



CONTENTS

Foreward	1
Editor's Note	2
Auditor's Report	2
Cultural Development in Africa by Sinéad Callanan	3
New Initiatives in Irish Rural Development by Tim Walsh	4
A Ramble Through Irish Tourism by Sarah Drea	7
The Weather Charts by Ann Kehoe	8
Fish Farming: the Environment Consequences by Anne-Marie McCleary	9
The New World Screwworm:- A Threat to African Livestock and Wildlife by Helen Cunningham	10
Limerick Field Trip by Colm Ryan	11
Irish Emigration to Argentina by P. McKenna	12
"Only Days in Elmhurst" by Timothy Walsh	15
Estyn Evans by S. Dempsey	15
Staff Profile: A Short who's who of Maynooth Geography	15
Wordsearch	17
Gaeltacht Co-ops and the State by <u>Johnny Nevin</u>	18
Maynooth v's Toronto by Joe Leyden	18
Campus Geography by Mad Mac	20
The Environment - Beware of Disinformation by Kathleen Quinlan	22
Geopolitics In the Nuclear Age by Denis Pringle	23
Yugoslavia - Approaching Break Up by Adrian Kavanagh	25
Leixlip Goes Electronic: An overview of Intel by Deirdre Dalton	26
AIDS: The Armageddon for Africa by Declan Brassil	27
Recognition of European Countries by Mary C. Morgan	28
How to Fail the B.A. in One Easy Lesson	30
Dublin 1991 By Tony O Dálaigh	32

FOREWARD

The present academic year, 1990-1991, represents a significant milestone in the history of the Department of Geography in Maynooth. This is the twentieth year in the life of the Department; one-fifth of a century has now passed since the College trustees took the decision to establish a junior lectureship in Geography. Within months a young postgraduate, Mr. Patrick Duffy, had been appointed and the first students had signed on for the First Arts course. Seven years later a Chair was established. The Maynooth Department thereby became the newest Irish centre for the pursuit of geographical studies and through a perhaps unintentional coincidence a direct link was made with Ireland's oldest Geography Department. Estyn Evans, founder of the department in 1928, was a member of the 1978 assessment board for the professorship of Geography in Maynooth.

In the history of the Department, 1270 students have graduated with a Bachelor degree in Geography, and 20 have completed Masters degrees. Several hundred other students have studied the subject at First Arts level. The scale of this output is impressive: even in the present atmosphere of government inspired Unit Cost studies and complex measurements of scholars for dollars this output from an academic staff, never numbering more than six, is striking. Graduates of the Department are represented widely in the teaching profession, in the ranks of urban planners, in business and the Church. Others are employed as academics in universities at home and abroad. Africa, Asia, Australia and America as well as Europe are home to the graduates and undoubtedly through Praxis they have formulated an added reality to the academic lessons of their geography texts.

In the course of its development the Department has evolved in keeping with changes within the discipline itself and the courses now on offer indicate considerable alteration from those of 1971. The range of teaching and research interests is revealed in part by the writings of the students in the current issue of Milieu. The authors and editor are to be congratulated for their contributions to what is now an established part of the Department's tradition - the annual production of a student journal.

W.J. Smyth.

Many Thanks to our Sponsors



Church & General

Church & General Insurance plc., 15, Marlborough St. Dublin 1
Tel: 735111. Fax: 735110. Telex: 30351.

EDITORIAL

Traditionally adverts have featured prominently in Milieu, normally confining editorials to the top half of a page. Unfortunately for the present editor, this years hard working Geographical committee managed to secure generous sponsorship from Church and General Insurance plc. for the production of Milieu 1991. Saving themselves the unenviable and downright hazardous task of asking shopkeepers for some money in return for an advertisement, the committee were thus able to furnish the editor with a blank page. To subsequently tow the conventional editorial line and say that this years Milieu contains a wide variety of articles, reflecting the nature of Geography, would of course be the usual format and more importantly would not fill a page! Faced with this dilemma the present author decided to let his mind run riot. What follows is a brief, half humorous, half serious glimpse of what lies between the covers of Milieu 1991.

Callanan finds time out from her "busy" schedule as P.R.O. to the Geography Society to examine African cultural underdevelopment. Instead of economic dependence, Callanan looks at information flows as another form of underdevelopment. Given the vast amount of experience she has acquired in this field, the reader can rest assured that this article was written by an expert. Meanwhile Cunningham, from the backwaters of first year, has (instead of making friends) penned an article on the New World Screwworm. Whilst recent press speculation was rife on whether a Catholic university could permit a neo-Freudian analysis of animal behaviour to be published, it has in fact materialised that such speculation was unfounded and indeed misleading. Cunningham's study concentrates instead on a parasite which has surfaced in Libya. The parasite attacks animals and humans and should it spread southwards from Libya could have devastating effects for Africa. Drea, has left her specialism of co-ops and under much duress takes a peep at tourism in Ireland. Her easy-going and laidback manner is brought to bear on the subject matter as she rambles through the regionalism of Irish tourism. Further on, the elusive Mad Mac makes a welcome re-appearance. Fresh from his recent failure in the Supreme Court Mad Mac launches into a probing analysis of the college, linking footpaths with a well known and respected college personality. Kavanagh's article, which takes us to Yugoslavia, is not happy reading for the increasing numbers of Irish people taking their holidays there. Examining the growth of unrest in the country, Kavanagh feels that the country is on the verge of disintegration.

Hot on his heels comes the Mc's - two of whom are unfortunate enough to hail from Donegal. "Blueshirt" McKenna is however from Meath. A close personal aide to John Bruton, he has recently returned from a successful three month stint in Argentina. Given Fine Gael's inability to win elections McKenna's acquired knowledge of the Argentinian political system will undoubtedly feature prominently in Bruton's sweeping political reforms. Outside of his political work McKenna did however find the time to research Irish emigration to the Argentina. Here he writes a highly original and fascinating account of the Irish community in Argentina which differed markedly from comparative Irish emigration to North America. Next comes McCleary who is not only from Donegal but is also unfortunate in that she now studies in Stillorgan airport (U.C.D.). From McCleary's review of the environmental consequences of fish farming, one cannot but help feel that it is perhaps a good thing that many are now falling on hard times. McNelis, also from Donegal was formerly a social columnist with the "Daily

Star" and "The Mirror" Newspaper. Fired from these posts for unethical standards of journalism he is thus the obvious choice for the task of revealing all about the various departmental staff. Quinlan, a second arts student, had until the publication of her article "Beware of Disinformation", a bright academic future. This article has however brought her into direct conflict with the manager of Leixlip's U13 soccer team and political geographer, Dennis Pringle. Each takes issue with the others argument concerning the Nuclear Winter Scenario. In a lively, frank but acrimonious exchange both emerge the best of friends. Quinlan has however threatened to take the issue to a higher court of appeal - J. Sweeney - whilst Pringle has retaliated by stating that he would force Quinlan to watch Leixlip U13 playing a match. Meanwhile Nevin and Walsh have taken to the country as they examine rural development initiatives. Nevin focusses on the traditional co-op solution whilst Walsh looks at the latest on offer from the EC. Whilst both are well known for their footballing exploits, Walsh has also managed to ensure that he will remain a central character when talk turns to past field trips (see Milieu 1990). Kehoe has contributed a hit parade and word search. The word search will undoubtedly have you up all night and any spelling mistakes that are discovered should be brought to Kehoe's attention. Finally, Leydon may be in Canada but he has still managed to edge his way into Milieu once again.

IN RETROSPECT AUDITOR'S REPORT 1990 - 1991

The geographical year got off to a great start, when on Fairs Day, through various methods of persuasion the Geography Society secured three hundred members. Despite the strong case we presented for increased capitation that three digit figure remained the same as last year.

Our first lecture of the year was given by Proinnsias Breathnach. Titled "Confessions of a Fieldtrip Leader", subtitled "Everything you wanted to know about fieldtrips and were afraid to ask" is by now an annual date in Proinnsias's diary and his 'classic wit' had everyone in stitches laughing.

On December 11th Dr. Rod Fox, Rhodes University, gave an interesting and informative lecture on "Partition and Development in South Africa". Dr. Fox outlined how the urban landscape in South Africa evolved as a direct consequence of the political expediency of the apartheid regime. Dr. Fox illustrated that although economic sanctions were effective, the ban on their South African rugby team competing abroad, had a most traumatic effect.

On January 16th, Professor Drakakus-Smith, University of Keele, England, gave us a very detailed insight into urbanisation in South Asia, and its social impact on the cities in this region. Taking Singapore as a case study, he emphasized the important role played by the informal economic activities (cab-drivers, vendors). A cheese, and plenty of wine reception followed, in which interesting points were raised.

Our next lecture was presented by Dr. Tyrrell U.C.C. who spoke to us about environmental images and realities in development strategies. He introduced us to an alternative perspective on African geography, desertification, and the United Nations plan of action to stop the spreading deserts.

In early February a group of 3rd year and post-graduate students attended the GSI Joint Societies lecture in Trinity College, Dublin. Professor Deryck Holdsworth from Pennsylvania State University was guest speaker for the evening. Professor Holdsworth is perhaps most widely known for his distinguished editorial work on the Historical Atlas of Canada.

His lecture titled "Mapping the changing geography of the American downtown" focused primarily on New York, on the processes that are changing its downtown cityscape (from the

height of a three storey building to skyscraper height) and most importantly of all, how these changes can effectively be mapped using three dimensional computer maps. He impressed upon us that for many Americans the city is measured by the height and the number of its tallest buildings and not by the number of its residential areas. A short discussion was followed by a glass of wine which was much appreciated by the Maynooth contingent. An enjoyable evening was had by all, and we contributed £50.00 towards the expenses of the lecture.

On the 20th of March we will be co-hosting with the Sociology Society, our final event of the year. The guest speaker for the evening will be Dr. Nabil Adawy, Director of International Studies Programme, University of Limerick, who will be speaking on "Middle East Geographical Realities - A Post War Scenario". Dr. Adawy will be primarily focusing on the geographical, and social dimensions of the Gulf War. Since it is the final event of the academic year for both societies, we are hoping for a great turnout. Plenty of cheese and wine will follow. Thank you time! Firstly, I would like to thank Church & General plc. for sponsoring 'Milieu '91'. Without their generous contribution we would not have been able to produce this high quality magazine on our slim finances. I would also like to extend my thanks to Margaret Kirwan, S.U. Shop, who kindly accepted articles for Milieu, to Jim Keenan (Cartographer, Geography Dept.) who judged our cover competition, to Brian Daly who took on the daunting task of editor, and also to all our guest speakers during 1990-1991.

For the assistance, encouragement and support given by all of the staff members, Thank You! To everyone (at home or away) who supplied articles and who helped to make this years 'Milieu' a smashing success, go raibh míle maith agaibh go léir.

Finally, all that remains for me to say is Thank You to Colm, Ann, Susan, Deirdre and Sinéad who all worked so hard in making the activities of this year's Geography Society a great success.

Mar fhocal scoir, tá súil agam, go mbainfidh sibh go léir taitneamh as "Milieu '91".

MAYNOOTH GEOGRAPHY SOCIETY 1990 - 1991

Margaret O'Reilly
Auditor
Colm Ryan
Vice President
Susan Dempsey
Treasurer
Sinéad Callanan
PRO
Deirdre Dalton
Secretary
Ann Kehoe
General Dogsboddy!!

TRIVIA TIME

1. What country has the most time zones within it?
2. What is the world's southernmost capital city?
3. What country contains the largest icefield in Europe?
4. What two countries are linked by the Brenner Pass?

CULTURAL DEVELOPMENT IN AFRICA - THE PROBLEM OF INFORMATION IMBALANCE IN THE MEDIA

by
Sinéad Callanan 3rd Arts

"From the beginning of mankind, communication between people was a fundamental attendant circumstance of self-realization of man and socio-economic development. The right to communicate in this sense is therefore a natural human right, but at the same time it is a social phenomenon strongly shaped and defined by the social economic conditions, ideological assumptions and cultural values of a given country" (D. Fisher (Ed): 1983: P. 102).

Today, communication networks are becoming increasingly important in our lives. They are also gaining greater importance as being an influential aspect of international relations. Especially in the last twenty years or so, international flow of information across borders has developed very rapidly due to the equally rapid developments in communications technology, which have allowed for greater changes in the scale of communications, both in terms of information content and audience reached. Ideally communication is a continual reciprocal exchange between two partners. However, the right to seek, impart and receive information has become more and more the privilege of a decreasing number of transnational companies which disseminate information worldwide. These powers are concentrated in the developed countries and they control the media world, its flow and content. Therefore, the relationship between the communicator and the receiver is asymmetrical with the advantage clearly tending to lie with the communicator. This information imbalance has adverse effects on the recipient of the information in terms of cultural values and its own internal networks of communication. This is probably best illustrated in the relationship between the Third World and the Western world, where the Third World has become "dependent", yet again, on the developed nations. In this report, I will analyse this geographical dimension of information imbalance between Africa, which in this case, can be seen to represent the Third World as a whole, and the Western world. I will look at the impact of this imbalance on the cultural development of Africa. I will also look at efforts made to counteract this imbalance and finally will look at practical solutions to this problem.

The imbalance of information between Africa and the West can be seen in terms of information flow and information content. History and poverty of resources are probably the most vital components in producing this imbalance. Despite independence of African states, the map we see today of Africa is essentially one drawn by Europeans. Due to past colonial ties and present neo-colonial ties Africa not only continues to be economically dependant on the West, but culturally dependent, which is but another aspect of the whole problem of international domination, inequality and dependance. Many in fact believe it has had far greater ramifications as cultural domination "reaches deep into the psyche and poses problems of identity" (A. Smith: 1980: P. 38). So, this "information imperialism" has therefore caused the traditional cultures of Africa to become repressed.

The other major problem is the poverty and lack of resources in Africa. Africa possesses fewer media facilities per head of population than any other continent. The number of newspapers is limited, some countries being without a single daily paper. Few dailies reach readership beyond the major towns. Although radio stations have been set up in every African state, their transmitting power is often weak and the number of networks within most countries small. Television is definitely underdeveloped, with some countries having no televisions at

all, and the majority of them being confined to the privileged few in the urban centres. This problem of lack of resources is compounded by the natural barriers to communications which include the effect of weather on transport, the influence of solar activity on radio transmission, and obstacles such as mountain ranges, rivers and marshes.

Other problems posed are cultural and linguistic in nature. The West is becoming increasingly homogenised into a unitary culture and where single languages are becoming predominant. However, Africa differs greatly in this respect, where tribalism, linguistic and caste loyalties exist which continue to divide Africa into groups of heterogeneous people with divergent attitudes and beliefs (A. Smith: 1980: P. 48). This in turn makes it more difficult for communications networks to satisfy all groups, so many cultures and languages have come to take a peripheral position in Africa. This problem is enhanced by the gap in communication facilities between town and country within African countries. In these countries the urban communications networks are controlled by either the government or the elite, who generally are not all that responsive to what takes place in the various village systems.

Due to these barriers to communications development, compounded by Africa's past and present dependence on the Western world, Africa's present media facilities owe much to the West. Africa's modern print and electronic media developed as the direct or indirect result of contact with Europe. Few African societies had a written language, and in those that did, printing was either unknown or underdeveloped. European colonialism south of the Sahara meant that most literacy, and therefore most printing, was in a European language. These have important implications for media development in this area. This can be seen in terms of language, where the major languages are enhanced at the expense of the minor ones.

Not only does Africa become heavily dependent on the Western world for communication technology, but also African agencies become dependent on the world's major news agencies for information. Presently the world receives 80% of its news through a small number of news agencies which are concentrated in London, Paris and New York. (D. Lyon: 1988). This has been the result of rapid developments in communications technology, predominantly in the West, which has led to the creation of monopolies and the concentration of media control by the West. This has resulted in African agencies being unable to compete with the super-powers of the West and also having to supplement their own news from these foreign agencies, which thus perpetuates the colonial era of dependence and domination. This imbalance in information flow has led to an imbalance in information content as it confines judgements and decisions on what should be known and how it should be made known into the hands of the few.

Reuters and AFP are the most significant news agencies in Africa, both in their coverage of Africa and the number of African customers using their services. These Western suppliers have set a typical Western agenda for their dependent recipients and have come to treat the media as merchandise which is marketed and sold like any other commodity, and for them the profits outweigh the social and cultural consequences.

One such consequence of the control of information flow and content is the distortion of international knowledge about Africa. The West have been accused of simply emphasizing ethnocentric issues such as famine and catastrophes and ignoring issues which countries of Africa would consider as important. This can be seen in relation to Nigeria, one of Africa's largest nations as well as being a major oil producer, which received little news attention in the years 1976 - 1980. The 1979 elections in Nigeria is a good example of this. Internationally significant, the election was given a very meagre coverage by the world's media. It is worth noting too, that this lack of coverage applied also to the African media outside Nigeria. (G. Mytton: 1983: P. 30). If the major world news agencies ignore

or barely report a story, African news agencies will do likewise. This problem becomes exacerbated by the news which is sent out from Third World agencies to international agencies. It is sent out by local agency offices and representatives who are often natives of the international countries concerned so they know what qualifies as news.

Another important consequence of the 'swamping' effect of Western material on African countries is the problem of identity. The avalanche of Western information and culture into Africa has obscured African people's identity and conception of reality. This has been helped by the domineering Western advertising agencies and also the education system. Those who have a high standard of education in Africa, which are in general the urban elite, are educated according to a Western curriculum. As a result, they view the Western world as the model for development and so are ready and willing to accept Western products. They in turn impose their views on the easily persuaded people who lack any form of formal education, which are mainly those living in rural areas.

The constant one-way stream of Western information through its agencies into Africa, with any return flow being seen as a mere trickle, has resulted in African news agencies disregarding local events and personalities more and more and paying as much attention to such Western news as the private lives of American celebrities and problems of drug-taking in America.

Analysis of the quality of the content of material flowing between the two worlds also illustrates once again, the huge imbalances which exist and the adverse consequences that result. The content of the material that flows from the developed nations is a compilation of the worst produced programmes and films, which Africa must accept as they are dependent on the West to supplement their poor resources. This unequal exchange is inevitably harmful to the national cultures in Africa. The situation is not helped when the creative artists of Africa find themselves in competition with not only the imported products, but also local imitations of these imported products. This is a clear indication of acceptance of the external culture and an abandonment of the native culture.

The solution to the problem of imbalance of flow, inadequate presentation and distortion of events requires certain conditions, such as improvement of information technology and communications infra-structure in Africa. Also, an increased role of journalists from developing countries in reporting about their own countries is required. They should be in a position to counteract the distorted stories presented by the Western agencies and should also be allowed to report international affairs from their own view point. Also according to Wolfgang Kleinwachter the influence of the transnational media monopolies must be limited. (D. Fisher: 1983: P. 106). This would give African countries a better chance for self-development and improvement. Particular attention should also be paid to the development of national languages which in many cases have been over-taken by former colonial languages. National languages must be developed as **'it is important for an individual not to feel hampered by the limitations of his own language but enriched by the possibilities it offers for the expression of ideas, feelings and identity as a means of communicating with his compatriots.'** (D. Fisher: 1983: P. 108). This is especially apt in Africa where multiplicity of languages is a majority and not a minority problem. In addition to this, recent developments in automated translation systems can help in the exchange of information between these diverse groups in African society. Finally, there is a need to counteract the problem of homogenisation of African societies by Western culture. In this case it is not only the media but the message which is important and conditions must be created for national mass media and systems to carry the cultural messages of the nation.

In conclusion, the control of flow and content by the Western World, the dependence of Africa on Western information and

equipment to supplement their own meagre resources means that the whole outlook of Africa's media takes place in the context of foreign culture. Jose Bonillo Romero argues that, in the Third World a profit-orientated communication system bolsters social structures in which individual and social rights are ignored or denied. The result is, as Paulo Freire called it, a **'Culture of silence'** in which an abundance of communications technology co-exists with illiteracy and ignorance. (D. Fisher: 1983: P. 129). This problem is exacerbated by the communications pollution of poor quality and irrelevant material onto Africa. Many changes, both at national and international levels, will have to be made before Africa and the majority of developing countries are able to take advantage of all the technological advances, which for them, remains largely theoretical. For the moment, Third World countries continue to be at the disposal of a few countries of the West, who compete for audiences, reap the benefits and ignore the detrimental effects of their actions.

Bibliography

J.T. Klapper: *The Effects of Mass Communication*
The Free Press, New York - 1960.

G. Mytton: *Mass Communication in Africa*
Edward Arnold, London - 1983.

S. McBride et al: *Many voices, one world*
UNESCO, New York - 1980.

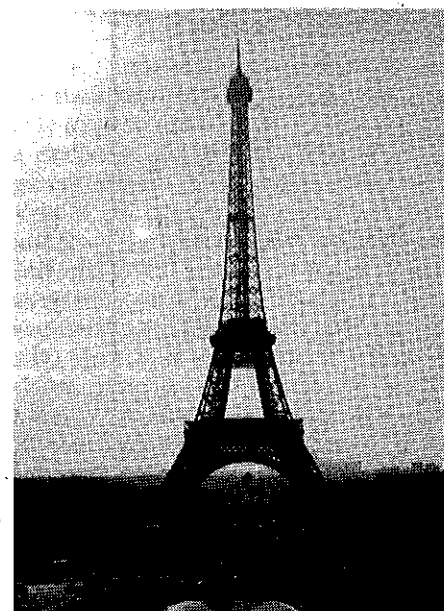
M. Gurevitch (Ed): *Culture, Society and the Media*
Routledge, New York & London - 1982, 1988.

