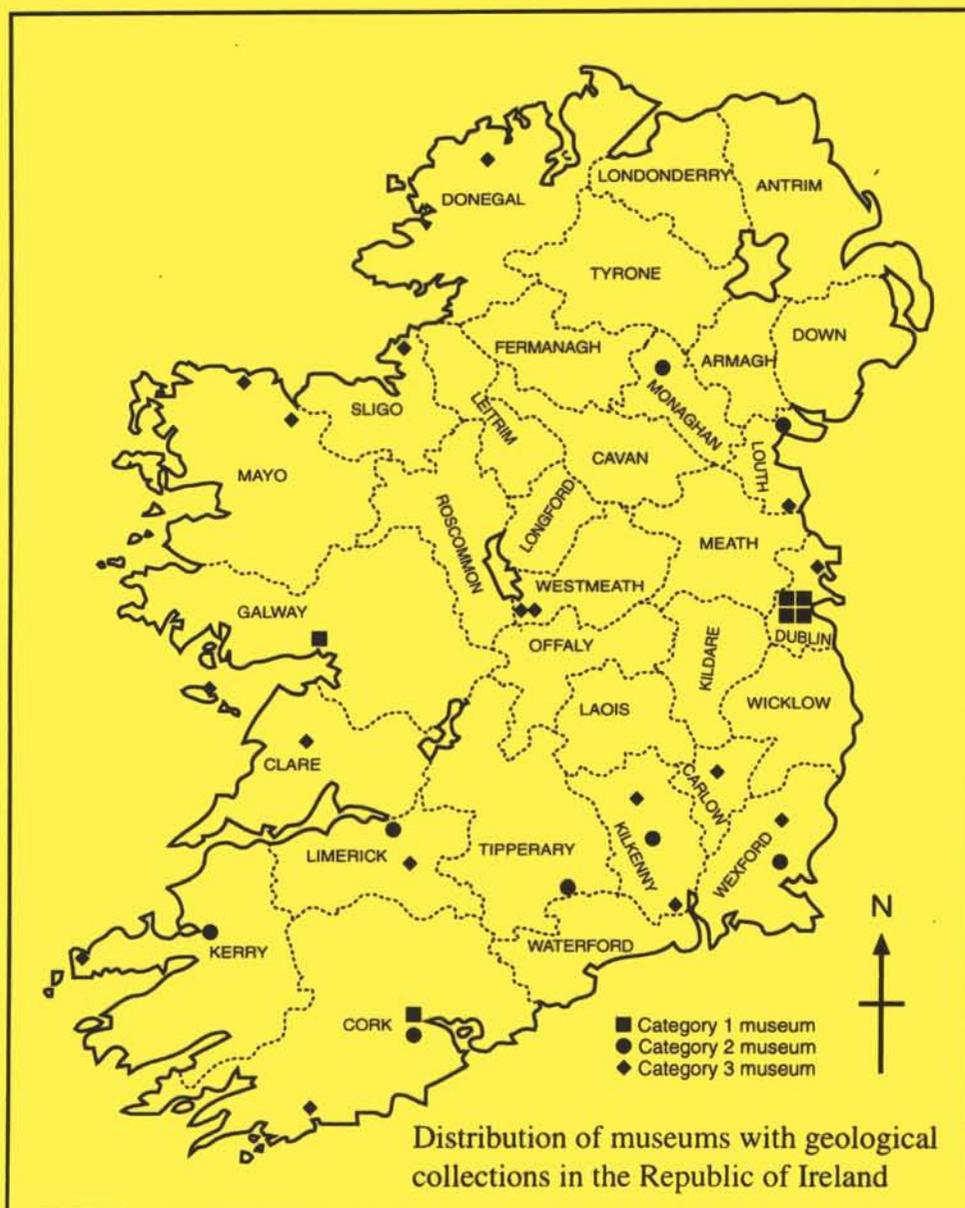


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Distribution of museums with geological collections in the Republic of Ireland

A SURVEY ON THE STATE AND STATUS OF GEOLOGICAL COLLECTIONS IN MUSEUMS AND PRIVATE COLLECTIONS IN THE REPUBLIC OF IRELAND.

by Matthew A. Parkes and Patrick N. Wyse Jackson



Parkes, M.A. & Wyse Jackson, P.N. 1998. A survey on the state and status of geological collections in museums and private collections in the Republic of Ireland. *The Geological Curator* 6(10): 377-388.

