most people best beloved have an idea that dragons are rather fearsome when in fact it was the bumblebees who were bad tempered and cross. It was they who didn't like the dragons singing, especially silly songs about them. They said to the humans, those dragons are horrible, fearsome and dangerous and their songs are terrible. The humans, only ever saw dragons when they were lost in storms, far out at the edge of the earth, where the mist comes down. They were really more worried about falling of the edge than about the dragons but they listened carefully to the bumblebees. At first they didn't like to think of dragons as horrible. They thought of them as just silly, red and orange but the bumblebees were so convincing that soon everyone believed that dragons were horrible, red and orange. Mapmakers wrote on maps warning travellers 'Here be Dragons' and everyone was afraid.

I said everyone but that's not quite true. Far out on the edge of the earth was a little green island set in a bight blue sea. This island was just big enough for a very few humans along with a smallish red headed family of six. Included in this family were 2 goats, several chickens and a rubber tree plant. You must not forget the rubber tree plant oh best beloved. The inhabitants of this very small island did not believe the bumblebees. They were not afraid of the dragons in the mists close to their far off island and besides without TV or radio they quite enjoyed their singing. The reason they didn't believe the bumblebees was because the honeybees, who lived among them and shared their honey, said "No, no, no dragons are silly, red and orange not terrible, red and orange". "What" asked the father of the family "shall we do about the bumblebees telling lies??" "Don't ask me," said the mother of the family slamming the door as she went out. "I am far too busy arranging the pebbles on the beach and negotiating territory between the whales and the mackerel.

The children gathered around their father, who sent them out to the garden. Long long ago neither fish, nor children, went to school. The children, who felt someone should answer the question, asked the turtle in their pond. "What shall we do about the bumblebees telling lies about the dragons?" He raised his head slowly and responded carefully. "If there are no edges there will be no dragons, then the bumblebees will look foolish." In a second the children asked all at once "How do we get rid of the edges?" The turtle pointing upwards with his flipper replied, "Ask the Moon".

The children looked up at the moon. It was very faint and very far away. "How shall they ask the moon?" was the next question, this time from the goat looking over the fence. "They must wait" replied the turtle as if it was the easiest thing in the world "until the leaves on the trees begin to fall, then the Moon draws close to the earth." "That is still too far away!" said the second goat. "I'll help" trilled the Swallow who flew to the other side of the earth each spring "I'll ask the Moon how to get rid of the edges" The children found their mother on the seashore and asked her to fashion a sentence that would cover all the points. Then their father pared it down to the smallest it could go. When the autumn came and the Moon hung low in the sky, close enough for the Swallow, they sent off the question. The four children, two goats and the turtle sat down to wait. Lighting a fire the

children wiggled their toes toward it to keep warm and waited some more. Their father wandered by sometimes, composing his poems, their mother they knew was nearby as they could hear her negotiating the newly forming environment. As they waited it grew colder and soon there were no leaves left on the trees. And as they waited it grew too cold for swimsuits and they had to find their shorts. Finally the Swallow fluttered back about a week before the last full moon of the season. The children and the two goats rushed to meet her followed slowly by the turtle. They waited silently while she had a cool drink of water. Above them the Moon hovered in the bare branches of the trees. "The Moon" said the Swallow "had to think deeply then I had to remember all he said. Sorry it took so long." Four heads nodded and waited while the tiny bird ruffled her feathers and began to sing.

Oh beautiful and blue little earth
You sit in the void all alone.
Your shape is quite wrong for a planet.
Since you broke away from me, how you've survived I don't know.
Seam up all of your edges, using a springy sort of string
Let it hang down so then when I pass by I can grab it.
I'll catch all the ends and tie them up in a bow
You'll be all round and bouncy and whirl round the sun like
Saturn, Pluto and Venus.

Being children they didn't see any problem with these instructions, or the terrible rhyming couplets, oh best beloved and they set to work. First they searched all around the little green island for suitable springy material but couldn't find any. Then they searched around the little island again and still they couldn't find anything. Glumly they sat about eating bananas and throwing their peels into the forest because they were tidy human children. Curious as to why so many banana peels were piling up, the Tiger who shared their little green island wandered over to the children. Before they could run away he sat down and said he had already eaten and anyway buttons made him choke. After all they were wearing their shorts. Glumly they reached for another banana. "Hold it" he snarled, they froze. "Why are you glumly eating bananas?" "Because" explained the littlest "we can't find any springy string to sew up the earth." "Is that all?" said the Tiger thinking to himself, silly humans, even Orang-utan babies have more sense. Follow me he said and they did, but carefully because they didn't know how long it had been since he had eaten or when he would want to eat again. Deep in the little forest (but, best beloved how deep can a little forest be?) the Tiger flopped down onto a grassy bank and pointed. "There" he said "is your rubber tree plant that you left there long ago. See, it has grown into a forest." "And?" asked the eldest red headed child with a puzzled look on his face. "Do I have to tell you everything?" sighed the Tiger "Yes" snapped the middle child sounding just like her mother. And so he did. Rubber oh best beloved oozes from rubber tree plants in the form of sap. Heat it, stretch it, and you have the best possible string to sew up the earth. And so they set to work, with the help of their father and their mother, 2 goats, the turtle and the Swallow, making miles of rubber string. The chickens were the only sensible ones, who felt it was a harebrained scheme, doomed to failure and refused to waste their time. They sat about knitting jumpers. The Tiger lay back majestically in the shade and hummed to himself occasionally breaking into song "Oops there goes another Rubber Tree plant. They've got hiiigh hopes high up in the skyyy hopes" After awhile he sloped off somewhere for dinner.

With miles of rubber string piled around them the children asked their parents. "Now what do we do?" During the heating and stretching of the rubber some long legged white shore birds had wandered over to see what was going on. "We'll help." they cried, "With our long beaks we'll stitch the string into the edges." Suddenly the air over head began to whirl and crackle and everyone looked up and ducked out of the way. The dragons had come from out of the mist to see if what the turtle had told them was true. "Yes," said the children fascinated by their red and orange scales. "Its true, we're sewing up the edges of the earth!" "Will we still find misty far away places to live?" they asked. At first no one could think of what to say then the mother of the family answered cheerfully. "Of course there will be, I am organising the environment just now and I will see to it that you have plenty of misty far away places to live." "Right" they said "then you can count on us for help."

And so best beloved what they did was this. The birds with the string in their beaks flew out to the edges. The Dragons with a blast of fire then created a small hole and the birds pushed the string through. This went on for days and days, weeks and weeks. At first it seemed to take forever but suddenly they were more than half way through. Everyone got very excited to see how much had been done and they all stopped to look. It was then that someone noticed that the birds were no longer white. All the flames from the dragons and the hot edges had turned them an amazing shade of pink. "Flame birds" laughed one of the children "Flamingos" pronounced their poetic father and so it was oh best beloved that the Flamingos got their pink plumage. Finally all the pretty crinkly edges were sewn with long stringy streamers hanging down ready for the moon to catch hold of. All the busy activity stopped and everyone sat down and waited. A whole year had passed and once again the Moon was very close to the earth, peeking between the branches of the bare trees. Gliding silently past with his great white face he gathered up the ends and began pulling. At first nothing happened but then slowly the edges began to dip below the horizon. Now an unexpected thing began to happen oh best beloved that none of the humans had thought about. The Tiger claimed he had expected it all along but had wanted it to surprise the humans. With the exception of one or two little islands all of the land was joined together long, long ago. However, as the edges joined together the land stretched and began separating with great bursts of volcanoes erupting as they tore apart. Great mountains began to form and animals that had once all lived together were separated by oceans. Humans and there were only very few, all gathered together in the part of the land we know as Africa. The little green island far out on the edge slipped down to the bottom of the earth and from there they watched the edges collide and fuse together in a froth of hot lava and steam. When this happened the Moon let go of the rubber string causing the earth to ping through space. It shot past Jupiter and Saturn, finally stopping between Mars and Venus. When the Moon caught up it flew past and had to loop back in order to stay in orbit. All the humans cheered, along with the goats, the turtle and even the chickens that laid an extra batch of eggs in celebration. The Tiger lounging in the shade simply said "Oh well done". The dragons loved the new high and misty mountains and the Flamingos who were now pink, headed for Florida to show off their new colouring and the little green island was quiet once again.

But what about the Bumblebees oh best beloved who were the cause of it all? They mind their own business now and don't talk about other creatures. And the red headed family? Why they began to travel after that and their children are spread over all the earth. The little green island began to travel too; in fact once the land began to move it has never stopped. Today the little green island is more than ¾ of the way to the top of the world. And now that I have explained about how the flat earth became round oh best beloved and the talking animals and how the Moon speaks in terrible rhymes, can you believe me?

With a nod to Rudyard Kipling and his "Just So Stories", and dedicated to the two crazy guys who inspired it, Sweeney and Gibson.

STAFF V MA'S MATCH, 2003

The scene was set... The pitch had grass... The stirring pre-match words had stirred... Then the 'gaffer' of the Staff team impaled himself with a pen and missed the team photo!

The annual Staff (plus Research Postgrads) v MA Class end-of-year soccer was played on a 'balmy' summer's afternoon last May. Rumour beforehand was that the MA team were Ireland's version of Real Madrid, comprising of the leading lights of NUI Maynooth, and were basically going to stuff the Staff, with speeches from *Henry V* being recycled to stir the masses. As it turned out, however, the Staff's tactic of solid back four (Conway, Coniffe, Power and "Ginger Minger") and the MA's laissez-faire attitude to defence, allowed the Staff ease into a comfortable lead thanks to a hat-trick from Roni 'Rivelino' Hawe and goals from O'Byrne, Borscheid and Olcese, while Breathnach filled the 'Robbie Savage' role in midfield. Alas, complacency and multiple substitutions allowed the young turks back into the game and the scores were tied at the end due to an own goal caused by confusion between Monagle and Murphy. So to Penalties. The lack of MA firepower told in the end, fizzling out into a 3-1 win for the Staff. So what of this year? The Staff have been active in the transfer market and bought Ronan van der Foleyski from Brighton, while "The Maradona of Rhetoric", Dennis Pringle makes his return. Ian Smith of the MAs has suggested that his lot are playing to keep the score down! We predict: *Staff 7, MA's 2*! (Andrew Tracey to be sent off!)

CREATING A ROMANTIC IRELAND

Ms. Suzanne Pegley, 3rd Arts

The study of Irish society began one summer about sixty-two years ago. In the 1930s two young American post-graduate students, Conrad Arensberg and Solon Kimball arrived in Ireland to begin the study of West Clare. With these sociologists began the romanticism of the social practices of the Irish rural community. Their legacy remains with us today. The view of Ireland created by sociology was based for nearly 50 years on the belief that what Arensberg and Kimball saw and described was real and was the whole truth of how Irish society operated.

Their resulting study entitled *Family and Community in Ireland* has become imbedded as the definitive study of Irish peasant culture. They transformed the late modernising rural inhabitants of Ireland into a native 'other'. By placing them in the same category as the primitive tribes of sub Saharan Africa they created a "them and us" situation. The small farmers of west Clare were now definitely 'them' having previously been *nearly* us. Adrian Peace, an Australian sociologist, writing within the post-colonial discourse suggests that the creation of the 'other' was typical of anthropology (Peace:1999). No better demonstration of that is National Geographic.[3] Part of the notion of the idyllic countryside is the romantic idealistic perception of spatially distant locations. We think that elsewhere is warmer, more tranquil or friendlier. Arensberg and Kimball were no different; they didn't live in a vacuum any more than we do and were as conditioned. Consciously or unconsciously they were immersed in the American version of the distant romantic society. As part of their education, they were trained to carry out ethnographic research in a particular manner. They were also told what to expect of west Clare and more significantly I believe, what their supervisor and professor, Robert Park expected the results of the study to be.

Peace has looked at the problem of Irish Sociology and is critical of the interpretation that studies have made of Irish culture. He is of the opinion that anthropologists have tended to characterise Ireland as a dying society. (1999:94) Generally societies that are undergoing change, and no society is static, are seen to be losing something. It is rarely said of a rural society that is gaining significant cultural advantage with change.

We know of course that when in the 1960s another sociologist, Hugh Brody, used Arensberg and Kimball's study to re-examine west Clare's progress there was a heated protest.[4] Peter Gibbon(1973) launched a scathing attack on Brody's update and the false premise upon which it was based. Hindsight affords us 20/20 vision and it is all very well for us to sit back and tut tut Arensberg, Kimball and Brody but we must ask why did they get it so wrong? The simplistic answer and one I will develop is as I previously mentioned, romanticism.

The Romantic Gaze

What could have sparked the pursuit for the defining elements of a culture? The answer is the desire to discover the unknown. From this grew, through books and paintings, the idea of the romantic other. It is a romantic conditioning that has been part of our cultural shaping for centuries. Simon Schuma, the historian suggests that romanticism lies at the heart of modern society and may have pervaded all of human history if religious worship is brought into the equation. This romanticism is not the familiar nostalgia of a 1st or 2nd

[3] *The March 1961 edition of National Geographic was devoted to Ireland followed by a Time Life book in 1964.*

[4] *Today, in his latest book The Other Side of Eden (2000) Hugh Brody does not include Inishkillane (1973) on his list of publications.*

generation Irish American or the urban dweller for the imagined simpler rural past: there is a much deeper root.

It begins as Schuma says, in his doorstop of a book called *Landscape and Memory* (1995), before written history. It begins with the first human settlements. The notion of the dark wilderness beyond the edge of the settlement had been one of fear among early people. With greater understanding, the wilderness began to be viewed with a different attitude. Early in the 18th century a form of romanticism known as the Sublime became popular in Europe, where viewing landscape, as scenery was a development of the period. Previously the landscape was, in a sense, just there as background to social activity. Thomas Gainsborough reflected this new interest in the landscape in 1748, when he depicted Mr and Mrs Andrews under a tree in their picturesque pastoral landscape. Closer to home we also see the duke and duchess of Leinster by Arthur Devis (1750s) planning the changes at Carton, against a picturesque background. The upper-class in particular was beginning to see the landscape as meaningful.(Prince:2000) The geographer Christian Keller, in his study of the landscape suggests that "the mental landscape plus the physical landscape equal the cultural landscape". (1994:6) In the aesthetic appreciation of the Sublime the love of nature became increasingly central to societies identity. The great artist, architect and philosopher John Ruskin saw biblical truths in nature and espoused the worship of the wilderness. An opinion put forward by Thomas Greider and Lorraine Garkovich, two sociologists, is that landscape reflects the self-definition of people. Rocks, rivers, fields are more than just physical reality,' (1991:2) they have a meaning beyond their physicality.

Schuma, is mainly concerned with the myths that have surrounded the physical landscape. In *Landscape and Memory* (1995) he describes many classical examples but for me there is a more compelling personal landscape. Near my parents summer home in Canada there is a rock sacred to the Ojibway Indians, who are the indigenous tribe of the area. This rock, a massive granite boulder overlooks Lake Manitou and is the place where young adolescent Ojibway boys must spend a night meditating to mark their passage into adulthood; it is called Dreamers Rock. The landscape of the whole area is symbolic to all of us who visit seasonally or live there permanently. We have given meaning to nature and the environment and it has in turn defined us as Canadian. Arensberg and Kimball would have been influenced by the American landscape philosophy of the great wilderness exponents Henry Thoreau and John Muir who continue to influence the 21st century's eco-ethical attitudes.

With the great interest in the wilderness the next step was inevitably tourism. It seems amusing to conceive of a Board Failte of the 18th century and indeed there was no such thing. Never-the-less a thriving industry in travel guides developed, written by intrepid adventurers, sending descriptions of distant places back to armchair travellers. Along with many others Mr & Mrs Hall, English tourists, travelled around Ireland collecting amusing events and liberally illustrating their published journals. Their observations of the landscape have a strict painterly approach, creating a composition of contrasts following the concepts of how the sublime and the beautiful should appear- bleak mountains, fertile valleys. (Slater:1993:41) These observations filled their preconceived ideas and established for them and for others the Irish landscape and, as an afterthought, native society.

The dichotomy that preoccupied them on their visit to Wicklow of the beautiful cultivated landscapes surrounding the great houses and the sublime barren wilderness beyond is less relevant for us. The dichotomy that we are concerned with today is between urban and rural.

The consequence of the early romantic gaze has been to also manipulate our perception of the rural peasantry. (Slater:1993) The collective consciousness of the majority of society has come to see the way of life in the countryside to be the more natural, more fulfilling and harmonious. (Slater:1995:16-2). This too is the legacy of the Chicago school the very department from which Arensberg and Kimball would embark on their landmark study of Ireland, *The Chicago School of Anthropological and Sociological Thought.* Surprisingly, to begin with, their initial studies elsewhere concerned urban development. They also contrasted the urban and rural, and the pioneer of urban studies himself, Robert Park pronounced the urban as the 'natural habitat of civilised man'. (Slater: 1995) The rural was for him at best a community and one in which production was mainly concerned with subsistence. Hints of Arensberg and Kimball seeing west Clare as negative to the positive urban begin to emerge. Their authoritative influence based on both the European romanticism and the Chicago school was to define Irish sociology for some considerable time (Tovey:1992:97). This work carried with it the theories of structural functionalism and the concept of the urban rural continuum. (Slater:1995) The continuum suggested that a sliding scale of difference existed between the two extremes, providing principles that defined the rural, from the urban. [5]

While the cracks began to appear in this approach as early as the late 40s and 50s, first in America and then England it was not until the 1970s that the new approach impacted in Ireland. Peter Gibbon's critique of Hugh Brody's book and the premise on which it rested, *Family and Community in Ireland,* Mr. Arensberg and Mr. Kimball's book on west Clare, opened the heated debate in 1973. (Gibbon:1973) The critique, possibly part of the whole rethink of the precepts of anthropological research, would cause consternation throughout the Irish sociological community. (Tovey:1992)

For many years there has been a debate among anthropologists concerning their close association with the ruling elite. Talal Asad articulated this debate in the 1970s in his book, *Anthropology and the Colonial Encounter.* The book argued that there was a clear continuity between earlier suspect anthropology and the present day (1970s) and that this continuity implied complicity and posed a threat to the integrity of ongoing work. (Pels&Salmink:1999) How much in particular had British anthropology been aiding and abetting colonial policy, although "American anthropology, it was felt, had distanced itself" from US government policy. (1999:12) The question was, how had anthropology managed to extricate itself from the colonial context?