D. Fisher (Ed): *The Right to Communicate*
Boole Press, Dublin - 1983

A. Smith: *The Geopolitics of information - How the Western Culture dominates the World*
Faber & Faber, London - 1980.

D. McQuail: *Social Process - Communication*
Longman Group Ltd., USA - 1975.

D. Lyon: *The Information Society: Issues and Illusions*
Cambridge, Polity - 1988



"O what an eyeful" France 1990

NEW INITIATIVES IN IRISH RURAL DEVELOPMENT

by
Timothy Walsh 3rd Arts

The Minister for Agriculture and Food, Michael O'Kennedy recently announced a major new departure on rural development in Ireland. A total financial package of £104 million is being made available for development work. The Operational Programme for rural development will operate from 1991 to 1993 and the E.C. contribution is £59 million. (See Table 3).

As a forerunner to this new initiative a pilot programme on Integrated Rural Development (IRD) has been in operation for the last two years. The programme covered 12 specific rural areas and co-ordinators were appointed in each rural area to assist local communities in the development work. The aim of the Integrated Rural Development is to help local communities to help themselves. Hence the basis of the programme is very regional in style with emphasis on communities putting their unique qualities to work. In an era of rural population decline and a growing reduction in Multi-National Corporations to locate their branch plants in Ireland, the need for regions to rely on their own resources has become pre-eminent.

This article reviews the initial pilot programme and looks at the potential for Integrated Rural Development to aid rural areas.

"As far as the EC Commission is concerned, rural development is now in the first rank of priorities". The words of the EC Farm Commissioner Ray MacSharry, addressing a COPA Conference on rural development in November 1990. There is concern that the completion of the 1992 Internal market will lead to a greater concentration of population in industrial areas, while population in peripheral rural areas will decrease.

In the nine members states a total of 2,607 million ECU's was committed to the development of less favoured areas between 1989 and 1993. Rural development initiatives include diversification of farming activity and promotion of local products, development of alternative 'on' and 'off' farm alternatives like forestry, agri-tourism and crafts, along with activities which conserve natural resources. Other activities include the protection of the environment, encouragement of small and medium sized enterprises, training the work force in agriculture and other sectors and the improvement in infrastructures. (See Table 2).

In Ireland the Integrated Rural Development pilot programme encompassed many of these elements. The concept is based on the very basic principle that economic development should reflect local ideas and be a local responsibility. Hence there is a greater sense of regionalism in the rural development concept.

The total budget for the pilot programme, of about £1.5 million, paid co-ordinators salaries, incidental expenses and training costs of the co-ordinators.

The 12 pilot areas selected under the IRD programme (see map) each have a population base of 5,000 to 10,000 people and covered different areas of the country from Inny Basin in counties Cavan and West Meath to the inhabited-off-shore Islands.

A co-ordinator appointed to each pilot area worked with a voluntary core group of people in the community, with ideas and projects proposed and then implemented. Over 400 jobs were created in the 12 pilot areas during the two years. Almost 300 of these jobs were part-time with over 220 full-time jobs created under the programme. The future job potential for the programme is estimated at almost 3,000 jobs with 1,500 seasonal part-time jobs, about 600 full-time and over 650 part-time jobs created through the programme (see Table 1).

The working of the pilot scheme can be explained better by taking the South West Kerry scheme as an example. Following

Table 1: Job creation under the IRD pilot programme and future potential

	Actual Jobs	Potential Jobs
Total jobs	411	2,788
of which:		
● Full time	224	599
● Part time	187	687
● Seasonal part time		1,500

Table 2: Variety of projects undertaken in the pilot - IRD programme

	No. of projects	Percentage of projects
Primary agriculture	25	6.3
Alternative farm enterprises	38	9.6
Tourism	111	28.0
Heritage	24	6.0
Social/cultural	33	8.3
Community development	36	9.1
Small scale manufacturing	17	4.3
Processing	9	2.3
Service	8	2.0
Aquaculture/mariculture	29	7.3
Other	43	10.8
Infrastructure	24	6.0
Total	397	100

Table 3: The new operational programme for rural development - budget allocation over three years 1991-93

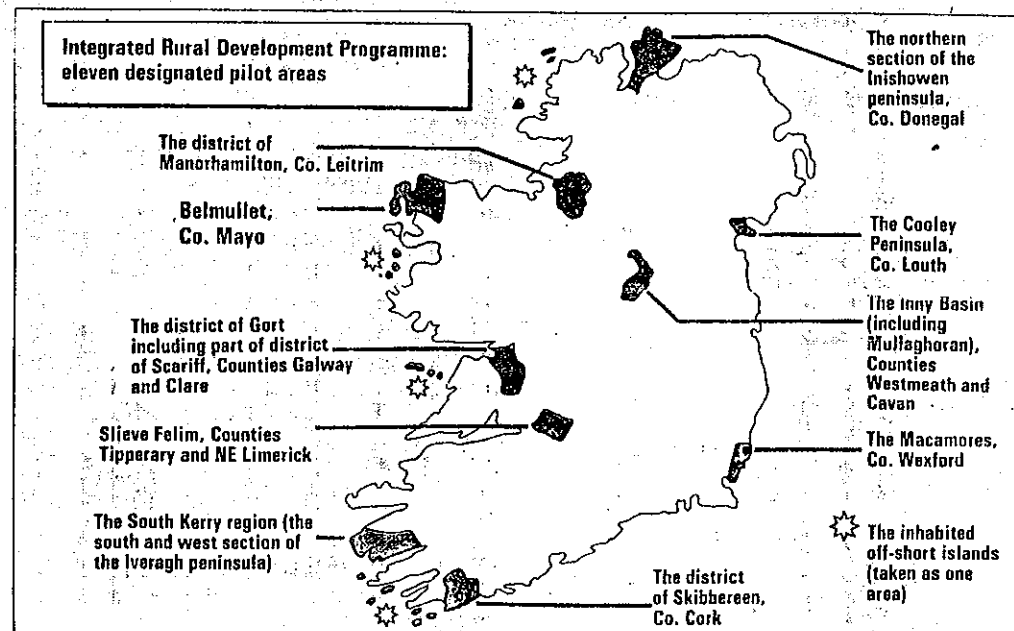
	£m	Total £m
1. Diversification of the rural economy of which:		£30m
Alternative enterprises	7	
Horticulture	4	
Agri-tourism	5	
Forestry	10	
Services	1	
Promotion (Teagasc)	2.5	
2. Small and community enterprises		7.5
3. Rural Infrastructure of which:		23.0
Roads	8.0	
Fishery harbours	15.0	
4. Food industry, R&D and marketing		5.0
5. Training (Teagasc & BIM)		38.5
Total allocation over three years		100.0

Allocation of funds under the new operational programme

THE £104 million to be spent over three years on rural development will be allocated to a number of specific areas:

- Funds will be allocated for diversification of the rural economy with £30 million going to this area.
- A total of £7.5 million will be allocated to small scale rural enterprises and initiatives.
- A budget of £23 million is being made available to fund harbour development and road improvement.
- The Teagasc National Food Centre in Dunsinea, CBF and the NDC will be supported with a budget of £5 million for research and development and marketing.

Over the three year period, Teagasc and BIM will be allocated £38.5 million. (See Table 3)



surveys and interviews in the local area the feed back was very positive. With the cream of the area migrating and leaving behind a depopulated, unbalanced age structure was pre-eminent. The aim of the programme was to provide incentives to keep people in the area. In South West Kerry a number of projects grew from the core group including Kenmare Lace Co-op, the restoration of an old deserted village and an old RIC Barracks.

The success of the pilot scheme in creating jobs on a limited budget of £1.5 million, offers some hope for the future of a programme with a budget of over £30 million a year. Over £6.5 million is to be used by Teagasc for the training and educational role. The objective of the programme is to improve the quality of life in rural areas and maintain the rural population. The achievement of this objective will not be easy.

A RAMBLE THROUGH IRISH TOURISM

by
Sarah Drea B.A.

Of late the tourism industry has been ascribed a central role in employment creation as well as in foreign earnings. The potential of the industry has been recognised by the Government and also by the 1987 SKC/Peat Marwick/DKM Report, which found that it should be possible to double the real value of tourism in six to seven years, provided an intensive plan for growth in the industry was implemented.

Shifting tastes, which currently favour 'green' tourism as opposed to the traditionally popular 'sun' holiday and the increasing affluence and leisure time at the disposal of the Western World are just two of the factors operating to boost the performance of the sector in this country, at the present time.

While it would not be true to say that tourism can act as a panacea for Ireland's economic problems, particularly in the light of the highly volatile nature of the industry and the seasonality of demand it exhibits, nonetheless it must be acknowledged that the industry holds some potential, especially for areas which are currently suffering at the hands of falling farm incomes.

The Programme for National Recovery (1988) set the following targets for the development of the tourism industry:

- Visitor numbers to reach more than 4m by 1993, this from a level of 2.1m in 1988.
- Tourism revenue to increase by £500m from a level of £1.15bn in 1988
- Creation of 25,000 new jobs over the period 1988 - 1993.

Responsibility for achieving these targets rests largely with Bord Failte, the state sponsored public body which operates on a national scale to promote tourism in Ireland. Policy implementation is decentralised to some extent with 7 Regional Tourism Organisations in operation to promote the regional implementation of national policies and plans. To date, the annual increments of the targets have been achieved, although this year's Gulf crisis will no doubt cause a setback in the achievements already realised.

Local involvement in the industry comes from more than one source. Firstly, the RTOs operate local Tourist Information Offices which are primarily responsible for distributing information on the area and for making accommodation reservations. Private entrepreneurs are involved in the provision of tourist services and amenities, such as accommodation, restaurants, shops and so on. The Local Authorities are also part of the local involvement - their role lies in direct involvement in some developments and in providing additional infrastructure to support the tourism industry. In addition tourism policy forms part of the County Development Plans and the Local Authorities have a role in granting or refusing planning permission for

proposed developments. All the local interests come together to form the Local Tourism Councils. The RTO is also represented on these bodies.

In view of the targeting of tourism as a growth industry, the question of what brings people to Ireland in the first place must be raised since the attraction of visitors is fundamental to the expansion of the industry. What is the tourist product Bord Failte is selling? What tourism resources have we to offer?

Ireland's most obvious resource is the scenic landscape. This country is fortunate, in view of its size, to have such a diversity of scenic landscapes. The significance of this attraction is borne out by the fact that visitors give the attractiveness of the countryside as the most important reason for coming to Ireland. This important resource is however place-specific, a fact which has played no small role in determining the regional patterns which have emerged in the receipt of benefits from tourism.

As can be seen from Map 1, the South West and Dublin City account for approximately 21% and 19% of National Tourism Revenue respectively, with the West accounting for 13%, the South East 12%, the Eastern Region 10%, the North West 9%, the Midwest 8% and the Midlands 7% (Gillmor, 1984, P. 5). Much of Dublin City's attractiveness lies in its position as capital city.

The physical landscape has been the subject of human activity for thousands of years. The shaping of our cultural landscape has been in progress since around 6,000BC and Ireland is fortunate in being richly endowed with the artefacts of our neolithic, Celtic and more 'modern' Norman ancestors. At present it appears the cultural landscape doesn't actually play a role in attracting visitors to Ireland but it does shape the itinerary adopted on arrival here. It also represents a resource which holds much potential for development.

A further tourist resource at the disposal of this country is the unhurried lifestyle and personality of the people. The friendly ways of the Irish and their relaxed way of life are seen as providing a break from the crowded and polluted home environments of many of our visitors and this is not an insignificant attraction to tourists.

Other forms of attraction include traditional music and specialised activity holidays such as golfing, fishing and horse-riding. These latter activities are currently being targeted by Bord Failte who are aiming to establish niche markets in these areas.

Finally, a further factor fuelling tourism in this country is our history of emigration. Cultural links with the UK and US in particular have led to a significant element of ethnic tourism. It is estimated that 45% of total visitors come here to visit friends/relatives. In relation to the UK and US, this figure is 60% and 32% respectively (Pollard, 1989, P. 309).

This form of tourism is not particularly lucrative however since many ethnic visitors stay with the people they have come to visit, thereby eliminating accommodation expenditure, which happens to constitute the largest single item of visitor expenditure.

These tourism resources combine to attract a diverse range of visitors - diversity prevails in terms of nationality, age groups, social class, demands and, of course, spending power. The tourist attractions upon which the tourism industry is based are vulnerable to abuse and mis-use, highlighting the need for well-planned development aimed at protecting these resources, whilst at the same time exploiting them to the full.

Under many measures, Ireland is subject to an East/West divide - Tourism is no exception to this. From map 2, which shows the estimated proportion of regional income derived from tourism, it can be seen that the industry holds most importance for the economies of the West. The successful development of tourism as an alternative form of income, especially in the light of current developments in agriculture, is therefore essential for the Western half of the country in particular. It is however fair to say that this half of the country is relatively well endowed with tourism resources.

The structures in place to facilitate development, as outlined above, are somewhat diverse, operating at different spatial scales. There is an inherent potential for conflicts of interests - national goals may not be consistent with local ones and vice versa. It remains to be seen how the development of the tourism industry progresses in the future.

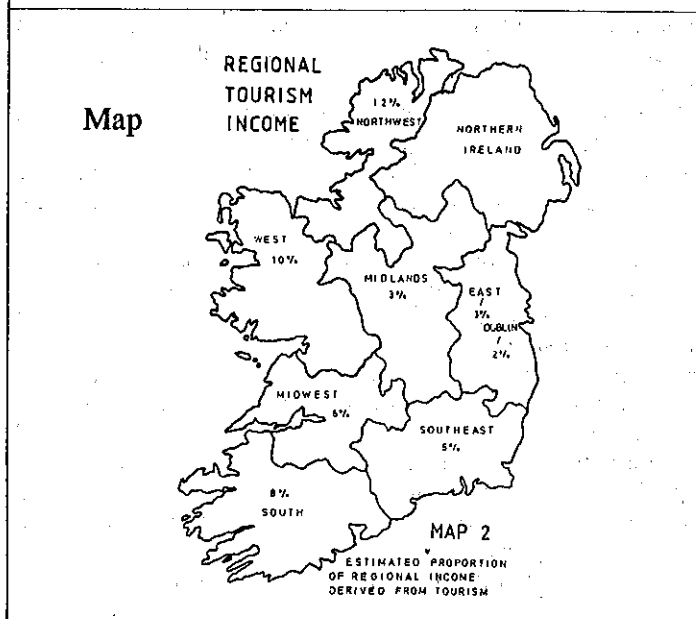
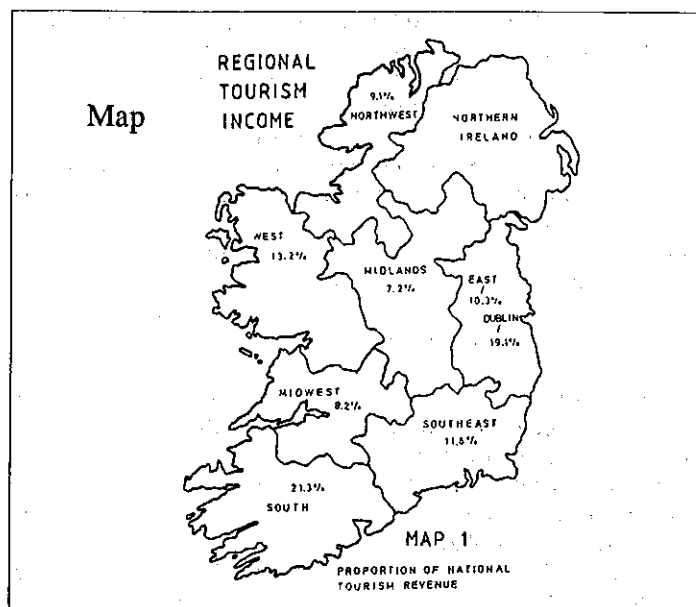
References

Alen, FHA et al (1969)
"Tourism in Ireland East: Guidelines for Development"
 (Eastern Regional Tourism Organisation Ltd.)

Gillmor, DA (1984)
"Tourism" in Bulletin of the Dept. of Foreign Affairs, May 1984, No. 1008, P. 3-8.

Gillmor, DA (1985)
"Economic Activities in the Rep. of Ireland"
 (Gill & MacMillan, Dublin)

Pollard, J (1989)
"Patterns in Irish Tourism" in Cartee & Parker (eds)
"Ireland: A Contemporary Geographical Perspective"
 Ch. 12 P. 301-330
 (Routledge, London, NY)



THE WEATHER CHARTS

People pass their time in the most unusual and extraordinary ways. An American (who else) amateur meteorologist by the name of Randy Schmid (?) has compiled an indispensable work of reference for the 'with it' weatherperson - a meteorological guide to pop music. Yes it's true, it lists all the greatest hits as well as misses - in which some mention is made of weather matters.

What he has to say makes an interesting read. A Meteorological metaphor is obviously as rich a source of inspiration to the song-writers of today as it was over the centuries to poets and composers. Let's have a quick look at some examples.

Some of us, i.e. anyone over 40 years or someone who listens to Classic Hits 98FM or Radio Tara (for those who live in Paddy Duffy's back garden) will remember the golden oldies. Gene Kelly, for instance, has become almost a cliché, as he swings anticyclonically around the lamp-post while "Singing in the Rain". Burt Bacharach's "Raindrops Keep Falling on My Head" keep us in a somewhat (!) happy mood. Neil Diamond was in a somewhat less cheerful frame of mind when he sang his "Rainy Day Song".

Jimmy Hendrix was perhaps the most meteorologically minded rhythm and blues man, giving us "Still Raining" and "Rainy Day Dream Away". E.L.O. (Electric Light Orchestra) during the 1970's gave us a less mobile version of Gene Kelly with "Standing in the Rain". And in the 1980's, UB40 tried their hand at Gearld (The Wink) Flemming's forecasting job when they recorded "I Think it's Going to Rain Today". However, Duran Duran advised us all to "Hold Back the Rain" while, after a secret visit to Maynooth Tina Turner in her usual fashion screamed "I Can't Stand The Rain". (* right on Tina !!!**!). But perhaps THE weather song of the decades has to be "It's Raining Men" by who else but the Weather Girls.

Enough of Rain! Storms too are a source of inspiration. Our very own Irish song writer Chris De Burgh has been found "Waiting for the Hurricane" and Rod Stewart's "Mandolin Wind" may well be a forerunner of Pink Floyd's "Delicate Sound of Thunder". Kate Bush on her part, somehow anticipated "Cloud-bursting" and "The Morning Fog", while Bob Dylan did his best to tell us that the answer was somewhere "Blowing in the Wind".

Based on this un-random sample, one might reasonably conclude that few modern lyricists are of what one might call a sunny disposition. However, this is not so! - Gale Garnett (Who?) for example, won a Grammy Award for "We'll Sing in the Sunshine", and Stevie Wonder does a blinder (!**) in order to redress the balance with songs such as "You are the Sunshine of My Life", "Blame it on the Sun", and "Never in Your Sun".

What about the Maynooth songwriters and singers I hear you ask! (Well somebody somewhere is asking). Folks you are in luck because we have a special copy of the Geography Departments one and only hit record - "Where in the World". This is exclusively available to all 'Milieu' readers at a reduced price of £19.92, US \$41.00, CDN \$54.00 and 130 Iraqi Scuds. All the department have contributed, some with remixes of previous hits and some with new releases. Here we go.

"Where in the World"

- | | |
|--------------|--|
| Side A | |
| W.J. Smyth | "Moonlight in Montreal"
(Tim Walsh remix) |
| Paddy Duffy | "The Green fields of France"
(See 'Milieu' 1990 for lyrics) |
| John Sweeney | "Climb Every Mountain"
(Bio-Mix) |
| Jim Walsh | "Somewhere in Europe"
(1992 Remix) |

Side B

- | | |
|-----------------------|--|
| Dennis Pringle | "Two Tribes"
(Rap Version) |
| Proinnsias Breathnach | "Red Red Wine"
(Any German Vintage) |
| Jim Keenan | "Mapping Out My Heart"
(New Release) |
| Shelagh Waddington | "I'm Practically Yours"
(New Release) |

Ann Kehoe

A Geog. Soc. Production, 1991.

FISH FARMING: THE ENVIRONMENTAL CONSEQUENCES

by
Anne Marie McCleary, U.C.D.

"The loading of sediment beneath a fish farm is equivalent to the loading at a sewage dumping ground, but with a fish farm it is likely to affect less than 1 square kilometer compared with the 23 square kilometer of seabed influence by sewage dumping. In other words there is severe pollution but the effects are restricted to the immediate vicinity of the farm"¹. This was one of the conclusion which Dr. R.H. Gowen arrived at after his work into the effects of fish farming. Pollution in this area has five main sources; 1. nutrient enrichment; 2. suspended solids; 3. deoxytenatives; 4. changes in the plaktonic communities and 5. the use of chemicals.

Of these, nutrient enrichment or eutrophication is the most important cause of pollution. It is caused by waste feed and excrete falling to the seabed where it forms an organic layer. The feed contains phosphorus and nitrogen which has an effect on the local ecosystem. In freshwater areas the levels of phosphorus is low thus keeping the amount of algal and higher plant growth down to a minimum level. The addition of large quantities of phosphorus to a freshwater environment will therefore change the local aquatic balance. In a salt water region nitrogen is the chemical in short supply and its addition to the ecosystem will also change the aquatic balance of the region. The introduction of nitrogen into a salt water area will result in the area becoming more productive and the growth of algae in the area will increase. If conditions are right for such algal growth, and the effluent is particularly nutrient rich, then a sudden algal bloom may occur. In some areas this algal may be toxic as was the case in Lake Konnemi in Finland. A similar scenario may also arise by the addition of phosphorus to fresh water.

The second source of pollution is caused by suspended solids. The waste feed and excreta produces this large body of suspended solids. These solids form an organic layer further out from the farm. As the solids accumulate they change the composition of the seabed to that of a soft "mushy" layer. This can cause the death of many species of animals living in the area.

