

Paper Presented at the First International Conference on Professionalism in Geology, Alicante, Spain (2000)

Professionalism in Geology: The Irish Experience

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Introduction

Geology as an occupation, in Ireland as a long history dating back to the early part of the 19th century. The first geological map of Ireland, prepared for the Irish Railways Commission dates to 1839 with the work leading to its preparation taking place in the 28 years before this date. The author of this map was Griffith and he has been described as the Father of Irish Geology.

Following this most geological work was undertaken by the Geological Survey of Ireland (GSI) which was founded in 1845 as a Division of the Geological Survey of Great Britain in Ireland - this survey having been founded 10 years previously.

The Geological Survey of Ireland carried out the primary mapping of the bedrock of the country by 1895 and Ireland was the first country in the world to have been mapped at a scale of 6 inches to the mile (or approximately 1:10,000). Geological maps were published at a compilation scale of 1 inch to the mile (or 1:63,360). The original 6 inch sheets and copies of them are consulted even today by many people wishing to know about Ireland's geology.

During this period of mapping, geologists were mainly "gentlemen" with a desire to understand the earth and were mainly self taught.

The GSI fell into a period of decline following completion of the mapping programme and with it geology in Ireland also declined. It wasn't until the outbreak of World War II which resulted in shortages of raw materials that gave geology a short renaissance in Ireland. All commodities were in short supply and mining personnel were used to explore for the much needed raw materials. However, it was really in the mid to late 1950's that geologists and geology became an important occupation in Ireland. Ireland became an important field training ground for several UK Universities and many classical works were carried out for example that of Pitcher and Berger on the granites of Donegal. Also around this time in an attempt to stimulate mineral development generous tax holidays were provided for mining. This along with encouragement from the GSI resulted in the discovery in 1960 of the Tynagh PbZn deposit in Galway and the birth of modern Irish Mining Industry. This discovery attracted the attention of the world mining community and persistent exploration led to the discovery of up to 20 important deposits, six of which have been mined and three are active today - Navan, Galmoy and Lisheen.

Since the Tynagh discovery the number of geologists employed in the exploration sector has been as high as 250. This increase in activity led directly to the rebirth of the GSI. The rebirth was led by Dr. Cyril Williams whose vision saw that not only was the minerals sector looked after but also other geological disciplines such as geochemistry, geophysics, hydrogeology as well as bedrock and Quaternary mapping.

With the development of the minerals industry came the requirement initially for geological disciplines directly involved in the search for and development of minerals - mining geologists, exploration geologists, geochemists and geophysicists. Later when individual mines required development hydrogeologists were required to address particular issues and later still in our more enlightened environmental times hydrogeologists and environmental geologists were required. With this increase in available expertise individuals addressed themselves to other issues and problems facing the community - for example water supply and contamination, foundation requirements, building materials for infrastructure requirements. Today, therefore there is a wide range of geologists working in Ireland.

The development of geology as a profession in Ireland is therefore largely restricted to the past 50 years. Within this period a number of associations were established to cater for the individual needs of various geological disciplines; associations such as the Irish Association for Economic Geology (IAEG), International Association of Hydrogeologists - Irish Branch (IAH), Irish Geological Association (IGA), Irish Mining and Quarrying Society (IMQS) and others ran lectures and technical courses of relevance to their membership. These societies all had a strong drive, but in some ways resulted in a degree of separation between geologists of different disciplines.

The move towards Professionalism

Why has this desire or need for professionalism in geology arisen? Like most things in life there are several reasons.

The first is the global trend for all professions or disciplines to organise themselves.

Secondly with increasing regulation in all facets of life and operations there is the need for a “quality of work” mark or stamp for the practitioners of geology. Regulations stem not only from Government but also from Security Exchanges where the interests of investors must be protected.

Thirdly there is the question of mobility and the mutual recognition of qualifications around the world. Geology, more than most subjects does not recognise political boundaries. Most geological work is carried out on a global scale and therefore for an understanding of complex problems there is the need for freedom of movement of professionals in this area.