A simple postal survey of 73 museums, heritage centres, individuals and other establishments was conducted to assess the state and status of geological collections across the Republic of Ireland. There were 31 locations with a collection, assessed under three categories: 1) educational or institutional geological department, 2) County Museum/Local authority funded museum and 3) other collections including private ones. Excepting the National Museum, the specialised geological museums were mainly directed towards internal functions, with little outreach or community emphasis, and with a resource based lack of curatorial strength. The County Museums had little knowledge or practical concern for their geological collections, but a desire for assistance was clear. With the other collections the lack of appropriate knowledge to assess or use the geological collections was apparent. All but the specialised geological museums commonly confused archaeological specimens with geological ones and this misapprehension is evidently widely held. Some preliminary recommendations for improving the status of geological collections are suggested.

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Introduction

As geological curators, we had been aware of a general lack of documentary data on geological collections in Ireland, as well as perceiving a widespread lack of appreciation of geology in both the museum community and the general public. Wyse Jackson went some way towards addressing this by organising a meeting on Geology in Irish Museums in 1990 (the first Geological Curators' Group excursion outside the U.K.), the results of which were published in this journal (Volume 5, No. 7).

Subsequently, we proposed to conduct a detailed survey and sought funding from the recently established Heritage Council for such a project. Unfortunately, with a broader pilot survey of museums in general being undertaken, and many other competing demands on funding, no support was available. Consequently, a much modified and restricted survey was conducted in an attempt to get a crude picture of the state and status of geological collections. Much inspiration was derived from the work of Doughty's (1979, 1981) more extensive survey of U.K. museums.

Our survey, tailored to suit both our perception of museum and geological provision in Ireland, and the resources available, was limited to a simple postal survey. It was decided to be as inclusive as possible and

any collection has been included, irrespective of whether the establishment where it was held would pass any particular definition of a museum. Therefore the term 'museum', used subsequently must be taken as including a wide variety of establishments linked simply by possessing a collection of geological objects.

The analysis of the results is presented here, together with our conclusions and observations on the significance of them. However, we caution against placing too much weight on any one statistic of the answers. In many cases it is the information that has been left out, the unanswered questions or the comments received that are most revealing. The results are a first sketch picture. Further work on assessing geological provision in museums in Ireland is planned, ultimately with the intention of further raising its profile and image.

Methodology

A five page questionnaire was drawn up, designed to be as simple as we could make it, for busy curators to complete, and as open as possible for those with more information available to provide it freely. The content was restricted simply to geological (specimen and archive) collections and associated public aspects of their provision. No attempt was made to identify details

