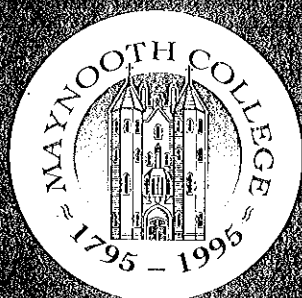




Maynooth College
Geography Society

Milieu 1995



CONTENTS

	Page		
Foreword	2	A Geomagnetic Study of four sites in the Dublin region to assess their hydrogeological suitability for land filling.	24
Maynooth 1795 - 1995	3	Ivan Devilly	
Editorial	3	Fieldwork Memories	26
Auditor's Report	5	Paul Gibson	
River Tourism: A brief account of passenger transport on the lower reaches of the river Shannon in the 18th and 19th centuries.	6	The Postglacial Evolution of Irish Fauna - what will be the next species?	30
Kevin Griffin		Kieran R. Hickey	
Conflict in the former Yugoslavia	8	Star Trek - The Final Geography	31
Adrian Kavanagh		Director Designate - Maynooth Star Trek Programme	
Erasmus Exchange to Keele University 1994	10	Environmental Protection and the European Community	33
Ruth Bennett		Derek McCormack	
Pathways to Drink: a second arts practical guide	12	Erasmic Impressions	35
John Sweeney		Bernd Hauser	
An African Experience	13	Scale and Storage - The Perpetual Geographers Dilemma	36
Michelle Corcoran		Garry Gill	
Into the West: The Maynooth Story	13	Gleanings from the old 'Gg' collection in the Russell Library	36
Gerard Fitzsimons		Prof. Paddy Duffy	
Tourism and the Environment	16	Crossword Competition	40
Karl McGovern		The Map Library	40
A Geographer's look at the Cinema	17	The Map People	
An American Odyssey: or, How to Avoid Disneyworld in Three Easy Lessons	19	The Ultimate Field "Trip"	42
Proinnsias Breathnach		D. Bentley	
The Industrial Revolution in the USA	20	Der Rhinelandschafter und der shearingstuswagen 1994	43
Tom Corbett		The Bard of Batterstown	
Carry on up the Alps!	22	Manchester Metro-Link - Dublin's Future?	43
Brendan McEvoy		Ronan O'Connor	
Kwik Kwiz	23	Offshore Ireland: Forgotten Frontiers or a Lost Cause?	44
		Daragh McDonagh	



A section of Rocque's 1757 map of the Manor of Maynooth showing the village of Maynooth, the castle and the grounds where the college now stands.

FOREWORD

A Bicentenary is a special occasion. Although the Department of Geography and the Geography Society will only have reached their 25th anniversary in 1996, like other sectors of the university which are late arrivals in the history of Maynooth College, they should feel justified in sharing in the celebrations for St. Patrick's College. When the undersigned arrived in Maynooth in the infancy of this department, he attached the following words to his office door in New House:

"Amongst others, I was then encountered, on my passage from Westminster to Whitehall, by a tall big gentleman, who thrusting me rudely from the wall, and looking over his shoulder on me in a scornful manner, said in a hoarse voice these words: Geography is better than Divinity, and so passed along." (Dr Peter Heylyn *Cosmographia*, preface, 1649).

Though in the grand style of Luther at Wittenburg, this was nothing more than a mischievous gesture by a gentle discipline in the theological heartland of Ireland, in the half expectation of a bolt from the blue or a belt of a crozier. Neither happened.

Of course Geography as an academic discipline was not unknown in the sacred space of Maynooth. One of the curiosities in the Library when the Department was founded was the 'Gg' section - part of the unique Maynooth classification system in the days when the Librarian remembered books by the colours of their binding. The 'Gg' section was an eclectic collection of books on all sorts of miscellanea, still intact in the Russell Library and undoubtedly reflecting the worldly interests of generous benefactors. Were there occasional courses in geography in the Royal College of St. Patrick? We cannot imagine that even the most theological minds could exist without some injection of knowledge about the real environment here about us. The Maynooth Mission to China, for example, must have needed some sort of geographical grounding!

The Department is proud to be a part of one of the oldest third level institutions in the country. And whatever about the past, the future of Maynooth lies firmly with the non-seminary sector. A symptom of this future is the fact that today there are more students in the first year in Geography than there are clerical students in the seminary. (Was Heylyn right after all?) So while we celebrate a past heritage that is firmly located in the theological tradition, we owe it to ourselves that the present and future do not become hostages to this past. In spite of the overwhelming numerical dominance of the NUI side of the university, the legacy of the seminary is such a powerful one that its influence in the popular mind may continue disproportionately. Thus in order to maintain our position and role in teaching and research among the universities of this island, it will be necessary for us to make every possible effort to raise our profile above the incense and croziers of the bicentenary year and afterwards.

As its contribution to the Bicentenary Year, members of staff of the Department have organised a series of events in the university. Shelagh Waddington, as President of the Association of Geography Teachers of Ireland organised their annual conference in the college in October. In November, Drs. Gibson and Sweeney organised a highly successful in-service training course in teaching physical geography at second level.

The Department of Geography has restored and mounted John Rocque's famous 1757 map of the Manor of Maynooth in Rhetoric House. Because it is watercoloured, it has been necessary to cover it with drapes for much of the time, but it is worth examining as an accurate record of the north Kildare landscape two and a half centuries ago. It is also a superb example of an estate map, showing property boundaries, land-use by field, hedges, buildings and so on in one of the premier landed estates in eighteenth century Ireland. John Sweeney is organising the IQUA conference and an international Geosphere-Biosphere symposium in Maynooth in March. There will be a map exhibition in May to illustrate the usage and making of maps by geographers. This will accompany the annual Conference of Irish Geographers which will take place in Maynooth in mid-May. The programme will be published in due course and it is hoped that some of the research papers will be of interest to geography students. Dr. Paul Gibson has challenged sacred orthodoxy with an appropriate gentle bicentenary publication, *A Geological Guide to St. Patrick's College, Maynooth*, which is well worth reading. It is a description of rocks and fossils to be found in the most unusual places on the campus. Proinnsias Breathnach, presumably not because he qualifies as one of the latter, has been engaged for Reunion Day to regale past students of Geography with a nostalgic trip down the memory lanes of field trips past. Jim Walsh with Proinnsias Breathnach is organising conferences for the International Society for the Study of Marginal Regions and for the Regional Studies Association in July and September respectively.

The Geography Society marks the bicentenary with this bumper edition of *Milieu*. It is appropriate that it should contain offerings from all sectors of the expanding Geography Department - from first year undergraduate to postgraduates, tutors and academic staff. Congratulations to the committee of the Society and to the editorial staff for their achievement.

PJD



Maynooth College 1799

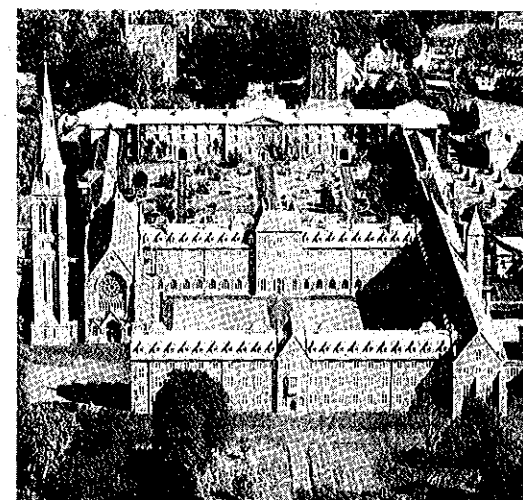
MAYNOOTH 1795 - 1995

When the College was founded in 1795, a set curriculum was devised to cover the principal subjects requiring to be taught in a Seminary at that time. That curriculum and its associated library holdings did not include Geography. The omission was neither ominous nor of particular significance for no where was Geography then taught as a degree course. The philosopher, Kant, had taught physical geography as part of a course of studies in Konigsberg University for much of the second half of the eighteenth century but it was not until 1821 that the first Chair of Geography was established. This was to be located at Berlin under Carl Ritter. However, from an early date, the Trustees of the College did ensure that geography was taught in the lay College attaching to the Seminary and through to 1817 the pre-third level students based in Riverstown Lodge (now the Master's Office) were entertained by a series of classes on the unfolding geography of the world.

Although not a formal discipline in the College, Geography nonetheless had its appeal for many. The Library's collection contains many atlases and travel guides which must have been purchased early in the nineteenth century. The annual publications of the Geological Survey of India are extensive for a period in the second half of the nineteenth century - possibly reflecting a legacy of the earlier Maynooth Mission to India! Of course, the finest geographical aid of all is the full set of the first edition of the six inches to the mile Ordnance Survey maps of Ireland. These maps, produced in the 1830s, were presented to the College by the administration in Dublin Castle and they are a most precious resource. One can well imagine generations of seminarians pouring over this cartographic depiction of their homes, farms and townlands.

Geography as a formal discipline was established in the College in 1971 when the then Mr. Patrick Duffy was appointed to a Junior Lectureship. In 1978 the Chair of Geography was created and the incumbent remained in the post until 1994 when he became Master. It is hoped that a professor will be appointed to the vacant Chair in June 1995. As such, Geography is one of the younger departments in Maynooth but is no less a part of a venerable two hundred year old tradition. Within the past two centuries Maynooth has become a household word in Ireland and abroad. It has become internationally renowned for its scholarship and geographers of the present and the future are charged with extending further that reputation, in association with their colleagues in other disciplines.

Dr. W.J. Smyth



St. Patrick's College as it is today

EDITORIAL

As is frequently the case, the most difficult task in editing a publication such as *Milieu* is writing the Editorial.

Rather than elaborate upon the contents of each article and its respective author, we suggest that the magazine should speak for itself. Every level of the Geography Department, from first year to professor is represented within this *Milieu*. We have tried to reflect this balance within the layout of the magazine.

Milieu 1995 is the culmination of much effort by all involved, and (despite claims to the contrary by a well-known postgrad) is probably the most voluminous edition ever. This may in part reflect the culmination of 200 years of knowledge accumulation (not just geographical) within and without St. Patrick's College. Tremendous credit is due to the members of the Geography Society upon whom fell the annual task of walking the street(s) of Maynooth in search of sponsorship. Our gratitude to all those who took the time and effort to submit articles. A number of these have been excluded due to repetition of themes (apologies to Kevin Griffin) or simply because they were unsuitable. A long essay or thesis for instance ("Space is Money" - McCormack, 1995) - and may be available from the respective authors. And if you think a word is misspelt, it probably is. Happy Reading!

Garry Gill, B.A.

Karl McGovern, B.A.

SPONSORS

Accommodation Office, *Top Rhetoric House*
AIB, *Main Street.*

Bank of Ireland, *Main Street.*

Cardinal Press (Irl) Ltd., *Dunboyne Rd.*

Donatellos, *Town Centre Mall.*

Elite Confectionery, *Main Street.*

Katie's Flowers, *College Corner.*

Geographical Society of Ireland

International T.E.F.L. College, *Pearse St., D.2.*

Leinster Arms, *Main Street.*

Maynooth Laundry Shop, *Greenfield S.C.*

Maynooth Photo Centre, *Dublin Rd.*

Maynooth Pitch & Putt, *Dunboyne Rd.*

Maynooth University Bookshop, *College Campus*

Mill Wine Cellar, *Mill St.*

Quinnsworth, *Dublin Rd.*

Registrar's Office, *College Campus*

James Smyth, *Victualler, Main St.*

Students' Union Shop, *Sports Complex*

USIT/Travel Options, *Castle Stores, Maynooth*

ACKNOWLEDGEMENTS

The Geography Society wishes to acknowledge the support of our advertisers many of whom have continued to support *Milieu* through the years. Sincere thanks to you all.

The Geographical Society of Ireland

Cumann Tireolaíochta na hÉireann

The Geographical Society of Ireland was founded in 1934 with the object of promoting an interest in Geography. Its membership is drawn from teachers in schools, colleges and universities; people working in the public service and research; and all others who find geography interesting and stimulating. The Society seeks to provide information and promote discussion about a wide range of topics of geographical interest both within Ireland and abroad.

Meetings

During the winter months the Society holds a series of lectures and seminars, principally in Dublin. A small Regional Programme of events is also organised, usually in Cork, Limerick and occasionally Galway and Belfast. The Society also organises a one day conference, the proceedings of which are published as a special publication.

Field Trips

Day field trips comprise a distinct feature of the Society's programme and provides first hand experience of areas of geographical interest in Ireland.

Publications

The Society's principal publications are the internationally known journals, Irish Geography and Geonews. Members receive both of these free of charge and may also obtain some journals published by other societies at special concessionary rates.

Library

The Society's Library is housed in the Department of Geography, Trinity College and holds many geographical journals and books covering all branches of the subject, including all materials reviewed in Irish Geography. Members may borrow books and periodicals from the library. The Geography Department Librarian at Trinity College also acts as Honorary Librarian to the Society and may be contacted at 01 - 772941 ext. 1454.

Membership

Current annual subscription (Student Rate) £10.00

All enquiries and/or subscriptions to Dennis Pringle or John Sweeney.



Forward-looking and
fun-loving.
Flexible, easy-going
and open-minded.

So are their bank
accounts.

ASCENT

A MORE INTERESTING
CURRENT ACCOUNT



COLLEGE PACK

Free ISIC Card - 24 hour Cash
Interest on Credit Balances
No transaction charges

TO FIND OUT MORE
CONTACT YOUR LOCAL
BANK OF IRELAND
STUDENT BRANCH



Bank of Ireland

AUDITOR'S REPORT

Back in April 1994 a vibrant and enthusiastic committee was elected to steer the Geography Society through the coming year. We had new and exciting ideas. Some completely different from what had gone before. Looking back to October and the intervening months it can safely be said that we've been exceptionally busy providing a wide range of activities for geographers. The year began with a talk given by Professor Larry Bourne of the University of Toronto. Principally an Urban Geographer, he spoke on Canadian cities in a changing continental and global context using Toronto as an example. Those of us unfamiliar with Canada were left with a much greater insight into his country's geography, topography and spatial development patterns since the 1960s. It was also the first opportunity myself and Derek had to dine in style with our guest before his address, a habit that has been repeated many times since! That evening was also a noteworthy occasion for us as it was the first time either of us had the pleasure of meeting informally with the Master of the College Dr. W.J. Smyth over dinner.

From there on things began to hot up. With Fairs Day approaching and with little advance warning we hastily prepared ourselves to market our wares. Maps, banners, pens and papers at the ready we took it in turns at shouting and screaming at any potential new member. It worked. However, our intake of cash and our modest display was no match on the Outdoor Pursuits Club whose ostentatious show put us to shame.

The lecture trail continued with our 'Inaugural Lecture' presentation in December given by Mr. Dermot Somers who was one of the successful Irish Everest Expedition team to conquer the mountain in May 1994. We joined forces with the Outdoor Pursuits Club, yeh, them again (I'm a member) to invite Dermot to talk about his climbing experiences, but also to refer to the sporting challenges and environmental consequences of mountaineering in general. It was a great night from start to finish which was very well attended. My thanks must go to the O.P.C. for their help and co-operation 'especially Ivan' - where have you read that before (I assure you I didn't invent it) for assisting me in wording the initial invitation. Thanks Ive.

As part of the second year Africa course the Department invited Dr. Etienne Nel of the University of Rhodes in South Africa to give a portion of this course in the first semester. Etienne presented an evening lecture for us on Apartheid in South Africa, its origins, causes and its recent demise. There was a huge attendance at this very interesting talk reflecting the interest the Apartheid legacy holds in a small distant country such as ours.

What can I say about the Christmas social? Fran Walsh gave his by now famed dissertation on field trips of years' past while students blew party whistles (no names mentioned) with colourful party hats perched on their heads. Full credit goes to Shelagh Waddington and John Sweeney. Those of you who didn't see them missed a truly spectacular sight. My only regret is that there wasn't a camera on hand to capture their miraculous dress sense. Our planned blind date died slowly because by the time we got to a local hostelry afterwards, it was quite late and most of the party had left. Maybe someone will pick up the mantle next year. At least we have our own Cilla Black!

Recently as part of the Bicentenary series of College lectures, Dr. Arnold Horner from U.C.D. gave an enthralled audience an account of the geographical evolution of Maynooth from 250 years ago to the present day. He displayed old and new maps, charts and statistics in an informative and humorous talk which left the crowd buzzing at the Cheese and Wine. It's the longest reception we've hosted with the patrons near to being shown the door! Could it be our skill at buying good quality wines that keeps them asking for more?

Some forthcoming events include video screenings on geographical issues - keep an eye out for more info. Our screening of "Climate in Danger" was well attended recently. There are two further guest speakers expected also. We're working on it. Watch out for our slide show of the field trip to the Fresh Riveria earlier this month. There's bound to be secrets revealed of the goings on! A debate is planned too that is guaranteed to be controversial - I'm saying no more at present. . .

A debt of gratitude is due to the staff of the Geography Dept., who have shown exceptional patience and generosity with their time in assisting us with our activities. We haven't relied on one liaison person as such but on all the staff in one capacity or another who must, by now be dreading the sound of my footsteps coming down the corridor. And there's 2 months left to go!! My sincere thanks to Garry and Karl, the editors, who've had the unenviable task of working tirelessly over the past couple of weeks to ensure that the quality of material for the Bicentenary edition has been maintained. And what of the Post-grads. . . Thanks guys for your ongoing support. Maybe someday I'll get to eat in the college dining room? Thanks are especially due to the contributors without whose articles there would be no magazine. And lastly, (I feel like I've just won an Oscar) thanks to my crew who have supported our activities up to now in every way in particular to Derek for your backing and fortitude. Good luck to you all in your exams.

Happy reading readers!

GEOGRAPHY SOCIETY 1994/95

Auditor:
Tom Corbett

Vice-President:
Derek McCormack

Secretary:
Bronagh Gavigan

Treasurer:
Andrea Halt on

PRO:
Janet Coogan

Committee Members:
Sinéad Murphy, Anne Mulhare, Ger Fitzsimons,
Ruth Bennett, Eileen O'Connor

RIVER TOURISM A BRIEF ACCOUNT OF PASSENGER TRANSPORT ON THE LOWER REACHES OF THE RIVER SHANNON IN THE 18TH AND 19TH CENTURIES

by
Kevin Griffin, B.Ed.

THE ORIGINS OF TOURISM

Prior to the Industrial Revolution, any travel that occurred in Ireland (or throughout the world), was chiefly for pilgrimage, business or official purposes. From the end of the 16th century there was some growth of international travel, for educational motives and to satisfy curiosity. Domestic travel for pleasure began to evolve in the 18th Century as fashionable spa and seaside towns developed.

In the latter part of the 18th century there occurred what we now refer to as the Industrial Revolution. This brought about radical changes in the economy and society of western Europe. Changes included: an increase in absolute population; increases in internal migration; the growth of a non-landed wealthy sector of society and a shift in international trade from colony - oriented trade to a transatlantic emphasis. Changes of more direct importance for tourism were shorter working weeks and the introduction of paid holidays.

All of these factors broadened people's horizons and facilitated a growth in tourism through providing both motive and opportunity. The industrial revolution also heralded the arrival of steam engines, thus promoting travel by providing suitable means of transport both by land (the train) and by sea (steamships).

SHANNON NAVIGATION

Evidence of the use of the river Shannon as a navigation artery can be found as early as the beginning of this millennium, with Brian Boru having a fleet of ships moored in Killaloe. Despite this and many subsequent usages of the river, there were many obstacles hindering commercial use of this great waterway.

To solve these problems an extensive programme of riverworks began on the upper reaches of the river Shannon in 1755 and by 1769 this resulted in the river being made navigable from Killaloe to Roosky. It took another thirty years however for the first boats to make the trip by water from Killaloe to Limerick. The development of the waterway was fraught with problems, ranging from drainage difficulties, to the building of canals in geologically unsuitable areas, from financial difficulties to human incompetence.

One of the many inadequacies of the new navigation system was the form of craft in use. In 1801 Brownrigg outlined the forms of vernacular boats which were in commercial use on the Shannon system in the Limerick area.

In the vicinity of Limerick two man flat bottomed boats of 6-8 tons were used which transported turf, sand, lime, brick, stone, timber, coal and dung.

A craft called a "Lighter" (12-16 tons) was not as common and required a crew of 4 men. They transported bricks, turf, coal, timber, and shipping ballast.

The third type of boat operated on the river at Killaloe. This 6-8 ton boat brought slate and corn to Limerick and returned with coal and timber. This may be what was known as a "Turf Boat" - described by one observer as the rudest form of craft in all of Europe.

None of these craft were suitable for passenger transport, and prior to the arrival of steam, a navigation of the Shannon could take many weeks. The alternative - land travel - was little better, being slow, expensive and generally unavailable.

In 1824 the Director General of the Limerick to Killaloe canal wrote to a John Grantham agreeing to his suggested use of steamboats, providing they would do no harm to the bed of the canal or to the towing paths. It appears that Grantham's boat the Marquis Wellsley was the first steamer on the river Shannon, arriving in 1825/26.

The introduction of steam navigation revolutionised river transport by providing a feasible and welcome means of cheap, comfortable transport. An indication of increased passenger transport was the building of an Inn in the 1830s - The Ponsonby Arms - to cater for travellers.

As the Inland Steam Navigation Company was building up its fleet of steamers, it also established a flotilla of horse-drawn trade boats on the canal which were towed by steamers on the river. These "Fly Boats" - introduced in 1834 - were long low boats, pulled by three or four horses. With a first and second class section, these craft plied twice daily between Limerick and Killaloe, linking with the steamer which left daily for Portumna. The captain of the boat and the rider on one of the horses were dressed in uniform and were armed in case of attack. This would lead us to believe that security was a serious consideration at the time, and the provision of such measures would reassure travellers. According to contemporary accounts, meals were supplied on the Grand Canal section of the journey, and these varied from the inevitable boiled mutton to Roast Beef and Bacon on alternative days.

In their day the "Fly Boats" provided a relatively popular means of transport from Limerick to Dublin, avoiding the discomfort of bad roads and the danger of Highwaymen. Such dignitaries as Daniel O'Connell and Gerald Griffin of Limerick used this form of transport.

DECLINE OF REGULAR PASSENGER TRANSPORT

1845 and 1846 were boom years for Shannon navigation, but by 1847 trade in general had declined due to famine and the resulting situation in the country. By the late 1840s emigration was viewed as the only solution for a desperate people. Two options existed - to travel to Limerick, then America, or to Dublin and then to England and possibly to America from there. The result of this exodus (which was accommodated by the steamers), and the rising importance of the rail system meant that by 1849 only 4,033 people travelled from Athlone to Limerick as compared to 18,544 in 1840.

In 1852 passenger traffic was reduced to a service on alternative days and further problems were added when competition arrived in 1857 from the Midland Great Western Railway which introduced its own ships. While these only ran until 1863 it was long enough to put the Grand Canal Company out of passenger business.

PLEASURE CRUISERS

In the 1880s the steamer "Lady of the Lake" was introduced and traded from the railway pier at Ballina to Killaloe. This boat was sometimes advertised for Sunday pleasure cruises. From 1863 to 1897 while transport of goods and pleasure trips continued, there was no regular passenger service.