While the argument raged around African and British colonialism, Arensberg and Kimball would have inherited the disposition of viewing the world starting at the centre, that

[5] *The Sunday Show on Radio One (12/1/03) presented an interesting discussion in which 4 men, among them Tom Doorley and John Waters, described their commitment to the rural idyll. During the program a number of illuminating points were made. Someone suggested that the culture of the whole of Ireland is becoming urbanised. Another comment was made that "Ireland was so small and the majority of the land mass devoted to the rural space that it was more appropriate to say that there is only one Ireland and it's rural" with, as Jim Walsh would point out a few urban islands. The move from country to city was mainly an imaginative change.*

centre being the developed north, and going outwards to discover the unknown. In the early 20th century anthropology was defined by colonial ethnography and its survey tradition. Ethnographic information was necessary to "help the white man govern exploit and improve the native", according to the colonial administration. The co-operation between the anthropologist, "handmaidens of colonial rule" and the colonial administration lingered until the 1920s. Funding for American ethnography was superseded by sponsorship from the Rockefeller Foundation and for British anthropology by the universities. (Pels&Salmink:1999)

Arensberg and Kimball were sent by their professor to Ireland on the cusp of this early debate and would not yet have had a new regime to follow. The result of their studies, based on colonial attitudes, can be seen more clearly in the light of the later debate gaining momentum in the 1950s. Beyond the ramifications for the current state of sociology in Ireland one cannot help but consider the damage done to African countries whose native populations have only recently emerged from colonial rule.

Conclusion

The romantic rural idyll, that today's urbanised society is so fond of, is based on an old historically traceable lineage. From the earliest myths and legends, the distant places in our landscapes have been fabricated. In the 18th century the tourist gaze and the development of picturesque landscapes by the land-owning classes, further mystified the rural landscape. With imperialism and the movement of colonial powers, came the amateur collectors of information, followed by the more formal discipline of anthropology in the latter half of the 19th century. This set in place a way of looking at peoples as the *other* from the perspective of the developed countries. Those first sociologists Conrad Arensberg and Solon Kimball cannot be blamed for perpetrating the romantic ideal in their study and fixing, for 50 years and more, the state of rural sociology into an illusionary frame. It was only a matter of time until the small post-colonial country of Ireland, newly entering into the urban rural continuum came under scrutiny, and was promptly labelled and defined.

Bibliography

Keller C., 1994, Decoding the Landscape in Timothy Collins (ed) *Centre for landscape Studies.* Galway pp.5, 6

Gibbon, Peter, 1973 Arensberg and Kimball Revisited, *Economy and Society*, no.2: 478-98

Greider, Thomas and Garkovich, Lorraine 1991 Landscapes: the social construction of nature and the environment, *Rural Sociology* 59(1)

Peace, Adrian, From Arcadia to Anomie in *Critique of Anthropology,* volume 9(1) pp. 89-111

Pels, Peter & Salmink, Oscar (eds) 1999 Essays on the Practical History of Anthropology in *Colonial Subjects* University of Michigan

Prince, Hugh, 2000. Art and agrarian change 1710-1815 in D. Cosgrove & Stephen Daniels (eds) *Iconography of the Landscape*. Cambridge University Press, Cambridge

Tovey H., 1992 Rural Sociology in Ireland in *Irish Sociology* Volume 2:97

Shuma, Simon, 1995, *Landscape and Memory,* The Bath Press, Bath

Slater, E. 1993 Contested Terrain in *Irish Journal of Sociology* Volume 3

_____, 1995 The Urban Rural Divide in Reserve collection Soc.1092 p.16-2

Globalization and the Death of Geography

Ms. Barbara Fitzpatrick, 2nd Arts

Globalization represents increasing interconnectedness, on a world wide scale, through common processes of economic, environmental, political and cultural change. It is my contention, in this essay, to show that geography is not dead and that there is a need for ongoing planetary cartography to explain our complex and technologically driven world, especially in the 21st Century of boundless connectivity and its attendant social change. In this article, to show that geography still exists, I will look at:

- Economic factors: the development of a global economic system, the emergence of technology and the information age (using examples).
- Political factors: Transnational Corporations and the EU
- Social and cultural factors.

Decolonisation brought with it new opportunities for financial and productive investment - economic processes, innovations in communications, media industries etc. resulting in planetary interdependence. These new communications technologies had widespread cultural and social impacts leading Marshall McLuhan, 1962, to write about the 'global village'. Today, all societies have become locally and globally interdependent, the micro local scale relating to the mega geographical scale and all intrinsically connected.

There is an ongoing need for geography to deal with the idea of the 'shrinking world' (Allen and Hamnett, 1995), which suggests that globalization is constituted of different types of spaces compared to earlier times, not just processes in time or in space but in time-space. In the 1970s, new innovations led to a convergence between the communications industries and the computing industries, resulting in centralization, making information and analysis immediately available over long distances, and also decentralization resulting from flexible production and distribution. Communication and advertising were vitally important as was the speeding up and acceleration of connections with the use of the new super information highway, electronic cyberspace - World Wide Web with e-marketing, e-commerce and email – which became integral to social and economic life.

The concept of 'time-space convergence' (Janelle, 1969:351) describes the way in which places and people of the world move in relation to one another, in time-space. Technological advances in transport, (from railways, steam ships, cars, trucks to jet planes today), and communication have the effect of 'moving places' towards one another and time-space convergence is used to describe the speed and intensity at which this was happening. The introduction of the wide-bodied cargo jets (e.g. Boeing 747) contributed greatly to the globalization of the world economy, further linking up and deepening connections e.g. specialized parcel services carrying large volumes of documents and freight with a 'high value-to-weight ratio' (Knox and Marston, 1998:90).

Another feature of the new geography is of people operating worldwide, having 'distanciated' or remote interaction with one another over space and time through the technologies of transport and communication systems rather than in a physical way in their local areas. This form of interaction, extensity or widening of connections, is described as time-space distanciation. The range and breadth of these contacts have multiplied, representing stretching and spreading out whereby 'formerly separate and self-contained systems have

come into contact with one another and become interdependent' (Allen and Hamnett, 1995:19).
The successive developments of the telegraph, cable and radio transmission, telephone, telex, fax, mobile phone and World Wide Web have enabled significant time-space compression (David Harvey 1989) through instantaneous velocity of communications over great distances (Brunn and Leinbach 1991 in Kitchin and Dodge in Johnston et al, 2002 :340). Virtual money and the credit system are agents of time-space compression e.g. Visa, Mastercard, American Express etc. This has the effect of increasing the physical and social distance between rich and poor and geography is needed to indicate this uneven and unequal process because not everyone in all locations has access to money, mobility or technology. Time-space convergence and time-space distanciation have resulted in the restless expansion of capitalist relations of production on a global scale. The basic notion, that time costs money in a capitalist society, has pushed the drive to create new markets, speed up turnover and increase profit, and time-space compression adds an element of force missing from the concepts of time-space convergence and time-space distanciation.
Singapore is a powerful economic, political, technological, social and cultural centre. Until 1970, like all modern societies, it was constituted of spaces of places - neighbourhoods, regions and states. Today Singapore belongs to the network society, with its digital, IT 2000 programme, a wired, intelligent island, constituted of spaces of flows, a myriad of linkages, connections, and relations across space. Singapore's telematic infrastructure is vital to its being plugged into international financial cities and the global economy. This global business hub has work-places, homes and schools connected simultaneously to the whole web, spreading itself out and around the network but also attracting incoming connections, such as resources, investment and entrepreneurial skills. It is clear that this is not just a network of linkages but also a space of flows, of decisions, money capital movements, information and power. This space of flows also has an organizational level, social patterns of linkages between the people and institutions to make the network society operate. These geographical scales are constructed through human activities and should be assisted by the mapping of cyberspace. Some analysts suggest that 'cyberspace has no geography and is essentially placeless and spaceless;' Kitchin and Dodge refute this through their examination of two areas, community and mapping, and urge a geographic approach to cyberspace, (Johnston et al, 2002:352).
Barcelona, an on-line city designed like a network, continually anticipating, planning and using telematic infrastructure, attracted the Olympic Games by promoting itself as a major challenger to other cities and became a hub at the centre of the network. New York, London and Tokyo led the way with the growth of international services, a factor of their success being in attracting two distinct groups, (high skill/low skill), of economic migrant which were important for their development. The high status skilled labour was required to staff the managerial and professional functions and low status, low-paid labour to do the casual service work leading, however, to increased social and spatial divisions - polarisation.
Geography is certainly required to highlight the global reach of TNCs involved in oil and petrochemical production, pharmaceuticals, aerospace e.g. Shell Microsoft, Mitsubishi and Nike etc. Involved in the globally integrated financial system, they regularly operate without any link or loyalty to a particular place. By 2000, the top 100 of these gigantic companies 'had assets many times larger than the collective GDP of the 100 poorest national economies' (Johnston et al, 2002:8). 'Such is their power and influence that they are often accused of dictating to rich and powerful states, while completely overwhelming poor states', (Cohen and Kennedy, 2000:117). Problems occur with TNCs and their influence on government policy. If production costs prove too high at a particular location e.g. Digital in Galway, they relocate. The seriousness of the impact on the local abandoned economy is enormous and the principle, of short-term solutions for large-scale profit, seems to override all responsibilities to both work force and environment. Global surveillance and mapping is required to regulate transnational activities because often transnational power can be seen as threatening democracy both politically and economically. 'Democratization is one of the major political forces in the world today, influencing and influenced by globalization.' (Giddens, 1997:338) Authors Bradshaw, Healy and Smith state that 'the emerging patterns of global mobility seem likely to present a great challenge to the ability of national governments to continue to exercise the kinds of influence over economic life. The mobility of people and, even more so, ideas may be a challenge to state control of political life.' (2001:361)
'The European Union is one response to globalization, an attempt to compensate for the declining power of the nation state by building a supranational association of European states' (Giddens, 1997: 352). This politically and economically integrated union, many fear, may become a kind of Super Nation with an excess of political decision-making power. The recent decision, regarding a second referendum on the Nice Treaty and the expansion of the EU, could suggest that we were asked to vote until the desired outcome was reached. It could be argued that the EU, through globalization has achieved this controlling and governing power at the expense of nation-states, which creates serious implications for political mapping where the nation-states could be plotted as insignificant regions. The same applies to other new authorities with control above nation-states such as United Nations, European Court of Human Rights, World Bank, International Monetary Fund and World Trade Organization.
Geography needs to keep apace of changes such as the highly structured world system of places and regions characterized by three tiers: core regions, semi-peripheral regions and peripheral regions. Globalization has intensified the differences between the core and the periphery and has contributed to the emergence of an increasing division between a fast world (about 15% of the world's population) and a slow world (about 85% of the world's population).
The bigger powers, the U.S., Japan and Europe, have become increasingly powerful, economically and politically and different world societies are learning and emulating each other. One has only to look at the success story of Japan and 'The Four Little Dragons' of the East – Singapore, Hong Kong, South Korea and Taiwan - to see that the East has become the new focus of globalisation with the spread of industrialization and capitalism, representing the true meaning of globalization - changing relationships between geographical scales.
The global assembly line, the global office and global tourism are all making places much more independent and fast changing. Of utmost importance is the speed at which these

major factors, not inherited but created, can be further developed, updated and specialized. New information technologies have transformed and revolutionized the economies of areas of Brazil, China, India, Mexico and South Korea and they have developed quickly from rural backwaters into significant industrial regions. The Cayman Islands today is an upmarket tourist resort and offshore financial centre. Ecotourism, togetherwith significant foreign exchange, has reached Ecuador and Costa Rica (Knox & Marston, 1998:315).
Homogenization is the globalisation of cultures and tastes and we find global corporations e.g. media and organisations creating products for the global markets but not loyal to any particular state or place. Shahidullah states that various civilizations, particularly in Asia, are reflecting on their own 'time-honoured institutions, values and morality' (Proshanta et al, 1998:171) with their motto being 'Look East' and that the only way is the 'Asian Way' and we can see examples in 'Monsoon Wedding' and the Bollywood Films and stage shows on Broadway and the West End. Cultural geography is a complex and important concept and there is a role played by politics and economy in establishing and perpetuating cultures. Riverdance is an example of social life being influenced by local customs of Irish dancing but also by Flamenco and Latin American via space-shrinking technologies. Different groups in different parts of the world have begun to use cultural identities such as gender, race, ethnicity and sexuality as a way of buffeting the impacts of globalization on their lives. It could be argued that the unevenness of the impacts of globalization, and the variety of responses to it, (particularly as money seems to be the ultimate goal), would indicate that the possibility of a 'monolithic global culture wiping out all forms of difference' is limited. (Knox and Marston, 1998:228)
Cyberspatial technologies are leading to rapid globalisation; there is, however, unequal interdependence and much activity and restructuring as places seek to gain competitive advantage. Allen and Hamnett consider that geography is necessary to reflect the new differences and contrasting lifestyles being produced by the 'very processes that threaten global uniformity' (1995).
Globalization is an unstoppable force designed by the forces of capitalism. The negative sides manifest themselves in increased material polarization between regions, uneven globalization and unfair distribution. It is neither egalitarian nor homogeneous and its outcomes vary markedly. A new geographical pattern is needed to show dispersion and integration of activities across boundaries where some live in an interconnected society, dominated by global forces, while others live in a world where local and national are still important and where nothing much has changed.

Bibliography

Allen and Hamnett (1995) *A Shrinking world?*
Bradshaw et al. (2001) Sociology for a New Century
Cohen and Kennedy (2001) Global Sociology
Giddens, A. (1997) Sociology
Johnson et al. (1995) Geographies of Global Change: Remapping the World
Haggett, P. (1990) The Geographer's Art
Hubbard et al. (2002) Thinking Geographically: Space, Theory and Contemporary Human Geography
Kitchin R. (1998), Cyberspace: The World in the Wires
Knox and Marston (1998) Places and Regions in Global Context
Nandi and Shahidullah (1998) Globalisation and the Evolving World Society
Tovey and Share (2000) A Sociology of Ireland

I'm a Geographer. Get Me Out Of Here! Part 1

By Jungle-Geo

The Geography Z-List celebrity contestants were gathered together in an exotic hotel just beside the wild urban jungle in which they would be staying for the next few weeks…well actually it was a fish 'n chip shop off Main Street in Leixlip. "Welcome victims…er contestants" said Paul the Producer, "You are about to undergo a test of how you cope with extreme environmental conditions and the like, while being publicly humiliated on national TV…I mean, while moving from Z-List geo-celebrity status to at least D-List." "Hurrah!!!" said all the celebrity contestants, except for Ro who just smiled. "The contestants were introduced:
Rob Andre: 1990's pop hero. Had huge hit with "Mysterious Geographer"...and nothing else. Very positive...and I mean very, very positive....
Paddy Gellar...psychic who can bend spoons and stuff like that.
Lord Walsh-ket: Famous for being a posh Kerry peer...and that's about it.
Jordan...meant to be the model, but she was too expensive, so they just got the state instead (cf. Milieu 2003).
Razor Bartley: Formerly a no-nosense hard-man footballer, now wants to show his softer side.
Ronan Foley-Tomkinson: Ditsy urban socialite who lives for shopping and partying. Very useless at a lot of things, such as making tea and not breaking things.
Ro Charlton: Footballer's wife, married to Bobby. Very quiet and doesn't say very much and hardly says anything at all and just sits there saying…(think we have the idea by now).
Shelagh Bond: Royal correspondent…as in correspondent to the Royal Geographical Society.
Prionnsias Fran-ashnu: Former Waterford hurler, scared of…everything.
Jonny Rotten Sweeney: Scottish punk hero of the 1970s, who's keen to show that he hasn't 'sold out'.
Dubby McCrowley: Formerly a member of famous Dublin camogie girl-group Atomic Splittin'.
"We will now transport you to your remote location, where you will set up camp" said Dennis 'Den' Pringle. "By helicopter?" asked Shelagh. "No" said Adrian 'Ade' Kavanagh, with an evil grin, "we'll drop you somewhere along the 67A bus route. You'll have to hike from there." There was much growling, apart from Ro, who just looked concerned. Dubby cried, "What about my high heels darling?" "You are spending two weeks in the academic jungle and you want to wear high heels?" asked an incredulous Den. "Can't let our standards drop" said Lord Walsh-ket. Ade 'n Den looked at each other. "C'mon!" said Rob enthusiastically, "Let's get outa here guys, I wanna get to the jungle so I can be inspired to write loads of great songs" Jonny scowled and said something that is unprintable in a family mag such as this. The crew was dumped out somewhere in the wilds of Moyglare. "Can any of you idiots read a bleedin' map?" asked Jonny in a

nasty tone. "Give it to me!" said Rob, "I'm a geographer. I'll show you the way!" But he just got them all lost in a river. "I'll use my psychic powers to get us to camp!" said Paddy. But they all ended up stuck in the branches of a tree. Eventually Paul the Producer realised they were not going to be able to find their way there and just sent out Den with the Geogo mini-bus and he drove them, blindfolded, to their camp. "Where do you think we are?" asked Rob, who had brought a guitar as his luxury item (Eek!). Shelagh just shrugged her shoulders. " "I sense that we are in Outer Mongolia," said Paddy, portentously. *[In fact they were at the bottom of the Rhetoric House pitch, which had been let go for a few months.]*

"Hi worms" said Ade, as he 'n Den, walked out to the camp. "How did you get here so quick?" asked Razor. "We just walked out of Rhetoric you muppet…er I mean we have a studio a few miles away, my friend" said Ade. "Have you put up your tents yet?" asked Den. Only Shelagh and Jonny had. "Riggggghtttt" said Den, "Anyhoo, we're hear to tell you about who the first person will be to take the Geogo-Tucker trial, so they can win food for the camp. It's Proinnsias Fran-ashnu!" "Oh, yeah, great" said Proinnsias, "Just hope it's nothing to do with my pet fears!" "Which are?" said Ade, nastily. "Oh nothing much" said Proinnsias, "Just snakes, physical geographers, heights and…Avonmore creamed rice, to name a few!" "Oh, what a coincidence" sneered Ade, "This trial involves heights and snakes and…oh hell, it involves all of them!" "Not the rice?" cried Fran-ashnu, in fear. "ESPECIALLY the rice" hissed Ade. A dread fear fell over the camp. "That just isn't Gaelic Football old man!" snapped Lord Walshket. Proinnsias prepared himself to go across the drawbridge where he would be facing the horrors of the GeogoTucker Trial. "Be without fear" drolled Paddy, "I will use my psychic powers to ensure that the strength of the combined group will be there with you to help you through this horrific test." Proinnsias looked at the motley crew sitting around the campfire (well actually, they couldn't start a fire but they found an old electric heater lodged in a tree). "Don't bother," he snapped. Ten minutes later, he was hanging on to rope ladders, wrestling with snakes, and being pelted with creamed rice, while being yelled at by Paul the Producer. "Focus Proinnsias!" trembled the Decies-man, "Focus!"