The third problem associated with fish farming is that of deoxygenation. This occurs when the sediment layer eventually settles and begins to decompose. This process of decomposition uses up large quantities of oxygen which is found in the water supply. The direct consequences of deoxygenation are easy to identify. The shortage of oxygen in the water will

lead to increased levels of stress among the fish stocks which could result in the death of some local fish stocks. Furthermore deoxygenation not only leads to a reduction in the level of oxygen in the water but can also cause a "... further release of phosphorus toxic hydrogen sulphide and methane"². Although these problems pose serious questions for the industry to answer they are not receiving the amount of attention which they should. At the moment the major controversy surrounding the industry relates to the use of chemicals by the farms. Chemicals are used to treat diseases, control parasites and to control the growth of weeds and fungi on the tanks and cages. The range of chemicals used includes algicides, fungicides, antibiotics, sterilants and pesticides. The effect of some of these chemicals in the water system is unknown and this is what concerns conservationists.

In the early 1980's fish farmers' used the anti fouling paint TBT (Tributyltin) to stop the growth of barnacles, mussels and seaweed on the cages. These paints contain biocides which are toxic to marine life. The advantage of TBT at this time was that it was broken down by sunlight into harmless compounds. However it is now known that the compound becomes toxic in water when drops of the paint fall to the seabed. Here there is inadequate light to allow the process whereby the paint breaks down without causing harm. The toxicity levels of the unbroken compound have only recently become evident and "... it has been estimated that only one teaspoon of TBT in 20,000,000 gallons of water is enough to stop the growth of phytoplankton"³. The compound has also been linked to cancer of the pituitary and thyroid glands. It may also cause permanent damage to eyes and it may affect the oxygen carrying ability of the blood. The use of this compound has been banned by The Irish Aquaculture Association since 1986 but its use has not been outlawed.

Conservationists are also concerned about the use of NUVAN. Nuvan is used to kill sealice which feed on the salmon flesh. It contains Dichlorous or DDUP which is harmful to humans if inhaled. Nuvan was the trade name for an organic phosphorus pesticide of a type that was used as a nerve gas in the First World War. The chemical is listed among the twenty six most injurious substances in Britain. Its use however is commonplace on Irish fish farms. Whilst its effect on the environment is unknown one author has commented that "The use of such a compound without full knowledge of its effects on the environment is now unacceptable and can be considered irresponsible"⁴. Although this chemical is banned in Britain, except for limited use on Scottish fish farms, there is no such restrictions on its use in Ireland.

There is some hope in this area however. A small scavenger fish called wrasse has been found to keep sea lice under control. This method is currently undergoing trials with Fanad fisheries. The company have stated however that they will still have to use Nuvan to ensure that the sealice is kept under control.

There are many other chemicals which fish farms are using and the effects of these chemicals are unknown. In recent months several swans have died in the Mulrey Bay in county Donegal. Upon investigation into the deaths and illness among the swans it was discovered that the illness was caused by increased levels of copper in the water. As the major source of pollution in the area comes from the fish farms a link between the deaths of the swans and the fish farm pollutants seems possible.

The problems of pollution are heightened by the fact that many of the farms are located in sheltered bays along the west coast of the country. This is because the cages are not strong enough to withstand the open sea. The location of the farms therefore will allow the organic layer to accumulate as the flushing capacity of these areas is quite low. This intensifies the pollution of the area resulting in the increased levels of stress among the fish. This leaves the fish more susceptible to disease.

From this brief overview it should be clear that the industry causes severe localised pollution. The discharges of fish farm effluent affects the water quality and the flora and fauna of the areas in which fish farms are located.

REFERENCES

1. Anon, (1988) "Cage Pollution Equals Sewage". Fish Farmer 10:24
2. "Countryside Commission for Scotland and others. An environmental Assessment of fish farms". (1987) Perth, CSS.
3. Anon., (1987). "Lets keep it clean", Special supplement Aquaculture Ireland 10.
4. Finlan, Irish Times October 24, 1988.

"THE NEW WORLD SCREWORM:- A THREAT TO AFRICAN LIVESTOCK AND WILDLIFE"

by
Helen Cunningham 1st Arts

The New World Screwworm (NWS), *Cochliomyia hominivorax* is a native of tropical and sub-tropical Americas, where its distribution is determined largely by its inability to survive persistently cold weather. It is an animal pest which breeds in the wounds of all warm-blooded animals, including humans, entering through skin wounds and body orifices. The adults are powerful fliers, and in favourable conditions are known to have spread rapidly far beyond their overwintering limits. This occurred annually in North America before eradication programmes pushed its northern limits to the southern borders of Mexico. In 1958, prior to its eradication in the United States, livestock production losses exceeded US \$100 million. In those countries where the fly is still endemic, costly and continuous treatments are needed to protect livestock.

The physical effects of infestation are numerous. The larvae cause trauma by tearing the body tissues with their hook-shaped mouth parts, and by boring within the wound. There is a high risk of secondary infections, and larval excretions are toxic. Various insecticides will prevent wound infestation and kill larvae already in wounds. Left untreated, a severely infested animal may survive for only a few days. In screwworm infested regions a large percentage of newborn animals can die if the unhealed umbilicus is not treated.

In 1989 it was verified that infestations of the New World Screwworm had been found in animals in Libya, where it probably arrived in imported animals. The infestation area was within an area of about 18,000 square kilometers along the coast on both sides of Tripoli, and at the moment is relatively contained by desert and sea. (See Figures 1 + 2). However, because of its ability to breed in the wounds of warm-blooded animals, it poses an immediate threat to wildlife as well as to man and livestock throughout North Africa. If not eradicated, the screwworm will be especially devastating to wildlife which cannot be inspected and treated. Experts have warned that because of the fly's ability to travel great distances - or by larval form to be transported by infested animals - the screwworm could easily reach Sub-Saharan Africa, the Middle East and Southern Europe. Once the screwworm has established in Sub-Saharan Africa it will become a permanent pest.

The programme for the eradication of the New World Screwworm from North Africa was formulated in early 1990 to contain the outbreak that threatens to provoke drastic consequences if allowed to spread. The emergency programme to contain and eradicate the infestation and to intensify surveillance and prevention has been prepared by FAO (UN Food and Agriculture Organisation) in collaboration with other UN agencies. It foresees the use of the Sterile Insect Technique along with inspection, wound treatment, stringent control of animal movements and quarantine.

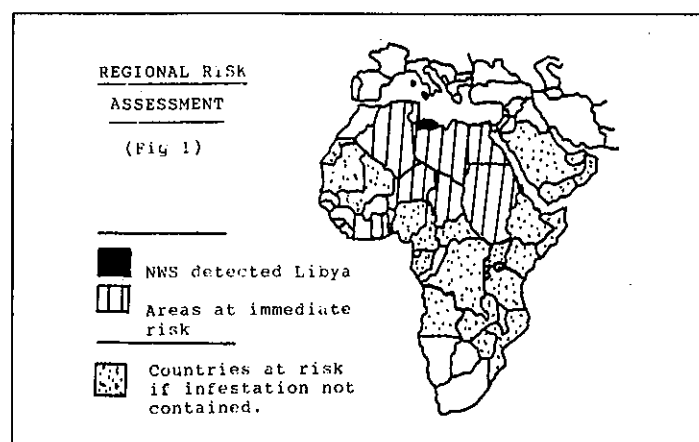


Figure 1

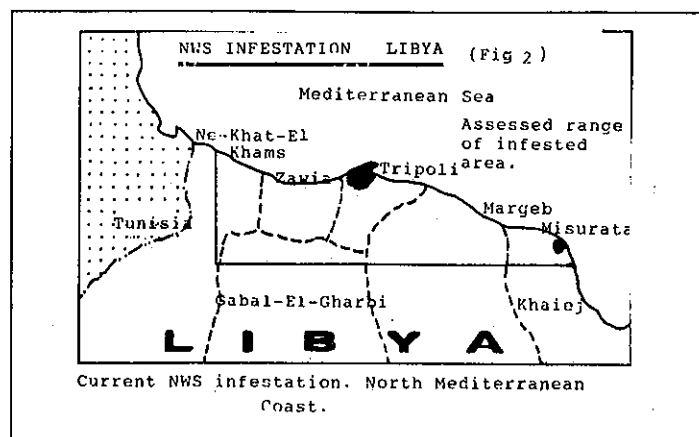


Figure 2

The principal weapon for the eradication of the screwworm is the Sterile Insect Technique. The SIT campaign in North America has eliminated the New World Screwworm from the United States, most of Mexico and several Caribbean islands. The technique entails the release of millions of sterile flies into the wild. These flies mate with the wild insects which then produce no offspring. The insect population is successively reduced and then collapses. Flies are imported from the world's only screwworm production facility in Tuxtla Gutierrez, Mexico. Initial tests show that it is feasible to transport flies from Mexico.

Within Libya information campaigns will be intensified for the duration of the Programme. Programme workers will carry the message to farmers while national news media will issue warnings. National staff and veterinary personnel will be trained in surveillance and identification techniques. Sampling kits will be sent out to livestock owners as well as insecticide for treating wounds.

The total cost of the two-year Programme in Libya and the four countries at greatest risk (Algeria, Egypt, Sudan and Tunisia) is projected at US \$117.7 million. This amount covers internationally recruited personnel, administrative support, training, equipment, and the purchase of sterile flies from Mexico and their transport to Libya. The cost is however minute compared to what would be required to control the pest once it has spread outside Libya. With 70 million head of livestock in the five North African countries, more than US \$250 million would be needed each year to control the screwworm. The larger the area of infestation, the more difficult it is to monitor and control. The economic losses are immeasurable, particularly to the livestock sector and the tourist industry. An Australian study has predicted the total collapse of national cattle farming if the Old World Screwworm (a close relative of the New World Screwworm), were ever to invade the country.

In Mexico, the most conservative benefit-cost ratio estimate showed a two to one return for every dollar invested in screwworm eradication. Benefits to livestock producers and consumers from the Americas Eradication Programme are estimated to exceed US \$3 billion. An Oklahoma State Department of Agriculture study estimate the benefit/cost ratio for eradication at 113:1.

The eradication of screwworm from Libya is still in its preparatory phase, where 2.8 million sterile flies are being released each week. In March this will be increased to 50 million flies per week, and will be further increased in July to 100 million. Traps and sentinel groups of animals are used to monitor the spread of the infestation and the effectiveness of the eradication programme, and have so far shown that the programme is working well.

Needless to say the implications of a diffusion southwards of the New World Screwworm are potentially devastating. Many African countries would be unable to afford the costly eradication programme. This could possibly lead to the unchecked spread of the pest. The resulting devastation to human life and African agriculture would be extreme.

The threat posed by the New World Screwworm to African society is grave. The successful eradication of the screwworm from Libya is vital given the potential havoc that could ensue should the screwworm spread.

REFERENCES

Fact sheets issued by FAO at the end of last year (press release).

LIMERICK FIELD TRIP November 9th to 11th 1990

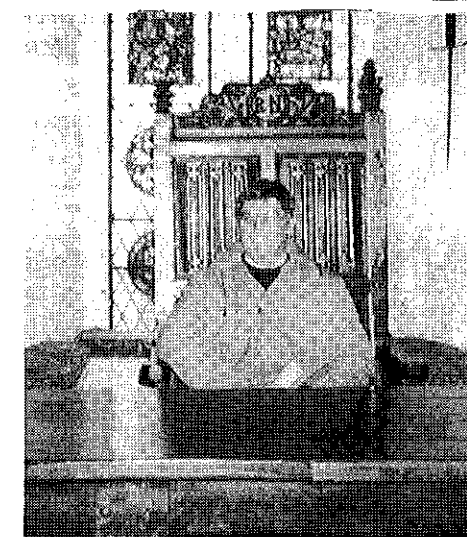
by
Colm Ryan

FRIDAY 9TH

One cold and dank Friday afternoon 52 students and 2 brave lecturers (the Breathnach Brothers) bounded onto a bus in anticipation of what far away places would have in store for us. West we went o'er by-road and breen, through bogs and borough to Birr, where we replenished the hungry and relieved the weak. Then it was full steam ahead to Limerick and Mary Immaculate College where a hearty fry awaited us. After a lecture on Limerick's Urban Development (and the usual 20 questions) we headed out the Ennis road where our Bed and Breakfasts prepared for our onslaught. We deposited our bags and after a refreshing cuppa we embarked on a night of Quantitative Research into the drinking habits of students and locals alike. Many a pint was consumed and many a song was sung by the time some hiked it back into the city in search of indigenous cultural activity, music and dance. Our search ended in Tropics Disco where thanks to Shay those of us who had braved the cold wind and the rain had not done so in vain. Inside some of us danced the night away, some drank the night away and some spent it chasing the gorgeous "London-Limerick" connection (L.R.). As the music died and the lights came on we wandered back to our B&B's for a few hours of sleep or strip poker (K.F.).

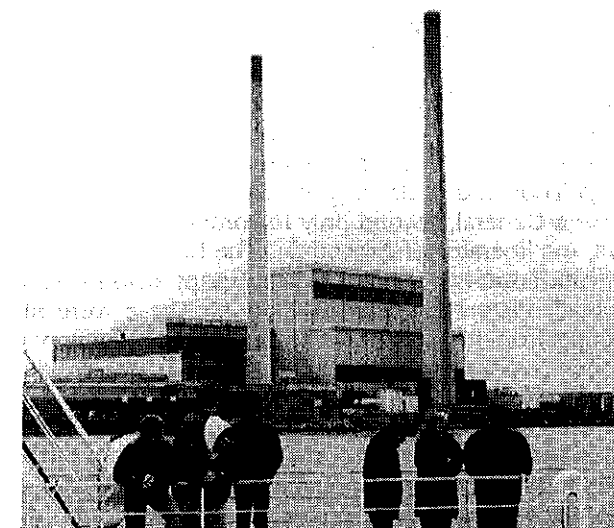
SATURDAY 10TH

Breakfast greeted us (for those who could be greeted) with another fry after which we (now 51 - one fry was too much for one individual) climbed back onto the bus and headed west, again, along the southern shore of the Shannon Estuary, stopping in Adare (nice House) where Lucozade was the only drink for many in the group, Rathkeale and the Aluminum plant in Aghinish. We crossed the Estuary at Tarbart accompanied by Shay's Harmonica playing and had lunch in a wee pub where



"King of Kerrysfort"

a former Maynooth Geography Graduate has set up shop (the life of a geographer ???). After Chips, Chicken, Burgers and loads of coffee, we were given a guided tour of Moneypoint E.S.B. power station. Here our driver, confused by all the "buttons and knobs in these new coaches", tried to give us swimming lessons by doing a U-turn on the pier. Just in time he noticed that it was not possible so we took the long way out. Safely out of the power station we travelled east to Shannon Airport and Town where we tried to study the house types in the DARK! Then it was back to Mary Immaculate for - Pork - well we think it was Pork. After Mass and dinner we returned to our B&B's, where we were joined by two fellow Maynoothians (Tim and Sean) who were jealous of the 'good times' that we were having. We re-grouped again and those of us capable, made the long walk, in search of lost loves (P.C.) and pints (G.G.), back into Tropics, where Shay's threat of playing his Harmonica to the Bouncer ensured we all got in. For those who declined to partake in this nocturnal hike it was an enjoyable if early evening, as the Hotels' patrons didn't enjoy the choral recital.

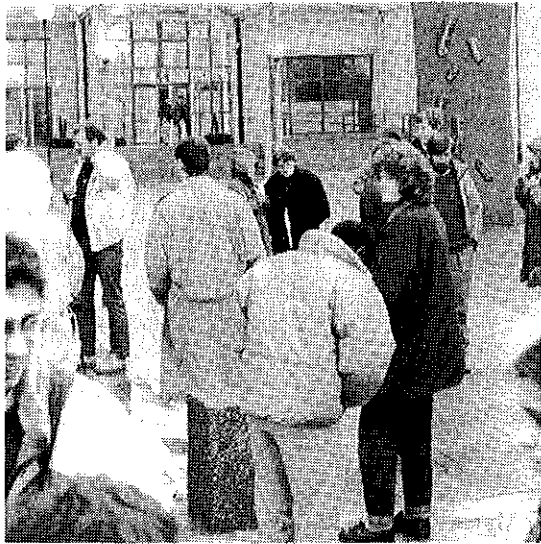


Twin Peaks

SUNDAY 11th

Breakfast (yes, yet another fry) wasn't well received by many and as we were dragged onto the bus the partying and poker along with two days of geographical studies of fields and urban patterns were beginning to take their toll. In the refurbished Civic Buildings, those who were awake (P.B.), listened to what was being done under the urban renewal schemes in Limerick

City. The walk-about in the rain ensured that everybody was eager to get back on the bus and head for the Plassey Technological Park and University of Limerick.



"Still haven't found what I'm looking for"

On discovering The Stables (S.U. Bar) we decided to take full advantage of the extensive cheap menu and fed ourselves before heading out towards Shannon again and visiting the Bunratty Folk Park and Castle. Here J.W. realised his rightful position at the top of the table. For those who stayed it was education; for those who headed straight into Dirty Nelly's it was warm and dry. With the final drink in Nelly's we hit the Dublin road, stopping en route in Roscrea (the obligatory stop). 52 students and 2 lecturers returned to Maynooth Safely, Happy (and why not), Fulfilled, Enlightened and Thankful - to be off the bus in one piece.

To those going to Wicklow good luck and to those going to Germany just remember the France of '90.

IRISH EMIGRATION TO ARGENTINA

By
P. McKenna (Post Grad.)

Emigration from Ireland to Argentina began early in the nineteenth century. The first Irish began to arrive there about 1800, as merchants like John Dillon from Dublin and soldiers such as Thomand O'Brien from Wicklow. O'Brien was to become a General, second only in command to General San Martin, the liberator of Argentina. The first Irish to arrive in significant numbers came as British troops who invaded the then River Plate Provinces in 1806/7. These were mainly conscripts from the area between the two large military garrisons then stationed in Athlone and Mullingar. Many had little sympathy with the cause for which they were expected to fight. Large numbers deserted on landing near Buenos Aires and some joined with the defenders of the city who were successful in repelling the invasion. These men therefore could not return home. They found work deepening the river for shipping and using their knowledge of stone to construct quaysides for the emerging port. A few including Thomas Mooney from Streamstown moved a few miles inland and began farming the rich grassland of the Pampas. It was these few farmers who were central in attracting others out to settle in the Argentine, particularly from the Westmeath area from where two thirds of all emigrants were to come from.

In 1826 Thomand O'Brien returned to Ireland to recruit emigrants to Argentina. He was looking both for farmers and labourers and as well as young men capable of officering the fledgling Argentine Army. In that year too Thomas Mooney

returned to Westmeath along with another merchant Thomas Armstrong. There are no records showing that the three ever met or even knew each other. It is however hard to believe that these men who lived in Buenos Aires for many years and who moved in the same circles, did not know each other, especially when you consider that the total Irish population there at that time was no more than about 200. At any rate, they all visited Westmeath at about the same time, all trying to recruit Irish people to go back with them to The Argentine. When you consider that at possibly the same time, you had a young Irishman who was a very senior general in the Argentine Army, it is not surprising that some were tempted to return to Argentina with them to try and seek their fortunes.