Regular passenger services were restarted in 1897 by the newly formed Shannon Development Company after more than 30 years (not to be confused with the present Shannon Development Company). They began the year with two vessels and within a year had six. In 1897 one of their ships, the "Countess of Mayo", carried the Duke and Duchess of York (later King George V and his Queen) from Killaloe to Banagher, thus naming this the Duke of York Route. This royal patronage undoubtedly provided an important boost to the popularity of this new tourism product.

A daily round trip was offered to travellers from Kingsbridge (Heuston Station) to Banagher by rail, on to Killaloe by steamer and again returning to Dublin by rail, all for ten shillings. As an extra, dinner could be supplied at the Lakeside Hotel Killaloe, which was built by the Shannon Development Company and opened in 1899.

Poor weather resulted in the popularity of this service being short lived. After 190, service was confined to the summer months and this limited service ended in 1914 with the War, never to be re-established. This was the end of regular passenger travel on the Shannon system.

A number of smaller scale attempts to utilise the river for tourism purposes occurred in more recent years, with one attempt being made by CIE after the Second World War. The company was persuaded to put two passenger boats on the river. In 1955 the "St. Brendan" began operating and the following year the "St. Ciaran" arrived. Both of these pleasure cruisers operated until 1973 when they were withdrawn from service.

At the present day, cruisers continue to sail on the Shannon but are limited to a small number of day trips or boats being hired out by a number of companies. The days of the big steamers plying the majestic Shannon waters are but a memory.



Been there done that, where to next?

Enjoy a Taste of Italy in
Donatellos
Ristorante/Pizzeria
(nestling in the Town Centre Mall)

Try a tempting pizza cooked to perfection by Antonio
or
Choose from our extensive pasta and meat menu and all at a price you can afford

Open Daily - Set Lunch Menu 12 - 3 p.m.
Evenings open 5 p.m. - Midnight

Wine Licence • Party Bookings Taken

Phone in advance to order a pizza:
628 9660

MAYNOOTH PHOTO CENTRE

Dublin Road, Maynooth
Tel. 628 5607

1 Hour
5 Hour
24 Hour } *Superb Quality
Film Developing
on the Premises*

Passport
I.D. & Registration Photos
in 2 Minutes

Cameras • Frames • Video Tapes
Audio Tapes • Batteries

Free Album with every Film Processed

CONFLICT IN THE FORMER YUGOSLAVIA

by
Adrian Kavanagh, B.A.

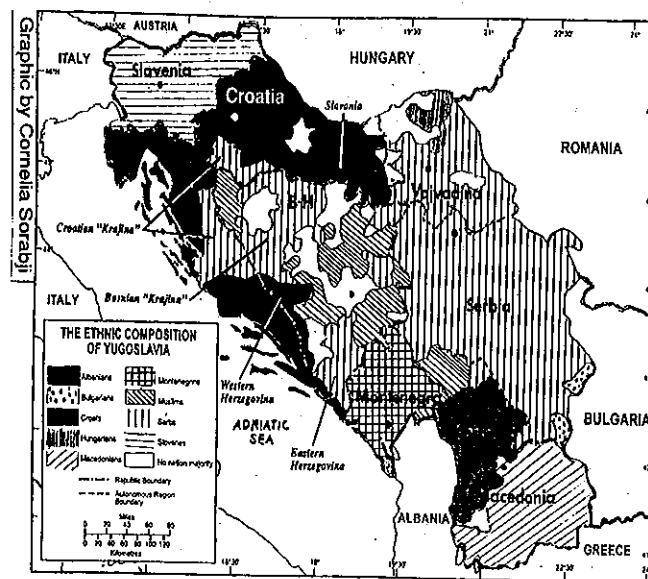
INTRODUCTION

1989 was a tumultuous year for Europe, bringing in its wake changes unparalleled since the end of World War 2. Perhaps the most drastic of these was the reshaping of the political map of Eastern Europe; which was to undergo the most radical transformation since the Treaty of Versailles in 1919, and it is likely that the final lines have not yet been drawn. A whole host of new countries have appeared, including those associated with the break-up of the former Soviet Union. In most cases the changes have come about peacefully, as with the case of the "Velvet Divorce" between the Czech Republic and Slovakia. However, in other cases the emergence of "new" countries has been associated with violent conflict. Examples of this include the former Soviet Republics of the Caucasus Region, Moldova, and Tajikistan. However, it can be argued that the break-up of Yugoslavia has involved the most suffering, and in this article I will look at the conflict that has been ongoing there since June 1991, the factors accounting for it and the future prospects for this region.

CAUSES OF THE CONFLICT

The factors accounting for the break-up of the Yugoslav Federation, and the resultant conflict, have already been dealt with by Kavanagh in *Milieu* 1991, but I will briefly recap on them here. Firstly it is apparent that the death of Tito in 1980 and the fall of communism in Eastern Europe were forces which permitted a rising nationalist sentiment in the former Yugoslavia, with associated centrifugal tendencies. The flames of nationalism were perhaps further fanned by the declining economic situation there; by December 1990 Yugoslavia, which had for decades been the most prosperous economy of the communist regimes, had the worst unemployment levels in Eastern Europe (15%) with an inadequate social security system. The result of the rise of nationalism was to see the election of secessionist governments in most of the republics of the Yugoslav Federation, while in the republic of Serbia their president, Slobodan Milosevic, was championing a "Greater Serbia" which would incorporate Serb areas in Croatia and Bosnia-Herzegovina.

It must also be remembered that a historic fault line passes through this part of the Balkans, and that the former Yugoslavia was the meeting place of different religions, languages and ethnic groups. Thus, ethnicity was always a factor in the Yugoslav Federation, which was home to a host of different ethnic groups (see below and also Merriman, *Milieu* 1993). None of the republics were ethnically homogeneous, with the exception of Slovenia, with minorities accounting for between 20% and 35% of the different populations. Perhaps the most dangerous ethnic mix was to be found in Bosnia-Herzegovina, where 44% of the population was Muslim, 31% was Serb and 17% was Croat, and as the map (YUGOFAS, 1992, 14) shows there was no clear division between them, with different ethnic groups being dominant in different parts of the republic, while other areas were ethnically mixed. The complex ethnic geography of Bosnia (and to a lesser degree Croatia), as well as feeding into the conflict there, is perhaps one of the main factors preventing its final resolution.



Finally, other factors to take account of are those of ideology and economics. From the point of view of ideology, there are considerable differences between Slovenia and Croatia, who are Western-looking and market orientated largely due to them being ruled in the past by Austria-Hungary, while Serbia, which was dominated by the Ottoman Empire for centuries, is Eastern orientated with a very centralised economy. It must be also noted that there were considerable differences in well-being in the former Yugoslavia, with a steep economic gradient existing between the prosperous north-western republics of Slovenia and Croatia and their more impoverished southern counterparts. Due to the centrally planned economy of the Federation there was a large flow of funds from the north to the rest of the republics, and this was resented by Slovenia and Croatia, who felt they were contributing an unfair amount of taxes to the Federal budget and indirectly to Serbia. This further increased the desire of the northern republics for secession.

THE CONFLICT

On June 25, 1991 both Croatia and Slovenia declared their independence from the Yugoslav Federation (as did Macedonia and Bosnia-Herzegovina in the following year). Almost immediately a war broke out in Slovenia between the Slovenes and the Federal army, but it was brief, perhaps largely due to the lack of a Serb minority there. The conflict that ensued in Croatia, between the Croats and the Serb minority of Krajina who were backed by the Federal army, was more severe however with thousands left dead and injured, considerable damage to infrastructure, and around 300,000 people forcibly uprooted from their homes. By the end of the year Serb forces had captured about a third of Croatian territory, both in the Krajina region, adjacent to north-western Bosnia, and Slovenia in eastern Croatia, along its border with Vojvodina. Since the (largely German-backed) recognition of Slovenia and Croatia by the European Community on January 15 1992, there has been relative peace in Croatia, backed by UN forces, but the political and territorial situation has still to be resolved.

EC recognition of the two former northern republics precipitated Bosnia's declaration of independence, as it did not want to remain in a Serb dominated Yugoslavia. The three years of war that has followed has brought even more casualties and destruction than that which ensued in Croatia, while

almost half of the pre-war population of 4.4m have had to flee their homes largely as a result of "ethnic cleansing", leading to a large flow of refugees within Bosnia, as well as to Croatia and Slovenia. The situation was further complicated by a conflict which ensued in south-western Bosnia between Bosnian Croats and Muslim forces. By the end of 1993, Bosnian Serbs controlled 70% of the territory, with a further 10% in Croat hands. However in March 1994 the Croats and the Muslim government settled their differences and entered into a biocommunal Federation, which they envisaged would include those territories in which Muslims or Croats predominated in the 1991 census. In late 1994 combined Croat and Muslim forces made advances in Central Bosnia, however the Muslim enclave of Bihac in the extreme north-west was coming under severe pressure from a force comprising both of Bosnian Serbs and rebel Muslim forces, who were backed by Serbs across the Croatian border of Krajina. By the end of 1994 70% of Bosnian territory was still in Serb hands, while government forces controlled a swathe of territory, extending diagonally from the south-west across Central Bosnia almost to Brcko in the north-east, as well as the Bihac pocket, along with small Muslim enclaves around the towns of Srebrenica, Gorazde and Zepa in the south-east.

Macedonia mercifully remained free from violent conflict, although it has a large and restive Albanian minority, who may along with their kin in Kosovo in Serbia wish union with Albania. The recognition of Macedonia as an independent state was held up by opposition from Greece who sees it as having aspirations to annex Greek Macedonia. Macedonia was finally recognised under the ridiculous title of The Former Yugoslav Republic of Macedonia, or F.Y.R. Macedonia (could you imagine F.B.C. Ireland?)

PEACE PROPOSALS

In recent weeks a number of proposals have emerged with the aim of bringing a final resolution to the conflicts in Croatia and Bosnia-Herzegovina. As regards Croatia, the proposals would maintain its territorial integrity, although giving considerable regional autonomy to the Serbs who would be responsible for everything within their territory apart from foreign affairs, defence, trade and communications. The Serbs would lose half the territory they presently control, including the Slavonia region of eastern Croatia. However the Krajina Serbs are unlikely to accept the proposal, "believing that the division of the country, now written in earth, will eventually be confirmed on paper" (Daly, 1995, 8).

As for Bosnia, the current peace proposal would divide it by giving 51% of it to the Muslim-Croat Federation, while the rest would remain in Bosnian Serb hands, with them being allowed to forge confederal links with Serbia. However, the Bosnian Serbs now want their own independent state, due to anger at Serbia's severing of economic and military ties with them, and oppose the plan as they feel present ground realities will in time become a permanent fixture on the political map, undoubtedly with the dubious aid of "ethnic cleansing". Muslims and Croats are not too happy with it either as the territory under Bosnian government control would be fragmented into "seven separate pieces" which would be both territorially and politically unviable (Magas, 1995, 11).

Perhaps one of the most striking aspects of the conflict has been the ineptitude of outside forces such as the UN, the EU and NATO in brokering, and maintaining peace in the former Yugoslavia; for example so called UN "safe areas" in Bosnia

have been attacked by Serbs, who have blatant disregard for outside intervention. I believe that by failing in their peace missions the outside agencies have in fact further added to the conflict by encouraging aggressors to feel that their actions will go unpunished, and to believe that territory won on the battlefield will in time become part of the political map.

FURTHER PROSPECTS

The opening months of 1995, instead of promising the advent of peace, have brought the threat of the resumption of war in Croatia and the escalation of the crisis. President Tudjman wants to expel the UN forces from Croatia when their mandate ends, largely as a result of frustration with such slow progress since 1992. But also it is believed that, assuming non acceptance of the recent peace plan, he is planning on a new war with the Krajina Serbs with the belief that Croatia, as long as Serbia was not involved, would regain its lost territory. However this is a receipt for further bloodshed, and the possible entry into the conflict of other neighbouring countries, amongst these may be Albania and Hungary, who wish to incorporate their minorities in the former Yugoslavia. Italy has expressed concern over its minorities in Slovenia and Croatia with some Italians even calling for borders to be redrawn, and the return of territory lost to Yugoslavia after World War 2. Bulgaria, as ally, and Greece, as nemesis, have undoubtedly roles to play in the future of Macedonia. It must also be noted that a more extremist, nationalist government in Russia would quite likely give added impetus to its Slavic kin in the "Greater Serbia" cause.

Even if the conflict were to end tomorrow, the new states emerging from the former Yugoslavia would face economic difficulties for many years to come. This is not only due to the impact of a destroyed infrastructure, but the difficulties associated with large refugee problems, and the loss of overseas markets. Also to be taken account of is the impact of the break up of important trade flows between the former republics, and as in the case of Bosnia and Croatia, within the former republics themselves. This is reinforced by the fact that with the centrally planned economy of the Yugoslav Federation, great emphasis was placed on regional specialisation and interdependence between republics, while production was mainly concentrated into a small number of large plants.

Whether or not the conflict escalates, it is probably likely that an immediate end is not in sight for the reasons already mentioned. Indeed it is hard to see an end unless a political settlement acceptable to all parties is reached, which redraws the map in a way that is sensitive to the ethnic geographies prior to 1991, and which also ensures the right and protection of minority groups. This would be extremely difficult to achieve, requiring considerable compromise on behalf of the different parties, and the political will of outside agencies to see it through. In the present climate however this is extremely unlikely, and the danger is that the former Yugoslavia will become Europe's version of the Lebanon, with war dragging on for years to come.

ERASMUS EXCHANGE TO KEELE UNIVERSITY 1994

by
Ruth Bennett, 2nd Arts

Towards the end of the '93 - '94 academic year the offer of an Erasmus Exchange was made to a bunch of unsuspecting first years. However, most of the people 'up the back' missed the announcement, and most of the people at the front had visions of pining away in tiny attic-type bedrooms for three months, so the response was not exactly over whelming.

We were given the choice of going to Sweden, the Netherlands, London or Keele. As my Swedish is non-existent, my Dutch is not much better, and I had already lived in London for two years, I decided to give Keele University, Staffordshire a try. Together with another student, Eileen O'Connor, we traipsed over to Dennis's office to sign up. We were the first two Geography students from Maynooth to go on this ICP exchange, and the first to go to Keele University.

By sheer fluke (and we still don't know how it was decided!) Eileen ended up as an off-campus student, while I was told that I would be based at Horwood Hall, which is on campus. We were given maps of the campus which covers 617 acres, but nothing could have prepared me for the size of the place when I arrived. There are five residential areas, each one is about one-and-a-half times the size of our apartment blocks and hostels combined! The five areas, named Barnes, Horwood, Lindsay, Holly/Oaks and Hawthorns, are situated at various distances from the central area of lecture theatres and Union Square. Horwood is the nearest, and Hawthorns the furthest.

Each area has between twenty-six and thirty-two blocks holding around twenty-two people each. There is a General Block which contains the post-boxes, and usually a pool-room and a bar. Between the five residential areas and the Union Square, there are about eight restaurants and eight bars. Based at The Students' Union are two banks, a Spar grocery shop, book shop and newsagents, all of which are independent. The Union has its own sweet/stationery shop, as well as a Travel Bureau, photocopy shop, post-room, ballroom (which doubles as the market area during the day) and the night club called "The Planet".

There are many clubs and societies which cost a minimum of £2 to join. The biggest is the ERASMUS/TEMPUS International Society which has around 250 members. Ninety-five percent of its members come from places such as France, Germany, Denmark, Spain, Italy, Greece, Portugal, Malaysia, Singapore, Japan, India, Canada, America and the rest are English. It gained its first two Irish members this year! In the first semester, trips were organised to York, Dublin and London and there were four parties.

Onto more geographical matters. To make up sixty credits, which is the norm for one semester, we had to do two second year geography courses (7.5 credits), and one third year course, carrying (15 credits). Eileen took Anthropology, and I took English, which counted for the other thirty credits needed. Our second year course choices were Quaternary Environments and Natural Resources. Eileen chose Europe and my choice was Desert Environments for our third year options.

Quaternary Environments was similar to the Geomorphology of Ireland course, but it was more oriented towards dating methods and techniques than discerning various land forms. We went on a one-day field-trip to North Wales, where we

spent the morning climbing around the top of a U-shaped valley without trying to get blown off (it was very windy!). In the afternoon we had the opportunity to wade through a very muddy field to have a look at some 14,000 year old fluvio-glacial deposits on the coast. The Natural Resources course was (along with Quaternary Environments) the first one of its kind in the Department. These lectures were at nine o'clock on a Friday, but it seemed to be a very interesting course (when I could get my head off the desk!).

I was reliably informed by Eileen and some others, that the third year Europe course was very interesting also, with a good lecturer. My Desert Environments course also proved to be very interesting albeit at a level which was higher than I had been expecting.

The idea of an Erasmus Exchange is a good one. If you decide to go to Keele, be prepared for the workload. There were six essays to do in ten weeks. On the other hand, there were only eight contact hours - lectures, seminars, tutorials etc. per week. There are also end of semester exams in January which you will have to prepare for, but this means that you only have to answer questions on the second semester courses in May/June at Maynooth (or vice versa if you go for the second semester). The Library is not as good as Maynooths, but they have good computer facilities. Our General Tutor (the person who oversees an Erasmus Student during their time at Keele) was very helpful whenever we had a problem, and Maynooth was only an E-Mail away if you had any questions. Thanks to Dennis who kept in touch with us and was able to sort out several queries for us.

An exchange to any University means new surroundings, different work quotas and possibly a foreign language to deal with, but the opportunity to meet "furreners" is a great one, and for that factor alone, it is a great opportunity.

James Smyth Victualler

Main Street
Maynooth

Highest Quality
Beef
Lamb
Pork
Bacon

Deep Freeze Specialist
Phone: 628 6643

The Mill Wine Cellar

The Country Shop, Mill Street, Maynooth

One Draw per month until May
Win a European Inter-Rail Ticket

or

Weekend for 2 in Lodnon

or

Purchase to the value of £200 in this store

"The Choice is Yours"

Just spend a minimum of five pounds to become eligible to enter our **FREE DRAW**
Draw takes place last day of every month of 9.30 p.m.

Telephone: 01 - 628 9520

International T.E.F.L. College

Pearse Street, Dublin 2.

Intensive T.E.F.L. Training Courses
Special Student Rates

Weekend Courses

Friday 24th March - Sunday 26th March - Friday 7th April - Sunday 9th April

Friday 21st April - Sunday 21st April - Friday 5th May - Sunday 7th May

3 Week Evening Courses

Monday 27th March - Wednesday 12th April

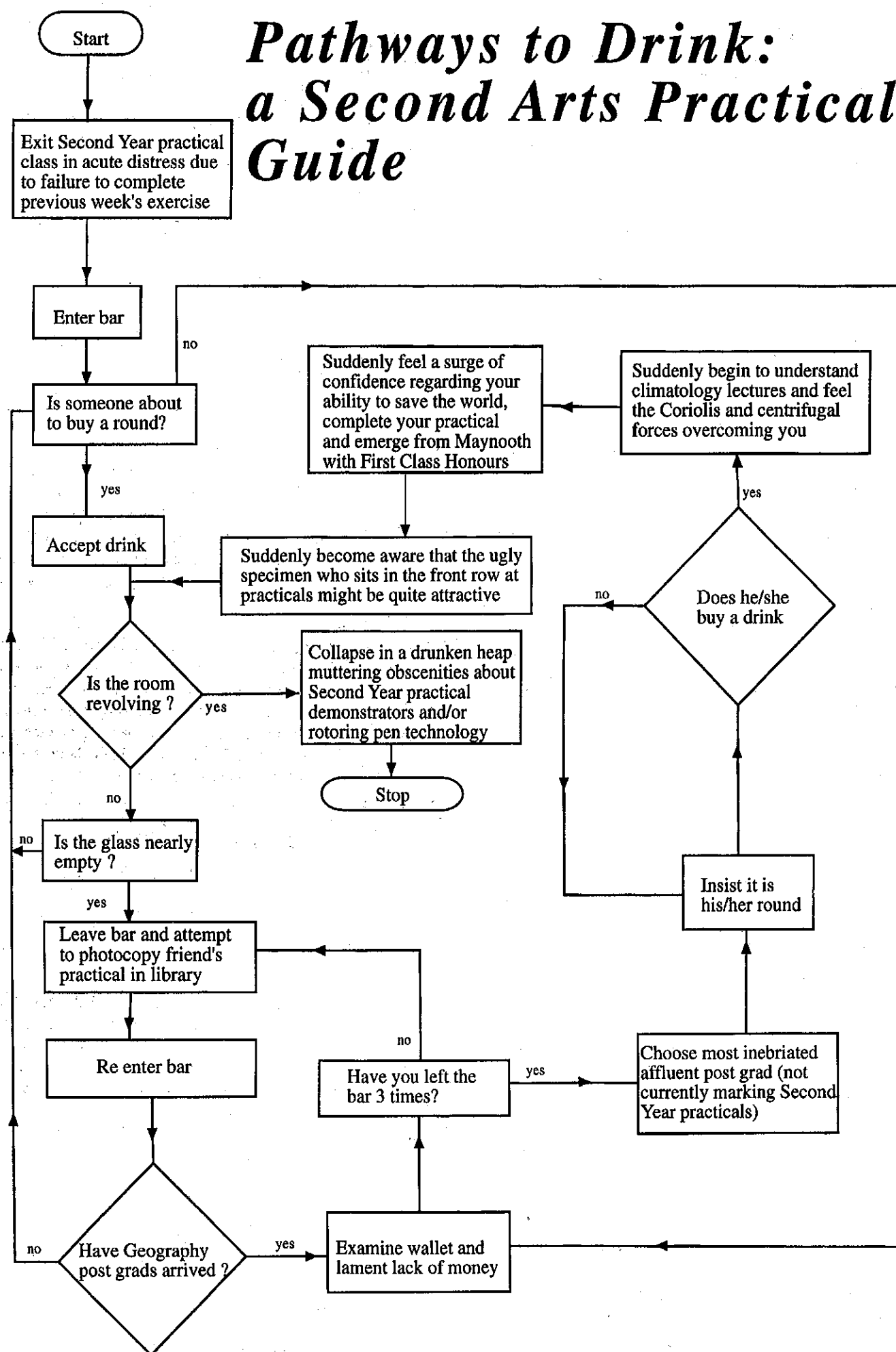
Monday 8th May - Wednesday 24th May

International Placement Service for Year Long and Summer Jobs

Phone: 285 3355 (9 a.m. - 9 p.m.)

Directors: M. Hayes, M.A., HDE and M. O'Flaherty, BSc. HDE Reg. in Ireland: 170778

Pathways to Drink: a Second Arts Practical Guide



Dr. John Sweeney

AN AFRICAN EXPERIENCE

by

Michelle Corcoran, 1st Arts

I had a vision of Africa. It may have been a naive one, but it is one that many share; blazing heat, sun-scorched landscape and wild animals. Africa for me was a place I thought I would only ever dream of, but my dream became a reality.