Fourthly, there is the recognition that our education does not stop as soon as we receive our parchment from the University or College at which we have studied. To operate in a competent and professional manner it is necessary for geologists to keep up to date in their chosen area of work. In addition to technical competency there is also the business end of being in business, communications (both written and oral),

representation, finance, expert witness and a whole host of others. These business topics may or may not have been a part of the formal training process in University but nevertheless are vital to being professionals.

Fifthly, the whole area of attempting to improve the terms and conditions of employment of geologists. This includes pay - in Ireland geologists are not paid as much as other professions who have studied and been educated to the same extent and whose level of responsibility is the same as geologists.

Sixthly, there is the whole area of promoting geology both as a science and a profession. This also includes ensuring geologists are employed to do geological work and not others.

I'm sure that these apply to a greater or lesser extent in other countries. However, each of the issues addressed above would be judged or prioritised differently. Indeed, it would be surprising if the same set of priorities that we see in Ireland were the same in other countries.

So, as far as professionalism in Geology in Ireland is concerned we now have a self regulating body. How did we get there is the topic I will address.

Birth of the IGI

The IAEG took the lead in 1988 by affiliating to the EFG. The IAEG is an Association dedicated to the advancement of Economic geology and in particular the minerals sector. There were a number of reasons for this not least being the issue of recognition of qualifications between jurisdictions and the increasing requirement for a quality work for geological work in the mineral sector. The IAEG set up a separate category of Professional Member to which the initials PMIAEG were assigned. The IAEG became the sole Association in Ireland for adjudicating on whether a person would be acceptable for EurGeol. A number of long standing IAEG members worked in the hydrogeology sector and sought to become professional members. They also belonged to the international Association of Hydrogeologists (IAH) - Irish Branch. In order to facilitate hydrogeologists to become professional members the IAEG changed its constitution whereby Associations representing other disciplines in geology could become affiliated to the IAEG and they would carry out the vetting of applicants and regulating of members. The constitutional change was written so as to allow any other discipline to affiliate but only the IAH - Irish Branch did so.

Other Associations did not wish to affiliate but some of their members wanted to become professional geologists but there was no mechanism for them to do so. Also the issues relating to working as professional geologists were increasing and growing beyond the scope of the IAEG and IAH - Irish Branch -(which are learned or scientific bodies).

In this light I as president of the IAEG in 1997 set up what become known as the PAC or Professional Affairs Committee. I invited participation from all the geological bodies in Ireland - the IAEG, IAH-Irish Branch, Geotechnical Division of the IEI, the IGA, IQUA, IMQS, PESGB - Irish Branch. The remit of the group was to consider

the whole area of geology as a profession and to come up with proposals which would be put to the geological community as a whole.

As part of the process a meeting with the theme “Geology - its your Profession “ was organised in the GSI in Dublin in May of 1998. The invited speakers were Richard Fox (Geology Society), Manuel Reguero (EFG), Finbar Callanan (IEI) and William Knight (AIPG). These speakers outlined their experiences and views on professionalism in geology and in the case of finbar Callanan in engineering.

At the meeting the outline of the PAC’s thinking at that time was presented and broad support was expressed. The PAC was asked to formulate the model which would be put to the various participating organisations at their respective AGM’s later that year.

These proposals were accepted by most of the participating bodies but a few withdrew for example IGA as they felt their status would be affected.

However, a clear majority of bodies and as it turned out working geologists, supported the PAC proposals.

So what did the PAC propose?

The PAC proposed the following:

- That a self regulatory body would be set up to cover all disciplines in geology
- That the body would be known as the IGI
- That the body would award the accreditation of PGeo
- That the IGI would be the Irish National body validating and regulating the title of EurGeol
- That certain bodies would be known as sponsoring bodies, such bodies supported the IGI financially and morally
- That the IGI would commit itself to a programme of activities outside the scientific areas of interest of the sponsoring bodies. However, some activities may be arranged which may be of a cross disciplinary nature.
- That a Constitution and code of Ethics would be drawn up.