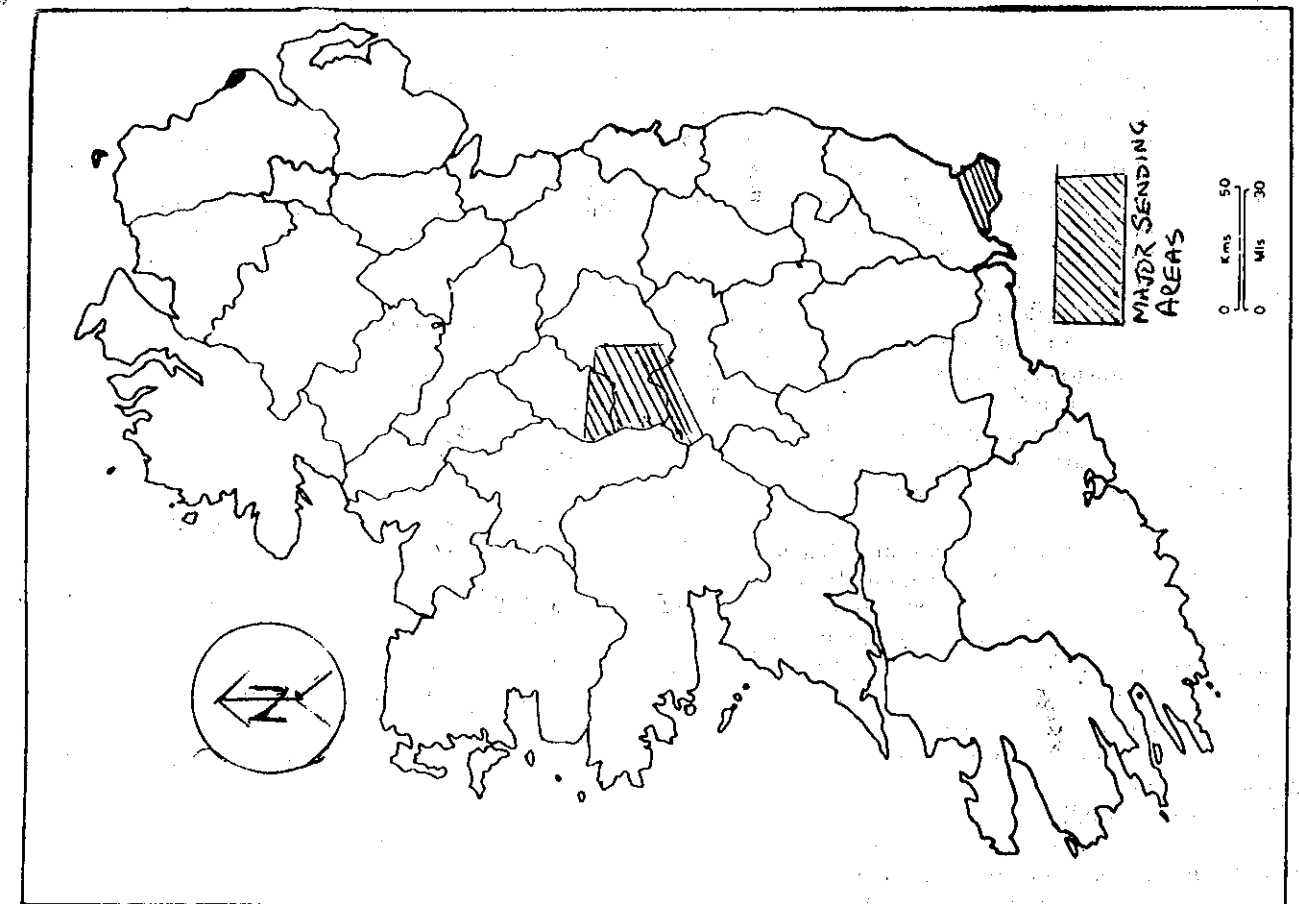
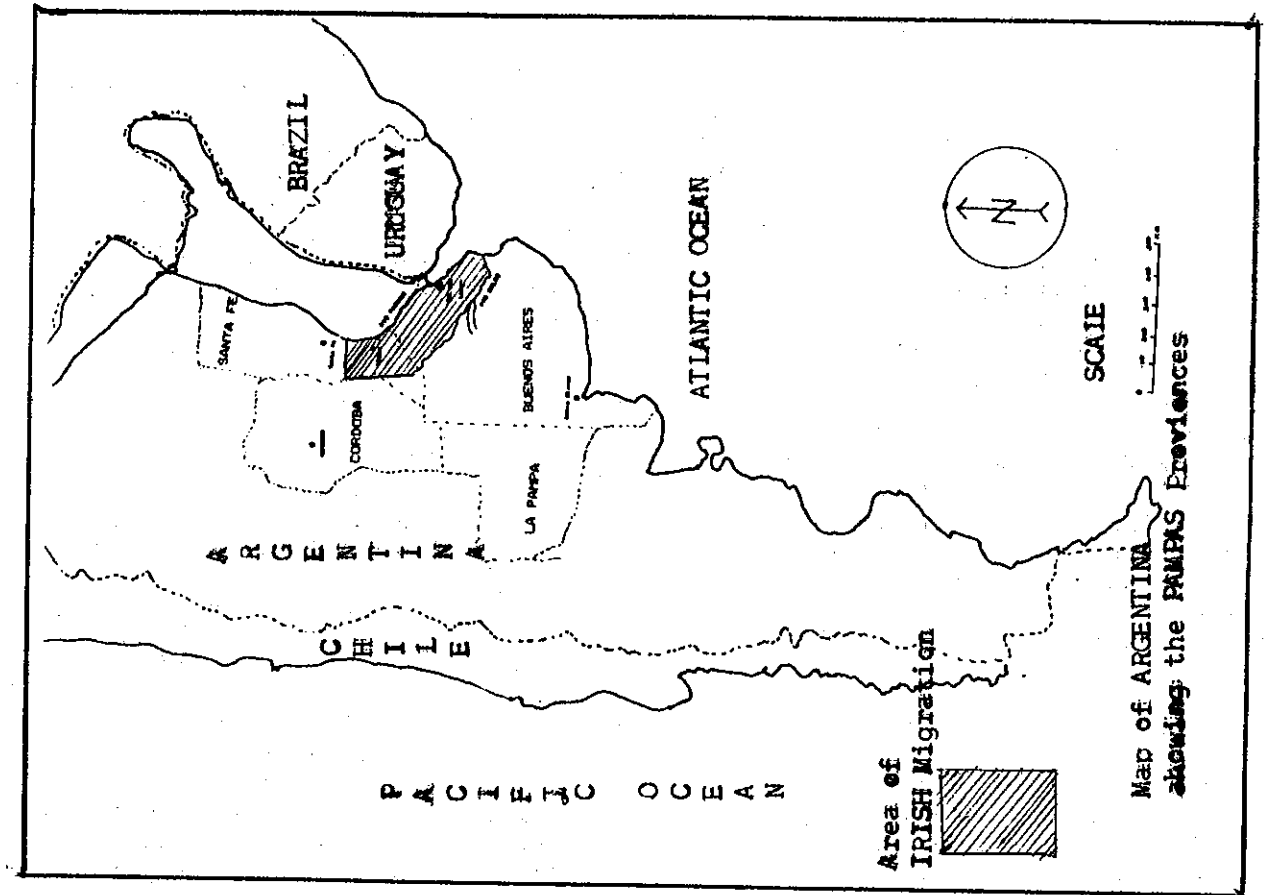
There is no record of exactly how many went out with Armstrong, O'Brien and Mooney. What is also established is that growing numbers of Irish began to emigrate to the Buenos Aires area from Westmeath, southern Longford, northern Offaly and the western part of Co. Meath from that time. These emigrants were, almost without exception, the younger non-inheriting sons and later daughters of the larger tenant farmers. Usually they were emigrating from farms which were in excess of 20 acres with some emigrating from farms far in excess of that size.

Another group which came to Argentina from Ireland at this time were from the Forth and Bargy area of Wexford. They were encouraged to come out by a Patrick Browne who had been sent out to Buenos Aires to replace his brother as a manager in the Liverpool Bank of "Dickson & Montgomery". Browne too saw that a fortune was to be made settling the land, or more accurately in processing the hides, beef and wool produced on the land. He too sent home to Wexford for others to come out and so began the migration from Wexford. These migrants made up about fifteen percent of the total migration from Ireland which is estimated at between twenty and thirty thousand.

A third tiny group, apparently unconnected to any other group, emigrated from Clare after the famine. This appears to have been just one family, the Carmodys. What is interesting about them is that they settled about two hundred miles west of the main Irish settlement areas in a partido (county) called 25th of May. They were also Irish speaking unlike the rest of the emigrants who spoke English. They remained bilingual Irish/Spanish speakers until around 1900 and there is some evidence that Clare Irish was at least known, if not spoken, up to the nineteen thirties by which time this group had fully assimilated into the rest of the community.

When the earlier wave of emigrants, who began arriving in significant numbers in the mid 1820's landed, they generally spent about one year in Buenos Aires learning the language and saving some money. They found work in the meat processing plants (saladeros) owned by the merchants such as Armstrong, Mooney, Browne and many others. They could also find work as labourers in the building trade, as Buenos Aires too was experiencing rapid expansion.

After this period they moved out into the countryside to herd sheep on a shares basis for these merchants. The system operated was such that the owner of a flock of about two thousand sheep would go into partnership with the emigrant. Under the contract the owner would agree to supply the flock for a specified number of years. The emigrant would thus be responsible for looking after the sheep and meeting all the expenses. When a number of years had expired the shepherd and the owner would divide the flock, the owner getting back his 2,000 sheep plus the agreed percentage of the increase (usually 50%), as well as his share of the price for the wool clip. By this time the flock would have grown to between 10,000 and 12,000 in number so the shepherd would now own between five and six thousand sheep. He would then divide his flock into (say) three flocks of two thousand each and hire two shepherds on a similar contract as the one he had worked.



In this way one migrant brought out first his brothers and later his cousins and neighbours and so a highly regional specific migration began.

While the emigrants may have landed in Argentina with very little or no cash, they still brought with them skills in animal and crop husbandry which were to prove far ahead of anything available in Argentina at that time. Armed with these advantages it is not surprising that many of them made huge fortunes, while most of the remainder became substantially wealthier than they would have had if they had stayed at home.

After the famine the type of emigrant who emigrated to the Argentine changed. They now consisted largely of cottiers and labourers. They were however still coming from roughly the same areas in Ireland. If anything the major sending area around Westmeath contracted concentrating heavily on the towns of Ballymore in Westmeath and Ballymahon in Longford. This new type of emigrant was more content to work for wages on a permanent basis usually on the now huge estancias of the pre-famine emigrants. Emigration to Argentina had for all practical purposes ended around 1880 when the best land of the Pampas was settled. This area is in the northern part of the province of Buenos Aires between the Parana and the Saladillo Rivers as well as the part of Santa Fe south of Rosario. (See Map).

The Irish in Argentina remained a very close knit (or closed) community. It was almost unknown for them to marry outside their own group. Even the Westmeath emigrants tended not to marry those who came from Wexford for the first generation. Throughout the nineteenth century and up until about 1940 it was almost forbidden to marry anyone other than another "Irish" person despite the fact that most had not been to Ireland for three generations.

In about 1843 a Dominican Priest from Loughrea in Galway, called Fr. Anthony Fahy, arrived in Argentina as chaplain to the Irish emigrants. Fr. Fahy ensured that the emigrants were met on the quay as soon as the ship from Ireland arrived. From there they were sent to an approved accommodation (i.e. an Irish boarding house in the city). If the emigrant was male, Fr. Fahy found him employment immediately, either in a saledro on an estancia. If the emigrant was female she stayed in the boarding house for about three weeks or a month, by which time she was expected to have chosen a husband from among the earlier emigrants who were passing through town at that time, where they had come on business (about once a year) to sell some of their sheep and wool. The young woman had to make up her mind quickly as it took perhaps three weeks or more for the man to walk his flock to market and two or three days more to dispose of them and the carts of wool. He then would spend at least a week returning to his piece of camp (land). All of this time, possibly five or six weeks, the rest of his flock was either left to neighbours to look after in addition to their own flock, or to wander untended through the countryside in search of new owners. So he had at most three or four days to spend in town in search of a wife.

Such was the organisation of the community that each boarding house would hold "dances" at pre-arranged times known to the men who would time their visit to town to coincide with one of these. All the newly arrived women would be shepherd off to which ever boarding house was holding the event. There she could look over the "talent" and decide which one to marry. As Irishmen in Argentina outnumbered the Irishwomen by about two to one she could be more choosy than he. This is one reason why emigrants tended to marry others from their own areas. Their families at least, if not the individuals concerned, would be known to each other.

Many of the emigrants who did not make their own fortunes in Argentina continued to work on the estancias owned by the families of the more successful emigrants. Because of the sheer size of many of these estancias the numbers required to operate

them efficiently was considerable. As a result the estancia owners built villages complete with shops, a church and a school on their properties. These villages were laid out strictly on the grid iron pattern and were often called after the estancia owner, Duggan, Gahan, Kenny etc.

The wealthy Irish also funded education. At the primary level it was the sole responsibility of the estanciero (the estancia owner). The architecture of these schools reflected this total commitment to Irishness. The schools were "The Fahy Institute", the "Clonmacnoise" for boys and "St. Brigid's" for girls. The buildings always had a huge statue of St. Patrick over the door, sometimes with the right hand raised in blessing holding a shamrock. The shamrock was always worked into every possible part of the decoration. From the ironwork around the buildings to the tiles on the floors, the decoration on the altar rails, the beading around the altar to the carving on the pulpit and on the end of the pews, anywhere in fact the ingenuity of the architect could work them in. The stained glass windows often consisted of three panes of glass in a circle, one green, one white and one gold, with a centre circle of blue (the colour of St. Patrick).

This system began to crumble when Peron came to power about the time of the Second World War. The schools were forced to abandon ethnicity as a criterion for admission. By the nineteen sixties the Irish no longer wished, or could afford, to fund them on their own and as a result, to-day, these schools are either closed or have very few Irish students on their roles. The Irish still maintain a role in the management of The Fahy Institute and St. Brigid's. They still, through the Irish Catholic Association, award a number of scholarships to these schools each year, as many of the Irish community can no longer afford to send their children there to be educated.

In conclusion one would have to say that those who emigrated from Ireland to Argentina in the last century and their descendants, on balance, prospered more than if they had remained in Ireland. Against that however, it must be said that many, while doing better by emigrating, still never reached their full potential. As a consequence, they and their adopted land, lost out heavily.

BIBLIOGRAPHY

- Murray T. **The Story of the Irish in Argentina**
P.J. Kennedy, New York 1919
- Ussher J. **Father Fahy**
Buenos Aires
- and Original Sources.

TRIVIA TIME

5. What did Christopher Saxton and Mathew Paris make early versions of?
6. Where would a Vietnamese deposit his dong?
7. Which is the only one of the Great Lakes entirely within the U.S.?
8. What ocean's area is 64,186,000 square miles?
9. What is the second largest country in the world?

ONLY DAYS IN ELMHURST

by

Timothy Walsh 3rd Arts

(for the fourth and fifth generation Irish exiles)

Elmhurst - a suburb in Chicago

Only days in Elmhurst - Water melon in abundance,
Leisure filled, auto ruled quiet Saturday afternoon,
Time for remembering, laughing contentment
seen at a glance,
No hardships now, slavish Toil or Gloom,
Instead relaxation to the sound of distant trains.

Only days in Elmhurst - Far from a cottage,
Derelict now, forlorn, forgotten under a Cooley slope,
Abound by a lazy Bed - No céad Míle Fáilte
140 years transplantation here to suburban Elmhurst,
Now no subsistence cultivation rather market orientation.

Only days in Elmhurst - Gardner or Western Springs,
All pretty American Suburbs - resting locations,
For the dislocated Irish who to their roots they cling,
Although may be Fourth or Fifth generation,
A mis-spelt surname or red haired child
Symbolises their Irishness, turns back the tide.

Only days in Elmhurst - not always such comfort,
Houses and dislocated and repressed, in this foreign land,
Rather a lonely inner city slum was their lot
There they carried memories of economic failed Ireland.
Not the morning curlew rather the dockside horn
Shattered home dreams, began many a cold morn.

Only days in Elmhurst - epic rise complete
an unbreakable Irish spirit saw through their feet.
Talents lost to Éiré who gave them no hope
They could not stay on their lovely Cooley slope.
Only now does the paradox gleam in this place

'Emigration . . . failure of a Nation-Triumph of the Displaced'

ESTYN EVANS (1905 - 1989)

by S. Dempsey 3rd Arts

The introduction of geography as an academic subject at university level in Ireland is almost synonymous with the name Estyn Evans. Estyn Evans was born in Shropshire and he attended the University College of Wales at Aberystwyth taking geography and anthropology under the guidance of H.J. Fleure, one of the foremost human geographers of his time. Fleure teaching in the tradition of Vidal de la Blache, was to be a major influence on Estyn's academic life. The emphasis was on achieving an understanding of the evolution of human life in the past as a key to interpreting life in the present. Evans' holistic view, which stressed the continuing interaction between culture and environment, formed the core of his teachings at Queens university and the department which he founded and was head of for forty years. Within his department, students learned the rudiments of geology, geography, ethnology, archeology and anthropology. In the 1950s and 1960s when the university was expanding the latter two subjects were established as separate disciplines.

Fieldwork, a revolutionary idea for the 1930s, was an important element of his teaching, supplementing academic with practical work, it was to become a feature of geography in the future. It was through archeological fieldwork that Estyn

came to know the countryside of Ulster, and indeed of Ireland, and it was from this his interest in folklife stemmed. His first academic paper on the subject was published in 1939, in an article which dealt with 'rowing currachs' in Donegal. In the same year two other papers were also published, 'Donegal Survivals', which appeared in *Antiquity* and 'Some survivals of the Irish open field system', in *Geography*. In 1941 he published a selection of folk tales and a description of the fletcher, an implement resembling a foot plough. Simultaneously, he was preparing his first synthesis of Irish folklife, 'Irish Heritage'; a study of a working example of peasant culture. He developed the theme more fully in, 'Irish Folk Ways'. Fifteen years later with the publication of 'Mourne Country', Estyn's reputation as one of Ireland's foremost scholars in folklife studies was firmly established. In these works Evans captured Ireland's traditional culture which was in his opinion a 'treasure house of old-ways unrivalled in Western Europe'.

The success of his writings in 'Irish Heritage' and 'Irish Folk Ways', encouraged Estyn Evans to pursue an ambition to establish a folk museum. The opening of Coultra Folk Museum in 1958, depicting the unique culture of Ulster as a distinct region of Ireland gave him great satisfaction. It is perhaps his finest legacy to the people of the province in which he worked, enjoyed his retirement, and in which he died in August 1989.

STAFF PROFILE: A SHORT WHO'S WHO OF MAYNOOTH GEOGRAPHY

W.J. SMYTH

Moved from Armagh to UCD in 1967 where he began a B.A. in history and geography, completing it in 1970. Under the guidance of the great Professor T.J. Hughes, this promising student began a Ph.D. in the area of historical geography. Seamus finished his doctorate while in Liverpool on the first leg of a three year transatlantic travelling studentship. This was to take him to the University of Toronto in 1973 and thence to the University of British Columbia, in Vancouver, a year later. He then returned to take up a teaching post at the University of Toronto where he relaxed by teaching Summer school in Halifax.

Seamus returned to Ireland to take up the newly established Chair of Geography in Maynooth in the Autumn of 1978. Since November of 1986 he has been not only Professor of Geography, but Vice-President of the College, the first lay person to hold such an office. He is currently President of the Geographical Society of Ireland.

W.J. likes to be known as the "first years friend". Indeed he is available throughout the year to continue making friends, though anyone who misses the opportunity beforehand should try very hard to do so in the first and second papers.

PROINNSIAS BREATHNACH

This "academical" began his primary degree in UCD in 1966 in geography and economics, moving to the Simon Fraser University in Vancouver three years later. Proinnsias joined the staff here in 1972, an appointment that Paddy Duffy later described as evidence that "Bishops make mistakes". (Milieu, 1982, P. 6).

More recently Fran has developed his skills in communication, not inconsiderable previously, via the medium of television, (Booklines, Cursai etc. on RTE). Could these appearances be trial runs for the day, as yet elusive, when a W.P. nomination to run for Dáil Éireann heralds his powers of persuasion benefitting the whole nation? Indeed, it may well be that the rough and tumble of life as an academical soccer player, or the ruaille buaille of the College Executive Council meetings are just precursors to his most adverturous campaign to date.

P.J. DUFFY

Paddy is another UCD graduate, beginning his B.A. in 1965 and that fierce tome, his PhD. 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. Fortunately a colleague chanced upon the glad tidings in the Irish Times and so in the year of 1971 A.D. Maynooth Geography Department was born.

In its 20th year Paddy has taken geography beyond the walled landscapes of Maynooth, indeed to Dublin and the Supreme Court. Paddy denies that he hoped that Chief Justice Finlay and Co. might offer a concise definition of what Geography is, preferring to dwell on the lesser issue of how a 1000ft. transmitter aerial might affect the population of Co. Meath. Paddy argues that this is certainly not "art and the landscape". How dare the planners allow a development which interferes with the ongoing process of "Bungalization"?

JIM (of Arabia) KEENAN

Jim began his training in 1967 with the cartography section of the Geological Survey of Ireland and spent part of 1969 in Ottawa, with the Geological Survey of Canada. His return to Dublin was as Head of the Cartography Unit where he had previously trained, a position he held until December 1971. Thence it was back to Canada; Kingston, Ontario, this time where he worked in the Geology Department. Jim decided to venture from the world of academia to one of the largest copper mines in the world, sited at Timmins, North Ontario, in 1974. His spell with the "Texas Qidd Creak Mine" sharpened his interest in the coppers to be had in the private sector and by 1976 he was on the move again. This time it was back to Dublin, occasionally Geneva, as Chief Cartographer for "Petro Consultants". By 1980 Jim heard the call of the sun, camels and helicopters; answering he jetted off to Jeddah. For the next four years he served as Chief Cartographer to the Director General of Mineral Resources in the Ministry of Petroleum, Jeddah, Saudi Arabia.

To understand the relationship between geology and oil reserves, oil and geopolitics in the recent Middle Eastern fracas, one would benefit by studying the geological map of the area that Jim and his team drew up. Jim joined the Department here in 1985 and still misses the sun, camels and helicopters, though of late has come to enjoy the benign regime in this College of Saints and Scholars.

D.G. PRINGLE

Ulster surrendered Dennis, albeit to T.C.D. in 1967, where he began a B.A., curiously enough in the "natural Sciences". This he completed in 1971, whereupon he returned to his native Belfast to begin work as a research assistant with the Northern Ireland Community Relations Commission, based at Queens University. He spent a year at Durham University in 1973/74, again as a research assistant, but all the while working on his PhD, on the area of geographical statistical methodology.

In the Autumn of 1974 Dennis was confined to this institution and reflects that it now looks as if its to be a life sentence. One can only say that Dennis was a young academic at the time and, as such, impressionable and vulnerable to the Godfathers of the Quantitative Revolution.

Dr. Pringle doesn't think that his PhD. in statistics "significantly" affects his delivery of Political or Urban Geography, though acknowledges the "n"th probability of it. His mathematical prowess may not extend to figuring out how this one island can be occupied by two nations, but nevertheless Leixlip Under 13's are "United" behind him. Could it be that the choice of a red colour strip for his team may reflect his youthful ambitions to being a particularly dangerous left winger?

J.C. SWEENEY

Unsurprisingly, perhaps, John's primary degree was in Science, but he compensated somewhat by scoring a 'first'. He remained at Glasgow University and completed the British equivalent of a H.Dip. Ed., in 1974. John asserts that his years teaching geography at second level served only to finance his PhD., which he completed in 1980. Dr. Sweeney joined the Department eight years later, and began lecturing in the same term as the new professor.

Since then John's opinions have been widely sought and read, and it would probably be true to say that he has published more (reading lists) than any other Irish geographer. First year students remark that his lectures correspond well with his theories on "green house warming". They liken the voluminous information to increasing CO₂ levels in the atmosphere, which threatens to induce overheating of the grey matter and melting of the nibs of pens. Cynics might suggest that showing holiday slides during lectures hardly constitutes conclusive evidence of global warming. John combines a dynamic interest in things scientific with an unusually keen pursuit of gangster movies. This follows a highly successful series in the 1970's as a tough talking detective of the same name. Hardcore cynics might suggest that a career in the Catholic Church would have fulfilled all possible ambitions in these areas.