The moment I arrived in Uganda I found the smell of the earth fabulous and quickly the ordeal of the many injections I had received paled into insignificance. I visited many places during my stay but the one I found most difficult to come to terms with was the AIDS support group and AIDS hospital in Buwama. I had thought I'd feel uncomfortable in those places but I was wrong. I didn't even feel a stranger in the presence of the group of young AIDS sufferers. A young Irish doctor I met echoed my thoughts saying "the people are so keen to welcome". But the realisation that the two girls aged 3 and 4 sitting next to me were HIV positive was very distressing. When we were leaving, a few women got down on their knees to thank us for our visit. I wanted to get on my knees to show my respect for them. The experience of the hospital was even more emotionally demanding as many people were in the last stages of AIDS. The horrific sights around the hospital brought me to tears and the conditions - for instance, surgical disposable gloves washed and hanging out for re-use, made me feel sick and angry.

During my stay in Uganda I reflected on the difference between statistics and reality "World Vision's global programmes reach 5 million children daily in the developing world". What comes into your mind as you read this figure? I know it is not the individual suffering of each of these five million. It is just a figure. Each day we are bombarded with sights from the Third World, which eventually becomes meaningless. As I wrote my article for the World Visions Young Africa Journalist of the year in February 1994 on the disease 'Riverblindness' which puts 80 million people at risk in the Third World I was conscious that it was merely facts on paper. How could I understand the pain that was behind these facts?

The 'Riverblindness' Centre, the main reason for our trip, was at least more optimistic than the AIDS hospital. During our six hour drive I had time to recall what I had read about the disease. It is spread by the Black Fly which needs rivers to breed. The female fly lays her eggs under the human skin when she bites. The eggs hatch into larvae which eventually attack the optic nerve causing blindness. These were just more facts on paper, but this was real life. I had never before understood the remoteness of these places that I now visited. On our five kilometre walk uphill to the River Blindness Centre it was clear why transport was so important. Despite this I felt positive. Everyone we met at the centre was hopeful about the help they would receive. We talked with an already blind man about how his life had been destroyed. £10 can guarantee one person's sight for life - nobody should have to suffer the effects of Riverblindness.

When talking to Gertrude (a seventeen year old secondary student) about her life, I realised just how far apart each of our



worlds really were. Education was her whole life. She desperately wanted to go the university but no matter how hard she studies she will never make it; her family simply cannot afford it. She knew that her life choices were severely constrained because of the lack of money. She would leave secondary school, get married and probably never leave Buwama,

where she was born. Another person I met, Vincent Semwezi, an eighteen year old boy, was forced to leave school to take care of his brothers and sisters, all under 12. His mother, father, stepmother and sister lie in graves beside his home, all victims of AIDS. I was astonished that he was not full of anger or resentment at what had happened to him. He just pressed on with life. I could see an already old head on young shoulders.

Although my preconceptions of Africa were shattered, I wasn't disappointed with what I had experienced. Through meeting some of its people I had seen a part of the real Africa, a part that is often hidden behind repetitive statistics, images of safari holidays and media coverage. The barriers of language and culture between us had, although briefly, been broken down. On leaving, I couldn't help but cry.

INTO THE WEST: THE MAYNOOTH STORY

by

Gerard Fitzsimons, 2nd Arts

On Friday 21 October 1994, 51 students boarded a bus along with Fran and Jim Walsh and set off into the great unknown on what was referred to in official circles as a weekend geography field trip. All went well for the first twenty minutes, until the Walsh Bros. decided that for the sake of appearances they should talk to us about the countryside through which we were passing. It was at this point that a subtle difference among the students became evident. Those new to the scene recorded every word of wisdom in their notebooks while the more experienced contented themselves with looking out the windows or fell asleep, no doubt from concentrating too hard on their maps. This cheerful situation lasted until we reached Ballinasloe where we stopped to take on supplies for the journey. We then resumed our travels and did not stop again until we reached Rossaveel where we boarded a vessel bound for Inis Mor and sailed off into the sunset, or rather in the direction of where the sunset should have been.



One of the locals "butts" in on Jim's talk

On arriving in Kilronan we were met by a fleet of mini-buses and transported to a hostel which was out in the middle of nowhere. Following room allocation and dinner, we repaired to a local alehouse to build up, or in the case of some, diminish, our strength for what was yet to come. After breakfast the next morning we all set off with varying degrees of enthusiasm to visit the local heritage museum and were then driven rapidly to view a thatched house - one of the few left on the island. Galway County Council has been giving grants to have thatch replaced by slates or tiles, which does little for the attractiveness of the houses. From there we proceeded to a place known as the Seven Churches which is an important ecclesiastical site on Inis Mor. The churches were built by pilgrims during the early monastic period. There is a holy well and the ruins of high crosses. It is believed that a number of people were martyred there though this is a subject of scholarly speculation.

From there we went on to look at an oval dry-stone hut which was used by early Irish monks between the fifth and tenth centuries. Though from the outside it appeared quite small it proved to be quite spacious inside. The stones were overlapped from base to ridge and were tilted outward to throw off the rain. (Not quite up to campus accommodation standards however). Just when we began to feel that the weekend could be reasonably enjoyable we were ordered out of the bus and told to walk to Dun Aonghus. We walked up a slope that made crossing the pedestrian bridge look like free-wheeling down a hill. Once we reached the top however, we were provided with a breathtaking view of the sea. The fort is part of a system that stretches from the Burren to Ben Bulbin and dates as far back as 4000 B.C. The fort itself is surrounded by three defensive walls which were used to protect the locals and their livestock. We then walked along the coast until we came to The Worm's Hole. Here the pressure of the waves has carved out a remarkably regular shaped hole in the limestone. It looked rather like an unfinished outdoor swimming pool.

After trudging over very rough terrain we reached our rendez-vous with the buses. This didn't mean any respite in our troubles. We were paired off in groups to question the local population on their livelihood and about various other affairs. Not surprisingly many of the locals were suspicious when questioned about such matters. One surprising outcome of the survey was that many people objected to tourists on the grounds of their dangerous cycling habits. Despite this, they

had resigned themselves to the benefits tourism bestowed because of the money it brought to the island, but objected to it on the grounds that their culture was being negatively effected by people visiting the Island, one result of this being that their children were speaking more and more English.

After surveying the populace we again found ourselves in a pub that evening, this time in the metropolis of Kilronan. Our reason for the sortie was to congratulate ourselves for having survived a day in this strange and foreign land. Around midnight a representative of the law arrived to ensure that we wouldn't drink too much beer and leave the natives short for the winter. The one night that the publican was going to make a decent profit he was thwarted by the conscience of the island - the Guard.

Next morning when our leaders arrived (for some hitherto unexplained reason our leaders decided not to stay in the same building as us), we set off on foot to look at another stone fort. In the middle of Jim's talk one of the local goats wandered in. "Ho!", said Fran, "it's King Puck". The goat basked in the glory of our undivided attention, (sorry Jim), and then after clearly marking his territory he wandered off.

We then walked to Kilronan by way of the seashore and boarded our liner, weighed anchor and set sail for home. On the way we got absolutely soaked by the waves that crashed onto the deck. Fortunately no one was swept overboard and when we reached the mainland it was a subdued shower of students who boarded the coach in Rossaveel. When the bus finally reached Maynooth everyone wandered home to recover and build their strength for the next field trip. (in other words they all hit the pub!).



Hot Bread - Coffee Shop
Main Street, Maynooth.

Open Daily
8.30 a.m. - 6.30 p.m.

All our Bread & Confectionery
Baked Fresh Daily on the Premises

Phone: 628 5521

A visit will make your day

EASTERN EUROPE WORDSEARCH

Hours of fun for family and friends!

A	L	M	P	Q	S	R	M	K	Q	T	R	B	T
J	A	Z	E	R	B	A	I	J	A	N	A	U	B
N	T	Q	R	M	V	B	L	T	N	R	I	L	S
L	V	S	A	N	L	B	O	P	O	H	N	G	T
R	I	N	T	N	U	M	S	S	D	A	E	A	O
A	A	E	S	F	B	L	E	G	N	G	M	R	I
L	L	Y	E	U	M	O	V	I	A	I	R	I	C
B	E	R	R	S	D	I	I	I	L	B	A	A	H
A	V	D	A	L	A	L	C	M	O	B	J	R	K
N	A	G	H	C	N	J	H	O	P	C	I	S	O
I	H	D	C	I	U	E	S	T	O	N	I	A	V
A	L	B	U	V	B	U	O	W	O	C	S	O	M
P	O	S	B	I	E	H	T	W	A	L	E	S	A

*All you have to do in
this amazingly easy
wordsearch is
to find the following
Eastern European
places or personages
in the quickest time
possible.*

Go to it and good luck!

ALBANIA
ARMENIA
AZERBAIJAN
BOSNIA
BULGARIA
BUCHAREST

ESTONIA
GDR
HAGI
HAVEL
LATVIA
MILOSEVIC

MOSCOW
STOICHKOV
VILNIUS
WALESA
DANUBE

*"Easier to do than scoring a goal
against Liechtenstein" - Jack Charlton*

BEST WISHES TO THE
GEOGRAPHY SOCIETY



MAYNOOTH
TEL. 628 6355

TOURISM AND THE ENVIRONMENT

by
Karl McGovern, B.A.

INTRODUCTION

The geography of tourism has been conditioned largely by the abilities of regions to provide aesthetically attractive and culturally rewarding environments for tourists. Tourism is therefore dependent on the maintenance of high quality environments, whether they be in the form of natural landscapes or architectural fabric. Tourism has however, in many locations, led to forms of environmental degradation similar to the more easily identifiable detrimental effects of intensive industrial and agricultural practices. These issues are briefly discussed below.

THE POSITIVE IMPACTS OF TOURISM ON THE PHYSICAL ENVIRONMENT

Conservation will always be a subject of controversy, especially when it is perceived as "interfering" with economic development. Conservation is often viewed by certain interests as directly opposing economic development and as being synonymous with the retention of exploitable resources in an undeveloped and economically unrewarding state. However, this perceived economic underdevelopment has left some areas unspoiled by the effects of intensive agricultural and industrial activities and left them as having the potential for successful tourism development. Their conservation and subsequent utilisation as tourist amenities allows a flow of multiple benefits to accrue, both economically and socially. However, the continued realisation of these benefits are dependent on the maintenance of a pristine natural environment which provided the stimulus to development in the first place. Tourism's impact on the environment in this respect can be seen as positive.

Tourism significance as a conservational tool is particularly important within the African continent. Increasing recognition by East African governments that tourism can contribute to foreign exchange earnings has stimulated a corresponding realization of the need for conservation. More than 80,000 square miles (207,200 square kilometres) have been set aside as national parks in East and South Africa (Pollock, 1971: 146). It has been argued that the economic benefits derived from the use of such areas for tourism far exceeds those which would be yielded from agriculture (Netboy 1975: 27). Tourism therefore allows conservation of threatened environments along with the realisation of economic benefits within the same region - two pursuits which are normally seen to be completely antithetical.

Turning to the Irish context, the Slieve Bloom mountain range provides a particularly good example of the preservation of an area as a tourist attraction. Before conservation, the mountains had been designated as possible development sites for afforestation programmes and peatland exploitation. Proposals for their preservation met with opposition from those espoused economic development. However, their preservation as tourist attractions has allowed them, not only to be preserved, but also to bestow several economic benefits. Thus, even within an Irish context, the benefits of tourism for conservational purposes are considerable.

The preservation of resources solely for conservation which includes a requisite exclusion of tourists has only allowed the incorporation of spatially fragmented components of natural habitats. In contrast the conservation of environments as tourist attractions has allowed much larger and more composite zones to be protected often incorporating complete ecosystems (e.g. Kruger National Park in South Africa). Tourism is therefore of fundamental importance in the conservation of natural environments.

Tourism has also stimulated the rehabilitation of historic sites, buildings and monuments. Particularly good examples include the Parthenon on the Acropolis in Athens, Stonehenge in Britain and New Grange in Ireland. Some of the negative aspects of this will be discussed later. Williamsburgh, the eighteenth-century capital of Virginia, provides a good example of a city which was almost in ruins but has been rejuvenated by the processes of preservation and restoration, specifically due to its attractions as a tourist amenity. In these circumstances tourism has facilitated the preservation of architectural diversity within cities and by so doing has allowed significant economic benefits to accrue. The Annual Tidy Towns competition, which has helped to enhance the physical attractiveness of many of Ireland's towns and villages can be seen in a similar light.

Perhaps the most fundamentally positive impact of tourism, in its relationship with the physical environment, is the fact that it can act as an environmental catalyst. By marketing environments as visitor attractions, tourism can actively encourage environmental appreciation among both host communities and visiting tourists. The twin aims of the conservational movement are both the preservation of environments and the fostering of increasing environmental awareness among the public at large. This must surely render tourism of fundamental importance to environmental conversation.

THE NEGATIVE IMPACTS OF TOURISM ON THE PHYSICAL ENVIRONMENT

Despite being a potential force for conservation, tourism has in certain circumstances generated negative impacts on the environment. Excessive numbers of tourists can impact heavily on often fragile sites which may not be carefully managed by authorities.

In certain circumstances tourism has had a detrimental impact on historical buildings and monuments. In Britain Hadrian's Roman Wall is crumbling and Westminster Abbey is showing the pressures of too many tourists (Jensen: 1979). The foundations of Stonehenge have been threatened by tourism and this has necessitated the exclusion of visitors to the outer perimeter of the world famous monument. Similar problems have been encountered on the Great Wall of China and at the Parthenon on the Acropolis in Athens. Tourism therefore has a number of negative implications for the environment which are contrary to its positive aspects.

However, the detrimental effects of tourism on the environment are not confined to environmental degradation resulting from excessive tourist numbers. Tourist development has also disfigured the visual integrity of destination locations. Although the environment provides the principal attraction for tourist development it is generally not sufficient in itself to maintain persistent tourist flows. Tourist destinations must also provide a plethora of services to cater for tourist needs. The insertion of these facilities within the natural environment often appears obtrusive and incongruous with the natural idiom

of the landscape. The development along the Mediterranean coast provides the best example of this process. The poor provision of sewage and litter disposal facilities has often resulted in pollution for which the Mediterranean, once again provides the best example.

DISCUSSION

It is therefore apparent that the environmental impacts of tourism are ambiguous. Tourism can provide the incentive for the restoration of ancient buildings and archaeological treasures, and for the conservation of natural resources as well as providing the means by which this can be achieved. The protection of these resources enhances and perpetuates tourism by maintaining its very foundation. In contrast tourism can also lead to pollution, traffic congestion, architectural blight, and the destruction of natural resources and historical treasures. In these circumstances tourism accelerates the trend towards its own demise.

Mass tourism creates negative impacts. The infiltration of more moderate numbers of tourists within destination locations does not place as much stress on the carrying capacity of the environment concerned allowing tourism to attain a sustainable rate of growth. Since the 1980s, sustainable management of resources is being accepted as the logical way to match the needs of conservation and development. In the case of tourism sustainable growth is of fundamental importance to the continued realisation of tourism's economic and social benefits.

Within developing countries tourist policies have concentrated upon the development of mass tourism. The logic underlying this relates to the perception that the greater the number of tourists the greater the amount of foreign exchange earned and employment created. In the case of Ireland it would appear that the government has espoused mass tourism as a development strategy. Both the Programme for National Recovery (1987) and the National Development Plan 1989-93 project increasing numbers of tourists as a means of increasing social and economic benefits. One must surely question the wisdom of such policies. Mass tourism, although providing short-term benefits, is contrary to the concept of sustainable development on which long term benefits are dependent. The challenge that the industry must confront is to balance immediate economic gains with the long term goal of protecting the environment. In the absence of adequate legislation and planning controls, the development of tourism has been left largely to the interplay of market forces.

CONCLUSION

Tourism can have both positive and negative impacts on the physical environment. Tourist developments which do not respect environmental carrying capacities lead to the boom-bust cycle of tourism which has beset many Mediterranean countries. Environmental degradation overtakes the attractions which stimulated growth in the first place. In the case of Ireland we can only hope that myopic policies geared to achieve quick employment gains and foreign exchange earnings (which at present appear to be the dominant concerns) do not blind policy makers to the need for long term planning with environmental considerations that will ultimately determine the long term contribution which tourism can make toward economic development.

A GEOGRAPHER'S LOOK AT THE CINEMA

As everyone undoubtedly knows only too well, 1995 is the year in which we celebrate 100 years of that enchanting invention; the motion picture. So what better time, and indeed what better magazine, to look at the Maynooth Geography Department's film catalogue. First a glance at films that are coming your way soon!

Maps of the Human Heart	Jim Keenan
Silence of the Lambs	Tutors & Passive Tutorees
The Pagemaster	Ann 'InterLibrary Loans' Keogh
Broken Harvest	Jim Walsh and LEADER students
Raining Stones	John Sweeney & Paul Gibson
Baby Boom	Perpetua McDonagh's 1st year Population Geog. Class
True Lies	Geography Exam Papers

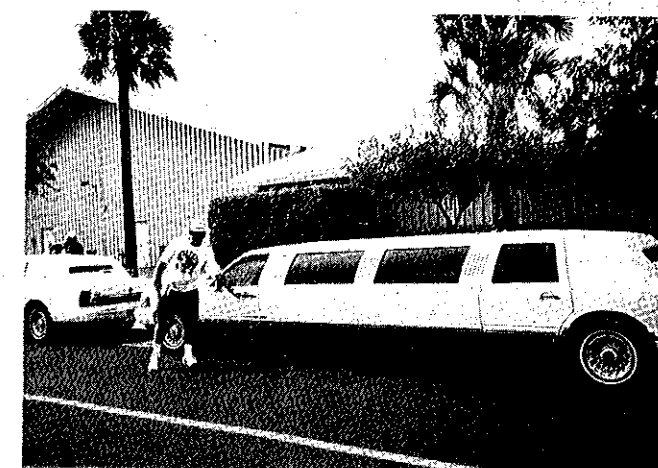
But now let's look at some Geography Dept. films you may have missed, or that you may want to see again and again and again. . . (???)

Blown Away (18)

Neph analyst John Sweeney (Jeff Bridges) is putting his shady past in Geomorphology lectures behind him in the pleasant climes of meteorology until the arrival of NKOTB Kieran Hickey, with many associated geohazards. Admittedly this is a flick brimful of (atmospheric) energy, but the accents are shocking.

The Firm (15)

Ambitious young geographer Fran Walsh (Tom Cruise) arrives in a small but prestigious geography department full of enthusiasm and economic geography books. But the sudden disappearance of the Head of Department (a tour de force cameo by Anthony Hopkins) and an influx of "Philosophy of Geography" lectures raises suspicions. Is everything as it seems?



All the President's Men (PG)

A modern remake of this classic. The political geography notes of Dennis Pringle (Liam Neeson) have been snatched. Is it merely a desperate 1st year student? Two intrepid young investigators, Kevin Griffin (Gabriel Byrne) and Ivan Devilly (Leonardo di Caprio) think otherwise. Is this a scandal? Are there really low standards in high places?

Gorillas in the Mist (18+)

A practical conservationist Shelagh Waddington (Sigourney Weaver) is trying to preserve the habitat of the "cognitively challenged" 2nd year Practical Student (or the gorilla in the mist to be very un-P.C.) But are her attempts at naught?

Night and the City (15)

Join Brendan Bartley (as himself) and a 66 full of unsuspecting second years in this fun filled romp around Dublin in search of hidden Euro glory. A cinematic tour-de-fourc. Similar events are simultaneously being recorded in twelve European cities, although events in Dublin - the hijacking scene is hilarious - show that even in the darkest moments, the Irish never lose their wit. Great movie for the kids.

Rocky XXXIV (15)

Paul Gibson (Danny de Vito) appears in the bicentenary edition of one of film's greatest classics. A newly arrived geologist takes boxing lessons in an attempt to counter bullying by his departmental colleagues. The film shows some of the uses of remote sensing theory - the hero always fights at dawn. This novel technique of exploiting a low sun angle ensures (a) the inevitably taller opposition is blinded and (b) crucial facial movements are exposed.



Steve Collins next opponent

Working Girl

The film where one realises who has the real/power in traditionally male dominated institutions. Melanie Griffith as Mary Weld spins an intricate web within the corporation playing with the innermost fears of her would-be employers. An ageing and bearded Harrison Ford in the adjacent office harbours suspicions.

Geograssic Park (PC - although youngsters should be accompanied by tutors!)

The huge blockbuster that surely everyone in the globe, apart from Outer Mongolian cod fishermen perhaps, has seen at least 10 times by now. Park owner Paddy Duffy promises "geographical attractions that will astound both young and old". A pally-young-geologist (palaentologist - geddit?) Darragh McDonagh (Sam Neill) has his reservations however, and with good reason, for a group of formerly extinct positivists escape and all hell breaks loose with the re-emergence of these dinosaurs.

It all gets very bloody in May, and the body count is... ("I think that's quite enough of this, don't you?" The Editor)

The Geo "Flick"



KATIES FLOWERS LTD.

College Corner, Maynooth, Co. Kildare.

Telephone:

Shop 01 - 628 9310

Workshop/Studio: 045 - 69394

Fax: 01 - 628 9310

FOR ALL
ROMANTIC OCCASIONS
&
FLOWERS TO MUMS
WORLDWIDE

ALSO BALLOONS
FOR PARTIES

AMERICA 1995

Student Work and Travel Programme '95

A unique opportunity to spend four months working, living and travelling around the US. Applications accepted in Usit offices on a first come, first served basis from 25th January.

Full details and brochure available from your local Usit office.

Usit/Travel Options,
Unit 3/4 Castle Stores, Maynooth, Co. Kildare.
Tel 01 628 9289

ATHLONE • BELFAST • COLERAINE • CORK • DERRY • DUBLIN • GALWAY • JORDANSTOWN • LIMERICK • MAYNOOTH • WATERFORD



AN AMERICAN ODYSSEY: OR, HOW TO AVOID DISNEYWORLD IN THREE EASY LESSONS

by
Proinnsias Breathnach
(Foot Soldier in Jack's Army
& World Cup Veteran)

JAMESONS IRISH PUB STAMFORD, CONNECTICUT

Stuffing your face with rashers and sausages and black and white pudding while watching the Kildare-Dublin Gaelic football game live on TV in the company of dozens of Irish soccer fans bedecked in green. Except right now they are not soccer fans, but Dubs and Lilywhites roaring on their countymen. An hour later we are all on the one road, en route to Giants Stadium and that tilt against the Italians. Suggests something about how much the world has shrunk in the communications age - and about the Irish attitude to sport.

GIANTS STADIUM, NEW JERSEY

Unbelievable. We expected about 15,000 Irish and 60,000 Italians - after all, it was their home ground for the tournament. Instead, the proportions are reversed. Gaping up at the sea of green on the upper decks surrounding the ground, while the massed bodhrans echo in unison all around us. I remark to my mate that regardless of the result, this is one of the all-time experiences. Then, right in front of us, Houghton's shot beats the keeper and takes an age to reach the net...



Getting his strength up before the match

I eventually figured it out. For second-generation Italians (and Irish), soccer means little. They have been raised in a soccerless world of baseball and a game called football where the ball is hardly ever kicked. The people who are here are mainly Irish-born. Many of them are recent immigrants; many more have been here a long time, never at a soccer game before (like a couple of cousins I met). They are here almost out of a sense of national duty. This was driven home to me in Orlando as I met Irish people who had come from all over the States. There aren't that many real Italians in the "Italian" community here...