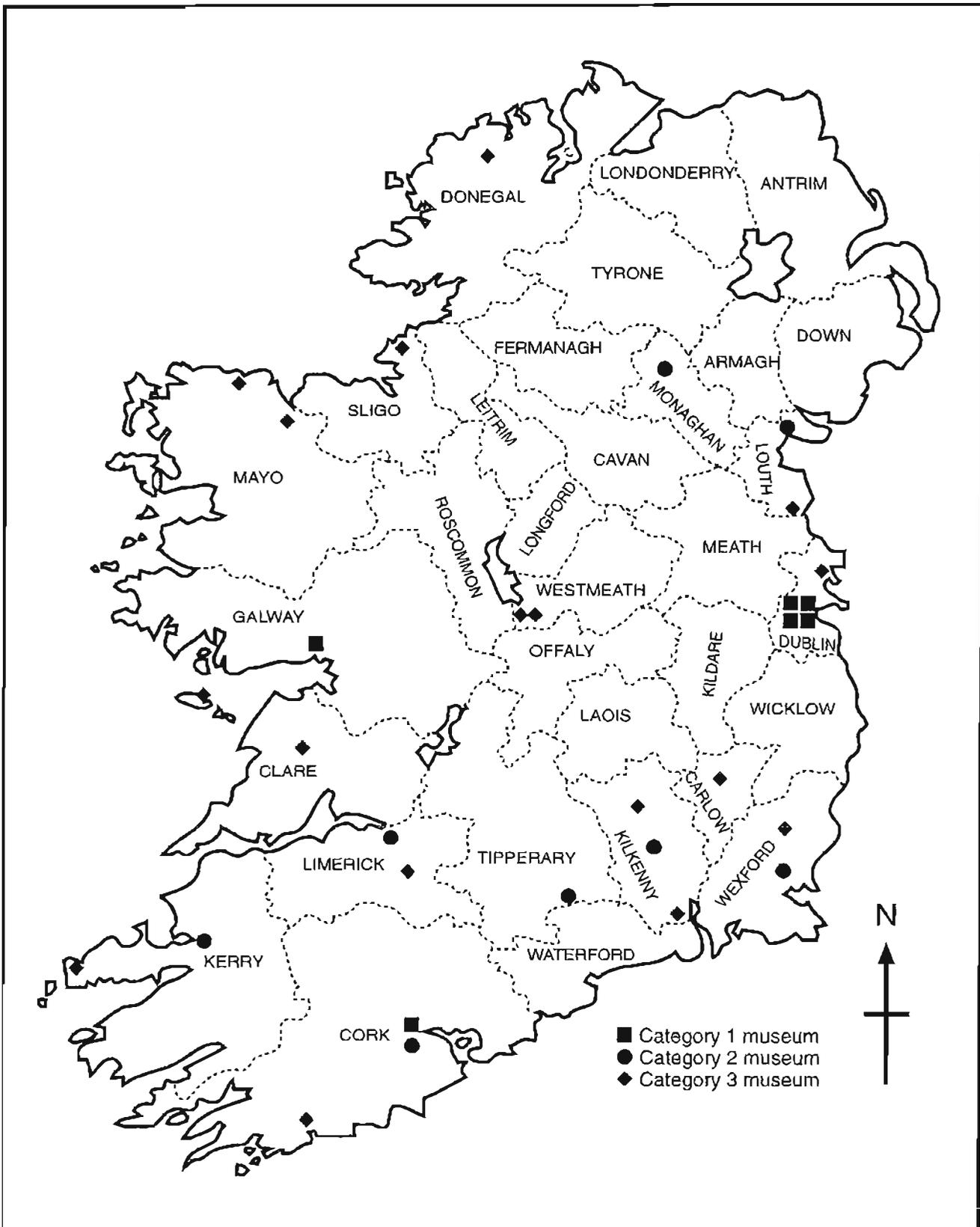


Figure 1. Map showing the locations of the museums and collections surveyed.

of the governance, funding, status, staffing or characteristics of the museum as a whole. The questionnaire was then sent out in July 1997 to all the museums known to us. We also sent it to a large selection of other heritage centres, private houses, tourist attractions, institutions and individuals whom

we thought might have some geological collections, however small. A listing of Heritage Sites in Ireland issued with the magazine *Archaeology Ireland* in 1997 (Anon. 1997) was used, along with a natural history archive listing (Nelson 1990). Question 25 asked respondents 'Are you aware of any private collections

that we may not have any knowledge of? If so please could you provide a name or address for us to contact'. This led us to several other collections of which we were unaware.

In order to gain a complete picture rather than a representative sample, considerable effort was put into following up the initial questionnaire, and a second questionnaire was circulated in November 1997 to all those who did not respond at first, and a third circulated in March 1998, to a diminishing number each time. Additional possible locations were also circulated as they became known to us. Some of the more significant places were contacted by phone, and then in July 1998 a last effort to ensure complete coverage included sending questionnaires again and phoning round all non-respondents. Many of these of course had no geological collections but had simply not bothered to return the questionnaire with a 'no' response. We did not supply S.A.E's. for respondents; it would be interesting to know what effect on the response rate this might have had.

Categorisation of respondents

The full list of museums and centres which we circulated is given in Appendix 2, broken down into those with collections and those without. Addresses of those holding geological collections are given, and they are divided into three categories. This separation is a necessary measure to make sense of the results within the overall picture, in order to compare like with like. Retrospectively, some measure of the museum identity

would have been useful, but intuitively the three categories are the most natural characterisation.

Category 1 Museums

This group includes all the establishments whose primary concern is geology, or whose museum is entirely geological. Essentially this is all the geology departments of Universities and Colleges, some of which have museums open to the public, others of which are largely research or teaching collections [Trinity College Dublin = TCD, James Mitchell Museum in University College Galway = JMM, University College Dublin = UCD, University College Cork = UCC]. Two exceptions are included. The National Museum of Ireland (NMI) is obviously a far greater institution, with collections of many types, but it has significant geological collections, geological staff and is most appropriately linked here. The Geological Survey of Ireland (GSI) is likewise a far larger entity than its collections, but falls most neatly into this group.