J.A. WALSH

Jim is yet another graduate of UCD obtaining his primary degree, in 1974, in geography and mathematics. For the next two years he worked on his M.A. at McMasters Univeristy, in Hamilton, Ontario. He returned to take up a teaching post at Mary Immaculate College in Limerick from which he moved to Carysfort College in 1979. He was appointed Head of Department in 1982 and served as such until the College closed in 1988. Jim is officially described as being on "secondment" to Maynooth, though he is not quite sure what the term means he is taking it for granted that this entails teaching geography in order to get paid. It is rumoured that staff members are hoping he doesn't do for geography in Maynooth what he done for it in Carysfort!

Nevertheless, Jim hopes to be fully integrated into the Department here by late 1992, and to have obtained "structural funds" to extend his office to accommodate the ever-increasing literature being sent to him from Brussels. It is also said that he has been arguing for Maynooth to use its influence in Rome towards the beatification of tractor makers, Massey-Ferguson, as the patron saints of Irish farmers.

S. WADDINGTON

Shelagh graduated with a BSc. in Geography, in 1973 from University College London. She then took the teaching qualification necessary to work in schools in Bradford and Slough. It was in 1982 that Shelagh moved to Ireland, receiving from her Alma Mater, in the same year, an M.A. in Education. 1986 saw her join the Department in Maynooth on a part time basis, and she continues to hedge her loyalties between Trinity College and here. Not alone does she teach in two third level institutions, but at the Community School in Leixlip, as well. Beyond this obvious devotion to the art (or is it science?) of geography, Shelagh is currently fieldtrip secretary to the Geographical Society of Ireland. Anyone so involved in bringing the word to the heathen must suffer in some way, so perhaps it is not surprising to discover that Shelagh, practical as always, is married to a PhD. in neuroscience.

(From the files of the Special Branch).

WORDSEARCH

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

OKAY

Folks here is your chance to show of your Geographical Word knowledge. You will find the words listed below somewhere in the grid. The words are distributed backwards, forwards, and diagonally. **GOOD LUCK**