ORLANDO, FLORIDA

A loose collection of hotels, restaurants and amusement parks spread over a wide area. International Drive is like Grafton Street on a sunny summer day (remember those?) - Irish everywhere.

With three matches on TV every day there is no time to get to Disneyworld: anyway its damn hot out there. Played more pool in three weeks than in thirty years. Every night in the Crazy Horse Saloon they had a thing called Line Dancing (wha?). We have a thick ignorant Dub in our company who refused to allow two young English couples to play a game of pool because "you have to play the guy who is on the table". Two months later I see the same guy's face on TV stuck up against the wire at the front of Hill 16 at the All-Ireland final. What did I say about the Irish and sport. . .?

THE CITRUS BOWL, ORLANDO

We haven't seen a Mexican all week, and suddenly the stadium is half full of them. An hour after the game, none are to be seen. Were they all holograms? Is this what the information superhighway has come to? When they strike up their chant "MEH-EE-CO", quick as a flash the Irish respond "A-DI-OS". In the blazing heat, Irwin and Staunton are clearly wilting. Has Jack psyched them out about the climate? They play like a different team after going two down. Would Aldridge have scored the early sitter which Coyne missed? Anyway, the goal which he did get back could be priceless. . .

A LOCAL AIRPORT SOMEWHERE OUTSIDE ORLANDO, 6 A.M.

They are not used to coping with two plainloads of Paddies. The one metal screening device is a bit touchy: everyone who passes through sets it off. "It must be a beer detector" suggests a voice from the back. One man is sent back repeatedly to divest himself of spectacles, watch, ring, coins. Finally, when he has nothing else to give, he beseeches the security woman: "Do you want the fillings in me teeth?"

GIANTS STADIUM, NEW JERSEY

The game against Norway is a bit of an anticlimax. Ireland are a little lucky but they are through. Much more significant is the news that Waterford minor hurlers have beaten Tipperary. Now the scramble to get back to Orlando. . .

QUINSEY MARKET, BOSTON

Up here for a few days R&R. My name is called out. There, eating ice cream, are Regina O'Connor Hannon and Cora Landy, two recent Maynooth Geography graduates, over doing summer work. Regina is going home to finish her MA in Women's Studies in UCD; Cora is staying on for a year, but intends coming back to Maynooth to do the MA in Geography. Small world. . .

ORLANDO, FLORIDA

My travel agent cousin has fixed us up with cheap return tickets from Boston (great thing, this Irish Mafia). We have found out where the FAI is holed up in downtown(?) Orlando. We walk past Irish fans haggling with touts in the street and into an unmarked office to buy excellent seats at face value. The FAI are as good at marketing as they are at organising security at games against England at Lansdowne Road. . .

CITRUS BOWL, ORLANDO

This is a disaster. Jack's negative vibes have conquered the players (except Roy Keane, who busts a gut to get us back into the game, to no avail). Jack may have got us out of the international gutter, but he won't get us any further. Don Revie's caution may be okay for winning leagues, but this is the World Cup. You have to go for it. Anyway, what the heck - off to Church Street Station for one hell of a farewell party.

DUBLIN AIRPORT

There are hordes of welcoming fans around. At first I presume it must be because of my guest appearance on international TV after the Italy game, but then I am told that the Irish team are due shortly. There has been an almighty cock-up over the welcome home arrangements. How could such a government last? But by now my attention has moved elsewhere. Waterford are playing in the Munster Minor Hurling Final next Sunday. . .



Author with horny Dutch supporter

THE INDUSTRIAL REVOLUTION IN THE USA

by
Tom Corbett, 2nd Arts

INTRODUCTION

This paper focuses on the factors and circumstances that led to the industrialisation of the United States.

Outlined here are the phenomena that prepared the way for a period of spectacular and fundamental reorientation of the American economy: the development of transportation, regionalisation, the emergence of the factory system and Fordism along with the consequences they had for the development of infrastructure, capital investment, immigration, and mass production and consumerism. Finally, suggestions are given as to how these combined forces transformed the business structure of the economy through the evolutionary patterns of an Industrial Revolution resulting in a small number of powerful corporations dominating the economy by 1920.

INDEPENDENCE: A NEW BEGINNING

The rise of the USA was, according to Spybey a matter of 'Modernisation' contained within the idea of liberal democracy which was born with the Declaration of Independence (1992). When Britain relinquished the American colonies in 1776 a series of benefits accrued which accelerated the growth of the post colonial economy from a country which had only 2.5m people in 1780 (Knox & Agnew, 1989) and had an economy dominated by the production of agricultural products for Europe there emerged an industrial power which utilised vast resources of minerals and territory. Due to immigration, a rapidly-growing market and labour force helped to institutionalise the industrial revolution in a way which European industry had never done.

Entrepreneurs with business ideas and capital to invest came forward. Outlets for investment of American capital grew steadily resulting in the reduction of repatriated profits that occurred under the British regime. An all important stimulus for the development of economic trade links with existing countries of the Empire, and never ones, was the stability afforded by a Federal political system which brought the colonies together in an integrated way, no longer relying on control from a far off bureaucracy, dependent instead on its own skills and resources to govern.

THE TRANSPORTATION REVOLUTION

However, the transformation of the economy and steadily evolving pattern of spatial organisation were hampered by the primitive transport system that existed. Quickly recognised and remedied in the last years of the eighteenth century and first decades of the nineteenth, the state and local government invested in improved roads and turnpikes in tandem with private companies who built roads westward into the interior, northward and southward (Degler, 1970). Whilst beneficial in reducing spatial divides, road transport was relatively slow and inefficient. Expansion, had up to this, been concentrated on the East coast. The gateway port cities of New York, Baltimore, Boston and Philadelphia were located on strategic points, close to at the mouths of inland waterways giving them control of a limited hinterland in which the economy was dominated by production of agricultural products for export to Europe. Over time, a decline in foreign trade was experienced due to improper transport facilities at these ports so much so that New Orleans was favoured as an entry port due to her advantageous position at the mouth of the Mississippi which gave faster access to the new western lands. The domination of the East coast, therefore was vulnerable. Relying on its primitive turnpike network, it faced strengthening competition for economic survival with water-borne transport. The response of East coast merchants was to tap the waterways of the Great Lakes and the Ohio, Hudson and Mississippi rivers with numerous canals which would also serve the seaboard ports and enhance the natural water port system. A cheap form of transportation, it would allow mass distribution of bulky farm products from the interior to be shipped to distant markets which would stimulate economic growth in the newly opened lands (Degler, 1970).

By 1840, 3300 miles of canals existed, a 30 fold increase on 1816 (Degler, 1970). But it was only with the opening of the 400 mile Erie Canal in 1825 connecting the Hudson river with lake Erie that saw a truly commercial link open up between the East coast and the interior. Together with its north and south feeder canals extending its benefits to the widely scattered farmers of northern and western territories, it firmly secured New York's position as a pre-eminent gateway port to the USA.

Industrialisation increased rapidly during the late 1830s and early 1840s as a result of increased use of industrial technology which saw a wider industrial application of steam, in turn, bringing sweeping changes in the iron industry. In addition, the demand for foodstuffs and other agricultural staple products both at home and overseas stimulated the growth of industry as farmers sought to increase their productivity through mechanisation and improved agricultural farm tools. The high influx of immigrants from Europe continued but rising productivity in North America's expanding cities absorbed them.

Advances in canal transport ushered in river boats and steam boats but even if they could navigate immense distances and were cheap to operate, there was a necessity to span greater distances at faster speeds. The railway network which linked farms to commercial centres and spurred the growth of cities, made possible the creation of a mass market which was a significant stimulus to the economic revolution of N. America (Morison et al., 1983). Initially they were complimentary to the waterways as competitive long hauliers of general freight but by 1825 intense competition between railroad companies had begun to open up the western prairies as far as Minneapolis, St. Paul and Kansas City. By 1869, 30,000 miles of track had been laid (Degler, 1970) joining east to west and linking many northern and southern towns (Wallace, 1990). The railway, according to Knox and Agnew was the catalyst which allowed regional economies to develop but also allowed the development of a continental economy by connecting more cities, towns and farmers thus leading to greater lines of communication and the birth of the expansion of manufacturing (1989). Improved rail transportation networks had consequences for the north-east particularly, in that they led to spatial organisation where competition between the railways and canals in conjunction with fierce rivalry between neighbouring cities generated a marked increase in intra-regional trade.

REGIONAL SPECIALISATION AND 'THE MANUFACTURING BELT'

One result of the extension of transportation and communication lines was the expansion of the manufacturing belt westward as far as St. Louis. This region became the economic heartland of the U.S. being blessed with nearby coal reserves and ideally situated to cater for the upsurge in demand for consumer goods. The open frontier beckoned and there was an incentive to invest in labour-saving devices. New types of specialist towns became increasingly differentiated with the industrialisation of the economy (Knox & Agnew, 1989). Following the setting up of textile mills in Massachusetts, most manufacturing was carried out in urban areas but by the 1850s had spread throughout New England, and stretching south across the Great Lakes. Mining towns mainly in Appalachia prospered as did regional specialisation; Boston producing men's clothing; furniture and printing in Chicago; textiles in Philadelphia; creating a broad regional division between north and south, the north utilising its coal and water power resources, the south relying on tobacco and cotton production (Wallace, 1990). As a consequence, the economic base of most of the established cities became more diversified. Manufacturing establishments and service industries opened to serve local markets whilst growing cities like Chicago and San Francisco which possessed more local capital, bigger markets, larger pools of skilled labour and a high degree of nodality in relation to newspapers, mail and the newly invented telegraphic service criss-crossing the country, were able not only to expand and diversify their economic base but to become major controlling centres of industrial activity for the entire continent (Knox & Agnew, 1989).

Centres specialising in select products provided the basis for increasing commodity flows between them thereby creating an interdependent system of connections (Knox & Agnew, 1989). These connections created a 'multiplier effect' generating demands for a whole range of goods and services which rose so high that it was profitable to manufacture goods locally and expand markets by offering cheaper or better quality

goods which were previously imported. The chain of command from finance through to production, wholesales and transportation was circular causation adding to the process of regional industrial growth. This meant that the 'Manufacturing Belt' was able to attract a large proportion of any new industrial activities demanding large or national markets and this in turn constrained the chances for similar levels of industrialisation in late developing regions (Knox & Agnew, 1989). The north-east grew also due to first hand information about developments in Britain via press reports and the accounts of visitors. In the south, however, there was less interest in the development of manufacturing. Slavery effectively excluded large numbers of the southern population from markets for industrial products, while in contrast the north was a more open society, receptive to new ideas and less rigidly stratified (Wallace, 1990).

Expanding markets as a consequence of the 'Multiplier Effect' justified frequent investment in new 'state of the art' machinery. The mid-west gate way cities of Chicago and St. Louis became the centres through which produce from the expanding frontiers was channelled to eastern and overseas markets. A rise in the manufacturing sector saw population triple between 1860 - 1920 (in 1860 population stood at 31.5 million - Morison, et. al, 1983), income rise and a mass demand for consumer products. Mass demand encouraged industrial expansion which was accelerated further by the application of electric power and the introduction of the internal combustion engine in 1876.

By the early 1900s many firms were operating on a national scale turning out producers' goods for other industries rather than for the consumer (Morison et al. 1983). Once the US State Department announced in 1890 that the frontier no longer existed, the progress of North American growth was achieved in the form of mass production, mass communication and mass consumption (Spybey, 1992). Britain had lost her lead by the turn of the century and the US took over as the dominant economic power.

FORDISM

1908 onwards saw a major leap in industrial growth with mass produced goods from efficient technological firms with new working practices ushering in an era of 'Fordism'. This became a cornerstone of consumerism and 'the American Dream'. The de-skilling of labour and implementation of a radical overhaul of work practices for the greater efficiency of industry was coupled with the realisation that the availability of huge quantities of standardised goods most notably the 'Ford - Model T', at prices people could afford, would not only guarantee much larger profits but also improve the quality of life for more people (Spybey, 1992). Fordism became a symbol for the US as the archtypal mass society of the twentieth century used to set up global manufacturing empires, Ford and Hoover setting the pace. By 1920, Ford were making 6,000 cars per day in Detroit and the car industry ranked first in the country (Degler, 1970). The new economic era established before World War 1 was transformed by a flurry of company mergers aiding the transformation of the business structure of the economy, resulting in a small number of powerful corporations poised to dominate the world. Nowhere is this reflected more than in statistics for 1920, where over 30% of all jobs and nearly 50% of the country's production was accounted for by just 1% of all firms (Knox & Agnew, 1989). Similarly that year's census recorded 9m factory wage earners producing commodities to the value of \$62 billion and over 50% of the population living in towns and cities (Knox & Agnew, 1989).

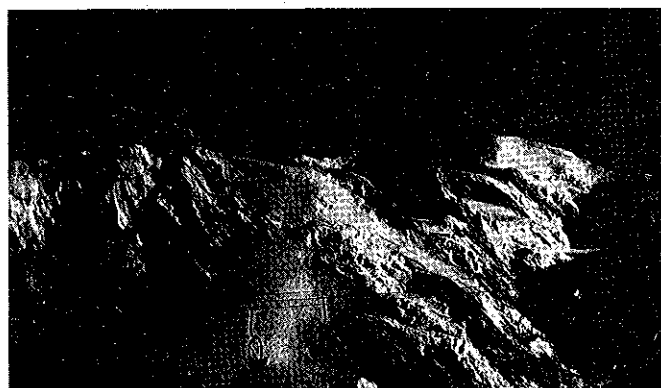
CONCLUSION

Through the spirit of its people, who were able to digest and learn from prior industrial developments in Britain did, an inferior nation rise to emerge triumphant as the leading industrial power on the globe by the first quarter of the twentieth century. However, an equally important factor were the revolutionary transport innovations which paved the way for the rise of manufacturing and service industries within regional contexts reducing spatial divides across the continent. This was a major catalyst for the expansion of capitalism. The right application of new technologies and a large population growth enabled a society of mass production, mass communication and mass consumerism to emerge, leading inevitably, to more advanced business practices. These practices would see industrial expansion from north to south, east to west culminating finally in a small number of large corporations operating with the principal aim of making profits thereby sustaining the position of the USA as the wealthiest industrial power in the world by 1920.

CARRY ON UP THE ALPS!

by

Brendan McEvoy, 2nd Arts



In the autumn of 1994, a certain club from the college embarked on what proved to be a very interesting expedition. This same club has in the last year forged closer links with the Geography Society by conspiring to bring Mr. Dermot Somers (of Everest expedition fame) to speak at the college. The club in question is of course the Outdoor Pursuits Club.

The reason you are reading about an Outdoor Pursuits club enterprise in *Milieu* is due to the fact that for some strange reason a fair percentage of the club's members are also geography students'. The expedition in question was a mountaineering trip to the French Alps. And as all of you out there are really into alpine environments, glaciers and the like, I thought you might be interested to hear about some first hand experiences.

So who were the participants? There was Martin McCormack a chemist in the Science department, Ivan Devilly a geography post-graduate student, and myself a mere geography undergraduate. This however was not a geography field trip (although the department could look into the possibility); it was first and foremost a mountaineering expedition. None of us had any previous experience which came close to anything like what we were getting ourselves into. We were Irish hill-walkers and rock-climbers, who had never set foot on a glacier and yet we believed in our own ability to experience a totally different mountain environment and come back safely. Our goal was to try some routes on some fairly high peaks before going for Mont Blanc itself, the highest mountain in Western Europe at 4,807m or 15,770 ft.

The first thing you realise when you see the Alps close up for the first time is that they are big - in comparison to Irish mountains the Alps are awesomely huge. Whereas you can climb any mountain in Ireland in around six or seven hours, to climb one of the Alps would take a day or a day and a half at least. The size of the mountains was not the major concern even though the effects of altitude could be felt. Our main concerns were the weather and the little surprises these mountains throw at you. These surprises are both seen and unseen and consist of things like crevasses, bergschrunds, avalanches and rockfalls. All these things can make your life a tad worrying. We had the "privilege" to witness some of these unfamiliar elements at close quarters.

We saw a massive rock (house size) fall down the north face of the Dru and smash into pieces. I personally had a close call when a rock just missed me after being dislodged from above. While crossing glaciers one was very wary of crevasses, those cracks in the ice which seemed bottomless. However in the true spirit of adventure we took it upon ourselves to risk life and limb (such drama) to climb into these and practice some ice climbing. Crossing a Bergschrund was a completely different story. These features are large crevasses which mark the line where the glacier comes away from the headwall of a corrie. They are normally deep and hard to cross and we struggled up and over one on our first day on the glacier. It was a rather heart in mouth experience, as we went where Arthur Strahler would fear to tread. Intrepid Ivan went first and although he looked extremely apprehensive, he straddled over the gap and up the steep narrow ice ledge like a seasoned pro. Martin went next and he suffered the indignity of having some rather inconsiderate chap from Scandinavia attempting to come down as he was going up; clearly this place was not built for two. As for myself, going last, I had to deal with the same nice man from Scandinavia attempting to retrieve his rope and almost taking my head with it.

In the end we didn't get to do all we wanted due to extremely bad weather on the mountains but the experience gained was immense. It was interesting to actually see in real life, what Paul Gibson goes on about and for any doubters, this man speaks the truth! All in all it was a very enjoyable experience from both a mountaineering and geographical perspective and one which we hope to repeat this coming summer.



Martin McCormick crawling up a glacier

KWIK KWIZ

Test your geographical know how by answering these 20 easy questions. Then turn to page for the answers, and to see how your score is rated by experts.

1. Minks is the capital of which East European country?
2. What "lavatorial" river flows through northern Italy?
3. Where are the Falkland Islands located?
4. Burgess and Hoyt are theorists associated with which branch of geography?
5. What is the main language in Quebec?
6. Rathdowney, Mountrath and Mountmellick are towns in which Irish county?
7. What is geographically significant about the winners of the last four All Irelands (football)?
8. Suspended particulate matter (SPM), nitrogen oxides, and (ground level) ozone are all examples of what?
9. What was the second country to experience the Industrial Revolution?
10. How many of the quarter-final teams in the World Cup (1994) were European?
11. What was the south east Asian country of Myanmar previously called?
12. What Irish county has the smallest population?
13. What is the main religion in Chechnya?
14. Name two of the five countries who provide this years "Best Foreign Film" Oscar nominations.
15. Pop star Björk is a native of what country?
16. After Russia, which is the largest of the former Republics of the Soviet Union?
17. The composer Beethoven was born in which German city?
18. What is the highest mountain in Ulster?
19. Which country has the world's largest speaking Spanish population?
20. According to UN figures what were the five most populated cities in 1990?

A GEOMAGNETIC STUDY OF FOUR SITES IN THE DUBLIN REGION TO ASSESS THEIR HYDROGEOLOGICAL SUITABILITY FOR LANDFILLING

by
Ivan Devilly, B.A.

INTRODUCTION

"Waste is any substance or object which the holder disposes of or is required to dispose of pursuant to the provisions of the national law in force." (Fenwick, 1991)

In an increasingly consumer-oriented world, the volume of waste produced annually is rapidly growing. The vast majority of this waste is disposed of in landfill sites (dumps). Before the introduction of refuse collection vehicles or waste compactors there may have been up to 700 small scale landfills in Ireland. Today, with improvements in waste disposal technology and an increasing concern for environmental welfare, the number has dropped as low as 140. However, the composition of municipal solid waste has also changed and there now is much more paper, plastics and putrescible material being dumped in comparison to the high proportion of inert material in the past. Every year, more than 28M tonnes of solid waste are produced in Ireland. This consists of agricultural waste, which accounts for an average of 21.4M tonnes of the total, the remainder being derived from mining, quarrying, construction, litter, commercial activity, industry, domestic refuse and sludges/semi-solids which cannot be discharged to water or air.

The greater Dublin area is undergoing what O'Neill has described as a 'waste crisis'. For twenty years the quantity of waste produced in this region has been growing. Increasing population and increasing waste production per head have led to total waste production in the Dublin Region (domestic, civic amenity, and trade wastes) of approximately 1 tonne per head every year. Predictions suggest total waste produced over the next 25 years may total 25,500,000 tonnes.

Of the four sites used for landfilling in and around Dublin, two, Friarstown and Ballyogan have already reached capacity and closed. Dunsink is in the process of closing, leaving only Balleally to cope with Dublin's waste. Despite the fact that Balleally is a large site and has scope for expansion, the increased pressure on it with the closure of the other sites means it will close within approximately the next 3 years. There is currently no active landfill site in the south Dublin region and as a result, higher time and transport costs are incurred as the waste is transported longer distances to Balleally. It is therefore clear that a number of new landfill sites must be opened in the greater Dublin region in the very near future. Four sites which were proposed by Dublin County Council in 1991 are currently under consideration and it was these sites, Hollywood, Mount Seskin, Ballinascorney and Arthurstown which were examined in this study.

THE GEOMAGNETIC METHOD

The technique used is theoretically very simple. If there are faults, fractures or infilled drainage channels (which can act as leachate conduits) or areas of permeable rock in the site, it is possible that leachate produced by landfilling will percolate the bedrock and enter the local groundwater system. In the past it was only possible to locate such features by drilling a

uniform grid of boreholes and carrying out pumping tests to measure the rates of groundwater flow across the site. This method was both very expensive, slow and depending on the resolution of the grid, could still conceivably miss significant leachate conduits. Geomagnetism, as used in this study, is cheap, fast and non-destructive. It should be noted however that results produced are not conclusive and must still be confirmed by pumping tests. The advantage is that fewer boreholes need to be drilled as only the locations of possible conduits exposed by the geomagnetic method need to be tested.

The geomagnetic method, in this case magnetometry, involves taking readings of the Earth's magnetic field. The best way to imagine the Earth for this purpose is as a massive magnet, with the geographical north pole located close to the south magnetic pole of the magnet and vice versa. This creates a magnetic field, increasing from about 30,000nT (nT being the unit of measurement for magnetic field intensity) at the equator to 60,000nT at the poles, Ireland being about 48,500nT. A portable total field proton precession magnetometer is an effective tool for measuring the Earth's magnetic field strength. The magnetometer consists of a sensing bottle mounted on a 3m pole attached to a small console which calculates and displays the magnetic field intensity. Straight line traverses are taken across the study site with an interval every 10m. At each interval the average of three readings is taken and the value recorded by the fieldworker. The results are later graphed, nT against metres and analysis carried out. Theoretically, the magnetic profile of a traverse should be relatively flat and smooth, but this is not the case. For the purposes of this study the important factor creating anomalies in the Earth's magnetic field are geological bodies. Above a fault (Fig. 1), fracture or change in rock type the magnetic field diverges from the background level due to variations in the concentration or properties of the magnetic minerals within the rock. By referring to an inventory of signatures produced over known features it is thus possible to interpret the results and relate them to the geology below. To aid the identification of magnetically low and high regions in a site, results are compiled by hand to produce a magnetic contour map. Similar to a topographic map, it is possible to identify magnetic 'valleys' and 'ridges', which could be missed by looking at the individual magnetic profiles in isolation. Any conclusions arrived at in this study involved the use of both magnetic profiles and contour maps.