The sponsoring bodies agreed to this and the IGI was launched by the Minister for the marine and Natural Resources Dr. Michael Woods in May 1999. The initial committee, known as the Transitional Council and made up of PAC members and representatives of the sponsoring bodies were charged with setting up the IGI, organising events, and drafting the Constitution of the Institute. Industry from all disciplines were canvassed for financial sponsorship.

The Inaugural General Meeting of the IGI took place in April this year at which the constitution - consisting of the Memorandum of Association, Articles of Association and Code of Ethics - was formally adopted following extensive consultation with the Membership, the sponsoring bodies and legal opinion. The first Council was elected as follows:

- President Eibhlín Doyle
- Vice President Eugene Daly
- Treasurer John Clifford
- Secretary Julian Menuge

Ordinary members of the board are Becci Cantrel, Teri Hayes, Gareth Ll Jones, Peter O'Connor and Christian Schaffalitzky.

An outline Programme of Activities was decided upon. I will return to this a little later.

The IGI was set up as a limited company. This affords the Officers of the Company protection as well as imposing certain reporting requirements to the Companies Office - mainly of a financial nature. The IGI were fortunate to receive from University college, Dublin Office space with some computer and telecommunication facilities.

Programme of Activities for 2000

What are programme of activities for 2000? We are still in our formative stages so we are currently setting up our programme and methods of operation. We are firmly of the belief that a committee system serves us best. By this I mean that for each of our principal areas of work we have a small 2 to 4 person committee to formulate and implement our programme of activities. These committees which are made up of for the most part of individuals on the main committee as well as invited members of the Institute. At present we have

- Validation committee - to validate new members
- Ethics committee
- Disciplinary committee
- Continuing Professional Development (CPD) committee
- Public Relations and information committee
- Drilling standards committee
- Constitution committee- the work of which is now almost complete
- Social committee

I would like to discuss briefly two of these, CPD and Public Relations Committees.

CPD

Firstly the CPD committee. The committee was charged with developing a procedure and programme for CPD. The committee developed a proposal which was presented to membership at two meetings - one in Dublin and the other in Kilkenny in the south of the country. The programme aims to facilitate members continuing their professional development by awarding points in a number of areas. These are work experience, attending courses, contributing to research and development in ones chosen area of expertise, writing and presenting papers at symposia, conferences etc., self directed reading. Each member keeps a diary of their activities under these headings, completes the requisite forms (which are available on our web site) at the end of the year and submits these forms to the Secretary of the IGI for record purposes. To maintain ones registration members must obtain points in a number of heading depending on ones specialist area. The system has just been developed so we have no record on its success or other wise. No doubt with experience the system will evolve. We are encouraged by the overall enthusiasm with which the system has been received by the Membership to date.

One of the roles in CPD that the IGI will take is offering formal courses. We have already identified report writing, expert witness and oral communications as courses which we will be organising and offering to the membership. The Membership also has provided suggestions for courses and these will be carefully examined over the coming months.

Another area in which the IGI will become involved in is validating or accreditation of courses organised and run by other bodies. For example by the IAEG or IAH- Irish Branch. These courses will therefore qualify for awarding points towards CPD.

Public Relations Committee

The second committee I will discuss is the Public Relations committee. Initially they were charged with proposing a strategy for public relations which involved both a public awareness campaign including press coverage and a programme of access to senior political figures including Government Ministers and policy makers. Having developed the programme the committee is now charged with implementing this programme. I am pleased to say that this committee has been successful even at this stage in its life with obtaining press coverage, developing an information leaflet and shortly we hope to have a meeting with Government Minister(s) with respect to issues related to the profession of geology but with a practical and relevant perspective to the Minister. We are confident that our programme will pay dividends.

I am proud of what we have achieved in such a short period, we have accomplished our goals to-date because of the drive, enthusiasm, energy and knowledge of my fellow board members and of the broader membership.

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President IGI (2000)

August 2000