- URBAN STRATA PODZOL
- EVANS GEOGRAPHY RIVER
- ETHNIC CLIMATE PRACTICALS
- EARTH MAP JET STREAM
- BIFURCATION RATIO ECOLOGY GLACIER
- GEOPOLITICS DEVELOPMENT CARTOGRAPHY
- PHYSICAL ENVIRONMENT RURAL
- EL NINO SPATIAL FIELD TRIP
- MORaine GLOBAL DRUMLIN
- PLATEAU EUROPE

~~~~~  
GEOGRAPHY SOCIETY A.G.M TUESDAY 23rd APRIL. 8 pm. Ch. A

TERM 1991-92 : NOMINATIONS FOR THE FOLLOWING POSITIONS

- PRESIDENT VICE-PRESIDENT SECRETARY TREASURER P.R.O
- SUBMITTED TO : COLM McNELIS (RETURNING OFFICER) GEOGRAPHY POST-GRAD.
- ROOM- 36 RHETORIC ACCOMPANIED BY PROPOSER AND SECONDER
- BY 5 pm. ON MONDAY 15th. APRIL 1991

## GAELTACHT CO-OPS AND THE STATE

by  
Johnny Nevin 3rd Arts

### COMMUNITY DEVELOPMENT: ALTERNATIVE STRATEGIES

Any discussion on community development must begin within the wider context of alternative approaches to rural economic development. The "Top down" approach to economic development has traditionally been used by the Irish government in its community development programme as implemented by the IDA nationally and Udaras na Gaeltachta and SFADCO in the Gaeltacht areas. However surveys conducted in the Conamara Theas and Corca Dhuibhne Gaeltacht have shown that such top down policies can lead not only to the alienation of local communities but results in planning inadequacies. Instead such research has suggested that the need for systematic involvement of local communities (bottom up) in drawing up appropriate development plans for their own areas can overcome the limitations imposed by a plan implemented by a centralised bureaucracy (top down)<sup>1</sup>.

### IRISH GAELTACHT: THE BOTTOM UP APPROACH

The Irish Gaeltacht has acted as the nursery for alternative approaches to economic development initiatives. Father J McDyer is generally recognised as the first Irish person to adopt the alternative "bottom up" approach to community development during the 1960's in the parish of Glencolumbkille in the western Gaeltacht. His illfated attempts at community development did however have the long lasting effect of generating the foundation of many community development co-ops in the Gaeltacht during the 1970's causing a vigorous co-operative movement to become established in the Gaeltacht regions. The first Gaeltacht co-op was established in 1966. Since then their number has increased to 22 (1977 figures) of which two thirds were founded in the 1970's. The majority by 1979 had a membership of less than 500 shareholders and a turnover of around £500,000 per annum<sup>2</sup>.

### THE FAILURE OF GAELTACHT COMHARCHUMAINN (CO-OP'S)

Despite the growth of the co-operative initiative in the Gaeltachts during the 1970's their contribution, in strict quantitative terms has been limited. Community development co-op's provide only 250 full time jobs out of a total population of 80,000 in the Gaeltacht, in contrast to the Udaras na Gaeltachta figure of 4,500 full time jobs. The impetus of the 1970's has been lost with no new comharchumainn created since 1977 when there were 16 spread along the Atlantic seaboard.

This lack of success in commercial terms is not surprising given that many Gaeltacht comharchumainn are plagued by basic problems like poor planning, poor project analysis, poorly trained management and a poor financial structure. These problems are compounded by the state agencies. For instance Udaras has traditionally looked down on the various comharchumainn developmental ideas and treat them with suspicion at best and even hostility in the worst extreme. Despite apparent state commitment in the form of management grants provided by the Department of the Gaeltacht, specifically for co-operatives, one of the key problems facing Gaeltacht co-ops has been the lack of committed support on the part of state agencies<sup>3</sup>. This suggests that there is a need for a more comprehensive approach to the development process, one which involves closer co-operation between the central state and local communities. Such a degree of co-operation would require a major restructuring of the institutions of the state in order to facilitate the greater decentralisation of effective decision making and greater co-ordination of the development effort at the local level.

Apart from lack of committed support from state agencies another major reason why there was such regression among these community co-ops throughout the late 1970's and early 1980's, was the lack of clarification from the Department of the Gaeltacht and Udaras regarding the function of the co-operatives. On the one hand the co-ops saw themselves as servicing local needs, which they felt should be provided by the state. The Department of the Gaeltacht and Udaras were however putting pressure on the co-ops to operate on a commercial footing and to avoid losses. This has been pointed to by one author as the principal reason why a succession of co-ops fell into financial difficulties in the 1980's and had to thus close down<sup>4</sup>.

### THE FUTURE

The role of the state and its associated agencies is fundamental to co-operative development in the Gaeltacht. In the past the state has been guilty of treating these comharchumainn unfairly and with some degree of suspicion and hostility leading in turn to the gradual demise of the co-operative (bottom up) initiative. Future rural development success lies in the integration of local and state approaches, with state agencies giving more help to the community based developments. This in turn will require considerable changes to the states top down approach as it becomes more sympathetic to local needs and ideas.

### REFERENCES

1. Breathnach, P. (1984) "Community perception of development and change in the Conamara Theas and Corca Dhuibhne Gaeltacht" Occasional papers, no. 5, Dept. of Geography, Maynooth.
2. Commins, P. (1979) Co-operation and community development in the West of Ireland. Paper presented to the fifth international seminar on marginal regions, T.C.D., Dublin.
3. Breathnach, P. (1986) "Structural and functional problems of community development in the Irish Gaeltacht" In: D. O Caerabhaill (Ed.), The organisation and development of local initiative vol. 2.
4. P. O'h'Aolain, (1990) (Information manager - Udaras na Gaeltachta) personal correspondence.

### MAYNOOTH V's TORONTO LIFE AS A MAYNOOTH GRADUATE STUDENT IN A NORTH AMERICAN UNIVERSITY

by  
Joe Leyden M.A.

After six years in St. Patrick's College, Maynooth I departed its grand buildings, its leafy walks and its easy familiar lifestyle to take a leap in faith. On a cool September Dublin morning I boarded a plane to emerge seven hours later in a hot and humid Lester R. Parson International Airport, Toronto. Why such drastic changes? My time in Maynooth had run out. With my contemporaries having long since taken flight I remained exposed like a resistant outcrop. A friend casually advised (the best advice she ever gave) against prolonging my stay. Life in Maynooth had become too familiar. Although still reluctant to venture into Brady's (unless in Fran's shadow), Caulfields had become a frequent stopping point and life seemed to slip by peacefully like the murky waters of the canal.

But why Toronto? I had a Ph.D. in my sights and Toronto seemed an obvious choice given the established Maynooth

connection. When my application was accepted with the added incentive of a generous scholarship (no doubt due to the influence of Seamus) refusal would have been foolish. The geographer will recognise the push-pull influences in my emigration decision. Yet, when I arrived in Toronto it was not as a hapless emigrant of old with cap in hand and belongings tightly wrapped under arm but as an invited guest. It is from this stance I write my account and not as a lament bemoaning my misfortune of forced exile from the Emerald Isle.

Life was strange at first and I felt like a tourist (a feeling that had a short lifespan). A University of 50,000 full and part-time students, 9,000 full and part-time graduate students, 84 departments and three campuses, (one 33km east of the city, one 33km west of the city and one in the heart of downtown Toronto), it all seemed so vast. There were further shocks in store when I went to the library to withdraw a book. There are over 50 libraries spread over the three campuses with 7 million items augmented by 150,000 additional items each year. The main library, The John P. Roberts Research Library containing over 2.5 million items, dominating St. George St. like a prehistoric monster, was not a welcome sight. Remembering the hours of frustration in John Paul II library I despaired at the thought of mastering this system or ever finding a valuable book. The celebrations of the Irish successes in Italy in the conviviality of Caulfields lounge, smothered by the expert analysis of resident critics Paddy and Bill interspersed with the probing comments of John Sauls (make room here comes Fran) seemed far more enticing.

However within days the initial shock disappeared and I was firmly installed in the Department of Geography on the St. George downtown campus. The Geography department in Toronto is well established throughout the world with forty-six faculty members it is the largest department in the English speaking world. There are 90 graduate students - 40 taking a masters degree in planning, some 25 others taking an M.A./M.Sc. in geography and the remainder Ph.D. students. The graduate students are a diverse bunch coming from very different backgrounds. There is a strong Canadian contingent (especially in the planning programme), with others from the United States, China, South America, Europe, Australia, New Zealand, and one other Irish student, a graduate of Queen's, so all the continents are represented.

The Ph.D. programme is more complicated than in Ireland. While it is primarily a research degree there is also a heavy course component. This dominates the first year of the programme. Once course work is completed the next step is a set of comprehensive examinations in one's area of specialisation, followed by the presentation of a formal research proposal. It is only on the approval of this proposal that the student begins research work in earnest. At the moment there are four main areas of research undertaken by the Ph.D. students in the department, Economic and Social issues, Environmental Planning and Waste Management, Geographical Information Systems, and a strong Physical Geography component (which has further areas of specialisation). Unfortunately I do not fit into any of these categories as my research lies firmly in the field of Historical Geography. While there are many eminent historical geography faculty members the graduate intake is low - I was the only historical geography student to arrive in September.

At the moment I am concentrating on course work. Due to the size of the university there is a diversity of courses available. I have taken courses in areas as diverse as nautical technology and comparative slavery. There is a requirement that a student take two of the six necessary courses outside the geography department so one becomes exposed to other disciplines. The work load is heavy and requires continual attention. I am the only student in most of my classes which increases the pressure to some degree. The majority of my courses have thus become reading courses directed by various professors who are experts in their field of study. I spend most of my day (which is usually very long) reading the various books assigned to me. I then

meet with the Professor to discuss what I have read. In addition to the reading each course requires a series of presentations, book reviews and a final research paper. Towards the end of the semester the mood can be very hectic as each fights for computer space to compose final papers and complete course requirements. Many graduates renege on their sleep requirement at this time of the year. The pressure is intense, the competition forceful and the standard is high. A successful graduate career demands much work, organisation and many sacrifices.

In conjunction with my course work I am also employed as a teaching assistant on an undergraduate course called "Food, Agriculture and the Environment". This involves holding tutorials much like those I held in the map library in Rhetoric House in Maynooth. I have about seventy students in all and am responsible for 50% of their final grade. Although it is a first year course it is open to all students regardless of the year of enrolment or their specialisation. For many it is the only geography course that they are taking with their specialisation in engineering, nursing, history, economics, anthropology, psychology, political science, etc. As with the graduate students they are derived from many diverse backgrounds. Although born in Canada their parents are generally emigrants from overseas with nationality spanning all continents. There are very few with an agricultural background, most of them being attracted to the course by the inclusion of "environment" in the title (environmental preservation is a pressing concern in Canada).

Two of my groups are drawn from an evening class and are thus composed of mature students who have returned to college on a part-time basis to further their education. They are willing to talk and express their ideas even if they are irrelevant. They are more forceful and confident than those that I encountered in my tutorial group in Maynooth. This is a welcome development as there is usually a lively discussion from which everyone benefits. As the University is so large I rarely encounter these students outside class times except when they call during office hours. This is very different from Maynooth where I continually met with those I had in tutorial classes. In general, the undergraduates at the University of Toronto work much harder than students in Ireland and have a much heavier work load requirement. As the system is based on continual assessment (their final examination is usually worth only 30%) they are faced with regular assignments. As they tend to enrol in a variety of courses in different subjects many of the deadlines for the submission of work overlap. With regard to my teaching duties the most significant difference from the Maynooth experience is that as a teaching assistant one automatically becomes a member of The Canadian Union of Education Workers. As a result our duties and responsibilities are clearly outlined in a contract which protects us from exploitation. Our representatives enter bargaining with the University administration on wages and other benefits. At present we are on strike so I now walk the picket lines each day. Fortunately the weather has been quite good, generally no colder than -10°C!

The university is based on a series of affiliated colleges which have large residence halls. These accommodate undergraduate students at all levels, but primarily first year students. Admission to these colleges is by election thus, along with being accepted into the university, each student must undergo this selection process.

Toronto is a good city in which to live and work. It has a population of over three million and yet it has a certain homely feel about it. The transit system composed of street cars and underground trains is clean, efficient and easy to use. An advantage of living downtown is that one is never far from the centre of activity. It is possible to walk almost everywhere. There is a host of bars with live entertainment, numerous cinema and theatre venues. Most of the top bands and performance companies visit the city. There is also a number of

museums and art galleries. The foregoing comments do not justify the time spent in Toronto thus far but hopefully they help create an image (perhaps blurred) of the life of a graduate student in a North American University. Although happy with my life here I have fond memories of my days in Maynooth. Those days have provided me with experience which has stood me in good stead since my arrival in Toronto.

## CAMPUS GEOGRAPHY: A JAUNDICED VIEW

by  
MAD MAC

Key words for keen geographers: space, distance, geographical inertia, locational continuity, territorial, peripheralisation, landscape theology (all mentioned at least once).

It was Tim Robinson, that man of maps, who said that "space was more basic to our being than gravity and its fourth dimension is cartography", and here is a map to prove it.

Fig. 1. (Map of Campus - showing new buildings, with perforations around the new canteen and 'science block' - so they can be placed in most optimal location by the reader)

As you walk from Theatre 1 to a tutorial in Rhetoric and back to a lecture in Theatre 2 in Arts Building, to the Library, back to discuss rocks with JS in Rhetoric, to lunch in the canteen, to pool in Students Union, to the Library to return the book you got before lunch, to the Dublin train or the bed in Cluain Aoibhinn, think about the reality of Robinson's words of geography: it's not merely 'basic' - this spatial dimension is a tyranny surely! As you look at the map of the built environment of the campus as it has emerged by 1990, it's clear that its geographical expression has led to considerable social and mobility repercussions on your everyday life.

Historically, you might wonder, how did the territorial organisation of this campus come about? Does its landscape layout reflect the grace of the 18th century or the extravagance of the sixties' cheap oil and cheap land? Is this a typical designer-campus? Was there a Plan? An overall grand design for development over the years from the most recent expansion in late sixties? Or was it a series of architectural adhoceries, incremental lean-toeries,<sup>3</sup> that fell out of the sky periodically - i.e. a higgley-piggley collection imposing a territorial tyranny on subsequent generations?

Apart from the Puginesque grandeur of the west end of Joe's Square<sup>4</sup>, there are other individually striking buildings, like the virginia creeper-clad rusticity of Rhetoric, Logic and Humanity, and the workhouse simplicity of the Infirmary, not to mention the Alamo proportions of the Aula . . . Overall, however, the principal legacy of the Old Campus must be a legacy of spatial incomplete-ness: an unfinished symphony of squares especially, and an architectural tendency in the past for expansion in the form of the 'longhouse or lean-to' genre<sup>5</sup>. This tendency generally reflects poverty - poverty of long-term planning, poverty of design or poverty of funds. All invariably go together: Trinity College, Dublin, for example, with its history of state endowments<sup>6</sup> in land and wealth has indulged in much loftier and more imaginative flights of architectural fancy.

So what decisions influenced the emerging landscape order in the seventies? In the absence of minutes or other records as evidence, one is left with mainly circumstantial evidence which would suggest that the emerging geography of the campus in its Old/New manifestation was the consequence of what might be labelled largely theological considerations<sup>8</sup>. The problem to be addressed was a fundamentally theological one - a mysterious conundrum of Trinitarian proportions which was reducible to its territorial components. In the beginning there were three parts - a seminarian, a pontifical and a secular part, all subsequently defined as one collegial mystery in the High Court in

1977. The operational rationale adopted to solve this mystery was a very earthly territorial one based on a conceptualisation of sacred and profane space. At the time, the former was characterised by seminarists, soutanes and celibacy and the latter by long-haired louts, libertines and women - in Judaic terms, the gentiles. The object appears to have been to keep these gentiles as far as possible from the sacred spaces of Joe's Square, the College Chapel, the Gun, the Graf, Long Corridor and the residents thereof. The evidence for this is writ large in the landscape in the form of SU and Arts Building. (It is readily conceded, however, that aesthetic considerations may also have played a part in locating the agricultural-looking SU well out in the fields, and the acre of stark Arts block as far as possible also).

The incompatibility of the sacred and the profane had an early landscape symbolism in the Rape of the Lawns: great furrows of feet worn across the grass triangles by a rabble of ignorant gentiles. And as their numbers swamped the landscape, contamination and disaffection diffused and spread through the Old Campus community: the Chosen threw off their soutanes, fraternised (and sororised) with the gentiles and thundered across the forbidden grasses. Though the Authorities went for them baldheaded, not even the scriptural fury of Killarney could stop them<sup>9</sup>. The old world succumbed to the rising tide of barbarian hordes, increasingly characterised by long body hair of the facial and cranial variety. These comprised geographers, women (in skirts and jeans), sociologists, protestants, dubliners, babies, camogie players, atheists, feminists and mixed choirs, doubles etc.,

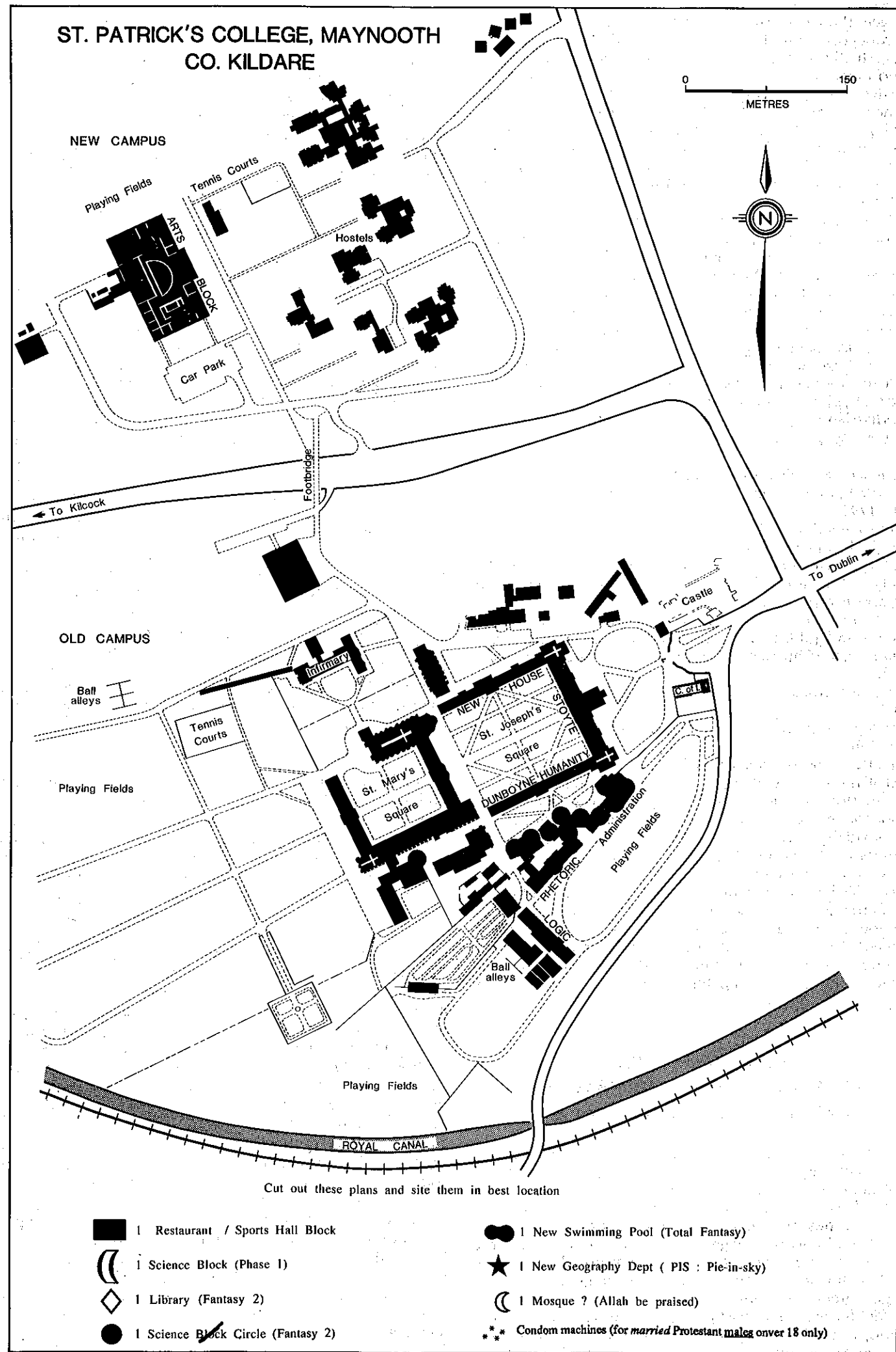
The N4 therefore was seen as a useful and substantial mode of partition of space on the campus. Alas and alack the population of gentiles showed considerable capacity for growth, spilling back into the sacred groves and squares, infiltrating the corridors and sanctuaries of New House, Humanity and Joe's Square in a sort of internal colonial occupation of the old campus<sup>10</sup>. Ultimately this pattern has expressed itself territorially in a peripheralisation of secular, gentile space-uses to Rhetoric and Logic Houses, with a rapid transit passage through the sacred Joe's Square to the gentile land beyond the N4.

The location of the Library, which is a fine architectural fancy, represents a territorial solution of Anglican simplicity - a theological compromise. Though midway between the sacred and profane, it is cunningly separated from the campus magnificus by a river and has to be reached by a bridge! The location certainly has potential for fishing or punting as a break from the rigours of reading. The main drawback of the Library building, however, - as pointed out by the Faculty of Arts before it was built - is the absence of a coffee/rest room; the result is that users take breaks and talk in the reading sections, to the annoyance of the serious readers (mostly geography students it is said).<sup>11</sup>

Let us now cross the other great bridge over the roaring N4 to the wide open spaces of the new campus.

Collegius St. Patricius apud Maynooth<sup>12</sup> is now poised for a significant architectural leap forward into the next decade, if not the Third millennium, with money dropping out of the HEA sky. Halls of residence are being built as a final solution to gentile population pressure; a Canteen block and gymnasium are being erected to feed the hungry and fight the flab in comfort. And a Science building will shortly begin to rid the sacred groves of some of the godless gentile lab and lecture halls. Some, but not all, since chemistry will continue to lurk in Logic.

What locational decisions will underpin this new phase? The principles of geographical inertia will undoubtedly have a role to play: locational continuity with building decisions taken in an earlier phase have now assumed a large significance: the principles of spatial exclusion established in the seventies will shape the landscape of the nineties. In the context of the new campus, what is the grand design for the nineties? Can we



A DIY CAMPUS PLAN

complete the job already started by designing a finished and coherent collection of campus buildings that maximise function, aesthetics and accessibility? As theological considerations are no longer of relevance in this phase, a number of other objectives come into play - to optimise the walking and time distance between buildings for the academic users of the buildings, to create some shelter on an otherwise windswept and nondescript campus, to create a quadrangular-type central space between the new buildings, to hide the existing ugliness of the Arts building, to create and complete an attractive unity in buildings and landscape.

So feel free to indulge your geographical fantasies in Fig. 1 by moving the newly proposed buildings around on the map. Where do you think they would best be located to achieve the objectives outlined in the last paragraph? Are there any other objectives that I omitted? There must be - what about drains, power lines, car parks: perhaps you don't consider these to be important! What about existing pathways? There's those bloody grass triangles again! Watch this space and see what happens! Prizes may be offered for guessing what the ultimate landscape layout will be - a sort of X-the-Science-Block contest! In the end it's just another Geography exercise involving boring things like landscape, space and environment: but as Robinson said, you try living without them!

1. (who said anything about organisation?)
2. ie. 1960s, though the same question might be addressed to 1860s, 1795?
3. Not to mention prefabberies.
4. originally known as St. Joseph's.
5. Extensions to vernacular houses in northern Europe traditionally took the form of bits added at gable end - leading to the 'long house' form.
6. As the protestant university established in 1595 by the new colony in Ireland it had rich endowments of land in various plantations; the Church of Ireland was also the established state church.
7. There is a moratorium on minutes of the Academic Council till 2095?
8. See 'Mynooth, Yournooth Whosenooth' Milieu 1977.
9. See John.
10. As the Chosen retreated to first and second floor spaces (Top Pat's originally St. Patricks, Top Loftus, etc.) attempts were made to stem the flood by listing places that were out-of-bounds for gentiles, especially women. But these regulations were spatially unworkable. See LO Queues, Mynooth, Yournooth, Whosenooth?' in Milieu 1977, P. 58.
11. By Geography students mostly.
12. Its official designation up to 1991 which, like its landscape, is about to undergo radical change. Spot the deliberate error.
13. If your plan is successful (i.e. coincides with the eventual outcome) you may be entitled to prizes (honorary degree?, weekend for 2 or 3 in Paris, plenary indulgence?). Send your entry to X-the-Blocks Competition, Power House, Maynooth College.

## THE ENVIRONMENT

### - BEWARE OF DISINFORMATION

By Kathleen Quinlan 2nd Arts

As we approach the twenty-first century the environment has become a priority issue globally. The discovery of the depletion of ozone over the Antarctic in the early 1980's by the British Antarctic Survey at Halley Bay, provided clear evidence that human activities can change the composition of our atmosphere. This discovery gave greater credibility to scientists who have warned us for decades that the emission of carbon dioxide and other atmospheric trace gases can create global warming through a greenhouse effect.

In 1983 further doom was predicted in the Nuclear Winter scenario, where it was hypothesised that dust thrown into the atmosphere by a nuclear exchange between the United States

and the Soviet Union would result in a post-war ice age. As the threat of super-power mutual annihilation weakened a new story has emerged from the media in recent weeks, where it has been suggested that the destruction and burning of oil-fields during the Gulf War will create a blanket of black smoke which could cover the Northern hemisphere, block out the sun's rays, and essentially result in a smaller scale version of Nuclear Winter. While the media must be congratulated for playing a major role in creating public awareness of the dangers our atmosphere faces, there has unfortunately been an amount of, in Gulfpeak terms "disinformation", regarding the Nuclear Winter scenario and the greenhouse effect.

### NUCLEAR WINTER

The original theory of Nuclear Winter known as TTAPS named after its originators (Turco, Toon, Ackerman, Pollock and Sagan) is not optimistic bed-time reading. "Vast areas of the Earth could be subjected to prolonged darkness, abnormally low temperatures, violent windstorms, toxic smog and persistent radioactive fallout" (Scientific American 251 2:23). Professor Sagan summed up its major implications in an article which appeared in "Foreign Affairs" in 1983. "There is a real danger of the extinction of humanity . . . A threshold exists at which the climatic catastrophe could be triggered". However other researchers have concluded that this theory is highly flawed. The original predictions came from a computer model which treated the Earth as a dry, smooth, "billiard ball". This model omitted oceans, clouds, the atmosphere, rainfall, winds, sunrise, sunset, and other significant features. The authors of the TTAPS theory acknowledged the absence of one of these controls in an article a year later (1984) when they concluded that "nuclear war is not likely to be followed by an ice age" because "the vast oceanic heat source would act to force the climate to contemporary norms following any major disturbance" (Scientific American 251 2 : 33). The TTAPS theory is now largely discredited, and predictions which stem from this theory in relation to the consequences of the Gulf War can be treated with a great deal of scepticism.