"Oooh well done darling" said Shelagh, when Proinnsias returned with six stars, "clever you!" The food arrived to be cooked. "We have to cook it?" asked an appalled Ronan, "Haven't we maids for that?" Jonny said something unprintable and proceeded to make Scotch Broth out of the ingredients. Razor was in charge of getting the logs. "Just how many logs do you think we need Razor?" asked Dubby, "Especially as we're using an electric fire." "Can't have too many logs" said Razor, with a vacant smile. "Oooh, look pretty logs" said Ronan, "Let me throw one on the fire!" Before anyone could restrain him, he dropped a heavy log on the electric fire and there was an explosion. Fortunately this actually started another fire. Unfortunately it also burned down Ro's tent. "Oh Ro" said the Foley-Tomkinson, "I'm sorry dear. Say that you'll forgive me." But Ro was speechless – with rage.

Everyone was aware that the first eviction was only a few days away and were doing their best to try to make themselves look good in front of the public and the others look bad. Razor kept stockpiling logs, p***ing off the environmentalists but endearing himself to the "pile 'em high, burn 'em dry" brigade. Rob Andre kept playing tunes on his guitar about what a great guy he was. Ro kept quiet in case she'd say anything that might lose her votes. Jonny kept saying that he wasn't in it to win, he was only in it for the climate, but he made sure his dedicated phone line could be seen. Paddy used his psychic powers to try to get every phone in Ireland to ring in to keep him in the contest. "Right" said Shelagh, "There is a celebrity chest out there for us to find. Any volunteers?" Dubby and Razor put up their hands. "No" growled Jonny, as he chucked haggises at rats, "You're both too useless. Paddy and Rob can go; Paddy's psychic powers will help him, while everybody needs a bleedin' break from Rob's tunes!" Paddy spent hours in trying to psychically locate and transport the chest to the camp – eventually Rob just went off and found it instead. "Yes, I knew I would succeed," said Paddy "I have man-aged to trans-fer the chest into the camp by psy-chic manip-ulation." "No you didn't" snapped Lord Walshket. "Didn't I, Your Lordship?" said Paddy, "Didn't I?" Ro just looked at him and shook her head – words escaping her. "OK" said Shelagh, "we have the chest, now we have to answer a question. Guess the right answer and we win a prize, get the wrong answer and we get a booby prize. "Booby prize, he he" laughed Razor. "Stop it" said Shealgh, "OK, what is the capital of Ireland? Is it (a) Kerry or (b) Dublin?" "By Fuungi's fin, it is Kerry old girl" said Lord Walshket. "Are you sure?" said Dubby. "Yes, by jingo" said the Kerry peer. "OK, bleedin' open slot (a) so," said Jonny. There was a picture of Shelagh's cat, Holly-Ivybell IV, in there. "Aw f***" snapped Jonny and smashed up the camp to show he still hated the system. Ro just shook her head in despair. "We got the right one," said Shelagh. "No, we got the booby prize!" sighed Rob, "We didn't" said a disappointed Razor. Suddenly a malevolent cloud of smoke appeared beside a rock formation. "F***in' pollution!" growled Jonny. Paul appeared out of the smoke, coughing. "We've decided to award you a treat" he said, "Fifty crates of Scottish whiskey!" Everyone cheered, apart from Ro, who waved her hands in the air. "Hey, wait a minute" copped Rob, "This isn't some evil plot by you guys to causes trouble in the camp?" "Ha ha ha" said Paul, "Of course not…"

2 minutes later… "I'sh bleedin' 'ate youshlot" slurred Proinnsais, "I'sh finks dat you'sh are all real tick the way there'sh nowsh twosh each of youshfocus, focus…aw shaddit, Razor, you'sh just shaddit..." "I'sh not saying anthing, you'sh a big bullyshhh, andsh soccerssh shouldsh be played in Crokershh" burped Razor and with that all hell broke loose. Razor went for Fran-ashnu, Paddy tried to psychic-ally chuck logs at the squabbling campers. Ro said nothing, but gave the others a kick when they weren't looking. Ronan Foley-Tomkinson just ran around, drunkenly screaming at the others to stop, until he fell over a log and burst into laughter. Lord Walshket thought this was all a jolly lark. He he too tripped over a log and burst into Kerry-style laughter (i.e "Ha-dheara ha-dheara ha-dheara).

Paul looked at his bank balance and called Ade 'n Den in. "OK, all the tantrums in the camp are great" he said, "But, like all good soaps, we have to up the ante by killing off a few characters, nya ha ha!" "Er…Dr. Gibson Sir", said Den, "You are losing grip with reality here. This isn't a fictional soap opera. These are real people's lives you are messing about with. Have you no morals?" "No" said Paul, "And I will be asking 'have you no job?' if you don't play along with me!" "I've no problems, but the Geography Society are the production team, and won't go with this because they've got, like, ideals and crap," said

Ade, who was himself warming to the thought of some character killage, as he thought he could build a whole new Political Geography course around it. "No problem" said Paul and called in Robert, Aisling and Gemma and shot them. "Any more problems?" Paul asked. "Not at all boss!" cackled Ade. "Er…I mean, no" said Den, uneasily. Suzanne Pegley, ace documentarian, burst in then, "We have this all on camera you fiends!" she cried, "You're going down for this, Paul the Producer!" Paul raised his left eyebrow, in Bond-villain style. "Don't you mean 'biscuit tin' Suzanne?" he sneered. Suzanne spun around to see that Gearóid Moron-ey and Billy 'Bill' Thompson were indeed holding biscuit tins on their shoulders. "Och, ye said ye wanted this footage in the can!" cried Billy, "And these were the closest things we could find!" Suzanne turned to see that Paul was pointing a gun at her. "Look, Oh Great One" smiled Suzanne nervously, "I have a very bad memory…" "So have I" snapped Paul and shot Suzanne. "OK, who did I shoot there?" he asked. Gearóid put up his hand. "Yes-sss?" said Paul. "Suzanne!" said Gearóid, with a smug look to Billy, similar to what a 5-year old who has learned the 2 times tables gives to one who hasn't. Paul shot him too. "Erm…who did I shoot?" Paul asked Billy. "Och, dunno" said Billy…and he was telling the truth too! "Take him away and torture him!" said Paul and Billy was dragged off by Ade to watch non-stop footage of Celtic's 2003/4 Premiership campaign. Den followed, murmuring "This isn't happening, this isn't happening" to himself in a frankly unbalanced manner. The shot 3rd Years lay on the ground in pain – with Gearóid humming "Bob the Builder", adding to their pain.

Back at the camp, the mood was very low. Poor Shelagh had just been picked to do the real crappy geog-tucker trial in which you're buried alive. "I hate being here" cried Ronan to Ro and Razor, "Being with all these meanies, who are totally without any sense of kindness. I wish I were a kangaroo!" "Let's not lose all sense of reality now" said Raze. Ro raised her eyebrows in a "that's rich…" kind of way. "Hey guys!" yelled Rob Andre, bounding up then, with his guitar, "I find the jungle SOOOO inspiring that, not only have I come up with a new song, but also a work, to illustrate how CRAZEEE the world is, kinda mix between insanity and mania…" "Oh, like insania?" said Ronan. "Nah mate" said Rob, and started to sing; "Doo doo doo, this is critical geog-ra-pheee!" Ro and Razor looked on with fixed false smiles. Jonny, who overheard all this, looked like someone who was sitting on a thistle (Scottish). Pushed off the deep end, he started picking on Jordan. "Och, look at it!" he snarled, "Jest sittin' there doin' nothin' and takin' up space…" "Jonny" said Ade, who had been spying on the camp and just HAD to butt in, "It is a sovereign state! It CANNOT move! It CANNOT pick up logs! Although if you take Ratzel's concept of the state as a biological organism to its logical…in short, why haven't you done GY211 Political Geography?" Jonny chased Ade off and then stormed off to the geog-telegraph hut (aka the Roque Lab) for a rant, muttering darkly about soft science and haggises. "Snake! Snake!" cried Dubby. "Snake?" cried Fran-ashnu, "What kind?" "The DANGEROUS kind!" said Dubby, darkly. "Dubby" said Razor, "It was just Ade!" "Your point being?" said Dubby. Later Shelagh crossed the drawbridge, where she saw Ade 'n Den having a big fight between themselves. "You've changed Ade" Den snapped, "You have SOOO changed. You used to be cool. You used to be all about the celebrity gossip, the voter turnout, and the appearances at premieres. Now all you're into is the killing." "That's nonsense, I'm still cool" snapped Ade, "I still like the voting statistics, the freebies and the endless adoration that goes with the celebrity lifestyle. By the way, what do you think would be the most ironic way of killing Shelagh?" Den just shook his head, and then froze when he saw Shelagh looking on in a very suspicious manner. "Ahem!" she coughed…but not in a WWTBAM way. "Oh Shelagh!" laughed Ade, with a very, very false smile on his face that sent a shiver up Shelagh's spine, "Didn't see you there. OK, c'mon, let's do this!" He led her to where a big hole had been dug in the ground.

> Is this the end of our heroine? And what further acts of evil have the producers up their…er, evil sleeves? Tune in next week…well actually just turn to page 60.
> Next: Two evictions and a lot of pain…

Population Change in Fenagh, Co. Leitrim, 1991-2002

Ms. Angela McManus, 3rd Arts

I returned to live in the parish of Fenagh in County Leitrim in July 1996, having spent 13 years in London. On my return I noticed many new faces and a change in the landscape with new houses on the horizon or houses under construction. This was linked to the other significant change that I noticed; the trend in which my school friends were also returning to the area, having spent time in other parts of Ireland and locations further a field, including England and America. Apart from published statistics, all these obvious facts and simple observations pointed to an increased population in the local area. Having observed this on a personal level, I wanted to be able to take a more in-depth look at how significant the population increase has been in the past 10 years, particularly in the general context of a consistent population decline in the period since 1841.

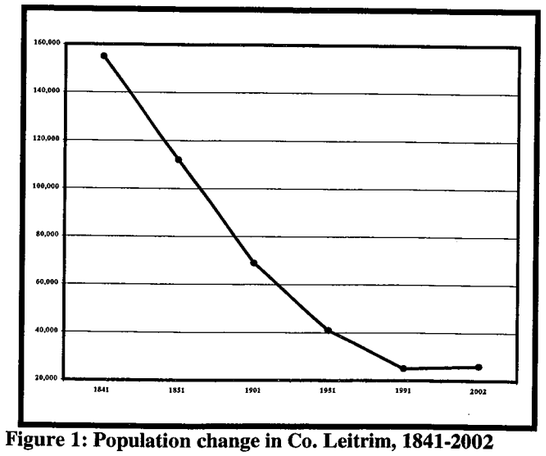


Figure 1: Population change in Co. Leitrim, 1841-2002

It was not enough to take Fenagh Parish in isolation so I looked at the statistics for Leitrim, to get a complete understanding of the trends in population change. My main source was Central Statistics Office records for the 1991, 1996 and 2002 census returns. On a local level, I made contact with my local County Council for parish boundary, electoral registers and planning approvals in 2002. I also obtained the enrolment figures for the local national school and housing statistics from the Department of Environment. Other resources included locally published heritage and interest books, as well as the Leitrim Genealogy Centre in my local town of Ballinamore.

Census figures for population figures in Ireland are now divided and produced on a town land basis. The problem with the former publication of figures was that, many parishes crossed over between District Electoral Divisions and Rural Districts and even into neighbouring counties. This made a formal interpretation based on a parish level very difficult. Locals found the new statistical divisions hard to understand, as they still knew their local area by the original church divisions within 'parish' boundaries.

County Leitrim was originally divided into twenty-four church parishes with de-population within the three church dioceses saw the amalgamation of parishes in the 1960's. A census of Ireland was taken every ten years from 1821 with the 1841 census was taking place before the great famine and the figures showed the highest ever recorded in Leitrim like all the counties nationwide. The devastation of the Famine was reflected throughout the parishes of Leitrim with the total population falling from 155,297 in 1841 to 111,915 in 1851. Parishes in South Leitrim were worst affected with population decline as high as 49% in some cases. Figure 1 illustrates this population decline, and the further decline in the county that lasted until the mid 1990s.

The Parish of Fenagh

There are a total of sixty individual town lands within the boundaries of the Fenagh parish, however, they cross between three electoral divisions namely Fenagh, Castlefore and Rowan. The census in 1841 recorded 634 families gaining their 'living' almost exclusively from agriculture and out of a total population figure of 4,426, over 50% were under the age of fifteen with a balance between males and females. As with the county as a while, the famine had a devastating effect to the population numbers, and the parish of Fenagh was no exception. The population would have been c.5,000 (pre-famine) with the last published figure in the 1991 census of 654 – equating to a huge population decline of over 80% over the 150 year period, as illustrated by Figure 1.

Leitrim County Council : Planning Department

It was not possible to view past years' planning application information, however, there were records available for public access outlining planning applications received and permissions granted for 2002 and 2003. It was from the 2002 lists that I took the planning permissions granted per each townland within the boundaries of Fenagh. Unfortunately, as it was not possible to ascertain exact numbers of applications received each year, I was unable to look at how the numbers have varied year on year with regards permission granted and houses built between my specific study period of 1991 and 2002. However, I did have information from the Census records to indicate that there were a total of 222 households in the parish of Fenagh in 1991. In 1996, there had been a decline in households (217) that would have been characteristic of a rural community with an ageing population together with few younger members. However, in one year alone (2002), there were 57 planning applications received by Leitrim County Council, which constitutes to over 25% of the total number of houses in existence in the parish as a whole in 1991. As this is only a record of the planning permission applications received, it may not represent accurately the number of households, however, it clearly indicates the immense increase of in-migration to the area. The number of new houses that planning permission was applied for, even in the twelve month period, give a clear indication of the need for new housing to accommodate the rising number of people returning to reside in Leitrim and, more specifically, Fenagh.

House prices

From the Department of Environment quarterly and annual housing statistics bulletins, I looked at recorded average values for which loan approval was granted through all lending institutions. It is evident that the construction cost involved in building a new house has dramatically increased in recent years. Leitrim would be considered one of the cheapest locations when gauging building and material costs, however, the figures shown for 2001 show a substantial increase in the amount of money required for the purchase of both new and second hand homes. This equates to a figure in excess of €150,000 for both new and second hand houses in 2001, which is almost 3 times as much as the value of the same type of property in 1991. Not withstanding the substantial increased costs in house building, 2001 showed a massive increase in the number of houses completed within County Leitrim. Outside the towns in the county, this would equate to one-off family housing. It must be assumed that most of these houses were built in and around the Carrick-on-Shannon town region, as there has been major investment and development of facilities and services in the area.

National School Enrolments

The local national school is located in view of Fenagh village itself on the main Ballinamore (3 miles) to Mohill (7 miles) road. St. Cailins is not the only national school within the catchment area of the parish of Fenagh, however, it provides us with a useful indicator of how the population has increased substantially. In 1996, there were 65 children attending the school and in 2002, a total of 91 children were registered. The projected enrolment is a further 11 children for the September 2003 intake which will bring the total number of school children to 102. This may seem to be a reasonable and steady increase in enrolments over the past 7 years with an average of 5 children starting each year. However, looking at the figures in isolation does not give any clear indication of how rapidly the school is growing. Children who would have started in junior infants in 1991 are in classes with approximately 5-6 children, reflecting the average number of pupil intake during that 7-year period. However, class sizes over the past 2 years are in stark contrast. Both the junior and senior infant classes (new enrolments in 2001 and 2002) have 14 and 17 children in them respectively. Births in these same years were set at 14 and 16

respectively. Even though registers or enrolment figures were not available for the period 1991 to 1996, the most recent figures available clearly show how the population has increased dramatically and continues to rise.

My final area of research was the questionnaire survey carried out in St. Caillin's National School. A total of 75 questionnaires were circulated, however, only one questionnaire was needed per household. I had hoped to ascertain background information on the families including demography, whether they had other family in the area (ie. parents or siblings) whether they had spent time away from the area and, if so, their reasons for returning to Fenagh. Many families have more than one child at the school and a total of 31 completed questionnaires were returned. Unfortunately, the results from the returned questionnaires, some of which were insufficiently completed, were inconclusive and were not suitable for analysis in any real informative way. It was difficult to say whether all households with children attending the school returned a questionnaire. Secondly, many people did not answer all questions and, therefore, it was difficult to correlate the results. Also, the information gathered did not take account of families that did not have children at this particular school but maybe had older children attending secondary schools in the area.

Conclusion

'Ireland experienced inward migration with all counties benefiting from the combined effect of inward and internal migration flows during 1996 and 2002' (Census, 2002).

Most of the greatest population increase was focussed in the Midlands region, particularly in counties such as Meath, Westmeath and Laois. This report shows a clear and significant increase in population figures in the Fenagh Parish during this period also. It has to be remembered that this is the first increase in the recorded population since 1841, with out-migration featuring heavily as a factor accounting for the 150 years of consistent population decline. As a result of the population changes, the physical environment of Fenagh and the surrounding countryside has changed and is constantly evolving. New houses are appearing on our landscape today and joining our expanding community.

Fenagh has a long historical standing with special archaeological interest sites, including Fenagh Abbey, Dolmens, Standing Stones, Portal Tombs and Crannogs. Within the immediate village, lies two substantial fishing lakes which have attracted tourists to the area for many years. Guesthouses and holiday cottages are part of our landscape but this is changing. There is now the addition of new family homes for the people deciding to spent a little longer in Fenagh, and not just a two week waterside vacation. The hub of daily community life remains centred around the village itself, which has not changed significantly since I was a young child growing up in the area. The location of the school may have changed over the years, but many of the original buildings remain and are in use today and many returning to the area to renovate derelict and unoccupied houses.

From the survey carried out in the national school, clear indications point to quality of life factors as being the main reason as to why so many are returning to the area. It must be said that the majority of returning couples and families have parents or other siblings in the location with many getting involved in family farming enterprises or self-employment. The remainder of new faces are people who chose the tranquil setting of Fenagh as the ideal location to reside, even if it means they may have to travel to work. There has been considerable re-investment into the area and development of cross-border links, however, employment opportunities would not be prominent in the immediate area. The development in Carrick-on-Shannon with companies like MBNA and Masonite (Ireland) choosing Leitrim as its location for new operations, is considered a huge boost to the area. However, the availability of local employment did not seem to be a worrying factor to individuals making the decision to relocate in Fenagh.