Example of magnetic signature produced over fault line in sedimentary rock

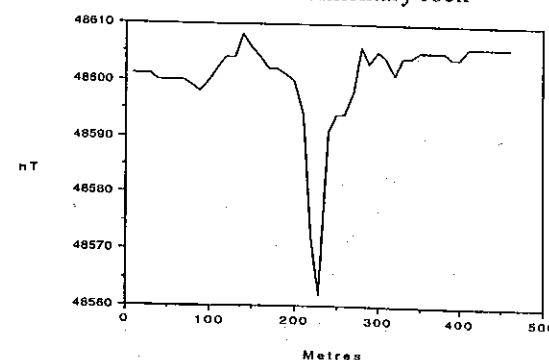


Figure 1.

SITE 1: HOLLYWOOD

Hollywood, located 20km north of Dublin, is the smallest of the proposed sites. Comprising an area of 8 hectares, the site is currently an active shale and limestone quarry on a hill, with an estimated airspace capacity of 1 million cubic metres

Eight traverses were made around the site - 5 from west to east, two north to south and two at 205 degrees south. This proved to be quite a complex area magnetically. Two major magnetic valleys were discovered, one following a line of 120 degrees to the north of the site and the other running at 235 degrees across the site. Both these features appear to represent fault/fracture zones. The first is followed by a small stream, as sometimes happens along a line of weakness, further supporting the claim that it is a fault/fracture zone or possibly an infilled drainage channel. The second one is possibly associated with a known facies change in this area.

Pumping tests are necessary in and around this site before landfilling can occur. If any of the faults/fractures suggested by magnetic evidence are free from the impermeable clay they could promote leachate migration. It seems certain that synthetic lining will be necessary.

SITE 2: MOUNT SESKIN

This 200 hectare site is located in the foothills of the Wicklow Mountains, 5km southwest of Tallaght. There is an estimated airspace capacity of 1.5 million cubic metres on that part of the site considered suitable for development (below 300m O.D.). At present, the land is in agricultural use.

A total of 9 traverses were made across Mount Seskin, 7 west to east and 2 following a bearing of 160 degrees southeast. The most obvious feature identified was a magnetic low running at approximately 170 degrees across the site. It appears to represent a fault/fracture zone with associated perpendicular fracturing being detected on either side of it. Two magnetic highs, similar to those found over known intrusions, were detected at its southern extremity. Highly permeable upper Ordovician dykes have been located in this area in the past and so it is reasonable to suggest that these magnetic highs may represent such structures. It is possible that the intrusions took advantage of the line of weakness of the fault/fracture zone when being emplaced. Pumping tests are needed to confirm the presence and significance of these features, but if they do prove to increase local permeability, the site must be properly sealed before landfilling can commence.

SITE 3: BALLINSCORNEY

Ballinascorney is located 10km southwest of Tallaght in the Wicklow foothills. This 15 hectare site has an estimated airspace capacity of 1 to 1.3 million cubic metres. It is currently a disused sand and gravel pit.

Seven traverses were made across this site. One at 135 degrees southeast, three from west to east, one at 135 degrees southeast then due east, one at 225 degrees south-west and one at 217 degrees southwest.

The main feature of this site (Fig. 2) is a magnetic 'valley' of 30 to 50 nT depth, running at 225 degrees on the western side of the site. This feature may represent a fault/fracture zone, this suggestion being supported by the fact that one of the streams crossing the site also follows this line. The signature becomes wider and more complex and its southern extremity (as does the stream), suggesting that the fault/fracture zone becomes wider and more complex at this point. Similar to Mount Seskin, local intrusions have been mapped in this area.

Interestingly, the mapped location of these intrusions corresponds almost exactly to the location of the magnetic valley, suggesting that once again they were emplaced along the line of weakness.



Fig. 2 Magnetic contour map of Ballinascorney

Should pumping tests confirm this fault/fracture zone and associated intrusions to be as significant as suggested by magnetic evidence, Ballinascorney may prove to be unsuitable for landfilling.

SITE 4: ARTHURSTOWN (KILL)

Even before an official application was made for municipal dumping in Arthurstown in July 1992, this 65 hectare disused sand and gravel quarry was a controversial location. An illegal toxic dump in the eastern half of the site was closed by a court order in 1983. Samples taken later by Eolas showed traces of 22 elements including Cyanide, Arsenic, Sulphur, Chromium, Mercury, Potassium, Aluminium, Lead and Phosphorous. Planning permission for Arthurstown was refused during the summer of 1993 by Kildare County Council for a total of 29 reasons, despite a favourable EIS. This decision was appealed by South Dublin County Council to An Bord Pleanála and following a month long public inquiry, reversed, and permission for dumping was granted. The Kill Residents Group are presently in the process of bringing the case to Europe. Meanwhile, Arthurstown must still be considered to be a potential landfill site.

Five parallel traverses were made across Arthurstown from west to east, spaced at intervals of 100m.

A typical magnetic profile produced by traversing Arthurstown from west to east remains relatively flat until, on reaching its eastern side, a large anomaly can be clearly seen, after which it returns to its original level. This anomaly corresponds with the location of the toxic waste dump. Most of the chemicals dumped in this location were contained in metal drums which created the distinctive magnetic signature. This information is very useful as it confirms the exact location of the buried drums, but it does make the location of geological features impossible for this part of the site. In fact, buried metal proved to be so common in this site that it was decided these preliminary results were unreliable and an alternative approach was necessary.

A further 3 traverses were walked outside the boundaries of the site to avoid non-geological interference, 2 from west to east north and south of the site and 1 running north to south on the east side of the site. No magnetic evidence for faults/fractures or rock boundaries was found on the outskirts of the site on these traverses. From magnetic evidence alone, it is possible that a geologically significant feature does exist within the confines of the site, however pumping tests have been carried out and nothing has been discovered.

Hydrogeologically, Arthurstown appears to be a suitable site for landfilling, however, adequate measures must still be taken to seal the toxic dump and line the floor of the quarry to prevent seepage.

CONCLUSION

The changing circumstances of waste disposal in the EU will have far reaching consequences for Ireland, inevitably leading to the development of a number of large regional landfill sites. However, the immediate problem lies within the Dublin region. Arthurstown and Ballinascorney are Dublin's preferred sites to compliment Ballyvaughan for municipal waste disposal in the coming years. From magnetic evidence, Ballinascorney, may prove to be hydrogeologically unsuitable for dumping. This results in a situation where dumping must commence in Arthurstown, or the acceptance of alternative sites like Mount Seskin within the next year. If other sites, such as Gollierstown near Baldonnel are suggested, magnetometry should play an important role in ranking them in order of their hydrogeological suitability and suggesting an optimum pattern for pumping test location on each site.

FIELDWORK MEMORIES

by
Dr. Paul Gibson

Some of you might have noticed a number of 3rd year General Students going around with a dazed appearance over this past few weeks, muttering to themselves and clutching crumpled pages beneath their arms. These poor unfortunate beings were in the latter throes of what can be best described as "fieldwork frenzy". They were busy trying to finish their surveys, questionnaires etc necessary to submit their thesis. Such fieldwork is often a source of dread for students. You might be asked to explain what you are trying to do or even worse you might actually have to get up early for a meeting. Naturally students come in looking for deadline extension (often this is the first time that the supervisor has actually seen his/her student) pleading all sorts of problems and describing the calamitous events that have befallen them out in the field. Now in my day (we'll be no more specific than that) we wouldn't have dreamed of approaching a lecturer. Still, as the theses come pouring in, it brings back memories of fieldwork in the past.

A number of years ago I was working in a remote part of the Sperrin Mountains in about two feet of snow. There was a forest about 50m away and in it I could see the top of one tree swaying greatly while all the other trees were motionless. I then committed the cardinal sin of fieldwork - I got curious - so I went to investigate. As I approached the tree this extremely large feral goat stepped out about 3m from me. Now, this wasn't your dinky little white goats that you see bouncing around the hills. The last animal this thing must have seen was a woolly mammoth. It was about 1.5m high at the shoulder, had filthy black hair down to the ground and stank to high heaven. Now there are not many places in Ireland where you can come across an animal that you know could kill you. Obviously the goat didn't think that I was worth the effort, so it went back to the tree, locked its horns into the lower branches and proceeded to take out its frustration by rocking the tree back and forward.

Another time I was negotiating a bog by means of stepping from one tussock to another. As I went to step across a piece of bog, the ground I was standing on gave way and as I plunged in, I threw one leg out in order to save myself. The net effect of all this was that I sank in to my chest with one leg stuck up in the air above my head. Unfortunately the bog formed a

suction around my wellie boot and I couldn't get it out. I had to extract my foot from the wellie, pull myself out, and crawl over the bog to dry land. (Now perhaps you realise why it's hard to sympathise with a student who couldn't complete their questionnaire because it started to rain!).

This all reminds me of a time when a number of intrepid fieldworkers were at a conference and we were regaling each other with stories (which is what usually goes on at conferences). We turned to a rather quiet member of our group and asked him had anything interesting ever happened to him on fieldwork. This quiet soul proceeded to tell us a tale which brought a stunned silence to the group. He was a geologist and had been working in Africa. One night he decided to answer the call of nature. Unfortunately when he was outside nature decided to call on him - in the form of one large irate female hippopotamus with her calf. (The gender of the calf was not ascertained which we thought was understandable as he was running for his life). Now you are probably unaware that hippos kill more people in Africa than any other animal. They usually achieve this by taking their prey in their mouth and biting with their extremely long teeth through the back of the prey and piercing every vital organ in the process. The hippo set to this task with great gusto and proceeded to chomp on my associate. However, because he was wriggling around so much in the hippo's mouth, instead of piercing his back, one of its large teeth went into his buttock and emerged out through the front of his thigh. He pulled himself off, and dived into a thorn bush to escape and spent the next five hours being operated on in a bush hut by a local doctor. (Now even the Geography Department would accept that as an excuse for not having your thesis in on time - well some of us would).

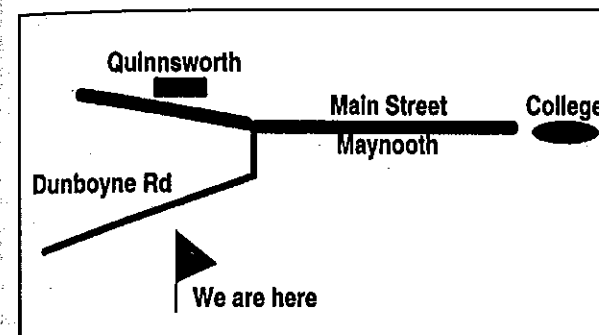
It is also quite amazing what students will do if you can manage to keep a straight face while giving instructions. Once on a coastal mapping trip in Donegal a student was told (in fun) to also map the island offshore which was about 100m away. We came back later in the day to observe him swimming out to the island with a geological hammer clenched between his teeth.

Another time while taking a busload of students through England, the course leader asked for attention and proceeded to read the following announcement "Following the passing of the amendment to the Wildlife and Countryside Act (1981), a section had been added to the statute concerning the habitats of species mentioned in the act. Before any activity could commence in the vicinity of any dwelling place or den of the aforementioned creatures all reasonable steps should be taken in order that no animal may be injured by such activity". Very official sounding, but totally untrue. However, the area we were to work in was covered by molehills and before we could commence our hammer seismic tests the moles would have to be temporarily scared out of the area. This was achieved by groups of students spreading out across the field and shouting "Boo!" down the mole tunnels before we started our experiments.

Still, things could always be worse - you could be doing Biology. Some of you might have heard of Doonabrista in Co. Mayo. It's a 200m high sea-stack with an area of two snooker tables. Some years back Professor Downes and some students were dropped by helicopter onto the stack - dropped being the operative word as they had no place to land as it was so small. They spent the night there in a small tent examining the worm population. Now let's be honest you can't really tell a good story about being savaged by a worm. Still, such sites do have certain advantages. There's not much chance of a hippopotamus sneaking up on you.

MAYNOOTH PITCH & PUTT

Dunboyne Road, Maynooth.
Tel. 01 - 628 5233



18 Hole
Award Winning Course 1992

Open All Day
Play a Round!

Quinnsworth
at your service

A Large Range of
Beer & Wines
Free Delivery Services

Opening Hours

9 - 6 Mon., Tues., Wed.
9 - 9 Thurs., Fri.
9 - 6 Sat.

INAUGURAL LECTURE - DECEMBER 1994



At the inaugural lecture were L to R:
Derek McCormack (Vice President);
Ivan Devilly (Outdoor Pursuits Club);
Mr. Dermot Somers (Mountaineer);
Tom Corbett (Auditor);
Eoghan Mullin (Outdoor Pursuits Club).



'Smiling, happy people' at the Inaugural Lecture



More smiling, happy people

GEOGRAPHY SOCIETY
Auditors since the Beginning

1971/72	Pat Goff
1972/73	Jim Murphy
1973/74	Tom Collins
1974/75	Seamus Ryan
1975/76	Marguerite Crosbie
1976/77	Fintan Diggan
1977/78	Mary Rose Bogan
1978/79	Mary Smith
1979/80	Anthony Leavy
1980/81	Brendan Fleming
1981/82	Gerard Toal
1982/83	John Ahearn
1983/84	Rita Kearney
1984/85	John Flynn
1985/86	Paul Daly
1986/87	Joe Leydon
1987/88	Neil A. Gordon
1988/89	Catherine Sproule
1989/90	Leonard Molloy
1990/91	Margaret O'Reilly
1991/92	Adrian Kavanagh
1992/93	John-Joe Callaghan
1993/94	Grace Hamilton
1994/95	Tom Corbett



*The dark secrets of the Geog. Soc. revealed...
behind closed doors. Photo taken by fly on the wall.*

St. Patrick's College, Maynooth
GEOGRAPHY DEPARTMENT

M.A. DISSERTATIONS 1994

Chatten, Jennifer
Rural Smoke Pollution in Ireland.

Coogan, Greg
The Application of the Rural Environmental Protection Scheme: A Case Study of the Slieve Blooms.

Greene, Bernard
A Critique of South-West Mayo Development Company and Western Rural Development Company.

Kehoe, Anne
The European Union's Proposed Carbon Tax: Modelling its impact at European, National and Local Levels.

Kelliher, Paul
The Epidemiology of Neural Tube Defects.

Kennedy, Alan
LEADER in Ireland: An assessment of the EU community initiative for rural development incorporating an analysis of the Wicklow LEADER Company (Wicklow Rural Enterprises Ltd.).

Kennedy, Helena
Railways: The Potential for Regional Development.

Maguire, David
Environmental Impact Assessment: An Assessment of Malahide Marina.

Marnham, Niamh
The Evolution of the Landscape of St. Stephen's Green.

McKenna, Pat
Nineteenth Century Irish Emigration to, and Settlement in, Argentina.

Peacock, Vanessa
Urban Planning and Conservation Case Study: Kilmainham and Inchicore, Dublin - A Conservation Area?

Quilter, John
The LEADER Programme in South-West Kerry.

Quinlan, Kathleen
Research and Development Activity in Ireland.



WITH



THE CARDINAL PRESS



YOU



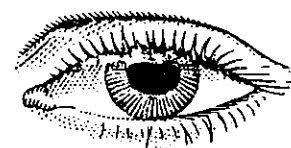
CAN



COLLECT



JOBS



THIS



FAST.

Contact

The Cardinal Press

Dunboyne Road, Maynooth, Co. Kildare.
Telephonic: 01 - 628 6695 • Fax. 01 - 628 6440

- FULL COLOUR BROCHURES
- NEWSLETTERS
- QUALITY WEDDING STATIONERY
- CONTINUOUS STATIONERY
- COLOUR COPYING
- OFFICE STATIONERY & FURNITURE
- TYPESETTING (LASER & IBM)
- GENERAL PRINTING
- INVOICES
- NCR SETS
- STATEMENTS
- LETTERHEADS
- BUSINESS CARDS
- TICKETS
- POSTERS
- LASER PRINTING
- BOOK RESTORATION & THESIS BINDING

THE POSTGLACIAL EVOLUTION OF IRISH FAUNA - WHAT WILL BE THE NEXT INTRODUCED SPECIES?

by
Kieran R. Hickey, M.A.

INTRODUCTION

The restricted nature of Ireland's fauna has long attracted attention. The remarkable absence of snakes was noted by Solinus as early as the third century A.D. The monk Augustine writing in A.D. 655 is credited with the first list of Irish species namely wolf, red deer, wild boar, badger, hare and squirrel, (Stuart and van Wijngaarden-Bakker 1985). Only from the mid-19th century onwards did proper scientific research on the postglacial faunas take place. This article sets out to examine the composition of the Irish postglacial fauna and the role of humans in influencing this and will end by suggesting what species are to be found in our fields, hedgerows, woodland, peatlands, mountains and urban areas in the future. To do this an examination of each of the four major fauna groups will be undertaken.

FISH

Pollan (*Coregonus autumnalis*) and charr (*Salvelinus alpinus*) are two species that occur in a number of Irish lakes and are generally considered to be glacial relics. One other species of fish found in the lakes of Killareney became trapped in these lakes as conditions improved. This is the twaite shad (*Alosa fallax killarniensis*). Three true migratory species: eel (*Anguilla anguilla*), trout (*Salmo trutta*) and salmon (*Salmo salar*), arrived into our waters as soon as conditions were suitable. All the primary freshwater fish that populate Irish rivers and lakes have been distributed by humans primarily in historic times. The pike (*Esox lucius*) was introduced in the 16th century, the roach (*Rutilus rutilus*) and dace (*Leuciscus leuciscus*) were both introduced in 1889 (Stuart and van Wijngaarden-Bakker, 1985).

AMPHIBIANS AND REPTILES

Of the three species of amphibia in Ireland only the common newt (*Triturus vulgaris*) is native. The common frog (*Rana temporaria*) was first introduced in Dublin in 1697 and rapidly spread all over the country, the natterjack toad (*Bufo calamita*) which is a much more recent introduction is only found in Co. Kerry. The only native reptile is the common lizard (*Lacerta vivipara*) although in the last 30 years the slow worm (*Anguis fragilis*) has been successfully introduced into Co. Clare, (Stuart and van Wijngaarden-Bakker, 1985).

BIRDS

The Irish avifauna is significantly less restricted than the rest of Ireland's fauna because of the easier mobility of birds. However this has not prevented the extinction or near extinction of a number of species. The kite (*Milvus milvus*) and great auk (*Alca impennis*) became extinct, the latter in 1844 as a direct result of human activity. A number of species have become very rare including the white-tailed eagle (*Haliaeetus albicilla*), marsh harrier (*Circus aeruginosus*) and the buzzard (*Buteo buteo*), which are rarely seen in Ireland. The capercaillie (*Tetrao urogallus*) and crane (*Grus grus*) are now very rare as a result of the destruction of their natural habitat due to the

rapid expansion of cultivated land in historical times. (Stuart and van Wijngaarden-Bakker, 1985). The only domesticated bird introduced into Ireland before this century was the chicken. Then the turkey and more recently the ostrich have been since introduced.

MAMMALS

Ireland's mammalian fauna consists of three components. The first of these are the eight sub-arctic species. These are the pygmy shrew (*Sorex minutus*), fox (*Vulpes vulpes*), pine marten (*Martes martes*), stoat (*Mustela erminea*), otter (*Lutra lutra*) and mountain hare (*Lepus timidus*) all of which are still widespread. Two of these sub-arctic species have not survived. The brown bear (*Ursus arctos*) became extinct in around A.D. 850. Wolves (*Canis lupus*) survived in Ireland into the 19th century, the last one was killed in Co. Donegal in 1810. (Stuart and van Wijngaarden-Bakker, 1985). It is possible to speculate that the wolf might still be with us today if it had managed to survive until famine times, given the subsequent massive decline in the human population and pressure on the natural landscape.

The second major group of Irish mammals are the temperate woodland species. Of the six species in this category the badger (*Meles meles*) and wood mouse (*Apodemus sylvaticus*) are widespread, the red deer (*Cervus elaphus*) and red squirrel (*Sciurus vulgaris*) are restricted in distribution or fluctuating in numbers and the wild cat (*Felis silvestris*) and wild boar (*Sus scrofa*) are extinct. Both became extinct before A.D. 1300 (Stuart and van Wijngaarden-Bakker, 1985).

The last group of mammals present in the Irish fauna are anthropogenically introduced species. These include both wild and domestic mammals. Some of the introductions were intentional, either for food or aesthetic reasons while others were accidental arrivals. In terms of wild species the house mouse (*Mus musculus*) and hedgehog (*Erinaceus europaeus*) have no known date of arrival, but were likely to have arrived before A.D. 1100. The black rat (*Rattus rattus*), rabbit (*Oryctolagus cuniculus*) and fallow deer (*Dama dama*) were introduced in early Norman times between A.D. 1185 and 1280. Two species were introduced in the 19th century. These were the sika deer (*Cervus nippon*) in 1860 and the brown hare (*Lepus capensis*) in 1876. In the present century a further three species have been added to Ireland's wild mammal fauna. These are the grey squirrel (*Sciurus carolinensis*) introduced in 1911, the bank vole (*Clethrionomys glareolus*) in 1950 and the American mink (*Mustela vison*) in 1960. The distribution of the species introduced since 1800 is still relatively restricted, whereas the other introduced species have distributions similar to that of native mammals (Ni Lamhna and Goodwillie, 1980).

In terms of domesticated animals eight species were introduced to Ireland. These are cattle, sheep, goats, pigs, horses, donkeys, cats and dogs. More recently due to the need for agricultural diversity within the European Union deer farming has become a viable alternative to traditionally farmed domestic species. Other more exotic domestics have also started to arrive for example in Co. Wicklow a pilot scheme involving African cattle is underway (Kelly, Ilbery and Gillmor 1992).

The above lists of species and their fates shows both the restricted nature in terms of variety of species of Ireland's fauna and with the exception of birds illustrates the very dominant

role played by humans in influencing its composition. Ireland's fauna was initially restricted in composition due to the lack of a landbridge between Britain and Ireland. If such a landbridge existed it was too short-lived to allow the more slowly moving species into Ireland via this route. Ireland has less than half the wild vertebrates that Britain has, particularly in terms of temperate woodland species (Stuart and van Wijngaarden-Bakker, 1985).

The arrival of the American mink into Irish fur farms in 1960 and their escape into the wild and the more recent undated accidental introduction of the New Zealand flatworm, a threat to our native earthworms and soil fertility show that the next likely introduced species could come from anywhere in the world. This is as a result of rapid global transport and a well established global trade in exotic species of all types for pets and other purposes.

Events in our nearest neighbour Britain demonstrate what could happen in Ireland. It is estimated that over 200,000 muntjac deer (originally from S.E. Asia) are now running wild in many parts of Britain after being introduced to one estate during the last century. However, this is not all, within Britain there are colonies of South American tree frogs, scorpions, Turkish swamp crayfish, parakeets, racoons, snapping turtles, Chinese water deer, pink catfish and Bennett's wallabies not to mention the increase in sightings and photographic evidence of large cats (probably panthers) roaming parts of the countryside (Reeve 1994). So who is to know what exotic creature might in the near future join Ireland's fauna.