### THE GREENHOUSE EFFECT

As early as 1880 scientists were aware that the immense emissions of carbon dioxide into our atmosphere, caused primarily by the burning of fossil fuels, would have some effect on the Earth's radiation balance. It is now believed that the combination of two centuries of industrialisation and the clearance and burning of tropical rain forests, emissions of chlorofluorocarbons (CFC's), methane and nitrous oxide will create a greenhouse effect. These manufactured gases will trap more of the sun's heat in the lower atmosphere, preventing it from escaping back to space, and thus heat up the planet. However scientists are still trying to establish the consequences of a rise in temperature and predictions of the increase vary from as little as one degree celsius to five degrees celsius (Scientific American 263 21). Mathematical Oceanic and Atmospheric Administration (NOAA), the National Aeronautics and Space Administration (NASA), and the National Science Foundation (NSF), all U.S. based projects, predict that it will be around the middle of the next century that the carbon dioxide content of the atmosphere will double. Warming would not be uniform over the Earth, and would probably produce winners and losers among regions and nations. Some parts of the Earth would become warmer, some wetter, some drier. But all predictions are greatly associated with the word "if", and as we saw earlier, models are notoriously inadequate in dealing with the complex feedback loops which are a feature of our atmosphere. One of the most common fallacies associated with global warming is that sea levels will rise by several metres over the next few decades. However there is an easily established relationship between recent sea level changes and global temperatures.

Fears of higher sea levels stem from the flawed logic that due to the warmer temperatures melting Arctic ice will increase sea level. The melting of sea ice has no effect on global sea level. However the melting of land based ice such as on Greenland or Antarctica will affect global sea level. Feedback loops enter the picture here and make it difficult to predict the real effects. For example a rise in temperature is likely to increase snowfall over Antarctica and thus diminish the present rate of ice wastage. This will increase growth of ice in Antarctica, resulting in decreased sea levels which could negate any increase that may occur should land based ice in Greenland melt. While accepting that a rise of between a half and one metre would create serious problems in low lying areas such as the Nile or Ganges Delta, the prediction of a rise which would result in an apocalyptic flood appears to be inaccurate.

Care of the environment transcends national boundaries, race, colour, creed and time. Just as we look in amazement at the inefficient use of energy resources in the past, future generations will judge us by our efforts to prevent further damage to the world we live in. Exaggeration of the challenges we face are a disservice to the environmental cause. The twenty-first century may well be hotter, but we can hope that with proper action the apocalyptic, doomsday scenarios will remain the hypothetical output of computer models.

## GEOPOLITICS IN THE NUCLEAR AGE

by

Dennis G. Pringle

Traditionally geopoliticians, such as Sir Halford Mackinder, often focussed upon the historic struggle between land-power and sea-power. Mackinder, for example, writing in 1904 warned that the railways could result in the balance of power, which had favoured sea-power since the end of the 15th century, swinging back in favour of land-power. Britain's global supremacy would be especially threatened, he warned, if the pivot area in Russia, inaccessible to sea attack, were to fall under the control of an inner crescent power such as Germany or China, (organised by the Japanese)?

The heartland idea subsequently assumed renewed importance after the USSR emerged as one of the world's two superpowers at the end of World War II. Fears that the USSR occupied a strategically superior position contributed to the Cold War paranoia which saw the West, led by the USA, adopting a policy of containment as a defensive measure against possible Soviet expansionism. However, it is open to question whether the heartland actually retained any meaningful strategic advantage, following the emergence of 'air-power' as a significant new strategic element towards the end of World War II.

This article examines some of the main technical developments affecting the global strategy of the USA and USSR in the post-World War II period.

### AIR POWER

Aircraft were used for military purposes in both World Wars, but air-power made very little impact upon strategic (as opposed to tactical) thinking until the closing stages of World War II. The basic thinking, right up to the end of WWII, was that battles were either won or lost by armies and that the role of the airforce was simply to provide air cover.

The strategic importance of air-power increased dramatically in the late 1940s and early 1950s, largely due to two technological innovations:

- a) The atom bomb. The atom bomb meant that battles, and even whole wars, could be won by dropping a single bomb; and
- b) Long distance bombers. The first atom bombs were dropped

by modified short-range B-29 bombers. However, by 1951 the US had replaced these by B-36 bombers with a range of 4,000 miles; and by 1955 B-52 bombers with a range of 8,000 miles began to be deployed. The USSR also began to deploy intercontinental bombers of their own in the mid-1950s (the Bison and the Bear).

Long-distance bombers and nuclear weapons transformed the geopolitical map of the world. Long distance bombers did not depend upon aircraft carriers or land-bases for refuelling. This meant they could strike deep into the heart of the enemy's territory by the shortest (i.e. great circle) route, which in the case of the USA and USSR is over the north pole. Notions of heartlands and outer crescents, immune from attack by sea-power and land-power respectively, consequently became redundant. The ability to strike almost anywhere with nuclear weapons has reduced (although not totally eliminated) the geographical dimension in strategic planning. Since 1945, military strategy has been determined to a much greater extent by technological considerations. The nuclear age may, for convenience, be divided into five strategic periods, although in practice each period overlapped with and merged almost imperceptibly into the next. The dates below are provided as approximate guides and should not be regarded as decisive watersheds. The periods are labelled, again for convenience, using 'nuke-speak' terms which became fashionable at the time.

*Whoomp! There it is!*

### 1. The Period of Massive Retaliation (ca. 1945 - 1962)

The world's first atom bomb was tested by the US at Alamogordo in New Mexico on July 16, 1945. The next two were tested a few weeks later on the Japanese cities of Hiroshima and Nagasaki, despite the fact that the Japanese were about to surrender anyway and the Germans (who were the main rivals in the race to develop the bomb) had already been defeated. Indeed, work was allegedly speeded up in the final stages of the Manhattan Project because there was a fear that the Japanese might surrender before the bombs could be tested on real targets. The 20KT Hiroshima bomb killed about 300,000 civilians, not counting deaths from the long term effects of radiation.

The US retained a clear nuclear superiority until at least the mid 1950s. US policy was consequently one of massive retaliation - i.e. the US threatened an all-out nuclear war against the USSR if the USSR attacked the US or any of its allies, either by nuclear or conventional weapons.

US military advisors initially thought they had a 20 year lead on the USSR, but the Soviets surprised everyone by testing their first atom bomb only four years later in 1949. The US responded by stepping up research on the much more destructive hydrogen bomb which they successfully tested in 1952. The H-bomb works by a fission-fusion-fission process. The additional destructive power of the H-bomb meant that they were physically much smaller than their A-bomb equivalents and could therefore be delivered to their targets much more easily. The Soviets tested their first H-bomb less than one year later (1953).

By 1954 the USSR had lots of bombs, but no means of delivering them. However, the introduction of the Bison and Bear long-range bombers in 1955 changed all that. The net effect was that the US had become vulnerable to outside attack for the first time since the British had attacked Washington in 1812. US military planners feared a 'bomber gap' and consequently stepped up the production of B-52s to retain a very clear superiority.

In 1957 the USSR put the world's first rocket into space. This opened up a whole new ball game - ballistic missiles as an alternative delivery system to aircraft. The US responded by boosting its space program, and by the early 1960s it had established a very strong advantage in intercontinental ballistic missiles (ICBMs) as well as in bombers.

## 2. The Period of Mutually Assured Destruction (ca. 1962-1967)

The second strategic phase began about 1962, and was largely a response to the development of a third form of delivery system: submarine launched ballistic missiles (SLBMs), such as US Polaris and USSR SS-N-4, both introduced in 1960. Submarines are very difficult to detect and, if submerged, even more difficult to destroy. Thus, following the introduction of SLBMs, neither side could count upon knocking out the enemy's entire nuclear arsenal in a pre-emptive first strike. In other words, although the US retained a strong nuclear advantage, SLBMs meant that both sides retained a **second-strike capability** (i.e. the ability to launch a devastating counter-attack).

Despite its rather grotesque name, the existence of mutually assured destruction (MAD) created a fair degree of stability because neither side could afford to start a nuclear war without risking very severe damage and loss of life itself in a counter-attack. Unfortunately, neither side was prepared to accept a stalemate situation.

## 3. The Period of Flexible Response (ca. 1967-1980).

MAD guaranteed the US against USSR attack, and vice-versa, but it rendered nuclear weapons useless in smaller wars (e.g. Vietnam) because of their 'all or nothing' nature. Efforts were consequently put into developing a more diversified range of responses to enemy aggression. Conventional forces were strengthened, and more tactical and short-range ballistic missiles (SRBMs) were deployed to allow a **graduated** response. (Tactical nuclear weapons are short-range and have a 'payload' in the Hiroshima range, as opposed to the big ICBMs like the US Titan II which carried 9MT (i.e. x 500) or USSR SS-9 (25 MT)).

The US began developing a new generation triad of air, land and sea launched strategic weapons, just in case the USSR established superiority in any one area. The major technological change was that single warhead missiles were replaced by MIRVed missiles (Multiple Independently-Targetable Re-entry Vehicles). Minuteman III (ICBM) and Poseidon (SLBM) were deployed by the US in 1970 and 1971 respectively, causing the USSR to develop MIRVed weapons of its own: SS-17 (ICBM, 1975), SS-18 (ICBM, 1974) and SS-N-18 (SLBM, 1978).

The likelihood of nuclear weapons actually being used was increased by the introduction of the flexible response doctrine, but there were some more positive developments. An international Nuclear Non-Proliferation Treaty was signed in 1968 to prevent the spread of nuclear weapons to other countries; Strategic Arms Limitation Talks held between 1969 and 1972 (SALT I) produced treaties which froze the number of ICBM and SLBM launchers, and which limited ABMs (Anti Ballistic Missiles) to one site each; further talks between 1975 and 1979 (SALT II) produced agreements to restrict the numbers of various types of nuclear missile, although the number of warheads actually continued to multiply as single warhead missiles were simply replaced by MIRVs (which were not controlled by any of the agreements).

By 1983 the US had 9,268 strategic nuclear warheads - enough to destroy every USSR city of 100,000 people or more 33 times over; the USSR had about 7,300 warheads - enough to destroy the USA 28 times over.

## 4. The Period of Counterforce (ca. 1980 - 86)

In the late 1970s the emphasis in US policy switched from deterrence to **nuclear war-fighting** i.e. the objective was no longer to deter the USSR from attacking, but to ensure that, if a war did take place, the US would win. **Counterforce** nuclear weapons are designed to knock out the enemy's weapons and strategic targets (in contrast to counter-city weapons which are specifically intended to kill as many civilians as possible in order to deter).

Counterforce became technically feasible with the development of a new range of extremely accurate missiles (such as MX (ICMB), Trident II (SLBM), Pershing (IRBM) and Cruise). Pershing and Cruise missiles were deployed in various West European countries in the early 1980s. These missiles are so accurate that they could destroy a very high percentage of Soviet missiles even in heavily fortified silos by scoring almost direct hits.

The US claimed that the new missiles were purely second strike (i.e. retaliatory), but the Soviets claimed that if that was the case then the US missiles would not need to be so accurate. Why, they asked, would the Americans need to be able to score direct hits on silos which would be empty if the USSR had already launched a first strike? The Soviets saw the new weapons as evidence of sinister US intentions to launch a decisive first strike designed to leave the Soviets without a second strike capability. The new generation of weapons were therefore seen as a very serious escalation of the arms race.

President Reagan's SDI (Strategic Defence Initiative or 'Star Wars') programme announced in 1983 was interpreted in a similar manner. Traditionally both sides were basically defenceless against missiles launched by the other side because Anti-Ballistic Missiles (ABMs) do not work with any degree of reliability. However, if the US developed the capability of intercepting Soviet missiles using satellites, lasers, particle beam weapons, and other new space-age technology, this would not only remove the threat of a Soviet first strike (the Americans' claimed objective), it would also remove the deterrent effect of a possible Soviet counter-attack to a US launched first strike. The SDI programme appeared to confirm Soviet suspicions that the US was gearing itself towards actually fighting a nuclear war.

## 5. The Period of Perestroika and Glasnost (ca. 1986 -)

Although the long-term strategic implications are not too clear, relations between US and USSR have undoubtedly improved over the last few years. The USSR began sending out peace signals soon after Gorbachev became General Secretary in 1985. The USSR unilaterally introduced a nuclear test ban in 1985 which lasted 18 months; it also unilaterally started to reduce its medium range missiles. In 1986 Gorbachev met President Reagan in Reykjavik, initiating a series of talks leading to the historic INF (Intermediate Nuclear Forces) treaty in 1988 in which both sides agreed to dismantle their intermediate range missiles. The negotiating teams on both sides have since been trying to hammer out agreements on strategic weapons, chemical warfare, conventional weapons (CFE Treaty 1990), and the alleged US violations of the ABM treaty.

This welcome reversal from the previously heedless rush towards Armageddon possibly owes much to the work of climatologists spelling out the likely long-term implications of a full-scale nuclear war. Until the early 1980s military experts were of the opinion that a nuclear war would obviously cause great short-term devastation but that civilisation would fully recover within one or two decades. The idea that civilisation might never recover has been severely challenged since 1982. It is now believed that a nuclear war would have a devastating impact upon the world's ecosystem. Temperatures would probably drop substantially for a period of about 3 months after a war, due to the sun's rays being blocked out by smoke and dust, leaving very few places with a temperature above freezing. Apart from deaths caused by freezing, especially given the destruction of energy supplies, there would be mass starvation due to the almost total destruction of the world's food supply.

Some experts believe the 'nuclear winter' could even trigger off a permanent ice age, but most seem to believe that the earth would begin to heat up again as the dust and smoke cleared. However, by this time the ozone layer would have been almost totally destroyed, resulting in a very hot dry climate over most

of the earth about 1 year after the war. In addition to shrivelling up any surviving vegetation (and therefore food), anyone exposed to the sun for more than about 30 seconds would receive very severe sunburns from the sun's UV-B radiation. Given increased temperatures, the world's ice caps would melt, causing flooding in low-lying coastal areas, and mudflows and subsidence on mountain slopes.

In short, assuming these predictions are even half correct, neither side can afford to start a full-scale nuclear war because it would almost certainly result in its own destruction, irrespective of whether the other side retaliated or not.

## The Strategic Significance of Air-Power

The introduction of nuclear weapons and long distance bombers clearly changed the way in which military strategists looked at the world. Traditional concepts of an age-old struggle between land-power and sea-power had to be revised in the light of the newly assumed military capability of air-power. Nuclear weapons have provided the US with a high degree of security against outside attack since 1945. They have also provided the USSR with a high degree of security against outside intervention since the introduction of SLBMs guaranteed both sides a second strike capability. If either side was seriously threatened by the other, it still had the option of resorting to the use of nuclear weapons.

This raises questions as to why the US should therefore have felt it necessary to pursue a policy of containment. Soviet interventions in Europe, the Middle East or South East Asia, even if genuinely expansionist, could not possibly have threatened the national security of the US, given that it retained the ultimate sanction of nuclear retaliation. Likewise, Soviet interventions in Eastern Europe or Afghanistan cannot be justified as necessary pre-emptive 'defensive' measures against the perceived threat of Western aggression. The security of neither superpower depended upon interventionist policies directed against countries in what Mackinder termed the inner crescent. These interventions must therefore have been promoted more by political and economic considerations than by purely strategic considerations (as suggested by some geopoliticians).

Although nuclear weapons guarantee the ultimate security of both superpowers (provided each retains a second strike capability), nuclear weapons are much less useful for pursuing offensive objectives. Neither side probably requires much convincing that the opposition really would go nuclear if it faced imminent defeat. However, neither superpower can afford to use nuclear weapons, even to a limited extent, against weaker opposition to achieve offensive objectives without risking nuclear retaliation from the other superpower, and hence the possible escalation into a full-scale nuclear war. The 'all or nothing' nature of nuclear weapons therefore acts as a major constraint upon their actual use, other than in a doomsday scenario. The strategy of graduated response represented an attempt to overcome some of the limitations imposed upon the use of nuclear weapons for offensive purposes by the existence of mutually assured destruction. However, the increased flexibility for offensive use provided by the new generation of weapons in the late 1970s and early 1980s was to a large extent counteracted by the increased awareness in the early 1980s of the likely climatological and environmental implications of even a limited nuclear war.

Air-power consequently has an ambiguous significance for strategic planners. As a defensive deterrent in a situation of last resort, its importance far surpasses that of either land-power or sea-power. However, air-power is strategically much less significant in more localised, 'muscle-flexing' wars involving only one of the superpowers in the inner crescent - a point demonstrated recently in the Gulf War where, despite almost total air supremacy, the coalition forces were obliged to launch a land offensive in order to secure victory.

## YUGOSLAVIA - APPROACHING BREAK UP!

by

Adrian Kavanagh 2nd Arts

Located on the eastern shore of the Adriatic Sea, and bordered to the north by Italy, Austria and Hungary, to the east by Bulgaria and Romania and to the south by Albania and Greece, Yugoslavia encompasses a great deal of geographical diversity, stretching from the plains of Vojvodina in the north east to the mountains of Montenegro.

However Yugoslavia is also a state with a great deal of ethnic, cultural and religious diversity, and this very diversity could lead to civil strife between ethnic groups, and the disintegration of the Yugoslav Federation. Map 1. Already there is ethnic strife in Kosovo, where the Albanian majority are demanding greater autonomy from Serbia. In January only a last minute compromise between officials in Belgrade and Zagreb prevented the outbreak of civil war between federal troops and the citizens of Croatia. (Slovenia has been drifting towards secession from the Federation, the prospect of which led Serbian towns in Croatia such as Rhin and Dvor na Uni, to demand complete autonomy within Croatia). But what are the factors that have led to these diverse forces in Yugoslavia.

**NATIONALISM:** Yugoslavia of late, has increasingly become the scene of growing nationalist rage and demands. In last year's elections, nationalists won in Slovenia, Croatia, Bosnia-Herzegovina and Macedonia. Also in Serbia, where former communists won, their victory was mainly due to their championing of Serbian Yugoslav Federation under Serb (the largest ethnic group making up 40% of the population) leadership (see Map 2. Greater Serbia).

**ETHNICITY:** Yugoslavia is comprised of eight major ethnic groups, including Serbs, Croats, Hungarians and also some minor ones. For them it is a case of "ethnic family yes, country maybe" (Danforth, 1990). In many cases ethnic groups form other republics other than their own. This has already been the occasion of some strife, and this has been the case of the Serb minority in Croatia.

**IDEOLOGY:** The victories by the former Communists in Serbia and Montenegro and the election of market - orientated governments shows an obvious ideological clash. But there are also differences in outlook - Croatia and Slovenia look to the West and have a desire to join the EC, whereas the southern republics have an eastern orientation.

**ECONOMICS:** There is a considerable economic gradient between the developed Republics of Croatia and Slovenia and the backward southern area. Considerable proportions of the Northern Republics income goes towards subsidising the others, a fact which the Northern Republic resents. Secession for them would be a means of shedding their federal responsibility for the well being of Yugoslavia's impoverished.

**RELIGION AND LANGUAGE:** Considerable differences exist here also, which only serve to exasperate the differences between the Yugoslav people. There are three major religions, with Catholics dominant in the North, the Moslems and Greek Orthodox in the South. A diversity of languages are spoken the main one being Serbo-Croat.

## OTHER FACTORS OF IMPORTANCE

(a) The death of Josef Broz Tito in 1980 resulted in a power vacuum in Yugoslavia and the end of a significant unifying force.

(b) The Serbian dominated Yugoslav army would be willing to intervene to retain the Yugoslav Federation. This, and their treatment of Albanians in Kosovo, has led to heightened Croat and Slovene alienation from the central regime in Belgrade.

(c) A programme screened on Yugoslav television in late January, claiming that Croatia's Defense Minister, Martin Spigelj,

was plotting a coup, has lead to demands by Belgrade for his arrest, which Coratian President Franco Tudjman says will be resisted with Force.

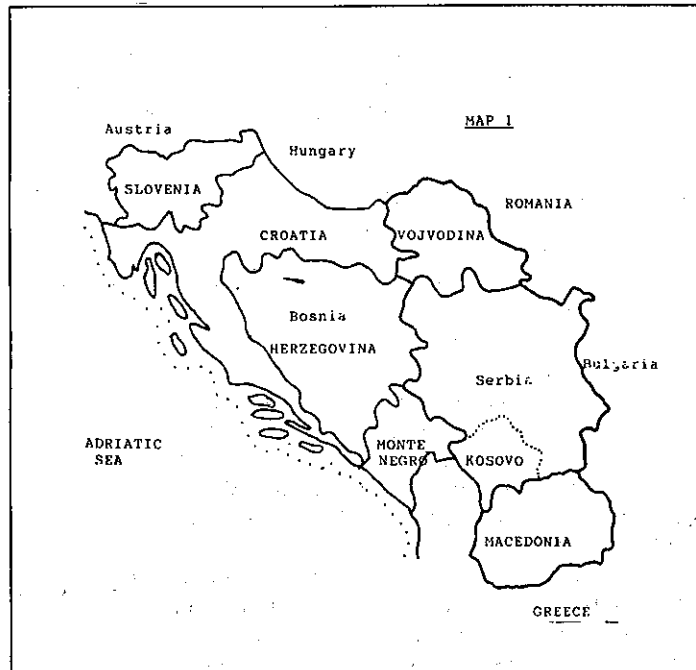
(d) The dramatic political changes of 1989 in Eastern Europe has also undoubtedly encouraged democracy movements within the Yugoslav Federation.

**PROSPECTS:** The CIA late last year predicted the breakup of Yugoslavia within eighteen months, and with Slovenia contemplating steps towards a 'peaceful divorce' and with at least Croatia likely to follow this is becoming increasingly likely. But with conflicting ethnic intersts within Republics, such as Croats and Serbs in Croatia, and also Boshia, there is a danger of conflict, and of Yugoslavia being broken 'into pieces even smaller than the sum of its parts' (Borrel, 1991).

## REFERENCES

1. Danforth, K. "Yugoslavia, A House Much Divided" in *National Geographic* Vol 178 No. 2 Washington 1990.
2. Privat & Wheeler "Europe in the year 2000" in *Newsweek* Volume C XIV No. 22 New York 1990.
3. Borrel, J. "Towards bits and Pieces" in *Time International* No. 6 Amsterdam 1991.

Map 1: Ethnic Diversity in Yugoslavia



Map 2 Future Yugoslavia?

## LEIXLIP GOES ELECTRONIC: AN OVERVIEW OF INTEL

by  
Deirdre Dalton 3rd Arts

In October 1989 Intel announced the largest ever single electronics project for Ireland. The announcement followed intense media speculation in both Ireland and Scotland, as it was common knowledge in the electronics world that a major plant was to be built at one of the locations. A reported 2,600 jobs in a state-of-the-art electronics manufacturing facility were at stake and both countries were anxious to win the project. A lot of hard work by the Irish Industrial Authority went into the venture. Visits to Ireland by Intel personnel were organised by the I.D.A. who brought selected groups on tours to existing electronics facilities. It is alleged that they were able to produce lists of suitably qualified engineers working both at home and abroad who were interested in working for "a major electronics company based in Ireland". The approach seemed to be "we have the location, we have the people and we have the grants" - and it certainly worked.

The decision to locate in Ireland was heralded by the Minister for Industry and Commerce. Des O'Malley as "A milestone in industrial promotion and as one of the largest significant international investments in electronics this decade for Ireland". According to a company spokesman: "Intel's location decision was attributed to the availability of a well educated workforce, attractive taxation and incentives, the availability of suitable land, good infrastructural services and the quality of life in Ireland."<sup>2</sup>

At the October press conference a ten year strategic investment programme for Ireland was presented to dozens of local and international journalists by Intel executives. The company gave details of planned capital spending in excess of £300 million over the ten year period. 500 jobs in systems manufacturing were to be created by 1992 with a total of 2,600 jobs by the end of the ten year programme. Increasing pressure from the European community on "Local content of product", and a rapidly growing market in Europe for Intel components and systems had necessitated the building of a system manufacturing plant, a microchip manufacturing plant commonly called a 'Water Fab' and component finishing and test centre. A site was chosen at Leixlip just outside Dublin city on the main Galway road. The decision to locate in Leixlip followed a detailed research report which was carried out on both Swords and Leixlip. According to Mr. Pat Casey who is the Human Resources manager in Intel Ireland, factors such as services, infrastructure, rock formation, size of site available, population, age of population, unemployment levels were just some of the factors used in deciding where to locate within Ireland. Intel's main reason for locating in Leixlip was its infrastructure i.e. the new motorway, when complete will give quick access to the airport, and this is of paramount importance because of the volume of traffic to and from the site. The next major factor which influenced Intel's location in Leixlip was its rock formation. Intel's site in Leixlip lies in the Carboniferous succession of the Dublin basin and this provides the base needed for the building of the fabrication plant. Another major factor in Leixlip's favour was the size of the site. The site was very large which is very important if the company is to expand. In the *Leinster Leader* of 1/3/91 it was reported that Intel had actually bought another 80 acres in the vicinity of the existing site.

This Leixlip site is to be home of Intels manufacturing base for Europe. 22% of Intel's world wide sales are sold in Europe, 57% in North America, 11% in Japan, and 10% in Asia-Pacific. Therefore Europe is an important part of Intel's World market and it is hoped that Intel will supply 90% of the European market.

So what makes Intel such an important player in the world's electronics industry? The short answer is the microcomputer. The company was founded in 1968 by Andrew Grove, Gordon Moore and the late Robert Moyce who died shortly after work on the Irish operation had commenced. Intel is responsible for the invention of such key electronic components as the microprocessor and the EPROM. The company's importance is neatly summarised by their statement that "about 70% of all personal computers produced worldwide rely on Intel technology"<sup>3</sup>.