On my own return to the area, it was clearly evident how the area was evolving with many of my school friends also returning to the place of their birth, however, I did not realise the extent to which the area was changing. My overall findings simply clarify that in-migration over the past few years has been steady – in fact, an all time high in Leitrim and, specifically, the Fenagh area. Those who have decided to return but have not already made the move are literally 'laying the foundations' for their return in the coming years by the evidence of sites being acquired and on-off house construction commencing. Fenagh has become and, hopefully, will remain attractive because of its isolation and rural location. The landscape may be changing with new houses emerging at a great speed, however, the main strength of the area lies in its natural and tranquil setting with many finding a mere holiday the start of a love for the area and a decision to live here.

DEVELOPMENT AND ELECTORAL GEOGRAPHY OF IRISH GREEN PARTY

Dr. Adrian Kavanagh, Staff

Introduction

The Irish Green Party today is very much an established feature of the Irish political and electoral systems. Their share of the vote has increased significantly over the past decade, and they have been successful in European, general, and local elections. There are striking spatial variations in Green Party support within Ireland, with support highest in middle class, urban areas. The party was founded in 1981; following on a decade that had been largely shaped by the radical politics of the late 1960s, involving mass demonstrations, and the emergence of feminism, the anti-nuclear movement, and environmentalism. It in this context that green parties emerged in industrialised countries during the 1970s and 1980s and *"rapidly became a familiar feature of the political landscape, particularly in Europe"* (Carter, 2001: 84), joining coalition governments in Finland, Belgium, Italy, France, and Germany. The electoral success of many European parties was facilitated by proportionally based electoral systems, such as the List system in Germany and the PR-STV system in Ireland, but parties were less successful in countries where 'first past the post' electoral systems were in operation, such as the UK and USA. In Ireland, the party was founded as the Ecology Party of Ireland (E.P.I.) in the Central Hotel on 3rd December 1981,

largely thanks to the efforts of Dublin teacher Christopher Fettes. The party's first electoral success came in 1985, with the election of Maurice Counihan onto Killarmey Urban District Council. In 1987 the party changed its name to the Green Party/Comhaontas Glas, and agreed to concentrate more energies on electoral politics. In 1989 Roger Garland became the first Green to be elected to Dáil Éireann, winning a seat in Dublin South. Thirteen Green candidates won seats in the 1991 local elections. Ten seats were won in Dublin and other seats won in Cork City, Wicklow and Kildare. Further success came with the 1994 European Elections and the election of two Green MEPs. John Gormley and Trevor Sargent won seats in the 1997 General Election, although the party had a poor local elections in 1999, when their number of seats fell to just eight. Significant gains were made in the 2002 General Election, some years after Sargent was appointed as the first party leader of the Irish Green Party.

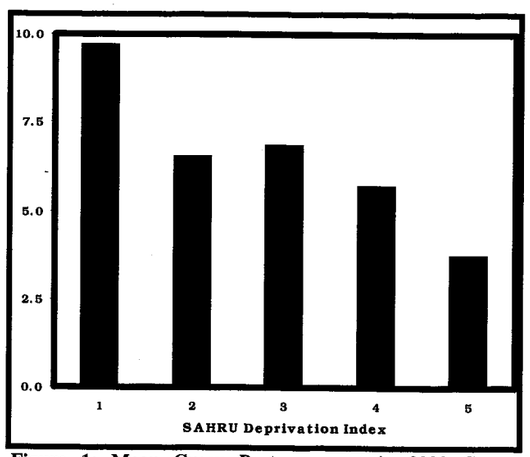


Figure 1: Mean Green Party support in 2002 General Election per DED in Dublin by SAHRU deprivation index

The political opportunity structure offers a good framework to account for the relative success of the Green Party in Ireland. First, this highlights the importance of the PR-STV system for the development of the party. Facilitative electoral systems are very much a necessary (though not sufficient) condition for green party success and the PR-STV system allows the party to win representation in parts of Ireland where they are relatively strong and taking approximately 8-15% of the first preference vote. The second aspect of the political opportunity structure is concerned with political competition and whether there is sufficient political space within the Irish party system to allow for the establishment of a strong green party. In middle class, urban Ireland, the Green Party has been able to colonise vacant political space on the left of the political spectrum, as Labour moved towards the centre during the 1990s, and thus fill the role of being a party of protest for middle class urban voters. Sinn Féin and other small socialist parties, however, fill this space in working class urban areas, while there is even less political space to be colonised in rural Ireland, due to the conservatism of the rural electorate, and the proliferation of single issues candidates. This accounts, in part, for why the party does best in middle class urban areas. But the 'new politics' model highlights the inherently middle class basis to green party support in most democracies, as well as the party's strong support levels amongst highly educated people.

Social bases of Green Party support

Greens tend to receive higher levels of support from the urban middle class and from females. An atypical Green supporter tends to be a young, female and professional. Survey analysis shows that the Greens won 8.0% of votes cast by 18-24 year olds in 2002, but just 2.5% of those cast by senior citizens. Greens won 6.6% of the middle class vote, but just 2.9% of the working class and 1.8% of the farmer vote. They won 6.2% of the urban vote and just 2.1% of votes cast by rural respondents (Garry et al., 2003: 131). Along with Sinn Féin, the party proved to be successful in attaining support from new voters, with this group accounting for 36.3% of the total Green support and 32.6% of the total Sinn Féin support in 2002. Voters who had been too young to vote in 1997 accounted for 17.8% of the Green vote. 30.2% of all voters, who ranked the environment as an important election issue, voted Green in 2002, while just 24.0% of this group supported the government parties (Garry et al., 2003).

An analysis of tally figures for the 2002 General Election further underpins the strong middle class basis to Green Party support in Dublin. This finds that the Green Party won, on average, 9.7% of the first preference votes in the most affluent district electoral divisions (DEDs) in the Greater Dublin area; i.e. those with a SAHRU deprivation score of 1. However, the party took just 3.7% of the first preferences in the most derived DEDs – those with SAHRU deprivation scores of 5. Figure 1 illustrates how Green Party support in Dublin in the 2002 contest declined with increasing levels of deprivation. These trends are reflected in the geography of support for the party, in that it does best in urban constituencies – usually in Dublin – that have a large middle class electorate, as Figures 2 and 3 illustrate.

Electoral geography

2002 General Election: The Green Party won 3.8% of the votes and had six candidates elected to Dáil Éireann, the highest number in the party's short history. Sargent and Gormley retained their seats in Dublin North and Dublin and were joined by four newly elected Green TDs – Ciarán Cuffe in Dun Laoghaire, Eamonn Ryan in Dublin South, Paul Gogarty in Dublin Mid West and Dan Boyle in Cork South Central. Elsewhere, Cllr. Mary White won 8.2% of the votes in Carlow Kilkenny, while the party also won more than 5% of the vote in Clare, Kildare North and Wicklow in rural Ireland and the South Central, North Central and North East constituencies in Dublin. This spatial trend is evident from Figure 2, which shows the geographical distribution of Green Party support in 2002.

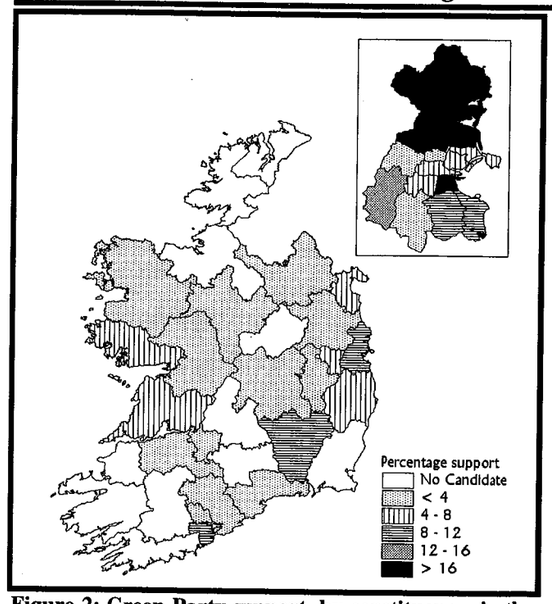


Figure 2: Green Party support, by constituency, in the 2002 General Election.

The recent decision by the Constituency Commission to award an extra Dáil seat to Kildare North may result in a future gain for the Green Party there in future elections. In turn, the loss of a seat by Dublin North Central has reduced the party's electoral prospects in this constituency.

The party's seat gains were in excess of its vote gains, with the 2002 vote about 1.4 times that of the 1997 vote, while it trebled its number of Dail seats in the same period. This is probably due to the party's ability to attract vote transfers from across the political spectrum. Gallagher (2003, 99-100) argues that these recent gains were more a result of individual candidates building up support bases in their constituencies, rather than a general upsurge in Green support. Work done by individual Green candidates 'on the ground' proves to be the main determinant of their electoral support. In this way the party is similar to other smaller parties such as Labour, the Progressive Democrats and Sinn Féin. Future Green gains are, thus, highly dependent on Green candidates in other constituencies successfully building up political bases.

Figure 3 shows the spatial distribution of Green Party support within Dublin, at a DED level, for the 2002 election. (Note: the use of electronic voting in Dublin North and Dublin West does not allow for detailed spatial analyses for these constituencies.) Outside of Dublin North, the main concentration of Green Party support is located in the south-eastern parts of the city, extending southwards from the Gormley bailiwick in Dublin South East (South East Inner City and Rathmines) along the DART line, through Dun Laoghaire, and also extending along the new LUAS line towards Dundrum, Stillorgan and Churchtown. The other major concentration of Green Party support is in Lucan; the Gogarty bailiwick in the Dublin Mid West. The party generally did poorly in the more economically disadvantaged areas (with the exception of some inner city areas, where the private, middle class apartment population provided a latent Green support base). The party won less than 2% of the vote in areas such as West Tallaght, North Clondalkin, Ballyfermot, Cherry Orchard, Finglas and Ballymun. These were places in which Sinn Féin generally did well in 2002. Thus, while viewed as a left wing party, the Green pattern of support is more similar to the more right wing Fine Gael and Progressive Democrats than to the other small left wing parties. This suggests that the Greens are viewed as the party of protest for middle class voters, while Sinn Féin fills this role for the more disadvantaged urban communities. Single-issue Independents and Labour appear to largely fill this role in the more rural constituencies, as was noted earlier.

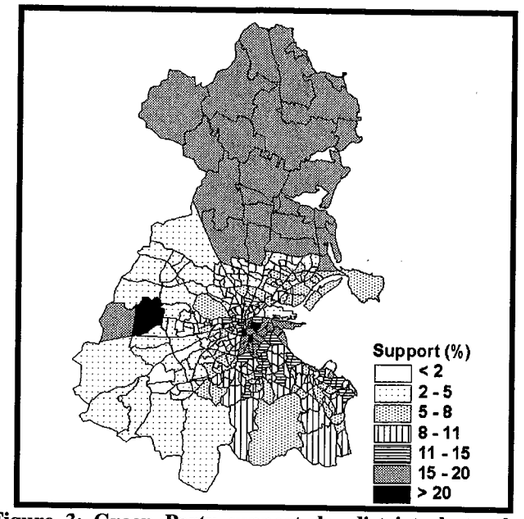


Figure 3: Green Party support, by district electoral division (DED, in Dublin in the 2002 General Election.

1999 Local and European Elections: The Greens did well in the 1999 European Elections, and retained seats that they had won in Dublin and Leinster in 1994. Nuala Ahern won 13.8% of the vote in Leinster and Patricia McKenna took 12.7% in Dublin. Ben Nutty, however, just won 2.3% in Munster, while the party did not contest Connacht-Ulster. The Constituency Commission, however, has recently reduced the number of seats in Leinster from 4 to 3, and renamed the constituency as "East". The Green seat hence may be at risk in East, especially as Ahern is not contesting the 2004 elections – Green support in 1999 would have just amounted to 0.6 quotas in a three-seat constituency.

The party did poorly in the local elections, which were held on the same day, and their number of Corporation and County Council seats fell from 13 to 8. Some losses were a result of changes made by the 1998 Boundary Committee, in that an increase in the number of smaller constituencies reduced the party's electoral prospects. The only authority on which the Greens won more than one seat was Dublin City Council, with seats being won by

Eamonn Ryan (17.2%) in Rathmines and Ciaran Cuffe (14.4%) in South East Inner City, but seats were lost in Donaghmede and Pembroke. In Dun-Laoighare-Rathdown, seats were lost in Blackrock, Dundrum and Stillorgan, although Vincent McDowell (8.8%) gained a seat in the Dun Laoghaire ward. In Fingal, boundary changes cost the party seats in Howth and Balbriggan, but Heidi Bedell (14.9%) gained a seat in Malahide. In South Dublin, the party lost their Rathfarnham seat, but Paul Gogarty (14.7%) gained a seat in Lucan. Despite the electoral setback, however, the few successes in Dublin (and Cork) acted as a base for the successful 2002 General Election campaign.

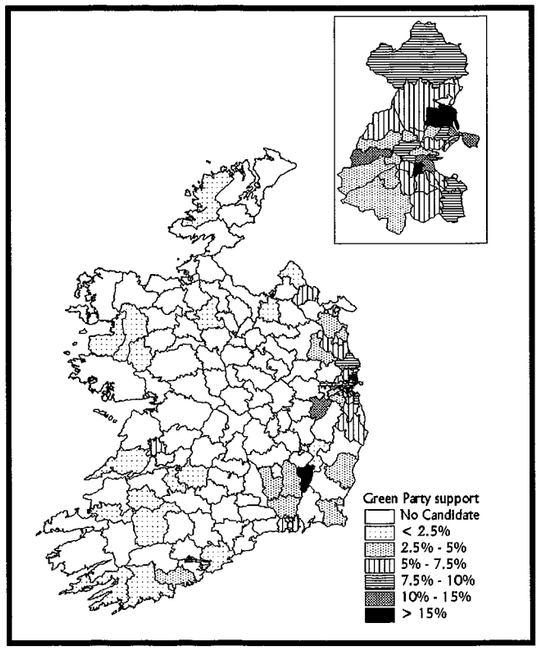


Figure 4: Green Party support in the 1999 Local Elections by local electoral area (LEA).

Dublin was the party's strongest region, as Figure 4 shows. With the exception of Dan Boyle (10.2%) in the South Central ward of Cork City, Green support was very concentrated in eastern Ireland. The only successes in County Council elections were registered in this region; Mary White in Borris (22.0% of the vote) and Deirdre de Burca (6.7%) in Bray. Seats were lost, however, in Greystones and Naas. Elsewhere, Green support levels were generally low. West of the Shannon, the party only won more than 5% of the vote in two constituencies: Ennis and the No. 2 ward in Galway City. Large numbers of constituencies were left uncontested in the Midlands, West and North West, with no candidates in Laois, Leitrim, Longford, Offaly, Sligo, Westmeath, Tipperary and Galway County. This spatial pattern further underpins the strong urban-bias (or Dublin-bias) to Green Party support.

Green Party Survey

A short, e-mail based, questionnaire was forwarded to Green party members in January 2004. There were 16, with 60% of these coming from rural members.

1. What particular events in the history of the party have shaped the particular policy and electoral style of the party?

Early factors that shaped the party's emergence were the *"cultural zeitgeist"* of the 1970s, and concerns over Sellafield, the Cold War and the adverse impacts of economic globalisation. It was said that the party's development was more a *"series of small advances"* rather than a major defining event. Some viewed the policy area as being problematic, due to high levels of idealism among founding members, and it was argued that such extreme idealism was still evident in some cases. Founding members were viewed as idealists *"who were probably a bit scared of really getting involved in the murky business of politics"* and, hence, voters viewed them as *"aloof"* and *"unelectable"*. The party had become a more coherent organisation in recent years, especially with the appointment of national and regional administrative officers, as well as research officers, and the appointment of a party leader before the 2002 General Election. Electoral success in 2002 had *"resulted in more funds being available to the party to implement strategic aims"*. This success had resulted from a *"decision to target winnable seats"* prior to the contest. Other important elections, in terms of party development, included the 1994 and 1999 European Elections and the 1991 local elections.

2. What aspects of the Irish political system determine the relative success of the Irish Green Party?

The PR-STV electoral system is an important advantage. Green parties in the UK and USA were *"more restricted because of the first past the post electoral system"*, whereas *"the Irish political system makes it easier for smaller parties to exist and develop a membership base"*. The even more proportional List System in some European countries meant that green parties there tended to be stronger than their Irish counterpart, but also due to the *"strongly entrenched inherent conservatism among a large swathe of the electorate"* and the weak *"history of radical politics"* in Ireland. The weakness of the left in Ireland meant there *"was no chance to build red-green alliances, as in Europe"*. The *"traditional catchall nature"* of the party system also militated against the party's development, as did *"a post-colonial hangover in Ireland which leads people to treat the environment as if it belonged to someone else and the Irish people are just passing through"*. It was also noted, *"a mild post-colonial kleptocracy at the top of the system also militates against taking anything, which does not generate money, very seriously"*. German Greens *"had the advantage of having been in government and been seen to have done a good job"*, thus establishing them as a credible political force.

3. What factors fed into the party's success in the 1999 European Elections and the 2002 General Election?

People are more willing to vote Green in European Elections: *"they don't vote for an MEP to fix their potholes, but are rather voting on bigger, more long-term and more global issues"*. The two MEPs, Ahern and McKenna, were also seen to have run a good campaign in the 1999 election and had addressed the *"issues that they had been elected on (in 1994), rather than just sitting in Strasbourg"*. Irish people viewed Europe as the *"body with responsibility for the environment"* and the party could capitalise on this and on a protest vote. It was also easier for the party to build up a profile for these elections, as they could large focus on just two candidates, and broad European-level issues.

A key factor in the party's general election success was the hard work of candidates at a local level: *"the party had long-standing candidates who had been working hard on the ground"*. The party ran a good campaign and were *"astute in terms of where they targeted seat gains"*. The *"amount of political space"* in individual constituencies was also important, given the loss of *"distinctive identities and substantial core support"* by the main parties. The implosion of Fine Gael in 2002 *"left plenty of space for smaller parties"*, but particularly the PDs and the Greens. It was also noted that the party could count on a core vote, of about half a quota, in Dun Laoghaire and Dublin South, and only had to double this through hard work on the ground, whereas in other areas the candidates had to treble the core Green vote through hard graft at the constituency level.