STAR TREK - THE FINAL GEOGRAPHY

by
Director Designate
- Maynooth Star Trek Programme

It is a widely acknowledged fact that Star Trek has had a profound effect on the lives of many people over the last 25 years. Indeed, a recent book suggested that for the author "All I really need to know I learned from watching Star Trek" (Marinaccio, 1994). This overwhelming importance and relevance of Star Trek has led to one US university making a multidisciplinary course in Star Trek its only compulsory course (American Diary, 1995). This college considered the studying of this vital area would enable students to learn cognitive psychology, script writing, gravitation, the physics of light and electromagnetism.

The present paper seeks to argue that this American course fails to appreciate the more fundamental teaching possibilities of Star Trek - its importance in basic geographical education. This is actually obvious to anyone who has ever watched an episode of the series. Does it not begin with a profoundly geographical statement - The Enterprise's mission is "To explore strange new worlds, to seek out new life and new civilisations. To boldly go where no one has gone before" (Picard, stardate 41150.7) i.e. to carry out basic geographical fieldwork.

The Leinster Arms

Main Street, Maynooth

Maynooth's Finest Emporium
Serving Good Food, Drink & Cheer

Carvery open daily 12.30 - 2.30

Maynooth's finest lounge catering for young, old and merry

If you are young, trendy, groovy etc.
Then you have got to visit

Dukes

Opens at 8 upstairs!

Surely the Geographical Society of Ireland or even more importantly the Maynooth Geog. Soc. would regard these objectives as praiseworthy geographical objectives! Students taking Star Trek Geography would learn many varieties of location skills and map work e.g. reading star charts, navigation around the universe and the use of various types of co-ordinate systems ("Mr. Crusher is located in corridor A3, section 27"). They would also learn about remote sensing - what else are sensor scans of distant planets from the Enterprise? They would also learn a great deal about the importance of studying places selected for fieldwork carefully beforehand and on arrival - how many security people have been devoured by strange animals or attacked by hostile natives immediately after they have beamed down because people failed to appreciate the possibilities of some strange new life form? Conservation and environmental management will be understood so much more clearly after the Star Trek film where Kirk and his crew travel back in time to rescue a pair of whales has been studied in detail, not to mention the numerous examples of planets where greed has led to reckless development and destruction of the planets' atmosphere or oceans. Geology and Geomorphology would be addressed by the study of planets in various stages of formation (perhaps, Milieu's editor could teach about that well-known forerunner of the tricorder - the magnetometer). Biogeography could be encompassed by study of the Enterprise's botanic garden and the wide variety of environments supplied by the holodecks, not to mention the interesting planets visited, which show such amazing biodiversity, particularly in the books, although they are often surprisingly earth-like in the TV series and the films.

The various philosophical paradigms of the subject could be reviewed in terms of "super-regionalism", i.e. all the planets

visited are different and unique, suggesting that the regional geographers, e.g. Hartshorne (1939) were correct, while those who argue for a coherent structure, for laws and generalisations would receive support from the remarkable dominance of humanoid (or vulcanoid) races and civilisations amongst the "new life forms and new civilisations" encountered. Possible thesis topics could include "A comparison of the spatial patterns of data pre- and post-emotion chip acquisition", "The Geography of Spot the cat's home range on the Enterprise", "The spatial distribution of tribbles" and "The effects of interstellar travel on disease patterns."

Of course, Tourism Studies, that fundamental area of Geography today, is clearly a basic part of the Star Trek Geography. What else are all the missions if they are not tourism at its most fundamental level? The Prime Directive must surely be a response to the effect of the "First World" (i.e. the Federation) to the "Third World" (i.e. the "new life and new civilisations"). Cultural tourism would be well served by participation in the Star Trek programme - new life and new civilisations again. Perhaps as a first step the Diploma in Cultural Tourism could include Klingon as one of its languages in the next session?

Space does not allow a full description of the course but I would urge all the readers of this article to consider the move to Star Trek Geography as the basis for all teaching in the Department in a suitably serious manner and to pass on their views to the authorities and generally support this vital revolutionary change. It is clearly essential if Maynooth is to remain in the forefront of Geographical education at the close of the twentieth century.

MAYNOOTH UNIVERSITY BOOKSHOP

ST. PATRICK'S COLLEGE, MAYNOOTH
TEL. 708 3607

NO MAPS NEEDED
GO ON A VOYAGE OF DISCOVERY
BOOKS ON ALL SUBJECTS FROM YOUR
UNIVERSITY BOOKSHOP

ENVIRONMENTAL PROTECTION AND THE EUROPEAN COMMUNITY

by
Derek McCormack

INTRODUCTION

Environmental protection as an element of European Community policy has undeniably become increasingly significant over the past twenty years. This essay briefly charts the evolution of this process and also highlights some of the problems associated with it.

EVOLUTION OF EC ENVIRONMENTAL POLICY

The evolution of European Community environmental policy has been widely written about and commented on e.g. (Weeler, 1993, Stanley, 1989, Hughes, 1992). Most of these observers mark the beginnings of an environmental conscience within the structures of EC as occurring during the late 1960's and early 1970's. Although various problem-specific measures had been introduced prior to it, the U.N. Conference on the Human Environment was crucial in helping precipitate the first formal attempts by the EC in the adoption of environmental concerns into its policy structure. Taking stock of the costs of its economic growth, the Community recognised the part it had played in generating various environmental problems. It also recognised that because some of these problems crossed national boundaries, Community-wide action was the most appropriate way to tackle them. This move towards policy change at Commission level was significantly influenced by the growing politicisation and increased public awareness of green issues, especially in Germany and France. At the 1972 Heads of State meeting in Paris the validity of environmental protection as part of EC policy was officially recognised (Wheeler, 1993). This concern with environmental protection was not solely an ideological one but also sprang from the realisation that pollution was a source of market distortion upsetting the "level playing pitch" for competition; the principle that was so central to the economic aims of the EC. Without Community-wide standards on environmental problems, countries with more lenient standards would have an unfair cost advantage over those countries which had tougher standards.

The Community's first Action Programme on the Environment in 1973 which followed the Paris meeting was influenced by the factors mentioned above and attempted to lay the basis for further Community environmental policy. Both this and the second programme introduced key environmental concepts to the language of the EC. The ideas of prevention, environmental impact and assessment, the polluter pays principle, harmonisation of national environmental policies and subsidiarity were significant in this respect. These were expanded in the third programme in 1983. The aims and scope of these ideas, while influencing much EC thinking and generating many directives concerning the environment, backed a legal foundation in the Treaty of Rome. Without any direct reference to the environment in the treaty, legislation was enacted on the basis of articles 100A and 235, the former dealing with harmonisation and the latter reserved for residual matters (Wheeler, 1993). Compounding this legal inadequacy was the fact that the instrument of environmental legislation, the directive, was difficult to enforce and was often side-stepped

by national governments. While directives are binding on member states as to the environmental standards to be achieved, the exact methods of achieving these standards is left to the discretion of national governments and their implementation can often be delayed (Scannell, 1990). This meant for instance, that despite the fact that the directive on environmental impact assessment was introduced by the EC in 1987, the Irish government was able to delay the implementation of it in Ireland for almost four years (Meldon, 1992). And although the Commission suspended regional development grants to Portugal in 1990 for failing to implement environmental obligations (Hughes, 1992), the realistic prospects of penalties, financial or otherwise does not seem to prevent significant violation of EC environmental legislation by member states (Wagenbaur, 1990). In the light of this, arguably the most significant step in the process of environmental policy development in the EC was the incorporation of a specific chapter on the environment into the Treaty of Rome through the passing of the Single European Act (SEA) in 1987. The Community's fourth action programme coincided with the SEA and highlighted the need to integrate environmental policy into other areas of EC policy (European Communities Commission, 1993).

The fifth action programme was published around the same time as the Maastricht Treaty in 1992. The treaty introduced the concept of sustainable development as the key objective of Community environmental policy and highlights the important role that policy integration, subsidiarity and increased international co-operation have to play in this respect (European Communities Commission, 1993). In addition the often problematic requirement for unanimity at Council of Minister meetings has been replaced by qualified majority voting, except in environmental matters which are to a large extent fiscal in nature (Hughes, 1992).

Since the beginnings of the Community's awareness of its role in the protection of the environment there have been other noteworthy moves. In 1985, after two redrafts, a directive on Environmental Impact Assessment was introduced. This was not before time as the US had introduced the idea almost twelve years previously and most EC member states had already introduced the principles of the EIA as parts of their national planning processes. Bradley (1991) criticizes the EC directive in respect to the amount of discretion left to individual member states as to what projects should require an EIA. The exemption of afforestation projects of under 200ha in Ireland illustrates this point. A further significant development was the recent establishment of a European Environmental Protection Agency.

With regard to specific legislation, over 200 items had been enacted by 1992 covering important areas such as water pollution, air pollution and toxic waste. Sulphur dioxide levels have been in decline since the early 1980s (although they are still at relatively high levels) and CFC targets are already well within those set by the Montreal protocol (European Communities Commissions, 1993). Despite the difficulties in applying EC legislation among all the member states the EC has had a noticeable influence on national policies. The setting up of the Irish EPA, the amelioration (at least visibly) of Dublin's winter air pollution problem and the apparent containment of the spate of fish kills that occurred in the late 1980s

can be seen to have been influenced by the fact that the EC (aided by the power of public opinion) was playing a more active role in environmental protection.

Despite this apparent progress, a report published at the same time as the Maastricht Treaty stated that the European environment still faces a serious threat. For example from 1987 to 1992 municipal waste had increased by 13% and a 20% increase in carbon dioxide emissions was predicted by 2000 (European Communities Commission, 1993).

RECENT DEVELOPMENTS AND CURRENT PROBLEMS

The recent shift towards incorporating sustainability as the central goal of EC environmental policy is significant because it recognises the need to find an acceptable and viable middle ground between on the one hand, absolutist ecological principles (i.e. environmental protection no matter what the cost) and on the other, the forces of the free market. Whether this is achievable is open to debate. The EC is a regional economic association primarily motivated to promote competition and economic growth. There is potential for conflict if it adopts environmental policies that stand in the way of this goal. And because of the very make-up of the EC its goals must not diverge from those of individual states significantly enough to threaten their commitment to the EC itself.

The clash between European wide free-market forces and national attempts to maintain national environmental standards was highlighted by the Danish Bottles case (Wheeler, 1993). In 1981 the Danes introduced regulations that meant that beer and soft drinks could only be sold in re-usable containers. Foreign drinks producers complained to the EC about this but the European Court of Justice upheld the Danish move arguing that the Commission itself had been slow to notice a shift in opinion away from viewing the free market as more important than the environment (Wheeler, 1993). This case was significant in establishing legal principles for dealing with similar cases throughout the 1980s. In achieving a viable middle ground a degree of flexibility is necessary in European Community environmental policy.

Because the EC exists ultimately to facilitate economic interests it has to be careful that the regulatory (or other) measures that it imposes on industry do not impose such a financial cost that they threaten the competitive basis for the existence of these industries. The argument against excessively high costs of environmental protection comes from, among others, industrial lobby groups in the EC. The European oil industry, for example, through its European-wide body EUROPIA has voiced its concern about the recent move by the EC to implement a two stage approach to environmental legislation based on the principle of BAT (Best Available Technology). EUROPIA sees this move, along with other EC measures that could effect its members, as being disproportionately costly in respect to the environmental benefits obtained. They estimate the cost of their members at around \$50 to \$100 billion by 2005 (Luding, 1993). The introduction of the suggested carbon tax would presumably be met with similar opposition by those most affected by it. Although the scientific evidence for estimating the degree to which a reduction in carbon dioxide emissions is needed remains inconclusive; it is probable that fiscal measures such as carbon tax would have a greater

effect than more regulatory oriented measures (Pearce, 1990). The activity of such groups such as EUROPIA does highlight the fact that environmental policy must pass through the filter of various influential interest groups and leads to policy and legislation that is not a mere reflection of specific opinion.

With the above conflicting interests in mind the Maastricht Treaty can in some way be seen as recognition of the need to balance economic growth with environmental protection. As well as admitting the need for a sustainable approach the treaty also stated the requirement for a greater and more effective EC role in environmental matters at an international level. If sustainability is to be adapted at a global level then it must be built into the aims of global organisations. As it stands there is no such global organisation. The UN has proved itself totally inadequate in achieving concrete environmental policy change within its member countries. The fundamental economic interests of the EC of improving its international competitiveness would seem to militate against it entering into effective international environmental agreements. Gareth Harding's "Tragedy of the commons" scenario would seem to be an appropriate metaphor for the reality of international cooperation.

While the concepts given prominence by the Treaty of Maastricht are welcome there are some points to be raised about them. The first of these is the problem of obtaining a workable and practical definition of sustainability. It is all very well outlining a new sustainable Community-wide policy but conveying the same sense of sustainability to local levels of planning in the member states will depend on successful monitoring (presumably by an EPA) and effective communication. The second issue relates to the local level and the associated concept of subsidiarity. The European parliament has voiced its concern about the effects of subsidiarity in that those decisions taken at local level must be in tune with what is going on in Brussels (European Communities Commission, 1993). It might be easy for local economic interests to side-step "sustainable" policies. For the individual the EC is an easy target for criticism. Rigorous community policies are perceived as unwarranted meddling in the affairs of the individual and as a threat to livelihoods. On the other hand calls are regularly made for the EC to improve its environmental policy. The Community has admittedly recognised the limitations of its sustainable approach and has simultaneously proposed more effective management and communication structures (European Communities Commission, 1993).

Any attempt to implement a successful sustainable environmental policy is to a large extent dependent on all aspects of community policy reinforcing it. This was not (and probably still is not) the case with EC structural fund allocation in the recent past which was often ignorant of possible negative environmental consequences. Meldon (1992) has highlighted their failings in respect to Ireland. Projects were often hurriedly assembled in order to avail of such funds without adequate environmental assessment. The Common Agricultural Policy (as it presently exists) also serves to hinder any possible successful sustainable policy. Headage payments, for instance, encourage intensification of sheep grazing on marginal uplands in Ireland. Once established however such economic benefits are tied to political interests and are difficult to reform.

CONCLUSION

The EC has substantially altered its policy approach towards the environment over the last twenty years. Public and industry awareness of environmental problems have grown at the same time as the EC has enacted much environmental legislation. Environmental protection at an EC level cannot simply be a matter of setting technical standards that should be adhered to. The complexity of the EC means that effective environmental protection must be a co-ordinated approach at all spatial and organisational levels, an approach that the EC is moving towards with the environmental provisions of the recent Maastricht Treaty. Ultimately however, the viability of the EC as a political entity depends on its ability to facilitate economic growth. It is difficult therefore to see it introducing radical environmental measures that would serve to undermine this. While hiding behind the vague ideal of sustainability it is probable that the EC will maintain a reactive rather than a proactive approach to environmental protection.

ERASMIC IMPRESSIONS

by
Bernd Hauser

"What do you think of Ireland?" How often have I tried to answer this question in the last five months? In the pub, after lectures, at parties. Every time I got to know somebody, I found that it was not easy to give a simple answer to this simple question. At least, not a short one.

But then, I talked to a third-year geographer in Maynooth. She had been to Germany on a fieldtrip. Now it was my turn: "What do you think of Germany?" The girl showed me that one sentence could be enough to describe the big difference between the two countries. She said: "In Germany, people don't seem to enjoy themselves".

Well, I have a good time at home, but Janet was right to a certain extent. In Ireland, you get five times more smiles than on the Continent from your neighbour, from the guy in the post office, from the lady at the bus stop, from the girl in the supermarket. The warm and obliging character of the Irish has become a cliché, mentioned in every travel guide. But, it is a cliché I find to be true. Hopefully, the Irish will be able to conserve their friendliness despite the growing influence of mass-culture and mass-communication which tends to water down differences between individual places and mentalities.

"What do you think about the college here?" was another question posed. The differences between the German and Irish university systems and geography studies are enormous.

What is different in Germany?

Firstly, the age of the students: Pupils, who want to go to university do not leave school until they are 19 or 20 years old. Boys have to go to the army for one year and if they refuse to go, they have to do community service for 15 months. (Most geographers in Tuebingen have chosen the latter). Girls often work or travel for one year after school. As a result you usually start studies at 20 or 21 years of age.

There are no university fees. Education is free. We don't have the ordered system with first year courses, second year courses

and third year courses etc. The average geography student needs five to six years until graduation. (Most work part-time, often in urban or environmental planning offices to gain experience).

The geography lectures in Tuebingen are often not well attended. The important meetings are the seminars (two or three courses in every semester). Every student is responsible for one lesson and has to teach the group (normally 15 to 35 students) about a special topic which was delegated to him or her at the beginning of the semester. The lecturer just sits down and listens and after the presentation, corrects the student or points out things the student forgot. There is more interaction and discussion between the speaker and listeners than in lectures and seminars here in Maynooth. This system is designed to encourage you to try to cope with a scientific problem on your own and present it in front of a critical class.

Here in Maynooth, the contact between lecturers and students, at least with the postgrads, seemed to me very uncomplicated. I was astonished that you call the lecturers by their first names. In Germany, the professors often show you that they want to keep a distance: he's the big scientist and you are the little student.

Altogether, I'm glad that I can study geography for half a year in Maynooth and be one of the continentals who are fascinated by this island. Many students who are attracted by nature and concerned about environmental problems are charmed by rural Ireland, where the grass is green and the beer is dark. I was told by a friend I met in Germany at Christmas: "You look Irish already!" Why? He couldn't explain. But, I knew that he was paying me a big compliment.

Accommodation 1995-1996

Application Forms Available Now
for
**UNIVERSITY VILLAGE APARTMENTS
HOSTELS
PARTIAL BOARD & SELF CATERING**

Closing Date: March 31st

Rented Accommodation

A list of owners will be available on May 2nd

Students will have to contact owners
and arrange leases.
All tenants should have a lease and/or rent book.

For full details on all types contact:
**Residence Officer
Top Rhetoric House
Old Campus
Ext. 3826/3827/3099**

SCALE AND STORAGE - THE PERPETUAL GEOGRAPHER'S DILEMMA

by
Garry Gill, B.A.

The storage of maps has always posed a problem for the Geographer. By their very nature, printed maps are unwieldy, awkward creations, necessitating ingenious devices such as map cabinets for their preservation. This particular problem is proportionally related to scale; the greater the scale selected, the greater the detail encompassed and hence a large number of maps are required to cover a particular area.

Scale can be defined as purpose - what is the map to represent? A map is a model; a model is a simplification of reality. Without simplification, a map is but an attempt to replicate reality. Lewis Carroll discusses the absurdity of such a situation:

"That's another thing we've learned from your Nation," said Mein Herr, "map-making. But we've carried it much further than you. What do you consider the largest map that would be really useful?"

"About six inches to the mile."

"Only six inches!" exclaimed Mein Herr. "We very soon got to six yards to the mile. Then we tried a hundred yards to the mile. And then came the grandest idea of all! We actually made a map of the country, on the scale of a mile to the mile!" "Have you used it much?" I enquired.

"It has never been spread out, yet," said Mein Herr: "the farmers objected: they said it would cover the whole country, and shut out the sunlight! So we now use the country itself, as its own map, and I assure you it does nearly as well."

(Carroll, 1939, 556 - 557)

Remote Sensing has provided Geography with a means of data capture that our ancestors could have but dreamed about. With the availability of high resolution data (up to 5 metre ground cells) covering virtually the entire surface of the Earth coupled with high speed means of processing such imagery has provided the opportunity to know our world as we have never known it before. Geographers are by nature greedy, seeking at every opportunity to encompass the maximum within their work. The instinctive reaction when looking at an image for the first time is to post the questions - "What's the resolution?" or "What's the smallest detail we can see?" To place a Geographer in contact with a computer and some raw data, and within a few minutes, a "disk full" message will inevitably appear. We have not learned from history that we cannot have everything.

Unless we begin to learn that instead of complexity we seek simplicity, unless we remember that scale is purpose and until we learn to overcome our instinctive greed, the profession of Geography faces ruin.

"In that Empire, the Art of Cartography achieved such Perfection that the Map of one single Province occupied the whole of a City, and the Map of the Empire, the whole of a Province. In time, those Disproportionate Maps failed to satisfy and the Schools of Cartography sketched a Map of the Empire which was of the size of the Empire and coincided at every point

with it. Less addicted to the Study of Cartography, the Following Generations comprehended that this dilated Map was Useless and, not without Impiety, delivered it to the Inclemencies of the Sun and of the Winters. In the Western Deserts there remain piece-meal Ruins of the Map, inhabited by Animals and Beggars. In the entire rest of the Country there is no vestige left of the Geographical Disciplines.

Gleanings from the old 'Gg' collection in the Russell Library by Prof. Paddy Duffy

What is now essentially a research library, the Russell was the original main library in Maynooth. When the Geography department was established in 1971, there were other small libraries scattered around the place. There was St. Mary's, for example, a virtually independent republic of a *bibliothèque* facing the college parklands to the west. And the Geography Department's small initial collection of books was located in Junior Library, now the Computer Centre.

Within a year, however, the new geography collection was moved to the Main Library. In those days the Russell was essentially an old 19th century establishment trying to cope with the hordes of new students who poured in throughout the seventies. Its physical structure came under a lot of pressure: the floor and stairs creaked and cracked with the daily wear and tear and ad hoc adjustments had to be made such as new entrances, stairs, partitions, etc. But even more important, the systems in operation creaked even more under the pressure. One Librarian and one assistant - neither of them professional librarians - were all the staff in the place. The Librarian often located books for me from memory: by their binding and location on the shelf! Staff who borrowed books had to sign them out in a large book, which I'm sure is now in the Library's archives. The same reverend librarian grew increasingly annoyed at the rising rate of book losses - the old rule about excommunication for non-return of library books had long since fallen into disuse - and he voices his distrust of the many student nuns, whose voluminous habits he viewed with suspicion. At first, many valuable books - now in the pre-1850 Russell collection - were on open access. They were located in the dark cavernous ground floor, where the periodical collection was first located. The first edition of the Ordnance Survey six inch maps, for example, was there for anyone to pore over, and the occasional homesick cleric had marked his house in red biro! One then ascended the spiral stairs to the main reading room on the first floor - but I think this was off-bounds for students.

Apart from the books which the new Geography Department had to order, there was a much older exotic collection of books in the Library which were classified as Geography, or 'Gg'. They represented the varied interests of a variety of generous donors over many years - mostly parish priests and bishops with obvious 'worldly' interests! Most of them could probably be classified as travel books, reflecting an interest in this subject by many of the early staff. Some represented exchanges of books by staff, such as Dr. Russell, with authors elsewhere.

These books were unfortunately of no use to modern geography courses. They were, however, of considerable historical interest, particularly for anyone with a passing interest in the history of geographical thought.