Most people have come in contact with PC's at some stage in their career and many will be familiar with the phrase "286 or 386 machine". These numbers are the last three digits of the microprocessor reference number upon which the machines are based. These microprocessors are Intel products. Every IBM personal computer incorporates several Intel chips. The company also produces computer systems which they sell on to other manufacturers. Many of these computers pass through what is known as the OGM. A number of Irish suppliers are even at this early stage of the Intel development, on the QVL, and the company has identified many component areas where they could do business with local suppliers. The IDA and the Irish Goods Councils are not pressing them to "Buy Irish" as such, but are being very supportive in the direction of local sourcing.

In the words of an Intel spokesperson "If we can bring local vendor up to standard then we will favour him as geographical location is a decided advantage"<sup>4</sup>.

With this sort of attitude, it is realistic to anticipate strong growth in the electronics and engineering sub-supply sector over the coming years. Although Intel's Irish facilities are purely manufacturing with the reserch and development being driven from the United States, the area of process development will be an important local issue. As new products are introduced different manufacturing methods will develop and according to Intel, Ireland along with other manufacturing sites will be continually striving to break new ground with processes of technology for manufacture. The company has committed £250 million to 'process development and training' which go hand in hand with the new products and manufacturing practices.

## FOOTNOTES

1. Pg 28 "The Intel Story" *AMT* August 1990
2. *Irish Times* 4/10/89
3. Pg 28 "The Intel Story" *AMT* August 1990
4. Pg 29 "The Intel Story" *AMT* August 1990

## BIBLIOGRAPHY

1. "The Intel Story" *AMT* August 1990
2. *Irish Times* 4/10/89
3. *Leinster Leader* 3/1/91
4. Interview with Mr. Pat Casey.



"Plastered" in Paris - France 1990

## AIDS: THE ARMAGEDDON FOR AFRICA?

by

Declan Brassil 2nd Arts

Nowhere in the world is the spread of AIDS so devastating than in Africa where the incidence is tantamount to the Black Death which paralysed Europe in the 14th Century. From an economic perspective AIDS can seriously hinder development. This lack of development can in turn exacerbate the epidemic.

Before embarking on an exploration of its economic implications and detrimental ramifications some statistics and facts will be presented to emphasise the ubiquity and severity of this modern day holocaust:

- In Kunshasa, Zaire, blood tests revealed that 6-7% of the population were HIV positive.
- In Lusaka, Zambia, 18% of blood donors were found to be HIV positive.
- In Nairobi, Kenya 67% of prostitutes tested were HIV positive, each estimated to have 1,000 sexual partners per year.
- In Mulago hospital in Uganda, in 1987, 50% of the patients had AIDS. In 1989 more than 80% of the patients had AIDS. Of the 5,664 cases reported in Uganda in September 1985, 5,145 were over 5 years old, 40% were male, average age 28, and 82% were female, average age 24.5. Undoubtedly these figures are a gross understatement of the actual number of cases.
- It is estimated that in Uganda, 20-30% of the population are HIV positive, with around 25% of expectant mothers being positive. Medical experts consider the epidemic to be an acceleration catastrophe that, in the words of one, "will make the Ethiopian famine look like a picnic".

Spatially AIDS is not confined by frontiers. It recognises neither political boundaries nor physical obstacles, already having spread through Sub-Saharan Africa. The epidemic seems to have originated around Lake Victoria, the bordering countries being Uganda, Tanzania and Kenya. By early 1990 most African countries had officially admitted to having AIDS cases.

If we look at Africa in the context of individual countries, we see the disease is confined mainly to urban dwellers. (In Tanzania and Kenya the disease has spread through rural and urban settlements). In general, however, the epidemic seems confined to urban centers. Huge populations may be one reason but African leaders contend that traditional values erode in the city leading to greater sexual freedom and the spread of AIDS. Conservative estimates have reckoned that up to 10% of the urban populations of Central Africa are HIV positive.

Africa's under development has exacerbated the AIDS problem, a fact manifested in the medical arena. Lack of adequate funding has resulted in over 40% of Africa's AIDS sufferers having contracted the virus through blood transfusions. Coupled with the contaminated blood problem is the re-use of needles and syringes. In some health centers needles are re-used many times before being sterilised. Once again the problem is funds; boiling requires fuel and even bleach is in short supply in Africa.

Medical experts believe that co-factors such as malnutrition and infectious diseases such as TB and Malaria decrease resistance to AIDS. After years of welcome decline TB is once again establishing itself in Africa, the cause being AIDS. Of the 1,200 patients in Mulago hospital, Uganda, in 1987 500 were being treated for TB with underlying HIV infection.

A WHO report describes the increase in TB as "an epidemic parallel to that of AIDS". About three million people who are HIV positive have TB, 2.4 million being in black Africa. There are also a broad spectrum of tropical diseases re-emerging in Africa, AIDS being the common diagnosis.

The implications for Africa's future development look very bleak. The hardest hit group are the sexually active between

the ages of 20 and 39. The repercussions and reverberations of this fact will be made manifest in the devastation wrought on Africa's future.

Africa has always experienced a shortfall in the number of trained and educated personnel necessary for the development and maintenance of economic and political structures. Some countries experience conditions where there may only be one doctor for 20,000 people. Cruelly, these are the very people the epidemic is hitting hardest, which inevitably has broad social and economic ramifications.

The report published by the Panos Institute, an international information and study group stated, "The young elite represent Africa's first Post-Independence generation to come to power. In several capitals they are already heavily infected and will die in increasing numbers. The political, social and psychological impact of this gathering death march cannot be underestimated".

## SOURCES

- Irish Medical Journal, Sept. 90, Volume 83, No. 3.  
Riders Digest, June 87.  
The Economist, 3-9 November 90.  
Irish Medical Journal, December 89, Volume 82, No. 9.

## RECOGNITION OF EUROPEAN COUNTRIES

by

Mary C. Morgan 3rd Arts

### Analysis of Exercise in labelling of European Countries by 66 Students.

The following is an analysis of the recognition of European countries by a group of second year Maynooth students. Given a blank map of Europe, the students were asked to identify the countries. The exercise was undertaken in October 1989, before the upheaval in Eastern Europe took place. The same exercise would probably produce different results at the present time.

The countries are easily divided into political groups, as this is the way in which Europe conducts its affairs, both political and economic. The groups are the European Community, which dominates the West of Europe; the Warsaw Pact or Soviet Bloc, which dominates the East; and the non-aligned nations. I have omitted Andorra, Monaco and Lichtenstein, as they distort the statistics in their groups excessively. To be consistent, San Marino and the Vatican State would also have to be included.

The EC consists of 12 countries, but as England, Scotland and Wales were marked separately on the map the figure of 14 is used in this analysis.

This group has by far the highest recognition rate, with a mean of 57.43 and median of 62.5. There is a small negative skew of -0.37.

Within the group Ireland was recognised by all 66 students. Our near neighbours were recognised by over 60 students and Italy with its distinctive shape was recognised by 63 students. Greece was recognised by only 50 although it is a popular holiday destination. The smaller countries in the north were poorly recognised. Denmark by 53 students, Belgium by 48, Netherlands by 46, West Germany by 46 and Luxembourg slightly better with 49. These figures are very low considering that the capital of the EC is in Belgium and all these countries receive prominent news coverage.

The non-aligned countries, of which there are nine, are each distinctive either by location of their independent behaviour. The figures for this group are quite low with a mean of 40.11, median of 42 with a slight negative skew of -0.15.

Iceland is top of the group with recognition by 60 students. Albania is at the bottom with 16. Iceland is easily recognised by its location but Albania should be more notable because of its peculiar isolationist behaviour. Norway, Sweden and Finland didn't do very well in spite of their distinctive coastal locations, with 56, 54 and 43 respectively.

Switzerland and Austria, 45 and 30, are very poor considering that they both have very well developed tourist industries. Yugoslavia and Turkey, 26 and 31, both have significant coastal locations and tourist industries and should have done better. The Warsaw Pact countries were worst of all. The mean is 31.43, median 26, range 54 with a high positive skew of 0.62. This is due to the fact that Russia was recognised by 65 students. There is a huge gap then to the next highest - East Germany, 43, and Poland, 42. Another gap to Czechoslovakia, 26, and yet another to Romania, 17, Hungary, 16 and Bulgaria, 11. The last four are probably the most difficult to identify correctly as they can be easily confused with their neighbours, but the figures are still incredibly low.

All the groups were very poorly identified. The EC countries should have 100% recognition rate. The other two groups should have been much better since maps are produced for news coverage in the newspapers and on television, and there seems to be plenty of geographical information readily available through the media. There is no constructive explanation for the figures produced in the Exercise.

The 30 countries have been divided into three political groups: European Community, Non-aligned and Warsaw Pact. The map of Europe is shaded according to the size of the mean for each group - EC 57.43, Non-aligned 40.11, Warsaw Pact 31.43.

Four histograms have been drawn for Europe and the three sub-groups, showing the percentage rate of recognition within each group by the students (which are divided into groups of 11 with 12 in the last group).

#### EC Countries

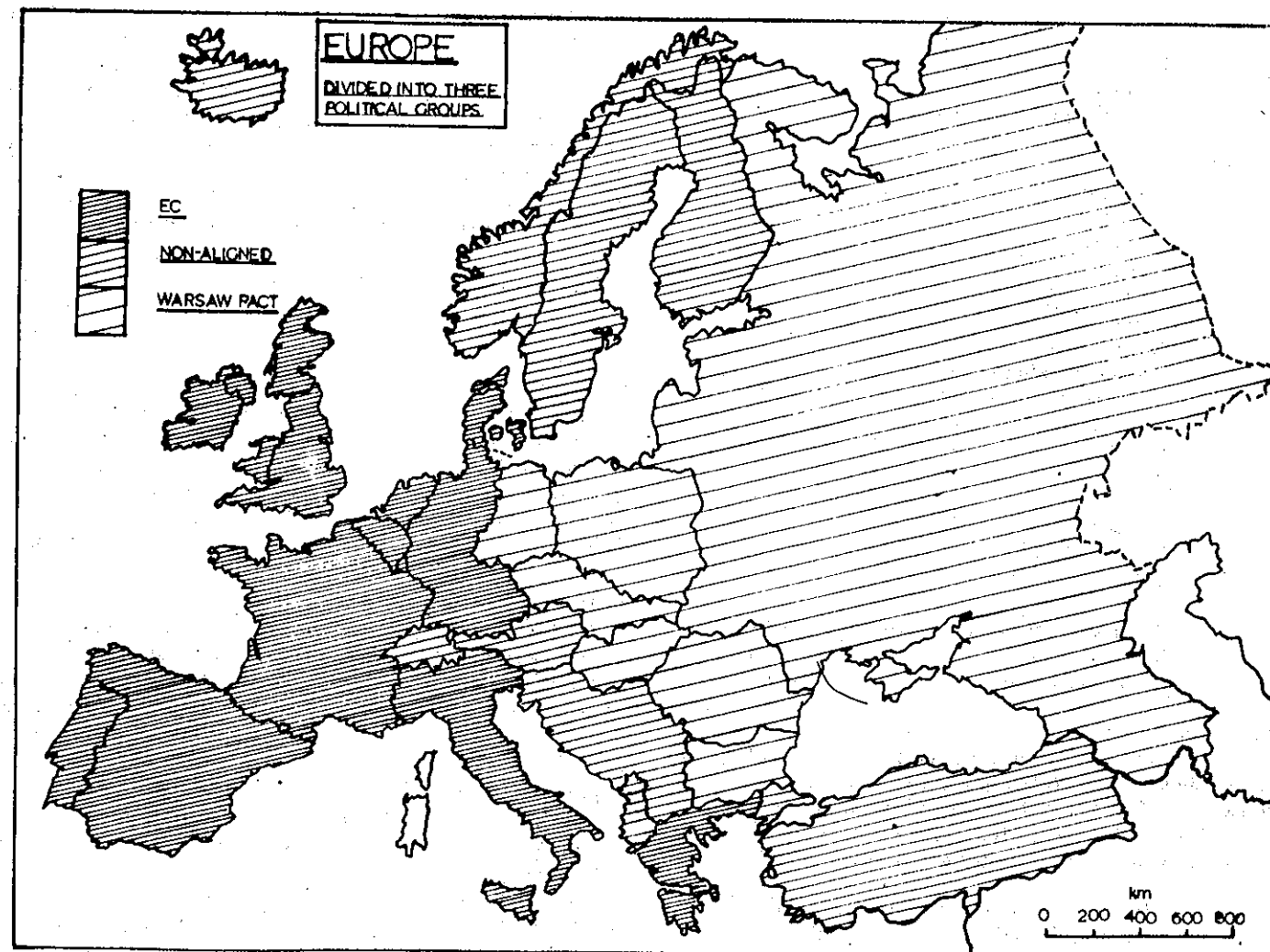
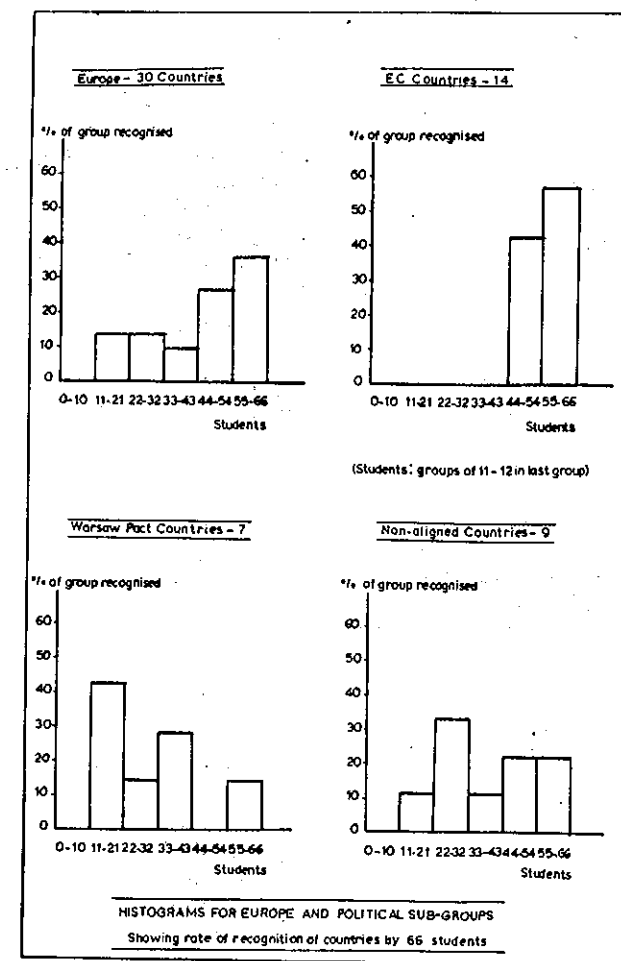
|              |    |
|--------------|----|
| Ireland      | 66 |
| Scotland     | 65 |
| France       | 64 |
| Portugal     | 64 |
| Spain        | 64 |
| Wales        | 64 |
| Italy        | 63 |
| England      | 62 |
| Denmark      | 53 |
| Greece       | 50 |
| Luxembourg   | 49 |
| Belgium      | 48 |
| Netherlands  | 46 |
| West Germany | 46 |

#### Non-aligned Countries

|             |    |
|-------------|----|
| Iceland     | 60 |
| Norway      | 56 |
| Sweden      | 54 |
| Switzerland | 45 |
| Finland     | 43 |
| Turkey      | 31 |
| Austria     | 30 |
| Yugoslavia  | 26 |
| Albania     | 16 |

#### Warsaw Pact Countries

|                |    |
|----------------|----|
| Russia         | 65 |
| East Germany   | 43 |
| Poland         | 42 |
| Czechoslovakia | 26 |
| Romania        | 17 |
| Hungary        | 16 |
| Bulgaria       | 11 |





England, Scotland & Wales listed separately.

Mean for group (14) = 57.43  
 Range = 20  
 Median = 62.50  
 St. Dev. = 7.80  
 Skew = -0.37

Mean for group (9) = 40.11  
 Range = 44  
 Median = 43  
 St. Dev. = 14.29  
 Skew = -0.15

Mean for group (7) = 31.43  
 Range = 54  
 Median = 26  
 St. Dev. = 17.99  
 Skew = 0.62

An exercise undertaken by 66 students in October 1989. The task was to label the 33 countries marked on a map of Europe. The following are the numbers of students who recognised each country:

|                |    |
|----------------|----|
| Ireland        | 66 |
| Russia         | 65 |
| Scotland       | 65 |
| France         | 64 |
| Portugal       | 64 |
| Spain          | 64 |
| Wales          | 64 |
| Italy          | 63 |
| England        | 62 |
| Iceland        | 60 |
| Norway         | 56 |
| Sweden         | 54 |
| Denmark        | 53 |
| Greece         | 50 |
| Luxembourg     | 49 |
| Belgium        | 48 |
| Netherlands    | 46 |
| West Germany   | 46 |
| Switzerland    | 45 |
| East Germany   | 43 |
| Finland        | 43 |
| Poland         | 42 |
| Turkey         | 31 |
| Austria        | 30 |
| Czechoslovakia | 26 |
| Yugoslavia     | 26 |
| (Monaco)       | 19 |
| Romania        | 17 |
| Albania        | 16 |
| Hungary        | 16 |
| Bulgaria       | 11 |
| (Lichtenstein) | 11 |
| (Andorra)      | 9  |

The mean for the whole group = 43.15  
 Standard deviation = 18.78  
 Skew (fisher's g.) = -0.45

As I feel that Andorra, Monaco and Lichtenstein, are politically and economically irrelevant in the context of all Europe and unjustifiably skew the statistics, I have omitted them from the exercise. San Marino and the Vatican State were not included, and the Isle of Man and the Channel Islands could also, arguably, be categorised with these countries.

The mean for the group of 30 = 46.16  
 Standard deviation = 17.18  
 Skew = -0.08

**HOW TO FAIL THE B.A. IN ONE EASY LESSON**

Every June, close on 80 Maynooth geography students sit down to the B.A. degree examination. It is a numbing thought that only six hours are available to reveal the accumulated wisdom of a whole year's hard work. The frantic desire to demonstrate as much of this wisdom as possible leads to permutations of the English language which neither God nor man ever envisaged. Meanwhile, the dissolute waster who has spent two years commuting between the Roost and the billiard room remains as cool as a cucumber; having learned nothing, he has nothing to forget; indeed, he may derive some comfort from the possibility that nothing, written coherently, may create a better impression than loads of gibberish. He is unlikely to present the following answer paper, compiled from genuine offerings presented in recent years.

**The Industrial Revolution**

The Industrial Revolution began in England. England first began to break out of the Dark Ages with the voyages of Marko Kolo, and by the eighteenth century her navy was the best in the world, second only to France. Before the Industrial Revolution factories were all at mouths of rivers and so they could send the materials down the river to the ports. However, the Industrial Revolution brought marked changes, one of the most notable being the change from the ploughman to the nuclear station operator. Of particular importance was technology, which brought a new dimension to industry, especially the spinning jenny of 1700, preceded by the flying shuttlecock in 1773. However, pride of place must go to the new raw material, coal. Raw materials of any industry are useful only when there is a use for them. Coal is composed of a number of materials such as limestone and iron ore. Thus factories moved in and sited themselves on the coalfields. However, very often some baby industries were located in the peripheries. These factories made large prophets which were reinfested in industry.

However, technological change was to greatly affect all this. A technological change is a change brought about by new advancements in the research of technology. The industrial location patterns are patterns made up of the situations of an industry. It is clear therefore that technological change can affect the industrial location patterns. Technological change means the new standard of know-how that has long since changed anyway the factors which before had led to industrial location before this. Technological change can completely change the location of a given area. Thus, whole industrial areas moved to new locations. For example, many of the coalfields were moved down from the valleys.

Transport was very important in the Industrial Revolution. Transport first took on a new significance with the revolution of the wheel. Nowadays, many new modes of transport have been introduced. These are, respectfully, the big trucks known, as "jugonauts", the concordat, the tankard. In recent years, intercity frieght in the USA by truck has doubled by 500%.

**Central Place Theory**

Central Place Theory was introduced by Walter Xthaller. It is only a model, and to have a good model one must first of all specify the cruciable variable, which in this case is excessability. Central Place Theory is part of the tertiary sector, which has resulted from the remains of the primary and secondary sectors. In particular, it deals with retailing, which involves the supplication of the shopkeeper. In this theory the threshold area should cater for huge shops and other heavier articles; for example, the publican requires a minimum number of publicans to keep him in existence.

Christaller said that towns were equally distributed but had a tendency to agglomerate. In his theory he suggested that the hegazonal service should be used, and not the circled one;

indeed, he knew that he had to use hegazonals to get his idea to work. In this hierarchy, the deserted village will just sell newspapers, cigarettes, and milk. Larger centres will only sell luxury goods, which are really essential. It is because of affluence that the demand for bananas and other luxuries are made.

**Mineral Resources**

Ireland has important mineral resources. The Tina mines are the largest single producer of zinc in Europe while the Tara Mines are the greatest producer of zinc in the world. We also have bartrys, a material used by oil companies for artificial drilling wood, while Bord na Mona gives us turf for domestic use and then pete which has many uses. Oil has been allocated off the south coast; there are prospects of locating oil refineries in Dublin Bay and more off the Cork coast, and there are arguments nowadays for the building of an oil smelter.

The world as a whole is rich in oceans. President Turman first set the example of taking part of the sea under his wing. There was much heated controversy between the Russian and Australian governments in 1975 since they accused the Russians of carrying out nuclear experiments off the Coast of Trinidad. At the beginning of this year a conference to determine the laws of the seas took place in Caracas. Ireland sent delegates from RTE and other important officials. She has forbidden any tanker over 110 feet in length to fish in her waters.

**The Fathers of Modern Geography**

Geography can be traced back to the ancient Greeks and Romans, such as Ptolemy, a famous geometrist, who divided the circle into 360 degrees. However, geography first made great strides with the "Age of Cartography". The major contributory elements to the "Age of Cartography" may be attributed to the discoveries made as a result of exploring and the knowledge of the unknown. Of particular importance here was Columbanus, who founded the New World. The leading figure in the "Age of Cartography" was Mercator. It was not until his advent that the idea that the world is spherical came into being. On the world map, even though there is equal exaggeration at all points, there tends to be over-exaggeration towards the poles.

Important geographers since then have included Immunal Kant, Carol O'Sauer, Viva de la Blanche (who believed that man is a pissive agent), and Alèc von Humbolt, a naturist, who was one of the great field researchers and found things as they were. An important influence on geography was Darwin, who in turn was influenced by Haeckel and Goethe, two ecologists and who wrote the famous "Species of Origin". He introduced the idea of ego-systems. The ecological problem was taken up in the 1930s by American sociologists who were only interested in how men reacted with other men. Another important geographer was Hartshorne, who tried to amalgamate the duality as regards the idea of the duality of the study of the physical and biotic environment as opposed to the physical and biotic.

**Agriculture**

Agriculture can be traced back to the neolithic age of economic development, that is the era since the time of the industrial revolution. From the very beginning of time, man had always needed some tool; in the early stages of development this tool helped him to come to grips with his environment. Prior to this, pastoral nomadism was practised. Pastors moved from place to place with their animals in search of water. Pastoral nomadism still takes place in parts of Africa - in the area above the Rio Grande where there are deserts and steppes. In such an area, subsistence agriculture thrives at a very low standard.

Today it is possible to distinguish between peasant farming and commercial farming. In peasant farming, people produce what they need and swap the remainder of what they produce.

Here reciprocal exchange may take place where the tribe leader is bound by tradition to do a certain deed, in order to maintain his status. As society produces a surplus it is able to afford such luxuries as priests, etc. Large scale commercial farming is not usually found on a farm under 20 acres. The principal dairy farming regions of the world are found in the North East half of North America and in an associated zone which extends from Southern Finland to Northern Australia. The farm size in Ireland can generally be described as small, medium and large.

**Offices**

The growth of the office sector is due to the strong tendency for government officials to increase at all levels. It is in the office sector that we find the collar jobbers. Most office location is in the city centre as are the central business districts. Consequently you have a great feminist movement into the cities inthe capacity of typists.

Alexander Von Dumbdolt,  
 B.A. (Failed).

**WORDSEARCH ANSWERS**

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

**TRIVIA ANSWERS**

1. The Soviet Union with 11
2. Wellington, New Zealand
3. Norway
4. Austria and Italy
5. Maps
6. In a Bank
7. Mitchigan
8. Pacific
9. Canada

## DUBLIN 1991

by

Tony O Dálaigh

Dublin is the seventh city to hold the title "European City of Culture". The actress Melina Mercouri, as Greek Minister for Culture, came up with the idea which was quickly accepted by the European Community. Appropriately enough, the first city to be honoured was Athens in 1985 and this was followed by Florence, Amsterdam, Berlin, Paris and Glasgow.

For the first few years the event was fairly low-key with the cities being satisfied to focus on the richness of their artistic tradition as well as bringing international culture in the form of exhibitions, famous orchestras, opera companies and theatre productions.

For the last three years, however, the cities concerned have upped the ante considerably. Berlin spent close on £25 million. Not to be out-done Paris, which was celebrating the bicentennial in 1989, put on an even more lavish show.

To everybody's surprise, Glasgow not only equalled but outstripped these two eminent cities in spending power. It is not generally recognised that Glasgow, for many years, has had a much more vibrant artistic life than Edinburgh which, apart from the Festival, is not a particularly lively city. With some help from Central Government, the local authorities, and particularly Strathclyde District Council, put together a programme which cost £50 million sterling.

A large part of Glasgow's strategy was, through the arts, to improve the image of the city world-wide. In this they certainly succeeded and investment in Glasgow, which was already on the increase, is expected to be even more significant in the years ahead.

Dublin had a hard act to follow and the organisers wisely decided that there was no point in trying to match the mega-bucks of Berlin, Paris and Glasgow. However, we did give ourselves unnecessary problems by an inexplicable delay. The decision to award Dublin the title was taken in November 1988 but eleven fallow months passed by before Lewis Clohessy was appointed as Director of "1991" in October 1989. This left him and his staff less than 15 months to put a programme together. In the circumstances, they have done very well - considering the resources, which total about £3.5 million. Of this the lottery kicked in £1.25 million; five major sponsors Irish Life, AIB, Bank of Ireland, Guinness and Telecom Eireann contributed over £600,000 between them and the balance has come from other sponsors and other countries' cultural agencies such as the Goethe Institut, British Council and their French, Spanish and Italian counterparts among others.

After a laser opening at City Hall on New Years Eve, the programme has been fairly low key for January/February but we did have the Scottish Ballet at the Point, a fine Swiss exhibition at the RDS and the inimitable Nigel Kennedy at the National Concert Hall. The Dublin Film Festival, with increased sponsorship, put on its best selection ever.

The Official Opening on 16th March will be attended by Ministers of Culture and other delegates from EC countries. From that point, we can expect an explosion of major events throughout the year. The Municipal Gallery re-opens with a superb exhibition from the Berlinische Galerie. There will be a Festival of Discovery in March/April and an International Chess Tournament will bring grandmasters to Dublin for the first time in decades.

On the first Sunday of each month, you can see - free - a Mozart Mass at the Pro-Cathedral at 11 a.m. On Easter Sunday, Mozart's magnificent "Coronation Mass" will be broadcast live on RTE television when the Palestrina Choir will be joined by the Irish Chamber Orchestra and the RTE Chamber Choir.

There is not enough space to go into all the goodies lined up for the rest of the year but particular mention should be made

of the GPA Dublin International Piano Competition in April/May, the international season of plays "Mayday to Bloomsday" at Project Arts Centre and Andrews Lane in April/June, the opening of the Irish Museum of Modern Art at the Royal Hospital Kilmainham in May, the many special celebrations of Bloomsday on June 16th, a host of events at the National Gallery, National Museum and the National Library and finally the event which, naturally, is of most interest to me, the Irish Life Dublin Theatre Festival which this year runs from 7-19 October. Certainly, with more time and more money Dublin 1991 would have been bigger and better but the reality is that there is much to enjoy and everybody should join in in what is a very important year for Dublin and Ireland.

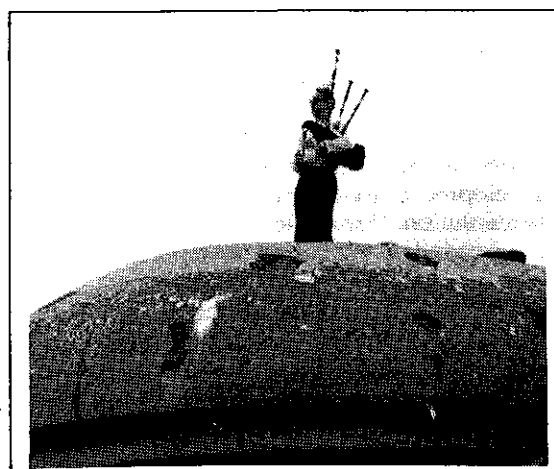
Incidentally, the official title is "European City of Culture". Glasgow rather grandiosely changed this to "Cultural Capital of Europe" but Dublin, quite rightly, has reverted to the more appropriate title.

When the year is over, there will be a number of monuments to 1991 - the splendidly restored Custom House, the refurbished Municipal Gallery, the new Irish Museum of Modern Art and the new Dublin Writers Museum in Parnell Street. The most important may well prove to be the preservation of the Temple Bar area, as Dublin's "Left Bank" - through the injection of over £7 million from the EC and matching funds from the Irish public and private sectors.

**Tony O Dálaigh**  
Director,  
Irish Life Dublin Theatre Festival.



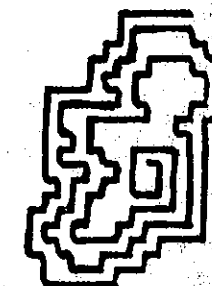
"Cheers"



"Pipes of Peace" - Omaha Beach, Paris 1990

## The GEOGRAPHICAL SOCIETY of IRELAND

### Cumann Tíreolaíochta na hEireann



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 distinctive feature of the Society's programme and provide first hand experience of areas of geographical interest in Ireland.

#### PUBLICATIONS

The Society's principal publication is the internationally known journal **Irish Geography** which is published in June and December. The main body of the journal comprises papers dealing with various aspects of Irish geographical research. Also included are a book review section, a record of recent publications of a geographical nature dealing with Ireland, and a section concerned with aspects of Ireland's changing geography. The Society also publishes the biannual **Irish Geographical Newsletter** which provides news and information about geography in Ireland and about the activities of the Society. It also acts as a forum for the discussion of general matters of geographical interest. Members receive both of these free of charge and may also obtain some journals published by other societies at a special concessionary rate.

#### LIBRARY

The Society's Library is housed in the Department of Geography, Trinity College, and carries a long series of many geographical journals. In addition, there is a collection of books covering all branches of the subject, and 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 - 7772941 Ext. 1454.

#### CURRENT ANNUAL SUBSCRIPTIONS

|                    |        |                                    |        |
|--------------------|--------|------------------------------------|--------|
| Dublin Membership  | £12.50 | • Country (> 25 miles from Dublin) | £10.00 |
| Student Membership | £7.50  | • Overseas                         | £10.00 |

#### APPLICATION FOR MEMBERSHIP

To: The Hon. Sec. Geographical Society of Ireland, Department of Geography, University College, Galway.

I wish to become a member of the Geographical Society of Ireland.

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Type of Membership requested \_\_\_\_\_

I enclose Subscription for 1991 \_\_\_\_\_

Signature \_\_\_\_\_ Date: \_\_\_\_\_

**TAKE CARE  
OF THE THINGS  
YOU VALUE.**



**Church & General**

Church & General Insurance plc., 15, Marlborough St. Dublin 1  
Tel: 735111. Fax: 735110. Telex: 30351.