4. Why has the party not had the level of success in local elections, as in general or European elections?

Key local issues – such as planning, transport and housing – are all Green issues, but the party is viewed as mainly standing for national and international issues: *"It is only more recently that more of these issues are becoming perceived as 'local' issues"*. Success at local elections, *"paradoxically required a higher level of organisation"* and it was felt that the party hadn't organised properly for previous local elections, and had failed to field enough candidates. The party also lacked the personnel and resources to support candidates: *"Because of our rules on funding, our candidates tend to have a lot less money to spend to help raise their profile"*. Some argued that the poor result in the 1999 local elections was possibly due to *"poor candidates"* who had not done *"enough work on the ground"*, as well as a certain degree of complacency after the relative ease of success in 1991: *"People had given candidates opportunities in 1991, but weren't going to do so again in the absence of work on the ground"*. Thus it was argued that Green local election candidates *"need to act as virtual councillors in the run up to local elections"*, especially as *"traditional clientelist politics are more entrenched at the local level"*. The party's general focus was seen to be on issues rather than candidates, and this was another militating factor. Rural members feared that rural voters believed the party was being *"too way out"*. The media also seemed reluctant to give the party exposure, due to a *"conservative fear of the unknown"* and a perception that the party was *"anti-business"*.

5. Why is Green Party support higher in urban areas?

Resources were a key factor determining the lack of electoral success in rural Ireland: *"it is very difficult to make the sort of impact that larger parties make in a large county"*. Rural campaigns required *"proportionately more campaign workers"* and a *"huge amount of time (and money for petrol)"*, but rural areas had *"fewer party members, who are very spread out and not well-organised"*. Green *"candidates and supporters emerge from a very tight strata"* and weren't speaking in language that rural voters understand – Green activists in coastal areas in the South West had tended to be non-nationals and were poor at electioneering, while they faced an inherent prejudice from the local electorate, who viewed them as *"blow-ins"*. Instead, to succeed, the party needed *"strong personalities to grow around in rural areas"*, as *"in a PR system the personal vote is king"*. Rural voters were also *"wary of environmental issues"* – farmers were scared that the party was *"too way out"* – and tended to be more conservative politically. Core Green support was lower in farming areas due to *"the myth that the Green Party will destroy agriculture"*. There was also *"far more core support for the main parties"* in rural areas, given the *"greater tendency to vote along traditional family voting patterns"*, while *"what political space exists is taken by single issue candidates and local personalities"*. The party was trying to reach out to rural voters and had a stall at the 2003 Ploughing Championships.

The middle class vote - atypically *"well-educated, professional women"* – was *"the most easily reached initially"* for the party, and particularly concentrated in a few middle-class urban areas in Dublin and Cork City, accounting for the higher core Green support there. *"Trends and fashions"* also developed in urban areas, and the party had also started in urban areas first. Urban dwellers were also more aware of how *"their quality of life had been affected by short-term, non-integrated decisions where economic infrastructure have traditionally been prioritised at the expense of social and environmental infrastructure"*.

6. Where will the party make breakthroughs in elections?

Four respondents said that gains in 2004 would be concentrated in the Dublin area, six said that these would come in rural Ireland, and three argued that gains would be both made in Dublin and elsewhere. Apart from Dublin, Galway was seen as being the most likely area for future Green gains by six respondents, followed by Cork (5), Carlow-Kilkenny (3), Clare (2), Limerick (2), Donegal, Meath, Louth and Roscommon. Two respondents said Greens would make no significant breakthrough in the local elections due to the potential protest vote not materialising. Sinn Féin was expected to be the big winners instead, as they would get the *"sexy vote"*.

7. What distinguishes the Greens from other parties?

With no roots in Civil War politics, the party a vision that is more in tune with the 21st century: it is not *"fundamentally clientelist in organisation"*, lacks *"tired old hierarchies"*, and has *"clearly articulated values"* about social justice, and sustainability. The party is *"issue-based"*: whereas the main parties were *"adopting principles just to win elections"*, *"Greens have policies and principles and need a platform to sell these"*. The party's main concern was with getting members elected so as to promote this policy. Greens looked forward; the agenda of other parties was *"largely status-quo and self-serving"*. The party scores well on honesty and integrity issues: it *"does not accept donations from big business"*. Its core support is *"still very much part of a social movement towards incorporating environmental principles into government behaviour"*. The party needs to *"develop their policies on localism and devolution of power"* to capture, or retain, protest voters who are not overtly concerned with environmental issues. The Green Party is especially distinguished by *"care for the environment and quality of life"* issues and does not put *"economic issues above all else"* or *"promulgate a variant of neoliberalism in policy terms"*. The party is unique in its *"understanding of ecology"* and *"actions are very much governed out of an awareness of the interconnectedness of all living creatures"*. This translates, in policy terms, into particular concerns for getting primary education and primary health care right, developing more sustainable forms of transport, housing and planning – from which growth will arise – and taking a global approach to issues.

Concluding Remarks

The Irish Green Party has developed considerably in the first two decades of its existence and now has significant levels of representation in Dáil Éireann and the European Parliament. Green support is very much centred on urban areas – in particular Dublin – and particularly concentrated amongst the middle class electorate, but support levels in rural areas remain low. To further understand the factors that have shaped the development of the party and its spatial pattern of support, perspectives of party members were also sought. These point towards the challenges that face the party in promoting the environmental cause within the highly clientelistic political system in Ireland.

Selected Bibliography

Carter, Neil (2001) *The politics of the environment*. Cambridge University Press, Cambridge.

Constituency Commission (2004) *Report on Dáil constituencies 2004*. The Stationery Office, Dublin.

Donnelly, Seán (1999) *Elections '99 – All kinds of everything.* Brunswick Press, Dublin.
Garry et al. (2003) Stability and turmoil: analysis of the results, in, Gallagher et al. (eds.) *How Ireland voted 2002.* Palgrave, London, 88-118.
Garry et al. (2003) What decided the election, in, Gallagher et al. (eds.) *How Ireland voted 2002.* Palgrave, London, 119-142.
Green Party (2004) *Irish Green Party website,* http://www.greenparty.ie/, accessed 6/204.

The Small Areas Health Research Unit (SAHRU) deprivation index referred to here is the academic property of the Small Areas Health Research Unit in Trinity College. The author would like to thank Green Party members who took part in the questionnaire. Thanks also to Dublin Fine Gael for data provided.

THE CALL OF THE WILD

Ms. Jacqueline Reynolds, 3rd Arts

Wilderness has come to mean many different things to different people, from images of awe inspiring vistas combined with solitude and escape from the hustle and bustle of every day life in our modern societies to those who look on wilderness as areas of important economic resources i.e. Alaska, which are available for exploitation if indigenous peoples and environmentalists could be kept out. For people living in the inner city areas of the western world and indeed the slums of the third world wilderness may have no meaning at all, while for those living in urban opulence, the thought of inner city decay and industrial sprawl may conjure up ideas of wilderness. It was however, only when western populations began to impact on the quality of life of the people that we see a widespread move to protect what little true wilderness we have left.

Problems facing the environment and wilderness, like so many conflicts that have arisen since Adam and Eve, stem ultimately from religion. Early nomadic man, lived at one with nature, lived in small kin groups which moved with the food. They were hunter/gatherers. The women collecting berries and roots, fashioning implements for simple pursuits like baskets and cooking vessels while the men hunted for larger game. They had little environmental impact. Early religions were animistic in that they believed every animal, tree, rock or water supply had a spirit, and thanks should be given before using this spirit, hence rituals evolved before hunting in the understanding that the animal killed has given itself so you and your kin could eat. Populations were kept in control as you could only afford as many children as could be carried and their impact was minimal. (Hunter/gatherer societies still exist in small numbers in areas such as the Amazon and the Arctic, but none have escaped outside influences). The advent of agriculture, enabled people to stay in one area, the work was harder, but you could raise more children. As agricultural practices advanced, more people could be supported and surplus crops were used to maintain elites, i.e. priests and administrators along with a pantheon of gods. They settled in rich river valleys, like the Mesopotamians and the Egyptians. Intensive agriculture and deforestation had a much greater impact on the environment, intensive irrigation combined with floods and droughts led to salination of the soil in Mesopotamia and ultimately to the downfall of that civilisation. It could be argued that it was only with the advent of monotheism, (the worship of one God) and the arrival of Judaism and its offshoot, Christianity that humanity came into conflict with nature. Mankind began to see himself not as a part of the natural process but above it. God created man to take what he wanted from nature and use it to his advantage. It was taken as a divine mandate to dominate and exploit all that nature had to offer. Wilderness and nature came to be devalued. Man began to impact more and more upon the natural environment.

Intensive agriculture and enlarged settlements allowed the growth of the industrial revolution, increased yields allowed craftsmen to abstain from agriculture and produce craft products from home. Later they came to be concentrated in factories that began to pollute the atmosphere and the water. People moved to the squalid urban centres in search of employment. Increased economic output allowed an increased population, putting further stresses on the environment. England, which up to the 17th century had been heavily forested, came to a crises, it was running out of wood. It had been used for shipbuilding, housing and fuel to supply power to the iron and textile industries and now it was scarce, new fuels had to be used, coal which had been found on beaches and shallow pits now came to take the place of wood as an energy source. Deeper pits had to be excavated, which meant greater expenditure of energy as water had to be pumped out and air pumped in. With the great population explosions in Europe that followed the industrial revolution, new areas of exploitation had to be found. Colonies, where excess population could be exported, new lands open to reclamation by the 'advanced' western civilisations.

Areas of wilderness were seen as threatening, they were dangerous, man could go into the wilderness and revert to primal passions, become possessed by the spirit of the wilderness. (In the American colonies, this was seen in the unwillingness of many captives to return to white culture on redemption, some had to be bound to enable the native Americans to hand them back to the whites, while it was found that no Indian child raised by the whites ever resisted the call of the wild and returned as soon as possible to their tribes (Turner, 1992:224). Wilderness was the abode of fierce animals, the habitat of criminals and outlaws. The sheer solitude and distance from decent populations made them places to be feared. Nature had to be tamed, to be put into proper order. If plants were not productive or pleasing, they had to be destroyed. Better the manicured garden and arable fertile fields of civilised society then the wild untamed world of biodiversity. Nature had to be improved.

The American colonies saw a mass immigration, which lead to the destruction of the lands and the native peoples. The immigrants were young and had a high birth rate. They carried with them the attitude that the land and all that was in it was there for their use and they consumed the environment at a massive rate. They relied almost entirely on wood for everything from building materials to railroad sleepers. The land was at the mercy of the frontiersman, who slashed, hacked and burned to stake a claim to the land. They looked out on the wild expanses, inhabited by wild untameable buffalo and saw visions of cultivated fields full of domesticated cattle. The pace of settlement was fast and furious, a wilderness that was millions of years in the making, inhabited by hunter/gatherers, was well on the path to destruction within three centuries of discovery. This was facilitated by the railway, in 1830 there were only 23 miles of rails by 1860 this figure had tripled (Turner, 1992: 262). The

government did try to restrain the move westwards, but it was too far away, so the land and its inhabitants were at the mercy of the settlers. America teemed with natural flora and fauna. Buffalo herds were enormous and travellers reported travelling through them for days, estimates put the size of a single herd at around 25,000. Man decimated these wild creatures, along with many other native species, such as the passenger pigeon, the beaver and the otter. The Native Americans looked on in horror as their subsistence food supply was destroyed. It is estimated that between 1872 and 1874, 3,158,730 buffalo were killed for their hides by white hunters (Turner, 1992:267). It was a means to an end, if there were no buffalo as a food source there would be no Indians. This type of colonisation was repeated in other locations such as Australia and New Zealand, where native ecosystems were systematically "improved" to make way for agriculture, Dairy farming in New Zealand, Coffee Plantations in South America. The colonists thought that the 'savages' who inhabited these new lands had no idea how to use them and so they were beaten into submission and the lands put to productive use. Little regard was paid to whether the land was suitable to the type of agriculture employed. Within 30 years of the settlement of Oklahoma, the devastated soil reached the East Coast in dense red dust clouds that drifted out into the Atlantic as a result of intensive farming (Turner, 1992: 265).

From the 1880s, with wilderness declining, a new attitude to nature emerges. It can be seen in the art of the time and also in the writings of poets such as Wordsworth and Shelley. In America there was a drive to try and preserve what was left of the wilderness.

It is the western view of wilderness that takes prominence, the early pioneers of the wilderness movement, men like John Muir in the United States, wanted a wilderness untrammelled by mankind, areas where no human impact could interfere with the enjoyment of nature. To this end, the Indians were hunted out of these special areas and if they didn't leave they were slaughtered. They were excluded from the process, just as today 'wildlife' parks in Africa and big business in the Amazon are displacing indigenous peoples. As Baird Callicott states "Wilderness is a legacy of American Puritanism. It played a crucial role in masking colonial genocide and ethnic cleansing. It is a powerful conceptual tool of colonialism" (Vidal, 2002). In the same article the World Bank estimates around 3 million people have been forced to move from forest and other areas in the ten years between 1986 and 1996 because of development and conservation schemes. Wilderness in America is desired to be big enough so one has to sleep out of doors, but there are to be no roads, people can walk or ride (horses) and are but visitors, they do not remain. The tired and jaded of western civilisation can enter the wilderness as a means to regenerate and attempt to transcend the ordinary world. The idea is to be so entirely struck with the awe and wonder of nature that we are reduced to elemental physical fear; to see man's insignificance in the face of nature.

While we might carry an image of wilderness as wonderful scenery with mountains, lakes and endless trees, wilderness is in fact any type of land that is uncultivated or uninhabited, a desolate pathless area (Chambers Dictionary 1990). Many would feel that any land could come under the heading of wilderness so long as it is unmodified by man however; there is no region on earth where man's influence is not felt. Even penguins in the Antarctic (one of the last "wilderness" areas) have evidence of DDT in their body tissues.

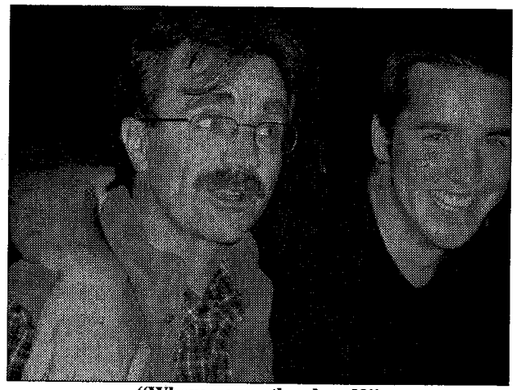
In the need to preserve something of our wilderness heritage, we have to ask the question who or what are we preserving it for. Those taking a anthropocentric stance want it preserved to serve humanity, as 'physical nourishment value', the 'informational value', the 'experiential value' 'the symbolic instructional value' and the 'psychological nourishment value' of the non human world to humans (Fox, 2000:53) This would be very much in line with the idea that nature is there for our use and the only reason we have to preserve what is left of it is because it might be of some further use to us. The Ecocentric viewpoint wants to see the protection of all threatened populations, species, habitats and ecosystems wherever they are located and regardless of their intrinsic value to mankind (Fox, 2000: 55). This viewpoint recognises the importance to preserve our heritage for its own sake, for the sake of all species, for our own benefit and the benefit of future generations.

The modern view of the conservation movements is very ecocentric, the desire is to preserve wilderness intact. This often comes into conflict with big business interests whether they want to drill for oil to the detriment of the Inuit in Alaska or provide a quasi-religious experience for rich westerners in Africa's safari parks.

The concept of wilderness has changed and will continue to change as man seeks to mould the environment to his own use. Indigenous populations and their environments will always be open to the exploitation of capitalism while the resources of their lands are considered more important then their culture The reality is that wilderness is a concept of western thought, hunter/gatherers don't understand our idea of nature and wilderness, to them, people and nature are as one. We have moved from the destruction of nature to the production of nature for consumption, a commodity to be bought and sold. We have moved so far from nature, moulded and shaped it, that most of us will never have a true "Wilderness" experience, if indeed wilderness still exists.

Bibliography

Graber, L. (1976) *Wilderness as Sacred Space.* Association of American Geographers, Washington.
Sarre, P. and Blunden, J. (2000) *An Overcrowded World?.* Oxford University Press, Oxford.
Turner, F. (1992) *Beyond Geography, The Western Spirit Against the Wilderness.* Rutgers University Press, New Jersey.
Vidal, J. (2002) The great wilderness myth, *Irish Times* 26th January 2002



"Where your other hand?"

Fear of the hand, Part 2.

TURNOUT, CANDIDATE SUPPORT AND THE MEDIA IN LONGFORD-ROSCOMMON

Ashling Cartwright, Sinead Davinn, Jennifer Dowling, Catheriona Golden, 3rd Arts

There are at present 42 constituencies in the Republic of Ireland (although this number has been increased to 43 in the recent Constituency Commission report) One of these is the Longford-Roscommon constituency, which will be the focus of this paper. This is a four-seat constituency, which was formed in 1990, and has one of the highest turnout rates in Ireland (71.2% in the 2002 General Election). Since the constituency was formed in 1990, there has been much criticism of it. This is the only constituency in Ireland to consist of two counties that come from two different provinces and belong to different Health Boards (Roscommon joins part of the Western Health Board and Longford belongs to the Midland Health Board). There is no cultural or social intermingling between these two counties and, as the *Roscommon Herald* (Thursday May 23rd 2002) newspaper reported, Longford-Roscommon is "*the constituency that doesn't work*". However the Constituency Commission in January 2004 made a change to the constituency boundaries, thus removing this anomaly. Longford is now coupled with Westmeath (except for the Delvin rural district) and Roscommon has been coupled with the southern half of Leitrim, so maybe this paper will go down in history as the last piece of original work on the Longford-Roscommon constituency! This paper aims to study spatial variations in turnout in Longford-Roscommon, and the geographical distribution of support between candidates, as well as a number of related factors, such as the constituency boundary, the friends and neighbours effect, and the influence of the local media.

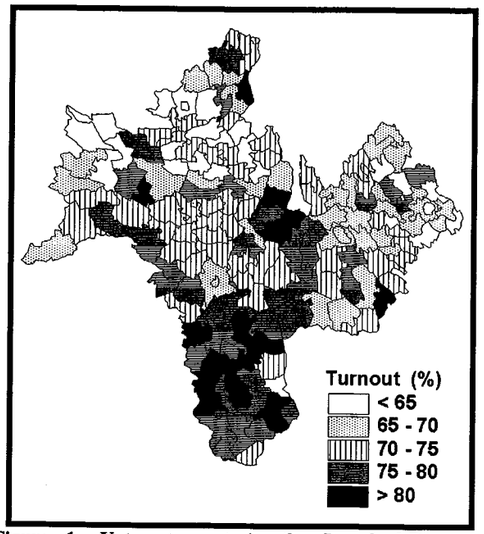


Figure 1: Voter turnout in the Longford-Roscommon constituency by DED in 2002 General Election.