All of them predate 1850 and the following is intended as a brief introduction to the flavour of the collection, which itself is a glimpse into the preoccupations of geographers (or chorographers, cosmographers, topographers, explorers and travel writers) in the seventeenth, eighteenth and nineteenth centuries. It's probably safe to assume that little that they had to say would get you through your undergraduate examinations in Maynooth in 1995. (The handful of seventeenth century contributions are in Latin). Not only has the known world changed in every way, but ways of looking at it are quite different. It is interesting, however, to help catch a glimpse of where we came from, and in some cases, the sentiments expressed about the importance and value of geography as a science are valid for today's budding geographers. The selections from the topographical dictionaries and travel books are quite random - a sort of aimless browsing in the dark and dusty recesses of the Russell.

Molls Geography or The Compleat Geographer; or the Chorography and Topography of all the known parts of the Earth (1723)

"As the knowledge of Foreign Countries is a Science that no man of either Learning or Business can excusably be without, so there is no certain Way of attaining it, but by consulting the Travellers that have been upon the Spot. . ."

"**Ireland's soil**" is very moist and wet, abounding with Bogs and Lakes, which quality is much lessened by the Increase of Inhabitants, who have (with great industry) drained the Lowlands and Marshes: this abundance of Water and Moisture makes them very inclinable to Fluxes, Rheums, and such like Distempers, against which they find their Usquebah the best Remedy. . . As the Husbandry of the Inhabitants is seen in these Drains, so is it also discovered by the Destruction they have made of the Woods, which abounded in this Country, inso-much that they now have great Plenty of Corn".

Pennsylvania (in the British dominions upon the continent of North America): "The Natives are handsome, and would have good Complexions, did they not spoil them, as has been said of their Neighbours, by anointing themselves with Bear's Fat, and other filthy Ingredients. They wash their Children as soon as born, and carry them on their Backs ty'd fast to a Board. . . No people are merrier, for half their Life is Feasting and Dancing. . . The present inhabitants, English, Dutch and Swedes, are reckon'd to be above 20000, who drive a considerable Trade to all the other American Plantations on the Continent, as well as to the Islands and to England. The commodities they export are Horses, Pipe-staves, Beef, Pork, Bread, Meal, all sorts of Grain, Skins, Furs, Potashes, Wax and Tobacco. . ."

Jamaica: "Besides the Trade to Europe (Sugar, Cacao Nuts, Indigo, All-Spice, Cotton, Ginger), there was another far more beneficial from Jamaica to the Spanish American Dominions, for Blacks, and English Manufactures, which brought in very considerable Sums of Pieces of Eight, and was a great Advantage, not only to the Island but to England, which the late War has interrupted, but Peace may restore it. . ."

James Bell, A system of Geography, Popular and Scientific or a physical, political and statistical account of the world and its various divisions, Edinburgh and Dublin, 1847, 6 vols.

His prefatory address contains some useful tips, with not a few gems of literary and geographical wisdom: "Geography is a branch of knowledge which, if less adapted than most others for ambitious display, is more than most characterised by practical utility. It is less a showy accomplishment than a solid acquirement. . . It may be truly said, indeed, that of all departments of secular study, this is at once the most universally and the most uniformly important for the various classes of men who are desirous of employing their lives in practical exertion, or of cultivating their minds by general knowledge".

"In every one of man's active pursuits, the knowledge of the earth which he inhabits is power, and the want of it is weakness. A geographical miscalculation will more than any other ignorance involve a man in difficulties in the intercourse of ordinary life. A geographical miscalculation contributed more than all occasions else to overthrow the most extraordinary empire in the political history of man."

"Every real existence, except God, is local, and hence every event also of which we have any knowledge had its locality. The relation of place is thus one of the most constant principles of association in every science, and in every mind. . . *Terra incognita* has always been the favourite haunt of unlicensed fancies, and the prolific birth-place of vulgar delusions. . .". (This is what I've always wanted to say to the First Year class). "As Cicero said of Greece, that at every step we trod upon a history, so of the whole terrestrial sphere, we may say that every glance upon it rests on something worthy of being known."

Finally, Bell notes triumphalistically - it is 1847! - that the British Empire has a host of subjects more numerous than those of any other potentate's empire, "excepting perhaps the probably exaggerated and inefficient population of the Celestial empire. . ."

He has a note of scepticism about Irish history, which some might say is still appropriate: "The reality of ancient Irish civilisation is supported by the testimony only of Irish writers; and we may be permitted, perhaps, without any blameable depth of scepticism, to doubt whether it ever existed at all".

India Illustrated; an historical and descriptive Account of that important and interesting country by L. Gilbert, "with numerous splendid steel engravings" London, undated.

This is essential reading for all Indiana Jones groupies; indeed his scriptwriter probably read this:

"The modes in which Hindu superstition attempts to evince its extreme sanctity by self-torture are endless. . . At the great festival in honour of Shivu, known as the "Cherruck Poujah", devotees, called *sunyasses*, or *perfect ones*, throw themselves from a considerable height upon iron stakes, fixed in the ground beneath. . ." (p.49) There is lots of information on the burdens of empire for expats in this dusty far-flung corner:

"The maintenance of a numerous body of servants is an expense, which the usages of India unavoidably entailed upon the European resident. . . A system has been established by which each domestic appropriates to himself a peculiar and very limited function, beyond which he will on no account

proceed, frequently pleading the imperative duty of caste as an exemption from all occupations, for which he is not specially engaged. Then there must be a flambeau bearer, water carriers, water coolers, pananquin bearers, pipe holder, grass cutter and many others, whose duties are as strictly limited. . . Hence, for a family, thirty domestics are considered a very moderate establishment. This regiment of menials is maintained, however, at no very extravagant cost."

"As cocoa nut oil is very cheap, all the houses have the advantage of being exceedingly well lighted. One of the most beautiful features of Calcutta at night, consists of the bright floods issuing from the innumerable lamps in the houses of the rich, when all the windows being open, the radiance is thrown across the neighbouring roads. . ." (p.92)

"The aspect of English society in India is splendid. . . The quarter called Chouringee (in Calcutta) is described by Lord Valentia as a village of palaces, strongly contrasting with the Black Town, a huge assemblage of mud and thatched huts, similar to the poorest cabins of the Irish peasantry". (p.93)

American Scenery by N.P. Willis (undated - early nineteenth century), illustrated by W.H. Bartlett (an engraver with Irish interests).

"Broadway is a noble street, and on its broad side-walks may be seen everything that walks the world in the shape of a foreigner, or a fashion - beauties by the score, and men of business by the thousand; but besides every possible ingredient of continental crowds, there are to be seen in Broadway two additional classes of peripatetics seen never in foreign *pavés* but in rare specimens - coloured dandies and belligerent pigs. The former take the wall of you, and the latter, when the question of passing on one side or the other becomes embarrassing, escape with great dexterity between your legs".

A Dictionary, geographical, statistical and historical of the various countries, places and principal natural objects in the world illustrated with maps, by J.R. McCulloch Esq, 2 vols, London 1847.

Apart from the incredible amount of information which the author boasts of squeezing into two volumes (in a print size, it must be said, that pains the eyes in the twilight of the Russell Library!), McCulloch's Preface is a fine example of overwriting:

"The utility of geographical works is so generally admitted, that it seems unnecessary to endeavour, by any lengthened statements, to consolidate the favourable opinion of the reader by dwelling on their merits. There are few so incurious as not to wish to learn something of the state of foreign countries, especially of those with which their own nation is connected, or which has been celebrated in history. . ."

"Systematical works, or those in which the various details with respect to the physical, moral, and political state of a country or district are arranged in their natural order, on a consecutive narrative, are probably the best adapted for the use of the student and scientific reader"

He discusses a problem which many's the undergraduate thesis has had to tackle: the need, for example, to confine the description of towns "within reasonable limits, and without

displaying the glaring anomaly of an account of a capital city occupying a greater space than that of the country in which it is situated".

Under *Bosnia* he notes: "the most westerly pachalic or eyalet of Turkey in Europe. . . It has numerous fertile valleys, but no lakes of importance, and only one plain of any size, that of Livno in Herzegovina. This country is supposed to be rich in minerals; but the Turks only permit the iron mines and a lead mine near Zvornik to be wrought. The former employ about 2000 individuals. . . The best soil in the valleys is devoted to pasture; and Bosnia is generally better adapted for the feeding of cattle than for agriculture. The Bosniaks, however, seem to prefer the chase to more settled pastoral occupations; and as the woods abound with wild animals, as deer, wild boars, bears, wolves, foxes, etc., they have every facility for carrying it on. . . The manufactures of Bosnia are limited to iron articles of common use, leather, coarse woollen stuffs, saltpetre at Jaicza, cannon balls at Kemengrad; gunpowder, firearms and other weapons. Principal exports are leather, hides, wool, goats' hair, honey; cattle, dried fish, timber, mineral waters etc."

As an area with a complicated political history, is this of any help to our political geographers?: "Bosnia is under the government of a Pacha of three tails; it is divided into six *sanjiaks* or circles, and again into forty eight subdivisions, each of which is subordinate to a military governor and a *cadi* or judicial officer. . . The Bosniaks are of Slavonic origin; though most are Mohammedans they yield but an unwilling obedience to the Porte, and differ from the Turks in many usages - having but one wife, and treating their women with consideration".

And an appropriate bicentenary note on this damp corner of the empire - **Maynooth**: ". . . on the Lyall (sic) Water, an affluent (sic) of the Liffey, 14m w. Dublin. Population in 1841, 2,129. It is without trade, and depends principally for its support on the contiguous college. The Royal College of St. Patrick was founded in 1795 for the education of persons designed for the RC ministry in Ireland. It is vested in a board of trustees of which the RC archbishops are members ex officio, the remainder being selected from the Catholic hierarchy and nobility, in the proportion of 7 of the former to 6 of the latter. . . The chief functionaries of the establishment are the president, vice-president, three deans, besides which there are 3 professors of Divinity, and 7 others giving instruction in various branches of literature and science. . ."

"The salaries of the professors and the accommodation of the students were alike inadequate and paltry. The annual parliamentary grant (of £8,928) has been changed in the course of the present year (1845) to a permanent grant of £26,360 a year, a sum of £10,000 being at the same time, voted for the repair and enlargement of the buildings and library. In consequence of this liberal addition to its funds, emoluments of the professors, and the education and accommodation of the pupils, will be materially improved; so that the most beneficial effect may be expected to result from the measure - directly, by the greater allurements it will hold out to professors of superior merit and attainments to enter the college; and indirectly by the grateful sense which they and the pupils cannot but feel, of the liberality and munificence of the government. Hitherto, the students have belonged, with but few exceptions, to the middle and lower classes of R Catholic farmers

and occupiers. The site of the establishment is a tract of 54 acres adjoining the town. The buildings, which form three sides of a quadrangle, comprise a chapel, refectory, library, lecture-rooms, dormitories and professors' rooms. There certainly has been much to object to in the course of education hitherto followed at Maynooth; and the priests which it has sent forth have, for the most part, contrasted very unfavourably with those educated at foreign seminaries. We, however, are inclined to think that this untoward state of things has been principally ascribable to the poverty and destitution in which the college had hitherto languished. Its professorships could be no object to men of ability; and the teachers and students must have been equally disgusted when they compared the pittance allowed them by the state, with the vast sums lavished on the established church, though supporting only the wants of a small minority of the population. The new endowment will make chairs in Maynooth be sought after by men of superior attainments; while the better education and the greater comfort in which the students will be supported, will make it be resorted to by a higher order of pupils, and will tend to soften prejudices and asperities and to make the priests less indisposed to the English connexion. . ."

A Voyage around the World in His Britannic Majesty's ship, Resolution. . . 1772-5, by George Forster, London 1777. 2 volumes

Remember all the Hollywood movies made on Cook's visit to Tahiti? Well this was the original script:

The ship was surrounded by canoes and "the deck crowded with natives, among whom were several women who yielded without difficulty to the ardent solicitations of our sailors. . . The simplicity of a dress which exposed to view a well proportioned bosom and delicate hands, might also contribute to fan their amorous fire and the view of several of these nymphs swimming nimbly all round the sloop, such as nature had formed them, was perhaps more than sufficient entirely to subvert the little reason which a mariner might have to govern his passions. . ."

"Many came on board and threw overboard the coco-nuts, which we had already purchased, to their comrades, who immediately sold them to our people again. . . Two young fellows sat down to dinner with us, and partook of the vegetables, but did not touch our salt provisions. After dinner, one of them took an opportunity of stealing a knife and pewter spoon, not contented with a number of presents which he had received from the captain, without having made any return on his part. . . The theft being discovered, he was kicked from the deck, jumped overboard, and swam to the next canoe, where he seated himself, perhaps in defiance of our power. Captain Cook fired a musket over his head, upon which he took to the water again, and upset the canoe. . ."

Much later, after Easter Island, it wasn't all sun and roses however: "All those who had been on the long excursion across the island, had their faces blistered by the sun, and extremely painful in proportion as the skin peeled off. The short stay near the land, and the use of a few vegetables from there, had greatly restored to their health those who were afflicted with the scurvy. . . In a few days, we were much alarmed to find several people sickening again, and presently complaining of constipation and bilious disorder, which are deadly in hot climates. The most unlucky circumstance was that the patients could not eat the potatoes which we had brought from the shore because they were too flatulent for their weakened stomachs. . ."

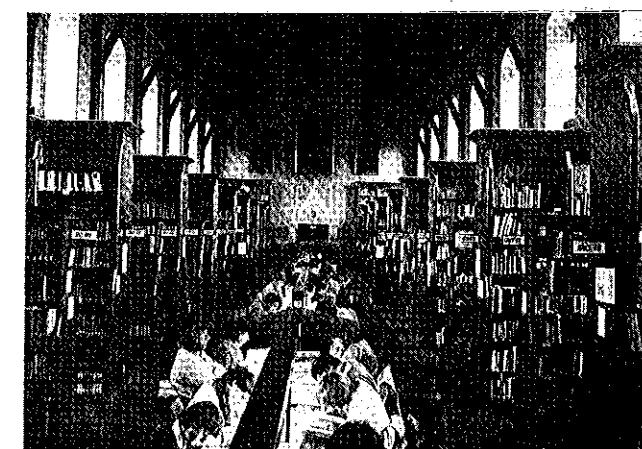
"My father ordered his Tahitian dog, the only one which still remained alive after our departure from the Friendly Islands, to be killed; it was cut into quarters, which were served up to Captain Cook during several days, and gave him some nourishment, as he could not venture to taste the ship's provisions. By such small helps we succeeded in preserving a life upon which the success of the voyage in a great measure depended."

There are many other interesting titles which are too numerous to mention. One exotic example is *Indian Tribes of North America* by Thomas L. McKenny, late of the Indian Department, Washington. It is published in two volumes with fifty beautifully coloured portraits of notable native people of North America, accompanied by lengthy biographical notes.

There is Bouchette's *British Dominions in North America* (1832), 3 vols; a thirteen volume *Gazeteer of the World, comprising a complete body of modern geography, physical, political, statistical, historical and ethnographical*. (1850); the *Nouvel Atlas Portatif*, Paris 1790, and many other eighteenth century gazetteers and geographies in French which, doubtless, were brought to Maynooth by some of the early French professors. Finally there are many geographical works in Latin, such as Cluverius' *Introductio in universam Geographiam*, 1711, and several of which date of the 1680s.

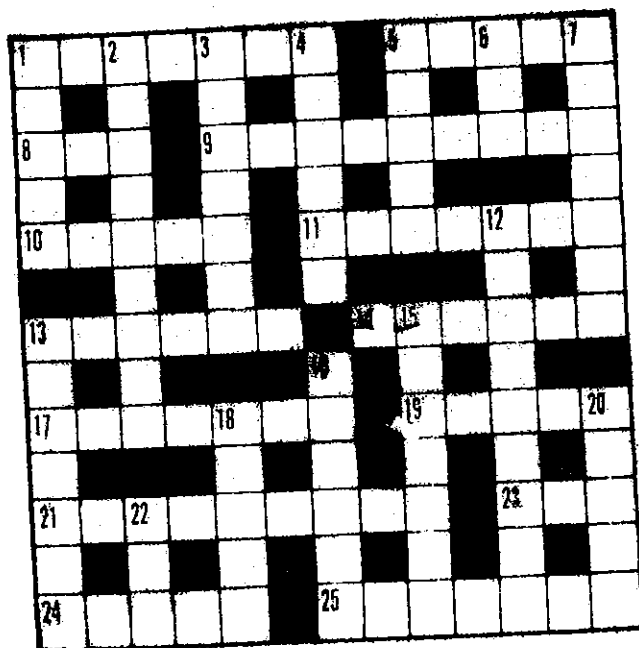


The Pope John Paul II Library opened on 7 October 1984 memorialises the visit of Pope John Paul II in 1979.



Russell Library named after Rev. Charles W. Russell, President of the College, 1857-80

CROSSWORD COMPETITION



ACROSS

1. Continental wind (7)
5. A sharp ridge (5)
8. Former name of E. Germany (3)
9. Some break at 80K's! (9)
10. French big bird (5)
11. Co. Cavan river (7)
13. Hecto (6)
14. Attractive piece of steel (6)
17. To soften or diminish (7)
19. On a steep with Richard (5)
21. Mass of Pluton (9)
23. You forgot your mysterious saucer! (3)
24. Ravine; canyon (5)
25. Irish mountain range (7)

DOWN

1. Contains dissolved gases/volatiles (5)
2. The daffodil (9)
3. Genus of the royal fern (7)
4. Type of Automobile (5)
5. Poplar tree (5)
6. Unit of currency (3)
7. Structural unit (7)
12. Found between 0 and 180 (9)
13. Boat peg mixed up in marsh (4, 3)
15. Intoxicating substance (7)
16. Sea (6)
18. Worship; revere (5)
20. Amphibians without tails (5)
22. Conspicuous height (3)

Send the correct solution to the Geography Post-Grad Room on/before April 12th and you could win a crate of beer.

Draw takes place on April 24th. The winner's name will be posted on the Geography Notice Boards.

THE MAP LIBRARY

by
The Map People

At the Western end of the ground floor of Rhetoric house hidden somewhere between the seminar room and the Geography lab is located a little known jewel of the geography department. This room, known to some as their tutorial room, unknown to many, well known to others (the diligent and clever ones) is the MAP LIBRARY. This treasury of knowledge holds information beyond your wildest dreams. - Alright I'm overdoing it a little, but I do believe that everyone who is registered as a geography student should visit the place at least once during their three years here.

Surprisingly enough the map library contains within its four walls. . . yes you guessed it, (I hope) Maps. But there are much more than just maps, there are also theses, articles, books and periodicals.

The convention for the last few years has been that the map library is opened for two hours twice a week for the first semester, and once a week for the second semester - watch the noticeboards. During that time there is a postgraduate student there to help you with your query and to give you the benefit of their vast wealth of knowledge (No editors, I'm not being biased).

Though labelled "The Map Library", experience has shown that the main reason undergraduate students visit this establishment is to consult the words of wisdom committed to paper by their predecessors. The map library contains a large number of theses which have been presented to the geography department by honours students, since before most of us were procreated. There is also a collection of theses from the geography department in Carysfort training college (JW's Dowry).

When faced with the trauma of writing a thesis, many people go weak at the knees, sweat a lot, loose sleep, and basically go to pieces. An alternative is to visit this emporium in plenty of time (although last minute rushes may be catered for) and see how others have tackled "The Monster". An analysis of how your predecessors structured their work, consulting their bibliography for suggestions, and getting ideas for a topic to study, are all within the bounds of possibility. If you find an item of use, you can borrow it for two weeks (failure to return items promptly could result in a visit by the brute squad) to digest the contents. This procedure can seriously alleviate much of the worry of thesis writing.

The second "service" provided is of course "the maps". The department holds a bewildering variety of maps, ranging from the original Rocque map in the entrance hall of Rhetoric House, which was produced in 1757, right up to most recent Ordnance Survey editions.

The most regularly used maps are the large collection of "6 inch maps". These - which are found hanging in the big metal cabinets around the walls - are detailed right down to field boundaries and individual houses. Though a little out-dated (printed in approximately 1911) these are an invaluable tool for any local study. For larger area studies the (1860s-1890s)

"one inch" topographical series are useful (205 sheets cover the country). More recent productions - the 1971 "half inch" sheets (25 sheets cover the country) and the 1981 1:250,000 (4 sheets) are in colour. Other widely used maps are the Downs Survey maps, Barony maps (both historical) and maps of DEDs (political). For most of the maps I have mentioned the department has a fairly complete set of the entire country. In some cases a person can be lucky, there may be a map, i.e. facsimile estate map or town plan which is of relevance to their study.

The most recent additions are the new 1:50,000 new series Ordnance Survey maps. The department has approximately 12 of these at the moment, and is acquiring the new maps as they are produced. The O.S. plans to have produced maps at this scale for the entire country by the end of the century.

The Map Library also contains a large collection of article offprints and xeroxes. Added to this is a selection of journals and a modest collection of geography books on various topics. These printed sources are under used. For example you could borrow, articles on topics as interesting as - ???, ??? or ???.

Without this sounding too much like a commercial, I would encourage you to pay a visit and "nose around" a little. Be adventurous - it could be the beginning of a beautiful relationship.

**MAYNOOTH
LAUNDRY
SHOP**



**WASHING & DRYING SERVICE
BEST PRICES IN TOWN
STUDENT DISCOUNT AVAILABLE**

Greenfield Shopping Centre,
Straffan Road,
Maynooth, Co. Kildare.
Tel. 01 - 628 5928 • 628 7961
Mobile: 088 - 548440



*The Geography Postgrade.
Why are they not all wearing suits?*

ANSWERS

1. Mark for correct answer, apart from questions 14 (2) and 20 (5 marks)

1. Belorussia, 2. River Po, 3. South Atlantic, 4. Urban Geography
5. French, 6. Laos, 7. They all came from Ulster,
8. Air Pollutants, 9. Belgium, 10. Seven, 11. Burma,
12. Leitrim, 13. Muslim,
14. Any two from Macedonia, Russia, Cuba, Taiwan or Belgium,
15. Iceland, 16. Razakhstah, 17. Bonn, 18. Slieve Donard
19. Mexico,
20. In order, Tokyo/Yokohama (20.52m), Mexico City (19.37m), Sao Paulo (18.42m), New York (15.65m), and Shanghai (12.55m) (A mark for each)

How do you rate?

- | | |
|---------|--|
| 0 - 2 | Hi there, Geo-Wally! |
| 2 - 5 | Its so nice to see that Experimental Physics students read Milieu. |
| 6 - 10 | You must be a naughty first year who skips lectures |
| 11 - 15 | Not too bad, but could you find your way from A to Z with just a map and compass. |
| 16 - 20 | A good score - definitely 2nd Class Hons. standard |
| 21 - 24 | Very good. Worthy of a pat on the head from Paddy Duffy. |
| 25 | Geo-ruddy-excellent! You must either be Paddy Duffy or a naughty person who read the answers |
| 25+ | I always knew geographers were cheats! |
| 37 | You are a very unstable individual. |

THE ULTIMATE FIELD "TRIP"

by
D. Bentley

Field trips in Maynooth are generally a group affair, with 50 or so enthusiastic geographers heading off to some suitably chosen destination to conduct, or more accurately, inflict, their fieldwork on the local populace. However the relationship between the curious geography student and the population under investigation is always relatively formal, never reaching the "spiritual" plane (except in the cases where one receives a spiked cup of tea). Thus there comes a point in the career of every geography student when he or she (PC) must abandon the safety of the group and seek out exciting and often dangerous new research sites. Such sites offer a cornucopia of both physical and human geography research opportunities but more importantly allow the field researcher to truly "bond" with those he is studying, free himself and all his academic preconceptions, and enable his mind to be opened up to unlimited new experiences. So man, when I heard that they was havin' another Woodstock you can bet your bottom dollar that I had found my ultimate field trip.