Longford-Roscommon has one of the highest turnout rates for general and local elections in Ireland. However, there are also pronounced spatial variations in turnout within the constituency, as shown by Fig. 1. Southern Roscommon is the high turnout area within the constituency, while the northwest of the constituency, encompassing the northern part of Roscommon, is an area of lower turnout. In 2002, the South Roscommon electoral area had a turnout rate of 75.0%, while the neighbouring Strokestown (73.1%) and Mid Roscommon (72.5%) electoral areas had similarly high turnout levels. By contrast, turnouts were lower in the Boyle (66.6%) and Ballaghadreen (65.9%) electoral areas in the north of Roscommon. This variation could be affected by the situation of large towns in these areas, which we believe to have a significant influence on constituents. The friends and neighbours effect may also have had an effect on the spatial variations in turnout rates. There were a number of candidates from the south of Roscommon, and fewer candidates from the northwest of the county, and this probably influenced more people from the south to turn out to vote and support their local candidates. This could account, in part, for the spatial variation in turnout levels within the constituency. Indeed, the Castlerea electoral area (73.9%) had the higher turnout of the electoral areas in northern Roscommon as Greg Kelly, the strongest candidate in north Roscommon, and Independent candidate, Ming Flanagan, were both based in this area. Further underpinning the influence of candidates on turnout levels was the high turnout rate in Longford Town (70.0%), which was slightly higher than the average for Co. Longford

(69.9%), despite the general trend in which turnouts tend to be lower in urban areas than in rural areas (Kavanagh, 2002), and also as the Longford Town area (64.4%) had a much lower local election turnout in 1999 than the county average (68.9%). The successful Longford candidates, Peter Kelly and Mae Sexton, were both based in Longford Town, however, which undoubtedly accounted for the relatively higher turnout there, while there was also a high turnout in the Ballymhaon electoral area, which was the base of Fine Gael candidate, Louis Belton. By and large, candidates' home areas, or bailiwicks, were associated with high turnout levels and such high turnout levels indicate that there is a good community spirit in the area, with the locals supporting candidates from their local area. Locals may have also been keen to see a local candidate elected, ensuring them greater access to their local TD, which is an important factor in a clientilistic political system, such as Ireland's, which may also have encouraged people to turn out and support their local candidate. Thus, there were, for example, very high turnout levels in the Drum Hall bailiwick of Fine Gael's Denis Naughten (77.7%) and in Dysart (83.4%), where Michael Finneran holds a weekly clinic.

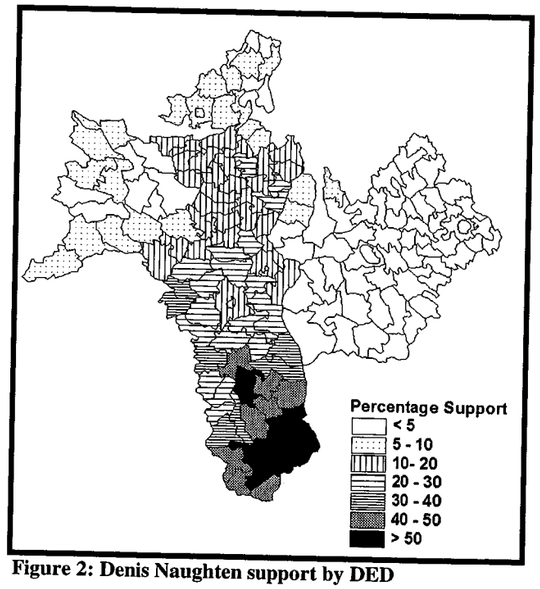


Figure 2: Denis Naughten support by DED

Tally figures for the 2002 General Election, which were printed in the *Roscommon Champion* the week after the contest, form a major source of data for this paper, along with marked register-based turnout figures. A study of these tally figures, by means of mapping and other statistical techniques, show that candidates generally received their highest levels of support in their local areas, while turnout rates also tended to be high in these areas, as was noted above. People were influenced to vote and to take more interest in the contest, if there was a local candidate from their area running in the election. This involved a distance decay effect, with support levels falling for candidates falling as one moved away from their home areas. This is clear from our case study of Denis Naughten. He received his greatest support in home base in the South Roscommon electoral area, (receiving 43.1% of all the votes cast there) while he won nearly 25% of the votes in the neighbouring Mid Roscommon area. He received his lowest share of the vote in the Longford-based electoral areas of Ballymahon (0.3%), Drumlish (0.3%), Granard (0.6%), and Longford (0.6%). This trend is underpinned, and accounted for, by findings from other research studies. Parker (1982: 1) notes that the friends and neighbours effect can have a major impact on Irish electoral geographies and his Galway West study shows the *"strength of the distance decay effect in accounting for spatial variation in individual candidates' share of the first preference vote"*. Hirczy (1995: 263) also finds a similar pattern in Malta; *"given the small size of the electoral districts, high population density, and the social cohesion characteristic of local village communities, candidates can employ networks of family and friends to promote their election chances"*. Most studies link these support patterns to clientelist frameworks, in which candidates are seen to have 'power bases' in their home areas.

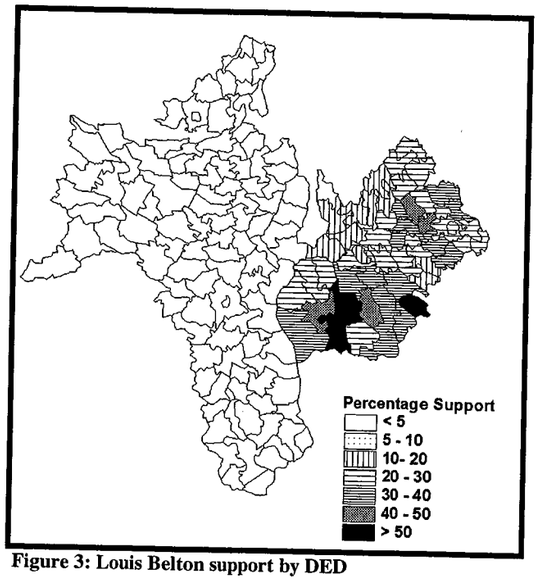


Figure 3: Louis Belton support by DED

As suggested by Cox (1971), the location of voters within the Longford-Roscommon constituency influences the voting decisions that they make, as people generally voted for the candidate that lived closest to them. There was a clear divide between Longford and Roscommon, which led to a split in voting. By and large, there was little interaction between voters in the Longford and Roscommon area; Roscommon candidates got little or no support in Longford and vice versa. As illustrated by Table 1, below, people generally voted for candidates based in their county. Longford-based Peter Kelly (FF) and Mae Sexton (PD) received very few votes in Co. Roscommon. By contrast, Roscommon-based candidates such as Naughten, John Connor, Úna Quinn, Greg Kelly and Michael Finneran received their greatest support in Roscommon, which shows that very few *'votes swim the Shannon'* (*Irish Times*, 6th May 2002).

Connor, for instance, won 99.1% of his total vote in Co. Roscommon. Roscommon accounted for 98.7% of Naughten's total vote, 98.1% of Finneran's, 98.0% of Greg Kelly's, and 98.0% of Quinn's. Party strategy may account, in part, for this pattern. Belton and Peter Kelly were assigned the whole of Longford for their canvassing purposes by their parties. Connor and Greg Kelly were assigned northern Roscommon and Finneran and Naughten were assigned

southern Roscommon. Fianna Fáil and Fine Gael recognised the strength of the friends and neighbours effect and based their vote management strategies on that. In cases where two counties are in the one constituency, as in the case of Longford-Roscommon, Fianna Fáil selection conventions are held on a county basis, and in the case of Roscommon the party also held separate conventions for the northern and southern areas. Such strategies are a means of ensuring a good spread of candidates throughout a constituency so that the party vote may be mobilised in favour of a local candidate in the different areas (Galligan, 2003). The geographical break down in voting was not as apparent for the smaller parties, such as Labour, Sinn Féin and the Green Party, however, as the share of the vote won by Whelan, Ansbro and Baxter, were relatively similar for both counties. These candidates were probably picking up natural Sinn Féin, Green and Labour votes, which were to be found in both counties, albeit at very low levels. Finally, Independent candidates, such as Quinn and Flanagan, tended to do best in their home area and home county, either because their campaign was focussed on a particular locally based issue, as in the case of Una Quinn and the Roscommon Hospital issue, or because they had fewer resources than parties had and needed to focus in on their local bailiwicks so as to maximise their votes.

	Longford	Roscommon
Naughten FG	87 (0.5%)	6,361 (21.3%)
Finneran FG	117 (0.6%)	6,172 (20.7%)
G. Kelly FF	127 (0.7%)	6,085 (20.4%)
Connor FG	33 (0.2%)	3,541 (11.9%)
Quinn NP	70 (0.4%)	3,455 (12%)
Whelan SF	725 (3.9%)	940 (3.1%)
Flangan NP	96 (0.5%)	648 (2.2%)
Ansbro GP	128 (0.7%)	284 (1.0%)
P. Kelly FF	7,199 (38.7%)	136 (0.5%)
Belton FG	4,840 (26.0%)	83 (0.3%)
Sexton PD	4,446 (23.9%)	347 (1.2%)
Baxter LAB	237 (1.3%)	339 (1.1%)

Table 1: Candidate support, by county, in 2002 General Election.

The media is a powerful tool in swaying the electorate's voting patterns. While studying the effect of the media on voter turnout and turnout variation we discovered it does play an important role in influencing people in their choice of candidate. The portrayal of candidates in the media may influence whether or not people will vote for them, or give them their first preference. *How Ireland Voted 2002* offers an analysis of the influence that the media – both national and local – may have on voting patterns. In the run up to the 2002 General Election, it was noted that the *"press relied heavily on national and constituency polls which were, in some cases, misleading and unscientific"* (Bradendury and Hayden, 2002: 177). Reporting positively, or negatively, on a candidate, or their electoral prospects, could alter the perceptions and strategies of a voter. The cases of Greg Kelly, Louis Belton and Mae Sexton, who were candidates in Longford-Roscommon, suggest that the media may have affected their electoral prospects, in the case of constituency opinion polls that appeared in a local newspaper a few weeks before the election. These opinion polls, published in the *Roscommon Herald*, predicted that Greg Kelly would win a seat, with 16% of the first preference votes. He, however, failed to win a seat in the election. Readers could have assumed Kelly was safe and may have switched their first preference vote to a candidate with lower support, in the belief that Kelly had enough support to secure his seat.

Louis Belton, by contrast, was never portrayed as being in the running for a seat, even though he was an incumbent TD for the constituency The *Longford Leader* expressed this on May 8th 2002, noting that *"the first definitive poll for Longford Roscommon constituency looks to spell the end for Louis J. Belton's Dáil career"*. Voters, hence, may have regarded a vote for Belton – seemingly not to be elected – as a waste. While the media may not have been totally to blame for the end of Belton's Dáil career, this report probably proved to be the final straw. Mae Sexton had more positive dealings with the media in this election, as the poll showed the increase in support that would be needed to elect her. We conclude that local newspapers could influence people to vote in particular ways in this election. However, newspapers also had some good points, as most encouraged the electorate to *"fulfil their democratic duty and vote, irrespective of which party or candidate they chose"* (Bradendury and Hayden, 2002: 178).

Major problems involved in this study had to do with restrictions in terms of time and money. A longer time period and larger budget would allow us to analyse the friends and neighbours effect and the media in greater depth. Further analysis could involve calculating correlation coefficients, relating candidates' support levels to distances from their homes, as involved in Parker's (1982) study. Further areas of interest would include the impact of women's votes, party loyalties, local loyalties and the recent changes made by the Constituency Commission. There was evidence of a women's vote in the 2002 General Election in this constituency, in that the lack of an incumbent female TD seems to have encouraged women to vote for, or give high preferences to, female candidates. When Úna Quinn was eliminated, many of her transfers went to Sexton, even though these candidates hailed from different counties. In this case, women voters were giving a female candidate their highest preferences, regardless their geographical based. Further analysis could be carried out here, involving questionnaires devoted to female voters in this constituency and interviews with the different female candidates. We would also be interested in studying in more depth the presence of party loyalties in certain areas in Longford-Roscommon, with a particular focus on areas that are consistently loyal to one particular party, such as where there are large numbers of dedicated Fianna Fáil supporters. (Ming Flanagan argued: *"if Fianna Fáil put two horses heads on a poster they would still be guaranteed to take two seats here."*) We would also like to further analyse the influence of local loyalties in the context of Longford-Roscommon being a constituency that comprises of parts of two different provinces. In this context, we would study how the resignation of Fianna Fáil TD Albert Reynolds resulted in Longford Town-based voters transferring their first preference vote to Mae Sexton, a clear example of local loyalties because, instead of breaching county or local boundaries to vote for another Fianna Fáil candidate, they changed their preference to a different political party. Finally, since we started this report, the 2004 Constituency Commission has split the constituency of Longford-Roscommon. We would like to study in careful detail the reasons for and against this decision and to examine its potential influence on prospective Dáil candidates. For example, candidates from West Longford, who were once located in the centre of the Longford-Roscommon constituency are now on the periphery of the new Longford-Westmeath constituency, whereas candidates based in North Roscommon are now in the centre of the new Roscommon-South Leitrim constituency, whereas they had been located on the north-western edge of the old Longford-Roscommon.

Selected Bibliography

Bradenburg, Heinz and Hayden, Jacqueline (2003) The media and the campaign, in, Gallagher et al. (eds.) *How Ireland voted 2002*. Palgrave, London, 177-198.

Constituency Commission (2004) *Report on Dáil constituencies 2004*. The Stationery Office, Dublin.

Galligan, Yvonne (2003) Candidate selection, in, Gallagher et al. (eds.) *How Ireland voted 2002*. Palgrave, London, 37-57.

Hirczy, W. (1995) Explaining near-universal turnout: The case of Malta, *European Journal of Political Research* 27, 255-72.

Kavanagh, Adrian P. (2002) *Unequal participation – Unequal Influence*. South West Inner City Network, Dublin.

Parker, A.J. (1982) The friends and neighbours voting effect in the Galway West constituency, *Irish Geography* 1(3), 243-262.

Roscommon Herald (2002) *The constituency that doesn't work*, http://www.unison.ie/roscommon_herald, accessed 17/11/03

Roscommon Herald (2002) *Count by count analysis*,

Roscommon Herald (2002) *Dr. Kelly holds out to the end*,

Western People (2002) *Election 2002: Longford-Roscommon shaping up nicely for a ding-dong struggle*, http://archives.tcm.ie/westernpeople, accessed 17/11/03

Election 2002 (24 May 2002), *Roscommon Champion*, 28-31.

Turnout data used in this report was drawn from a marked register-based, research study of voter turnout rates in the 2002 General Election, carried out during Summer 2003 by Adrian Kavanagh, Catherine Duffy and Cormac Walsh. This project was sponsored by the Institute for the Study of Social Change, UCD, and the National Institute for Regional and Spatial Analysis, NUI Maynooth.

I'm a Geographer. Get Me Out Of Here! Part 2

By Geo-rge of the Jungle

Shelagh Bond was buried under the ground. "Shelagh, remember, anytime you want the trial to stop, just say "I'm a geographer get me out of here", and we will stop the trial" said the dastardly Ade, nodding to some 2nd Year lackies who started pouring pulp made from 2nd Year Practical exercises into the hole. "That is a highly acidic substance" he said, as he walked off for a quick can of 7-Up, leaving Den to wrestle with his conscience and also to listen to Shelagh humming in order to keep her spirits up. Ade returned three hours later to find that Shelagh had just completed the trial and was walking back to camp. "What the…" he snapped. Then he picked up one of the stray exercises, with a big red "F" on it. "That's it" he snapped, "These exercises just lacked bite and hence were harmless" and went into a hissy fit, ending in him putting his foot into a more dangerous batch of mulch, one made from voter turnout sheets. "Aieee!" he cried in agony, "The Dublin Mid West batch…North Clondalkin…turnout of 38.963%…" Den turned away. Whether nauseous over Ade's pain or the superfluity of voting stats, it was hard to tell.

The following morning Ade 'n Den arrived at the camp to announce the first evictee...Ade's foot looking like a mummy (Egyptian variety). "Please, please!" cried Dubby, "Tell me that I'm to be voted out!" "Sorry Dubby", said Den, "You're not one of the three up for the chop. They are Paddy…" "I sense trouble" said Paddy. "Lord Walshket…" "Absolutely spiffing!" said the peer. "…and Rob" said Den. "Man, it's just fan-tastic either way guys" smiled Rob. "And the first person to go is…PADDY" said Den. "I sensed that this was on the cards" said Paddy, bending all the spoons in the camp in despair. "Here's an idea" said Ade, "Why don't you psychic-cally transfer yourself out of the camp? The public would love it!" "That is a great idea" said Paddy, "I will trans-fer my-self out of the camp in a puff of light-ning!" "I'd suggest you transfer yourself out along the pathway" said Ade. "Good idea" said Paddy and with that there was a crack of lightning and he disappeared. "Ooh, that's so sparkly and crackly" said Foley Tomkinson. "Kinda like that Star Bars programme!" said a fascinated Razor, "God I'm so hunry!" Meanwhile Paddy's essence was transporting along the path nicely…but then hit a tree that had not been there before. (The fact that Paul the Producer was sitting atop a JCB about 20 metres away was of course a total coincidence.) "Help!" cried Paddy as his molecular essence entered the tree and then re-materialised within the trunk, leaving him trapped, unable to get out due to the eddies in the…oh hell, let's face it, he just wasn't up to the task. "A talking tree!" sneered Paul evilly, "How quaint!" and he started selling tickets to gullible Anthropologists to allow them theorise on the 'magical tree'.

Back at the camp, Ronan decided he would become a kangaroo for the day and Ro, who just rolled her eyes, was the only one not to murmur darkly about the men in white coats. He was bouncing around the camp like Skippy when he jumped on Lord Walshket's china teapot and smashed it. "*****!!!" yelled the peer. "Ooh I'm so sorry!" said Ronan, "Here I'll make you a new tea pot out of these twigs." He did. "That's still a bunch of twigs!" snapped Lord Walshket.

Back in Evil Central…er I mean the headquarters of the production team…Den found that both Paul and Ade were nowhere to be seen and started to panic. Were the cops amongst the few to waste their time actually watching the show? He was still in a panic when Paul and Ade arrived in, carrying boxes. "Och, calm down" said Paul patronisingly, "We were just looking after business. Weren't we Ade?" "Yes" said Ade, with an inscrutable look on his face that sent a shiver up Den's spine. "What's in those boxes?" asked Den. "Remote sensing equipment" said Paul, "The TV company have buried the prize money for the winner somewhere in the jungle. I will use my technical acumen to locate it and pocket the loot. The contestants will be too busy being dead to notice, nya ha ha!" "You are pure evil!" said a horrified Den. "Why, thank you Den!" said Paul.

The next day the campers were dragged out of their beds at half five in the morning. "Sorry about this" said Ade, "It's the time difference, have to keep the TV people happy!" "But we're in the same time zone!" snapped

Shelagh. "Whatever" said Ade, "The next person to die…er leave will be…RO. OK, pack your bags, and take that path down to the left. Den, haven't you something to be doing?" Den walked off with a guilty look on his face. Ro left the others in the camp, too emotional for words and only able to wave goodbye. As she walked along the path, Den was hidden behind the bushes, holding the handle to the door of a cage, which was full of psychotic Roy Keane clones. But then he thought better of it and walked away, Cork-tinged swears ringing in his ears…

And bumped into Paul the Producer. "A word, maybe?" he said, dangerously. "Er…" said Den. "Den, Den…" said Paul, "I don't think we understand each other". He picked up a rock hammer and started playing about with it. "You seem to be under the impression that when I tell you to do something it's kind of like a subtle hint, or a little word in the ear" said Paul, though gritted teeth, "but you're wrong. When I tell you to do something, I expect it done. Now. Otherwise…" He threw the hammer out of his hand and it hit the wall a millimetre above Den's head. "…we will have problems" he said, "Now, do we understand one another?" "Yes" said Den. "Good" said Paul, "Now I have been watching *24* and have an idea… What do you know about disease modelling?"

Back at the camp, Jonny was getting antsy. "Och, as I said" he snarled, "I've only been here for the climate, but now I've got to decide whether it's time for me to storm off the show in a show-biz style strop… I mean, och, pull out of the show with dignity so as to retain my artisitic integ-gritty!" Jordan, just sat there in the corner, still taking up about 99% of the camp. "Och" snarled Jonny, "Typical, cannae take challenging opinions at all, eh? Look at it, it's all artificial and…" "Jonny" sighed Razor, "It's a sovereign state, it cannot respond to your irrational rants!" Razor had to duck as Jonny threw a haggis at him for about the 313th time…

For about the sixth time since the show had begun poor old Fran-ashnu and Dubby to do the geog-tucker trial. This was the one where they had to eat an assemblage of horrid gunk and, having piled their trays with Ade's pungent Laoisish Stew (made up of various bog-based insects), they sat down to consume it! "Focus!" cried Fran-ashnu, "Focus!", as he psyched himself up to eat some unidentifiable peatland creature, which was somewhat obscured by bog cotton. Dubby, in between tears, similarly tried to psyche herself, by incessant hand clapping, in the manner of Dublin GAH fans…well maybe not. Ade, looked on and laughed evilly, as the unfortunate duo threw up. "Happy?" chided Den, "Why did you have to pick on them for this, yet again?" "Didn't" said Ade, "public vote". "I'm shocked" said Den, "First, that anyone is actually sad enough to be watching this tripe. And second, that the public could be that mean!" "You Medical Geographers!" sneered Ade, "Always looking at the world through rose-tinted glasses, not like us Political Geographers!" "Eh?" said Den. "When you're a Medical Geographer, you have to go looking for trouble, but when you're a Political Geographer trouble comes looking for you", said Ade darkly, "We don't deal in a world of sniffles and nurses, we deal in a world of conflict, malevolent elites and, worst of all…low voter turnout!!!" and with that he stormed off, leaving Den to seriously consider raising the SMR in the region to take account of Ade. "Och, tense guy" said Paul the Producer, walking up then, "And full of waffle! And by the way, thanks for that virus!" "That's OK" said Den, "It is for research purposes after all!" "Well…" said Paul, "Or maybe for spreading through the camp!" "What!" cried Den. "Och, it won't hurt them!" said the flagitious producer, "Just kill them, nya ha ha!" "Not that virus!" said Den, "It just turns good honest Geographers into Historians!" "Och, that's inhumane!" said Paul, "How sick can you be?"

Ronan, having failed abysmally before, was sent off to get find the celebrity chest again. "Smashie and nice, a squirrel!" said Ronan, as one of Shelagh's cats ran past. "Ronan, psssst!!!" said Den, hiding behind a bush. "No thanks old bean, already had a wee leak down at the river" said Ronan. "Eww, I just drank out of that" cried Den, "Anyway, listen up. Your life…well actually your geographical integrity is in great danger." "Smashie!" said Ronan, "And I'd like to dedicate this record to…" "Have you understood one word of what I have said?" groaned Den. "Ooh, look a log!" yelled Ronan and ran off. "Well be a Historian, see if I care!" snapped Den. "Och, did ye get the chest?" snapped Jonny, as Ronan returned. "Of course I got the chest. How would I breathe otherwise, like duh!" said Ronan, rolling his eyes. "The celebrity chest!" sighed Dubby. "No" said Ronan, "But I found this big box out there!" "That is it!" roared Lord Walshket, "Give it here to me before Mata Hari in the high heels over there blows this one up too!" "How did I know that you are not to put a match to explosives, Lord Grumpy Pants" sniffed Dubby. "Silence wench!" snarled Lord Walshket, "Here is the question. Which is the heavier? (a) A tonne of feathers or (b) a half a tonne of rocks?" Ronan and Razor looked at him as if they were open-mouthed fish in a goldfish bowl. "Oh, dash it!" snapped the peer, "Even Human Geographers know that rocks are heavier than feathers, apart from you two nitwits!" "Does the half tonne and tonne thing mean anything?" asked Ronan. But the peer had already opened slot (b). "It is a bloody high heel shoe!" he yelled, "I got it wrong. I do not believe it!" and with that he started kicking the chest repeatedly. "I told you" said Ronan, with a famous rare moment of lucidity. "Hey, don't worry Your Walshket, it's cool!" said Rob Andre, "To cheer you up, I'll sing another song! Guys?" All the others made a dash for it, only to find a 20-foot fence had been put up around the camp. "Focus!" cried Fran-ashnu, as warbling permeated the air.

"Fellows! Dubby!" said Shelagh, arriving back in the camp after having gone for logs, "I accidentally overheard Paul the Producer and the tall one out of Ade 'n Den having a conversation. There was lots of evil chuckling involved!" All the others got into a panic, apart from Ronan and the still singing Rob. "What act of evil have those perfidious proletarians in store for us next?" snapped Lord Walshket. "They're going to unleash the dread Historola virus on us!" said Shelagh. There was uproar. Even Rob dropped his guitar. "Plus, while this place is in chaos, they're going to steal the prize money!" continued Shelagh. Jonny totally lost it and smashed up the camp (again). "Och, they have nay right tay take my money!" he yelled. The others looked at him. "Och, I mean, take the winner's money" he said unconvincingly. "I can track the

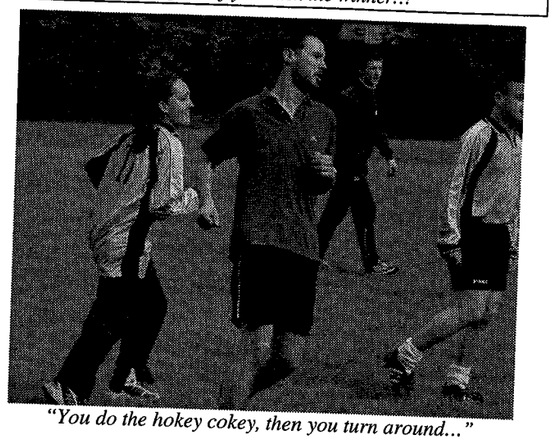
disease plume and model it's dispersal" said Ronan. Everyone stared. "How come a ditsy urban socialite know so much about geographical information systems?" asked a shocked Razor. "Pretty pictures" explained Foley Tomkinson, tapping some keys on his laptop, "Ah, I've worked it out, if we climb this tree…" Ten minutes later, the disease plume passed through the camp and left the geocelebs unharmed. "Where will it land?" asked Razor. "SU Building" said Ronan. "Oh no, all the Geography students there will be infected!" cried Dubby. "It's OK" said Lord Walshket, "They should actually be in lectures now and not drinking, so if they're turned into History students, they'll push up the average mark!" "Hurray!" said all the geo-celebs.

A few hours later, as some 1st Year Geography lackies were digging, Paul the Producer looked on, sitting in typical super-villain style – only he was stroking a lump of basalt and not a cat. "How can you tell anything from those images, they're just funny colours to me" said Ade, looking cluelessly at the remotely sensed imagery. Before Paul could make some crushing remark, the geo-celebs suddenly appeared on the scene. "Desist malefactors!" said Lord Walshket. "You wha?" said Ade. "Stop!" said the more concrete Dubby. "Why didn't you say so?" said Den, "OK it's a fair cop and all that…" Ade reached into in a box and dragged out a rocket launcher. "Overtly dramatic much" chided Foley Tomkinson. "This isn't Political Geography field work" snapped Dubby, "You don't even know how to use that thing, you're pointing it right at yourself!" "Oh thanks for the tip!" sneered Ade, turning it around and pointing it at the celebs. "Och. That's it, now ah'm gonna get climatological on yer ass jimmy" growled Jonny and he summoned up a sky full of black clouds. "Ooh scary, what can they do?" sneered Ade. There was a crack of lightning and ten seconds later he was submerged in snow, sleet and hailstones. "I'm suffering from S.A.D." he whined.

The Gardaí arrived on the scene. "Now that the cops are here, I have seen the error of my ways! And will stick to studying rocks from now on" said Paul the Producer. "Ah, good man, fair enough so" said a guard, "We better arrest Ade though." "Which one is he?" said the other guard, "No-one can tell Ade 'n Den apart!" "Sure, we'll arrest both of them!" said the guard, and dragged them away, as Den cried "I am an innocent man!" The shot students were wheeled away too –their wounds had gone septic but they would be alright after half a year in hospital. Paddy, alas, remained pyschic-ally submerged within the tree, but had been offered a role in *The Lord of the Rings*! "We've just heard that an unfortunate student is still imprisoned" said Dubby. "Och, I'll release him" said Jonny, "The hero bit will go down well with the press…ah mean, I refuse to sell out and be seen with ye lot, I'm an anarchist!" and he stomped off. "I didn't understand a word that he said!" said Razor. "Och, it's all waffle" said Paul. In Evil HQ, Billy, still tied up, looked in agony, as Celtic scored again against the best that Scotland had to offer, Forfar Fishermen. Jonny stormed in then. "Jonny!" cried Billy, "You're here to save me…" "Quiet" said Jonny, grabbing an IrnBru and sitting down, "Celtic are about to score again". "Nooo!" cried poor Billy.

"Guys" said Rob Andre, "We're alive. Life is great! It makes me wanna sing!" "Uh oh" said the others. "Wohwohwoh" sang the Andremeister, "Mysterious Geographer, I wanna get close to maps…" The others just ran…

Who do want to see crowned King or Queen of the Geography Jungle? E-mail your choice to geogjungle@yahoo.co.uk and you could win a prize if you back the winner!!!



"You do the hokey cokey, then you turn around…"

Single Hons. Westport Feildtrip

WestStrife

The bus for the West left Maynooth on a Friday, with Karen as the only 'responsible' 'adult' on. Everyone was full of enthusiasm for Mayo – cries of "Why aren't we going from Barcelona?" abounded! Next day, everyone woke to the rain, which was to be with us every day, 'cept for St. Paddy's Day. The work started on a cultural note with architectural tour of Wesport Town, then we went to the boglands of Belmullet, where we met a local councillor, Tim Quinn, who gave us coffee and biccies, so we love him (though we did have to make it ourselves!). That evening, the presentations kicked off which everyone was delighted to do. Caroline Henry kept referring to Belmullet as "Ballymullet" or "out there". On Sunday, Ronan made us do landuse surveys of the town of Westport – it was raining as well! That afternoon, it was off to Kylmeore Abbey and we met a really nice nun, who was a bit of a nutcase. On Monday, the group went to Castlebar and the highlight of the week occurred – we got free lunch! And not just any ould lunch, a four course meal! Thanks Mayo County Council! Then Ronan made us do a landuse survey of Castlebar. And it was raining. Thanks Ronan. An original song about Ronan was made up that evening, but it wasn't very funny. Next day…it really rained, when we were out in the middle of nowhere doing surveys for Karen. It was good in the end, because there was free tea or coffee…and biscuits (digestives, I think). At this point we could see the real theme of the week emerging – free food! The surveys worked out well and everybody enjoyed it…especially Karen. Sarah McCormack locked people out of her car for half an hour however in the rain when she was indulging in free tea in some farmer's house. Next day was St. Paddy's Day – the

"Rest" Day. We went to the National Museum of Culchie Life just outside Castlebar, where we got a really nice dinner…which wasn't free. To continue the easy rtestful day, we went to the Ceide Fields, but that was a bit boring because everyone was so hung-over. There was tea there…not free. The two Danes, Eva and Casper (not the friendly ghost) were very disappointed they didn't get to see a parade. Thursday was Johann's day of surveying…and it was raining. But spirits picked up amongst the male contingent when she told everyone that she'd give them her mobile number. Again free tea and biscuits were the order of the day. Alan and Clare benefited most from this, spending an hour in one lady's house…at least that's what they said ('twas a bit of the smoochie woochies I think). We went to Knock and the airport as well, but no-one was impressed by that…apart from Ronan who had never seen an airport in a bog before! We saw a scary nun in the Foxford woollen mils. Presentations of results followed that night, where we learned that the best tea and biscuits were found in the Kiltimagh area. That's it really then. Suspicion allegedly surrounded Morgan, but no conclusive evidence has emerged to pin anything on him.

Some Exam Tips

The Geo-pen

First Minutes: Arrive in good time. Make sure you have all necessary equipment with you. Be in as relaxed a state of mind as possible. Exams are not fun (except for 0.35% of the population) but if you've studied then you should approach the exam with confidence – if not then it's time to PANIC!!!

Reading The Questions: Take time to read through the paper and select the questions that you will attempt. Make sure you know the exact number of questions you are supposed to answer – if you're asked to do two questions, you will not get marks for three answers. Fact.

Starting to answer: Other than not attending lectures and a sheer lack of study, the most common reason for poor exam results is that students misread questions and do not answer exactly what they are being asked for. No question will ask you for everything you know on a certain topic – you are always asked to focus on certain aspects. A perfect account of some area that is not related to the question topic will get you no marks. Material that is irrelevant to the topic should not be added in just to 'bulk' your answer out, as this will also cost you marks. In short you need to identify the key issues in the question and focus on them, rather than writing pages of irrelevant material that will lose you marks.

Take especial care to note the type of question that you are answering. Questions that ask you to "list" or "describe" are very different to questions that ask you to "contrast" or that ask you to "discuss", "assess", or "critically analyse". The latter type of questions will expect you to make an argument and to come down on one side of a debate in your conclusion, based on evidence drawn from material that you have studied in that module. It is important to show in your answer that you understand the different sides of a debate as well, even if you are arguing in favour of one side of this debate.

You need to put some thought in before you start to write your answer. For the first few minutes, organise your thoughts around the question and to boil these down to three or four main points, which you will then elaborate on, backing your points with evidence. Definitely use a **plan** –detailing the areas that you will cover in your answer. A good way of making sure you cover everything you know in relation to the question is to **brainstorm** – as roughwork, write down every relevant point you can think of in a minute. You can then refer back to this list as you write your answer to make sure that you do not omit key points.

Time: Make sure to plan your time out carefully. On average, you have roughly 40 minutes to answer an exam question. Avoid (like the plague) the temptation to spend too long on your best question. Remember – It is very hard to 80% for one very good question – it is not as hard to get 80% for two not-so-good answers! The person who does two good questions will always do better than the person who just manages one excellent (but very long) and one barely started question. Of course, if you are writing 10+ pages on an answer that's meant to be done in 40 minutes, then you have definitely gone off the point of the question and will probably get less than 40% on that question too!

How Not To Do An Interview…And Still Get The Job!
Or Why To Do A Geography Degree

Ernest A. Bigot and Matty D. Bogtrotter (cf: The inner workings of Proinnsias Breathnach's mind)

On a cold night in the Callan Building the Geography Society were pleased to host this "masterclass" in interview techniques, as part of Proinnsias Breathnach's Career Talk. Those who were present are still traumatised…mainly by Mr. Bogtrotter's socks……. and in constant need of therapy.

EB: Good evening, ladies and gentlemen. I would like to thank you all for coming here for this evening's set of interviews for positions at the firm of Biggot, Humbug and Sly, the world-renowned firm of widget makers, property developers and general chancers. My name is Ernest Biggot and I am the General Manager of the firm. The first person on my list is a Mr Matty Bogtrotter. Is Mr Bogtrotter here?

[SILENCE]

EB: I repeat, is Mr Matty Bogtrotter in the room?

[*The door crashes open and a dishevelled figure wearing wellingtons, an open-necked sports shirt and a torn jacket bursts into the room, rushes over to Bigot, grabs him by the hand and puts his arm around his shoulder*]

MB: Sorry I'm late sir, good to meet you sir, how are you doing sir, it's good to be here, sir.

EB: Ah yes, fine, fine. Please take a seat.

MB picks up a chair and makes to go out. After fevered cajoling by Bigot, he eventually sits down slouched on the seat, legs wide apart.

EB: Hrmph. Well, I see Mr Bogtrotter that you are losing no time in displaying your…erm…talents. Anyway, let us begin. Where are you from, Mr Bogtrotter?

MB: County Laois, sir [*removes jacket to reveal Laois shirt*].

EB: I see. You poor fellow. [*Matty snorts*] Now let me see [*looks at application form*]. You have a degree in Geography.

MB: Yes sir. That's correct sir.

EB: I suppose you can tell me the capital of Burkino Fasso so, can you?

MB: No sir, but I can tell you where to look it up.

EB: I beg your pardon?

MB: Well sir, Geography isn't about knowing where things are. That's general knowledge. Anybody can look it up in an auld encyclopaedia.

EB: I see. So I suppose you're good at drawing maps then.

MB: Ah no sir. Sure the ould computer will do that for you.

EB: What!?

MB: Ah yeh – sure you just enter all the information on an ould Excel spreadsheet and feed it into the computer, and it'll pump out lovely coloured maps for you in two shakes of a nanny goat's tail.

EB: And what use would lovely coloured maps be to anyone?

MB: [*pulling nose with fingers*] Well sir, your firm is involved in property development, isn't it?

EB: That's correct. So?

MB: Well sir, I could do you up a map showing where people would want to be living in ten years time. Now wouldn't that be handy?

EB: Yes, I suppose it would.

MB: [*Picking nose and surveying contents*] Or I could maybe do a map showing pieces of land that are likely to be flooded every now and again – or maybe get run over by a lump of runaway bog after a heavy night's rain.

EB: Could be handy indeed. And how did you learn all this?

MB: Well sir, I did an ould course on Geographical Information Systems. It's called GIS for short – like in gis a job, ha ha ha.

EB: [*groans*] Apart from useful maps, what else can you do?