But how to study such an event? The critical marxist geographer would view it as a commodification of culture, regarding it as manifestation of blatant commercialism and pure capitalism disguised behind a thin veil of popular music. Well if this was true it did not differ from the first Woodstock! The organisers of Woodstock '69 deliberately set out to make as much money as they could and only declared it a free concert after the place had been overwhelmed by thousands of hippies. For the urban geographer, like, man, this was a brilliant opportunity to see town planning at work under the most stressful conditions i.e. the creation of a tented city overnight and the attempt to provide adequate food and services for 400,000 people (and two Irish guys). Incidentally, this "city" or "nation" as the more politically minded revellers in the crowd called it, became, for 3 days, the 5th largest urban agglomeration in New York state. Not many cities however, are populated almost exclusively by full-blooded young people intent on having a brilliant time and recreating the most influential music event ever. Enter the cultural geographers, armed with survey questions to elucidate the common values of the "X" generation: Sample Question:

Q - What do you think is the significance of this weekend for the youth of today?

A - Hey man, I dunno really, its a sorta', kinda', like, you know, man, type of, like, eh, spirituality thing. HEY THERES GREENDAY!!!! LATER DUDE.

Also of profound interest to the cultural geographer as well as the anthropologist was the sudden birth of a new but sadly short lived tribe, the Mud People, who emerged from the frenzied gene-pool of the mosh pit in front of the stage. They rapidly migrated throughout the Woodstock nation, moving in chocolate coloured, snake-like processions successfully attracting many to their fold. A matter of intense debate amongst many observers was whether these curious (and individually indistinguishable) people had abandoned the age old practice of wearing clothes. Had they forsaken their clothes in favour of the wearing of thick layers of wet, sticky mud? More careful

and lengthy analysis of certain photographic evidence is required before a definitive statement can be made.

Woodstock '94 was organized on a site that was originally intended to be turned into a land-fill. The concert was supposed to save it from this fate. HA!!!!!! ... some chance!! Man, this was instant land-fill like you have never seen it before. Take lots of big fields. Add 400,000 people, all the rubbish that they generate, and a more than generous helping of rain. Throw in the literally thousands of tents, sleeping bags and camping chairs that had been claimed by the gelatinous mud and you have got quite a combination. Interestingly, although difficult to extricate from the mud, with a good wash these tents and sleeping bags would have been perfect. Come to think of it, I did see some Outdoor Pursuits Club t-shirts in the crowd carrying large, full black sacks.

A phenomenon of interest to the latent hydrologist in every geographer was the spontaneous creation of a mud river that eroded a path through the tented city. It was difficult to locate the exact source of this mud flow but one theory is that it was a form of mudslide triggered by the thousands of feet moving to the awesome and truly earthshaking live performance of Nine Inch Nails. Or maybe it was triggered by all the hot-blooded males jostling to get a better look at Sheryl Crow.

After Peter Gabriel closed the final night with a like, spiritual performance man, myself and my companion (Polanski, a geographer from Carlow) stood in front of the now quiet and empty stage and surveyed the scene that lay before us. Man, it was an awesome site. ... Stretching out into the inky black night was an almost apocalyptic scene - mangled tents were scattered in the mud around which stood dark figures devoid of any traces of civilisation. Smoke from campfires drifted across the scene. It is honestly no exaggeration to say that the first image that came into my mind was of a huge refugee camp. But in the midst of this gloom and squalor was a long, meandering line of candles that had simply been stuck in the mud by the hundred to form a huge glowing chain through the darkness. One of the branches of this chain led to a large CND sign also formed from candles in the mud around which people were singing songs of love and hope and peace and all the rest. Man, I was touched. They were expressing a feeling that something had existed here, however briefly, that had transcended all the commercialism and cynicism.

Well hey man, you didn't think I spent the whole weekend analysing Woodstock in geographical terms. Hell No! There's a time and a place for everything and Woodstock was the time and place for a lot of things, most of which cannot be mentioned here. One regret though - the legacy of that weekend hangs over me (like the legacy of any field-trip I suppose) in the form of the new dreaded question "Were you at Woodstock?" to which I now reply "No man, Ivan Devilly bought me the t-shirt".

1. John Rocque's 1755 survey of the Woodstock estate in County Kildare fails to give evidence of an even earlier concert at this site. Further research might determine whether a concert actually took place here, over 200 years before Woodstock '69.

DER RHINELANDSCHAFTEN UND DER SHEARINGSBUSWAGEN 1994

(A Kind of Love Song -
to the air of Lili Marlene)

by
The Bard of Batterstown

(Die Deutsch in this is very bad)

Underneath der lamplight on Dunlaoire Pier,
We started on der Fieldtrip to get us over there,
To see all der farms in Germany
Where I loved you and you loved me
Mein Liebfraumilch, mein Rheingau
My own Lili Marlene

Der bus was full of forty frisky fine frauleins
Like Ellen and Sinéad and other wild sirens,¹
With eleven scared and timid boys on board,
Afraid to look or say a word,
On board der Shearingsbustrip
- a fate that's worse than death. ...

Late at night gut naben in St. Goarhausen
This wild and female rabble went nightly out carousin'
And singing about Der hole in Der bog
And toasting with Schnapps and other Grog,
Mein Liebfraumilch, mein Rheisling,
Mein Bitburger fraulein.

And poor oul' Ciaran Diamond they wouldn't let him be
These dames were sent to try him and test his sanity
They harried and they hassled the poor young lad
Did a bunk in Bonn which left him mad
O Gestapo when we need you
Get these pesky funk frauleins.

Der Shearingsbus was Belgian, Der driver was a Brit
At driving and map reading he was a bloomin hit,
But for some of the passengers what's worse
He drove his bus just like a porsche,
O Gott in Himmel save us
From der Shearingsbusmanbrian.

Der Pringle's castle stories were full of pure romance,
With knights in all their glory, in armour and with lance,
Winning the hearts of maidens fair,
With butterflies² and loving care,
O Deutschland uber alles
Mein Volkswagen fraulein.

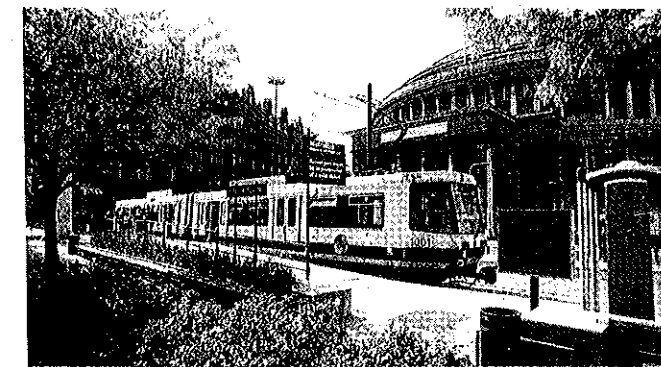
1. Sirens: (Dict) - a woman whose singing lured boats in the Rhine onto the rocks (see Lorelie) or a temptress or dangerously fascinating woman who leads men astray (see German field trip 1994).

2. See the *Kama Sutra* (I forget the page reference) and Claire Mulhall.

MANCHESTER METROLINK - DUBLIN'S FUTURE?

by
Ronan O'Connor

Formally opened in July 1992, the Manchester Metrolink is the jewel in the crown of Manchester's public transportation system. Metrolink is a form of light rail transport which will be seen in Dublin in the not too distant future, according to the Dublin Transportation Initiative.



Light rail can operate on segregated track or on track laid within a road system. It is similar to trams which previously ran in both Manchester and Dublin. Each vehicle has seating capacity for 82 people and when crush-laden a vehicle can accommodate up to 270 people. Vehicles can operate individually or can be coupled at peak times.

The metrolink is a pleasure to ride. It runs smoothly and rapidly (at maximum speeds of 80 km/h) off highway as it travels from the suburbs into the city. In the city centre the Metrolink uses a special lane which is shared only by buses. It obeys traffic lights in the city centre but this apart, its flow is unhindered. The Metrolink crosses the city (29.4km of track) from Bury to Altrincham.

LOST PROPERTY
If you have left personal belongings on the system, please telephone 051-205 2000. A member of staff will be able to confirm if your property has been recovered. It will then be made available for your collection from Reception at our headquarters on Queens Road, Chesterham. Will be open the hours of 0900 - 1700 Monday to Friday.

ENQUIRIES
Enquiries, suggestions and complaints may be made by contacting the:

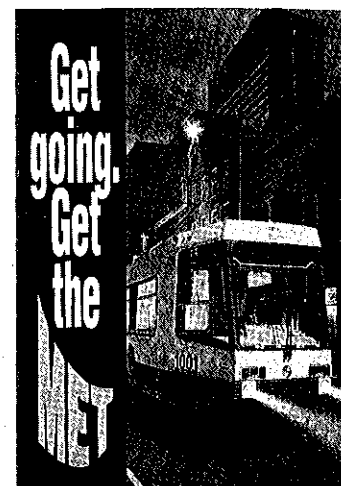
Operations Director, Greater Manchester Metro Ltd,
Metrolink House, Queens Road, Manchester M8 7HY

051-205 2000



METROLINK

PLEASE NOTE: Bicycles are not carried on Metrolink. Dogs, other than guide dogs, are not normally permitted on board Metrolink vehicles.



One element which greatly increases the speed of the Metrolink is the use of computerised ticket vending machines at every stop on the line. One conceivable problem is that it is possible to ride the Metrolink for free, due to the absence of conductors and the very rare appearance of inspectors. The onus is entirely on the patron to buy a ticket. This may be countered by the threat and enforcement of large fines.

The Metrolink definitely constitutes an asset to those public transport users who have access to it. In a test by the *Trafford News Extra*, a local newspaper, three reporters staged a race from Altrincham to the city centre. Metrolink was the fastest means, taking 26 minutes, the private car came second, taking 43 minutes and the bus came last, taking 62 minutes.

The Metrolink, and Light Rail Transport in general, seems a hopeful prospect for public transport in general. The Dublin Transportation Initiative has decided to install two lines as one of the solutions to the traffic congestion problem facing Dublin city. This may be the start of the return of trams to the streets of Dublin.

OFFSHORE IRELAND: FORGOTTEN FRONTIER OR A LOST CAUSE?

by

Daragh McDonagh, B.Sc.

The title suggests that Offshore Ireland should be a potential hydrocarbon prospect. Claiming that it is a forgotten frontier implies that a certain limit of knowledge, about an unknown region, has been acquired and put on some shelf to gather dust. Implying that it is a lost cause means that on the basis of the information gathered and work previously done offshore, that it is not worthy of any further exploration and development. I do not agree with either situation and I shall now demonstrate the reasons for this by examining previous exploration results and looking at the present day situation.

The Continental Shelf west of Ireland is very extensive in comparison with global standards. There are 14 sedimentary basins surrounding the coast (Fig. 1). Some of these basins have been successfully explored e.g. The Celtic Sea Basin. Others have been explored unsuccessfully and others are relatively unexplored.

Old deep rooted lineaments and opening of the Atlantic Ocean have had a significant control on the development of these basins. During the Middle Jurassic the Atlantic Ocean began to open. Sea-floor spreading began in the south and was slower to follow towards the north. The first opening of the North Atlantic was during Cenomanian times, but was preceded by extensive crustal thinning and rifting. In response to these tensional stresses initiated in Mesozoic times, graben troughs developed creating the basins along the western coast.

Predominantly, the basins offshore Ireland lie off the South and West coasts. The southern basins of the Celtic Sea have been the most commercially productive, with the opening of the Kinsale Head Field and its satellite, the Ballycotton Field

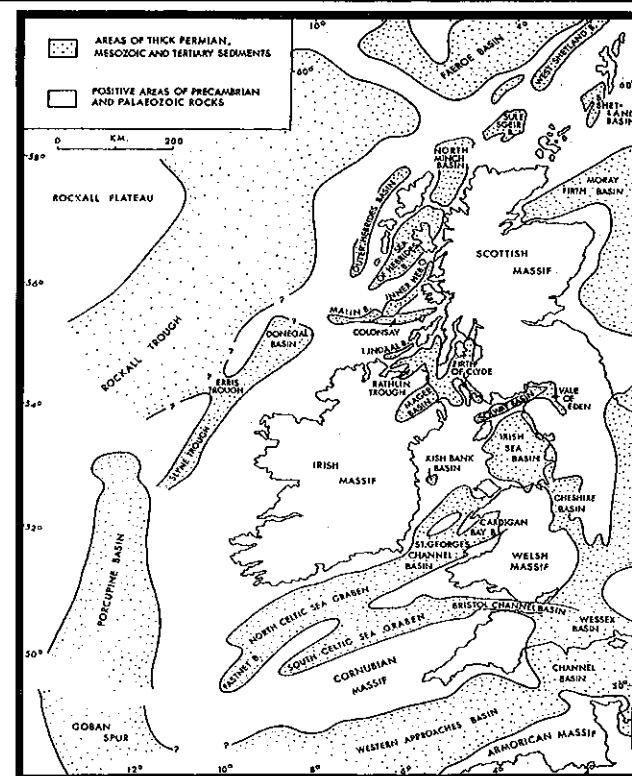


Figure 1: The Irish Offshore Basins
(Geology of Offshore Ireland and West Britain).

as commercial gas flows. Many more wells, both in the West and South have demonstrated hydrocarbon potential (MacDonald et al. 1987). Since we know that there are hydrocarbons offshore, (some fields holding an estimated 120 million barrels of oil-in-place), the question is whether these reserves commercially viable to explore, develop and produce?

With present proven oil reserves expected to last about 20 - 30 years, it even that long exploration will become more important in the future. This is assuming that there are now new discoveries in the meantime! However, the type of exploration will depend on the state of the World's financial markets. During the current world recession it is uneconomical to explore new frontiers, especially the deep water ones like the Irish Western Offshore. As a consequence more energy is going into the recovery efficiency of existing reservoirs. If the price of oil increases it will become more productive to explore and develop these frontiers.

A variety of source rocks are to be found in the Irish Offshore strata. Carboniferous coal measures of Westphalian age provide minor hydrocarbon gas potential in the Kish Basin. These rocks are at the "peak stage of gas generation" (Jenner 1981). They occur as valid source potential where Variscan thrusting has juxtaposed them against suitable reservoirs. These reservoirs could be Permian-Triassic sandstone. Other source rocks in the basins are Ir. Jurassic shales (oil and gas), Middle and Upper Jurassic (oil) and some Lower Cretaceous shales (oil). The problem with the Lower Cretaceous Wealden is that they are often thermally immature.

Reservoirs and cap rocks consist of:

1. Permian sandstones,
2. Triassic Sherwood Sandstone equivalents capped by Mercia Mudstone equivalents and/or local evaporities,
3. Liassic limestone capped by deep marine shales,

4. Md. Jurassic sands capped by marine shales,
5. Upr. Jurassic sands and limestones capped by marine shales. (These are the main target areas for the majority of the basins),
6. Lr. Cretaceous sands capped by chank.

The essentials are there for a good petroleum play. All that is needed is a structure to trap the hydrocarbons. The structural history of the offshore basins is complicated. Permian rifting of Pangaea began the opening of the Proto-Atlantic. The Rockall Trough is a failed arm of this event. Rifting again occurred in Triassic times followed by thermal subsidence in the Jurassic and a marine transgression.

Post Middle Jurassic rifting resulted in the opening of the present day Atlantic Ocean and the reactivation of basement lineaments. Some of these lineaments have had an important impact on the prospectivity of certain basins. In the Porcupine Basin, an E-W trending ridge has prevented the migration of hydrocarbons from the south basin into good reservoir sands in the north basin. Late Cretaceous to early Tertiary thermal subsidence occurred related to the sea-floor spreading of the North Atlantic.

This was followed by N-S Alpine orogenic compression which led to basin inversion. This basin inversion led to the formation of the classic anticlinal traps, where former depocentres became highs in Cretaceous-Tertiary times.

A wide range of traps is evident in these basins: filled fault-blocks, unconformities, sedimentary growth faults and antiformal traps. This in the Irish Offshore the perfect formations for petroleum play potential exist.

All of this information has come from thousands of miles of seismic shots and 113 wells drilled. These wells have been drilled since 1971 (Shannon 1993) predominantly in the Celtic Sea region. This is not sufficient geological information with which to describe the offshore geology. For example in the Porcupine Basin, an area roughly the same size as Ireland has only 26 wells drilled. Surely this cannot be a proper representation of the basin as a whole. A lot of exploration is still to be done. Judging by those wells already drilled, 4 of which flowed good quality oil (35-45 API) with others recording gas shows, the potential for more hydrocarbon finds exists.

Results from other offshore basins are encouraging. In the Erris, Slyne troughs off the North-West coast, two of the three wells drilled recorded hydrocarbon shows (Murphy and Croker 1992). Small quantities of oil were recorded in wells drilled in the Fasnet Basin off the South-West coast.

A hindrance to the exploration of some of the Irish basins is the depth of water to be worked in and the distance from the mainland. For example, the Porcupine Basin lies 150-250 km west of Ireland with water depths ranging from 300m to 1700m. Only 25 wells have been drilled in this extensive basin. This can be related to the cost of development and exploration in such hostile environments. As the relatively near shore basins are being researched, the quest is being pushed even further afield out into deeper waters of the Continental Shelf.

If these sedimentary basins are to be targets for exploration and production, then the incentives have to be there to attract

companies to compete in the licensing rounds. Another important factor required for any exploration and production type company, be it onshore or offshore, is an adequate infrastructure and workforce. The know-how and willingness is there to quickly react to the needs in the industry. For example, after the discovery of the Kinsale Head and Ballycotton Fields, an onshore network of pipelines was built linking the two fixed platforms and one sub-sea system to the south coast. Today this system links the major industry centres to the gas network. There are oil storage and refinery facilities on the south coast which are well served by close by deep water port facilities.

To suggest that the Irish Offshore is a lost cause is ridiculous. Considering only 113 wells were drilled in the 14 offshore basins, there is insufficient geological information to justify abandoning the search for hydrocarbons offshore. Many of these wells show signs of hydrocarbons, and the plays are there. Two fields have proved to be commercial. Seismic sections show a lot of potential target areas and these will have to be explored in the future.

Claiming that the offshore is a forgotten frontier is not really justifiable either. Active exploration is still going on, as is evident by continuous bidding on the licensing rounds. Exploration at the moment is slow, but that is due to high costs, insufficient technology and low oil prices. If the cost of oil rose, then it would become economically more viable to explore and develop the offshore. I would rather call the Irish Offshore a "frontier in reserve", slowly but surely giving up its secrets and waiting for when the moment is right to be fully exploited.

SU SHOP

Sports Complex,
St. Patrick's College,
Maynooth, Co. Kildare.
Tel. 628 6053

Your S.U. Shop provides a friendly
service Sweets • Drinks • Fruit
Newspapers • Cigarettes
Film Processing
Phone Cards • Stamps
Photocopying
& Laser Printer Cards • Stationery
Stamps • Computer Discs
Irish Independent, Irish Times,
Evening Herald

Support your Union Shop
It's there for you



St. Patrick's College
Maynooth, Co. Kildare

REGISTRAR'S OFFICE NOTICE

POSTGRADUATE APPLICATION 1995

Each academic department in the College may offer postgraduate facilities and application should be made only after consultation with the relevant Head of Department. It is advised to do this early in the year.

The application form, available from the Registrar's Office, South Campus, should be submitted to that office, when approved and signed by the Head of Department. It is desirable to have such applications submitted to the Registrar's Office by August 31st.

Normally candidates for an M.A. by Research (Mode I) will hold an Honours Degree, Grade 2:1 in the particular subject while candidates for a taught M.A. (Mode II) will hold an Honours Degree, Grade 2:2.

Other postgraduate Diplomas and some Masters programmes may be E.S.F. funded. Candidates should contact the relevant department.

STAFF PROFILE

CLASSIFIED INFORMATION RELEASED BY THE C.I.A.



The staff of the Geography Department

P.J. DUFFY

A native of Co. Monaghan, Paddy is a UCD graduate beginning his B.A. in 1965 and his Ph.D. thesis in 1968. When the College Trustees and the then President Jeremiah Newman decided to appoint a junior lecturer in Geography they chose Mr. Duffy and so in 1971 the Geography Department was born.

An institution in his own right having been Head of Department for 'a long time', Paddy was appointed Acting Professor in 1994. He is a leading expert on the Historical Geography of Ireland since the 1600s and presently enjoys a large following for his second year course. Always approachable, he currently holds the presidency of the Geographical Society of Ireland. His admirers note that he combines his roles in admin., lecturing and Geog. Soc. (Irl) admirably and virtuously. He makes it look so easy...

PROINNSIAS BREATHNACH

Having studied for his primary degree in Geography and Economics at UCD in the mid 60s, Proinnsias or Fran as he's known to his friends moved to the Simon Fraser University in Vancouver where he studied for a further 3 years. He joined the staff of the College in 1972 and now lectures in Economic Geography. Fran hails from Co. Waterford and he'll tell you he's an avid supporter of GAA and international soccer. He will probably be best remembered for his appearance at the Rep. of Ireland v Italy match in USA '94 which saw him shoot to celebrity status on worldwide T.V. People are still knocking on his door for autographs! Frank is a fluent speaker of our native tongue so má bhfuil Gaeilge agatsa, labhair leis. He also holds the enviable position of department member in charge of field-trips shows for the Geog. Soc. His contract with the Geog. Soc. has been renewed annually for years by

unanimous agreement. Sure why not? Anyone whose been will know why. Here's to many more of them.

DENIS G. PRINGLE

Denis studied the "Natural Sciences" in T.C.D. back in 1967 graduating in 1971. From there he returned to his native city of Belfast to begin work as a research assistant with the Northern Ireland Community Relations Commission based at Queen's University. He spent a year at Durham University in 1973/74 again as a research assistant during which time he worked on his Ph.D. in the area of geographical statistical analysis.

Denis has been growing old gracefully since joining the staff in 1974. He is actively involved in the Geographical Society of Ireland. No longer lecturing in urban geography, he confines his time to geography of a more political persuasion. He is highly versed in geopolitics, an area in which he has written vastly so for anyone with questions on the subject - Denis is your man.

JOHN C. SWEENEY

Recently returned and suitably tanned from his field-trip to the 'sunny' French Riviera, John is once again fighting fit and raring to go. He studied science as an undergraduate in Glasgow University receiving a much sought after 'first'. Following a further spell of study in 1974 for the British equivalent of the H.Dip. John spent a number of years teaching Geography at second level. Not yet satisfied with academia he took up the Ph.D. mantle while still teaching, completing his doctorate in 1980. 1988 saw him enter the institution that is Maynooth College where he has been lecturing ever since. Today, he is a walking encyclopedia on matters climatological