MB: [*sticking finger in ear*]: Well sir, if you were thinking of maybe shtarting up an ould shopping centre somewhere, you might like to have an idea of where the people are doin' their shoppin' at the moment.

EB: Yes, that would be useful information to have alright.

MB: Well sir, we did a lot about doin' ould surveys in our geography course – you know, putting questionnaires together and going out and interviewing people and putting all the answers into the ould computer again and comin' up with the results and all that.

EB: Oh yes, I remember we commissioned a crowd once to do a survey like that for us – I spent a week poring over acres of computer printout trying to make sense of it.

MB: Ah no, sir, it's not like that any more. Sure I could give you all the important information you need in a nice set of coloured graphs and diagrams in an ould Powerpint presentation.

EB: Yes, very impressive indeed. Now, apart from producing computer maps and carrying out surveys and presenting the results in Powerpoint, what else can you do with a geography degree?

MB: [*belching*] Well sir, what else would you be wanting in this job you are offering?

EB: Well, I'm not offering it yet. Have you any experience of working in administration or an office environment?

EB: Well, sir, as it happens I spent last summer working for Kildare County Council as a summer intern. Mainly involved keeping the Housing Department offices ticking over: organising meetings, doing minutes, ordering supplies – all that kind of thing. God knows those Kildarites needed it. Had to wear a collar and tie everyday – they were worn out by the end of the summer. It was rough but it was worth it!

EB: You didn't do any budgeting while you were at it?

MB: That's an interesting question, sir [*yawn*]. I'm glad you asked me that. Well, I did a stint as treasurer of the ould tiddlywinks club while I was a student, so I had to keep the accounts. We got some training in that from the ould Student Union. I'm proud to say that we ended up with a surplus at the end of the year – even after having a rake of pints down in the Roost after the AGM.

EB: Interesting.

MB: As well as that, sir, I shared a house with a bunch of other fellas, and after a few weeks of chaos we had to sit down and work out some kind of a budgetting system to pay for the heat and light, and the jax paper and all that stuff. By the end of the year I can tell you I could have done a better job than Charlie McCreevy.

EB: Very good, Mr Bogtrotter. Now, apart from the maps and the surveys and the Powerpoint and the budgeting, what else can you do with a geography degree?

MB: Well, to be honest sir, the budgeting bit didn't have anything to do with the geography degree. It's just something I picked up along the way. But tell me, what else is involved in this ould job of yours?

EB: Well, there's a fair bit of administration involved in the job. What kind of organising experience do you have?

MB: Ah sir, now we're on de ball. Sure the year after I did the Treasurer of the tiddlywinks club didn't they elect me

chairman of the club. Sure I had to do everything after that. We did a fund-raising gig in the Students Union. Sure people are still talking about it. We made a pile of money out of that. Then we had to arrange to travel to all the games in the national tiddlywinks league – organising buses and accommodation and all that. I suppose the ould bit of geography came in handy there. Then we had to make sure we had all the proper equipment – you'd be amazed how much gear is involved in tiddlywinks – and on top of all that I had to arrange all the training sessions and help pick the team. Sure when they were going into the games didn't I have to give these big rousing speeches so they would hit the ground running. Don't tell me about organising!

EB: Mmmm I gather from what you have said that you have developed some leadership skills as well. Very interesting. But tell me, we had some management consultants in here recently and they were talking about the need to build our company around teamwork. Apparently it's all the rage nowadays in management theory. I don't suppose you learned anything about that in your geography course?

MB: Jaysus sir, now we're really sucking diesel. Sure wasn't the survey we did in third year done in teams. We did everything as a team – figured out how we were going to do the project. Put together our own questionnaire – Jaysus, we had some fierce arguments about what questions to put in and leave out. Went out and did the survey together. Argued all night about how to code up the answers. Did all the coding and computer work together. We had a great session deciding what to put in and leave out of our oral presentation…

EB: Oral presentation? So you have experience of doing presentations as well, have you?

MB: Ah yes sir. Spent ages on the Internet getting background information and some nice pictures to spruce up the presentation. It went very well too, after we agreed what bit each of us was to do. Then we had to write the whole thing up to meet the deadline. Everybody pulled their weight big time. It was a great experience, and we got a good mark for it too.

EB: I'm glad to hear that. But how were you able to sort out all your differences.

MB: Well, to be honest sir, it was a bit rough at the beginning. You see, being chairman of the tiddlywinks club, I thought I could tell everyone what to do. But there were a couple of wimmin in my team and they were having none of it. Soon put me in my place. They were smart cookies, they were – full of bright ideas. I soon learned to listen and speak in turn. Once I got used to that, we had no real problems agreeing on things. And would you believe it, one of those wimmin was from Awffaly. I never thought I'd see the day.

EB: This is all very enlightening, Mr Bogtrotter. So now we have teamwork, conflict resolution, negotiation, Internet searching and downloading, oral presentations, report writing and working to deadlines – almost all in one breath. And this is on top of your computer skills, surveys, organisation skills, and leadership. Tell me, Mr Bogtrotter, is there anything you can't do with that geography degree of yours?

MB: Well sir, there is certainly one thing I can't do – I can never get out of being from Laois [*kisses his Laois shirt*].

EB: Well, Mr Bogtrotter, there is one other thing you can't do – you can't prepare a CV. This CV you sent me tells me what educational qualifications you have. It even tells me that you got a C- in drawing in the Junor Cert. It tells me all about your hobbies – not surprisingly, tiddlywinks is among them, along with Rugby League – an interesting combination, to say the least (not to mention the flower arranging). And it tells me about all the boring summer jobs you have had –

- footing turf in some bog down in the Midlands, washing bottles in a brewery, stacking bales of hay, cutting rashers in a bacon factory,
- plucking chickens, crimping wires in a wire factory, licking stamps,
- boiling toffee in a sweet factory, flattening cardboard boxes.

You really have been getting a lot of summer stimulation, haven't you, Mr Bogtrotter. Yet nowhere in your CV do you mention any of the skills you have told me about over the last ten minutes.

MB: Sure Jaysus sir, didn't the teacher in primary school tell me that I didn't have an ounce of skill.

EB: I presume he was talking about hurling, and you being from Laois, I'm sure he was absolutely correct in that assessment [*Matty cries*]. But we are not talking about hurling here. Mr Bogtrotter, I am pleased to be tell you that you have got the job. When would you like to begin?

Rural Development In Ireland: First Impressions Of The Sacred Orphans

Professor David J.A. Douglas, Visiting NIRSA Professor

Matters agricultural, and by inference rural, have something of a special place in Irish political folklore, iconography and rhetoric. Characterised by some privilege, sentiments around indigenous pedigree, and perhaps some nostalgia, regret and even guilt, the other-than-Dublin (and nowadays, perhaps Cork) space in the national consciousness has a very particular and potent place. And yet amid the frenzy of plans and development agendas and the perplexing plethora of organizations and agencies that have characterised Ireland over the last fifteen years, an integrated development strategy for rural Ireland remains an elusive and apparently problematic possibility. Several researchers and others (e.g. O'Hara and Commins, 2003; Walsh, 2000) have noted the glaring absence of an integrated and comprehensive rural development strategy.

This note is designed to provide some first impressions, and only impressions, of a visiting rural development planner active in this particular field of research. They are personal impressions, not those of the Department, the Institute or NUI, Maynooth. They undoubtedly reflect the "baggage" of the writer, and his halting re-familiarisation with the details of the Irish rural development scene. Hopefully these impressions, and some speculations will contribute to the debate around the research agenda and perhaps encourage students to focus their attention on some of the challenges they suggest.

One is struck with what might be called the "geographies of expediency", the uneven record of regional configurations

(see Horner, 2000) that have characterised the Irish scene over the last four decades.[6] Few if any of these have been substantiated by a detailed, rigorous and comprehensive analysis of socio-cultural, local political, economic, environmental and other conditions. There is no regional analytical basis, premised for example on a sectoral input-output analysis and associated spatially specified patterns of inter-industry transactions, to lend credible substantiation to postulated regional delineations. Likewise, there are few if any mappings of social activity systems to substantiate a changing spatial milieu that could be used to make the case for a particular regional design. It is not that there is no logic to the BMW construct, the WDC territory, or the delineation of the Regional Authorities, but the rationale is not self-evident and is short on the footings that might be provided by an independent multivariate analysis.

Ireland is not unique in living with all too frequent yawning gaps between political rhetoric, enunciated policies and priorities and the realities of political amnesia and crass expediency. However, the at times glaring contradictions between finely articulated planning reports and other documents, espoused public policies and public action are startling. This may relate to the unresolved question of local government reform here (e.g. Breathnach, 1992). So endemic do they seem that one could be legitimately concerned with a festering cynicism and an insidious lowering of expectations among the citizenry. This does not bode well for a vital democracy. It certainly is not the most propitious seedbed for the development of a vibrant and visionary rural society. The so-called "one-off" rural housing policy (or lack of), the endemic courting of local constituencies and the approval of special interests through uncoordinated, short-term projects and fiscal prizes, together with an unwillingness to make difficult choices in the selective allocation of (scare) public resources for longer term benefits, cumulatively erode the prospects of an integrated, strategic development agenda for rural Ireland. There is a great danger that rural Ireland will stagger its way into an unknown future; one found by default rather than by design. Hardly an acceptable scenario in a country fully equipped with the research, analytical and other resources to do better.

One is struck, as I have been in places as different as Jamaica and Cape Breton, by the plethora of development organizations active in rural Ireland. While not unique, and while widely acknowledged, it begs questions as to the costs, efficiencies and indeed the equity that might be associated with this phenomenon. Regardless of the genesis of these organizations (e.g. EU programme provisions) what a colleague and I elsewhere have referred to as the "crowded kitchen syndrome" (Fuchs, 1995), must be a cause for some concern. Do we know what portion of the development investment is spent on the organization's operation, maintenance and development? Is it growing, stable or diminishing? What are the often implicit and hidden costs of a vast and growing series of layered networks associated with a landscape of partnerships and other types of collaborative initiatives? Are these costs growing, stable or declining? A very small sample of informal and anecdotal evidence from some researchers and practitioners suggests a growing and substantial concern that the **net** investment to concrete projects and targeted beneficiaries is indeed modest, and maybe proportionally diminishing. This begs the question as to who is being served, and served best by this daunting array of organizations, agencies, committees, development groups and others. The development research literature is replete with admonitions and challenges relating to these issues (e.g. Korten, Chambers).

On a more positive note, one is impressed with the sophistication of rural development planning, the applications of contemporary research technologies (e.g. GIS), the volume and variety of products, from surveys, studies and planning reports, and the degree to which these have made their way into the public realm. While not universal, there are also some examples of strategic approaches to the development planning agenda. The resource base for rural development planning in Ireland is impressive, and far exceeds what was in place even fifteen to twenty years ago. The integration of physical planning with social, economic and environmental planning is also impressive, some way beyond that evident in other jurisdictions (e.g. Canada). Now the evident challenge (again, not in any way unique to Ireland) will be to apply a similar array of resources and ingenuity to the *management and implementation* side of the equation. In part this is the process of helping the politicians (and senior public servants) to get to "yes"; that is the right "yes". The planning profession and others contributing to public policy and programming for rural development have to invest a commensurate amount of energy and ingenuity in the challenges of the "how to", after the plan is in place. This has been the Achilles' heel of planning in so many contexts; translating the aspirations, objectives and the logically articulated designs in the glossy report into concrete strategies and tactics, budgetary allocations, sequenced game plans and specific sets of integrated projects. This is an especially important challenge in rural development in Ireland and may be the critical link in ensuring that plans are more than therapeutic exercises or discretionary platform rhetoric, and serve to function as seamless preambles to an actual action agenda.

Rural Ireland has much that is sacred to Irish society. Hopefully it is not another of Kevin Myer's "sacred cows", sealed off from critical enquiry and challenge. Notwithstanding the lavishing volumes of programmes and political attention that it receives, in terms of vision and long-term, integrated development agendas, it is something of an orphan. At least that is a view "from away", as they say in rural Maritime Canada.

[6] I am using "Ireland" here as shorthand for the "Republic of Ireland".

Bibliography

Breathnach, Proinnsias. 1994. *The Sad Saga of Local Government Reform in Ireland*. Cork; Paper for the Conference "The State of the Irish Political System.", NUI, Cork.

Chambers, Robert. 1983. *Rural Development: Putting the Last First*. New York; Longman.

Fuchs, Richard. 1995. "Rural and Community Economic Development in Newfoundland and Labrador." In Douglas, David J. A. (ed.). 1995. *Community Economic Development in Canada*. Toronto; McGraw-Hill Ryerson. Vol. 2.

Horner, Arnold. 2000. "Geographical regions in Ireland - Reflections at the Millenium." *Irish Geography*. Vol.33, No.2. pp.134-165.

Korten, David. 1987. *Community Management: Asian Experiences* **and Perspectives**. West Hartford, Conn.; Kumarian Press.

O'Hara, Patricia and Packie Commins. 2003. *Ireland and the Future of Europe: A Regional Perspective*. Walsh, James. 2000. "Dynamic Regional Development in the EU Periphery: Ireland in the 1990s." In Shaw, David, Peter Roberts and James Walsh (Eds.). *Regional Planning and Development in Europe*. Aldershot; Ashgate.

TIME TO GEOG THOSE MEMORIES?

Mr. Robert Grace, 3rd Arts

When each of us entered the gates of NUI Maynooth back in 2001, little did we know what lay ahead. For the most part we are, or at least were a timid bunch back then with one or two exceptions – and would do little to cause trouble, and if you believe that.... The evolution began in February of 2003, when a group of intrepid geography students set off for the south of France in search of good marks from John Sweeney. While there was a lot of work done on the fieldtrip, there was a lot of playing too.

It began on the Tuesday, when a rebel faction set off in search of a game of pool and the remaining undergrads decided that a good 'ol Irish pub should exist on the Côte d'Azur. Thus Geo's Tavern was born. Inside the door of this unlicensed premises, the ideas began to circulate. The female geographers first brought forth the make-up bags, not for themselves, but for the lads. On the receiving end were Niall Loftus and Geog Soc Prez Robert Grace. There was no escape from the lipstick, blusher, eyeshadow or mascara – God help us.

Determined not to be outdone, the guys hit back, devising a new plan for a bizarre record attempt. How many people can you fit in a toilet? Now I doubt you've seen the toilets of the Hotel Premier Classe in Nice, but they're tiny, about 5 feet by 4 feet. In we piled, one by one, until a somewhat lucky total of 13 geographers were packed in. Unfortunately Guinness did not accept our record although photographic evidence was furnished. Subsequent attempts by Messrs K.Kenny & P.Daly to incarcerate the 13 were foiled. The use of the showerhead by the aforementioned Loftus made sure of that.

When the dust settled all that was left was a soaked bedroom floor; ten pizza boxes outside someone's bedroom door; a fire extinguisher, a pizza box and a stool in a lift; two idiots with make-up on and security wasn't even called. The pool players – well they got their comeuppance when they had to face a 9 hour bus journey after drinking until 8 am. And to think, this all happened in one night. Since then there have been appearances by

- ALF of '80s TV fame,
- Adrian Kavanagh as Santa Claus,
- Anne Robinson (kind of)
- Some low key impersonations by the so-called Reservoir Geogs, although these never strayed further than the Geography class.

Who said Geography was boring!!!

RETURN OF THE GEOS: THE GEOGRAPHY SOCIETY YEAR 2003/4

Ms. Aisling O'Malley and Ms. Gemma Moore, 3rd Arts

The Geography Society this year was founded in the Canteen back in October, when it came to our attention that there was no Society at the Fairs Day!!! After going through all the procedures, such as setting up accounts and dealing with the Clubs and Socs, we decided a Social Night would make a good start to the year, just to geo...sorry blow off some steam.

With the help of unemployed 80s TV alien Alf, we had a County Colours Night at the SU, with music by the Fontaines (including Geo-musicians Niall, Peter, Davey, Tom and James). Alas, the best-dressed prize went to a Dub, Cian O'Connor's sister...about the only thing they won this year, ha ha ha.

Next up was the Career's Talk, given by Proinnsias Breathnach, with a guest appearance by Matty Bogtrotter. A huge crowd attended this and left with many career skills, handouts, bottles of wine...and unwanted images of Matty's socks. After that, the next event was the pre-Christmas "The Weakest Geo", featuring Robert Grace in drag as Ann Robertgrace-inson. The victims...er contestants included the crème de la crème of the Students and Staff of the Geography Department and the watchword was "Get Gearóid" (on the part of 3rd Years) and "Get Cindy...er Laura" (on the part of the Postgrads).

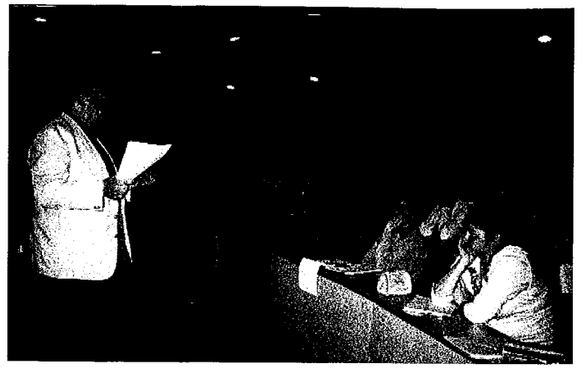
After a vicious battle, in which life-long enemies were made and in which Proinnsias made every effort to be voted out quick (and failed), it all boiled down to a head to head between Maeve O'Reilly and Heather Dunne. Equestrian experience gave Maeve the vital edge: she won...and we've been hearing about it ever since!!!

After Christmas, and the horrors of exams and Group Project deadlines, our next event was the Africa lecture, with visiting lecturer from South Africa, Trevor Hill. Every 2nd Year (or should that be every female 2nd Year?) within 100 miles was there...looking for exams hints or maybe they were just threatened by Trevor Hill? This was a huge success...despite Trevor being blinded by a camera flash midway through the lecture.

Afterwards, Gemma and Robert were doling out the alcohol...er sorry cheese and wine, when it became apparent to Gemma that she was the gooseberry, who was keeping Robert from all his "female fans"...or was that Trevor's fans? Oh, maybe both of them.

Future plans include the launch of this esteemed publication plus the hosting of the initial "Green Globes" Awards, paying tribute to the "outstanding" members of Third year, 2003/4. You have been warned. Get those tuxes pressed. Practice your false smiles. And we want tears, tears...and more tears...

"It wasn't me, I swear!"



"When I grow up, I wanna be like you...ooh...ooh Fran"

Flatheads

"Scoff my Pringles, will you!"

The naked photographer!

Today's Specials???

I...hic....want...hic...your...hic...vote...

Blown away on the west coast