Category 2 Museums

This category numbers only 8, and includes all local authority or County museums. In essence, they are all comparable institutions, with at least one full-time Curator, and other unifying features.

Category 3 Museums

In this bucket grouping are all other establishments having some geological collections; we received responses from 17 but know of another 3 with geological collections. Whilst further subdivision of these would be possible, an initial appraisal of the questionnaire responses suggests that it would not have been of benefit. Therefore included in this group are a number of small privately run museums, some private individuals' collections, heritage centres, large estate houses and a diversity of establishments broadly classed under 'heritage'.

Responses and results

Category 1 Museums [6]

In some respects the surveys of these museums revealed little that was not already known to us, yet it is advantageous to look at the information in an aggregate form, and also to collate the existing published source material. The National Museum of Ireland obviously has varied collections, but this survey considers the 100,000 (out of 5 million total) specimens held by the Geological Section and the section itself, in isolation from the remainder.

A number of recent directories contain listings of some of these collections: Bode and Burchard (1985): NMI; Cleevly (1983): GSI, NMI and TCD; Nudds (1994):

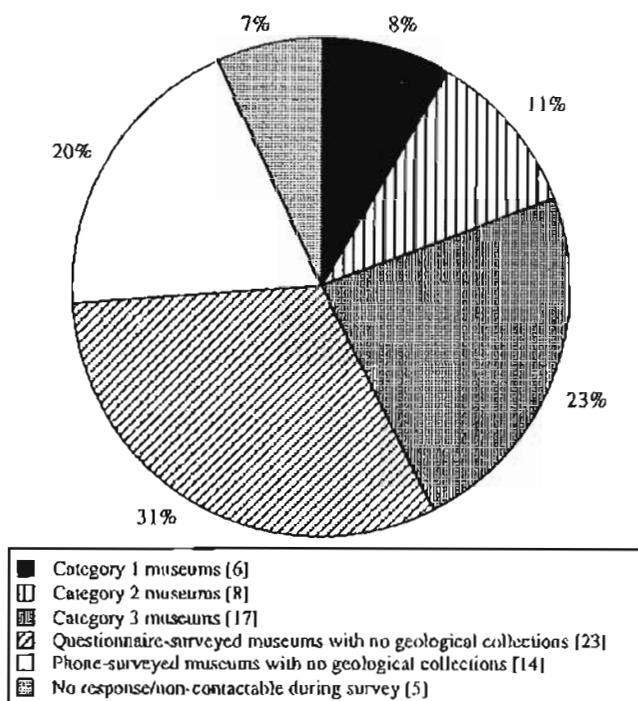


Figure 2. Pie-chart showing the percentage of museums in six categories.

NMI, JMM, TCD and UCC; Webby (1989): GSI, JMM, NMI and TCD.

In this category over 90% of all specimens are geological. The history and contents of the collections have been summarised: Monaghan (1984, 1992) for the NMI; Harper (1992, 1996) for the James Mitchell Museum (JMM) in University College Galway; Sleeman (1992), Parkes (1995), Parkes and Sleeman (1997) and Herries Davies (1995) for the GSI; Nudds (1982*a, b*, 83, 84, 88, 89), Wyse Jackson (1989, 1992, 1994) for the Geological Museum in Trinity College Dublin (TCD).

In condition (Q4), most of the collections were classified as 'good' = sound and clean, although specific parts such as ammonites were classified as 'indifferent' or 'bad'. In the case of the GSI collection many specimens subject to pyrite decay had already disintegrated, leaving only 'good' specimens.

As might be expected Q5 revealed a variety of classification systems in operation for the arrangement of material in storage. Most mineral collections used Hey's classification, fossils were largely ordered systematically (by taxonomic phyla, then by geological system, and geographical location), with type specimens kept separately. The question however, failed to illustrate the situation known to us in most of the museums, that of extensive collections accessioned but not curated, and the innumerable problems of lack of space. The difference between the aspiration of having collections logically classified and ordered, and the reality of unsuitable spaces is considerable, even in our 'own' collections.

Overall, Q6 illustrated the variety of storage conditions, with most museums having some in each of the classes: drawered cabinets; shelved cabinets, cardboard boxes; crates and packing cases. Extremes range from the GSI fossil collections almost entirely in purpose built steel cabinets, to the NMI which has some 80% in crates and packing cases. The class 'other' was cited for display specimens, and for the very large specimens which fall outside the shelf/drawer capacity. Q7 the adjunct to this, showed that most museums had purpose bought trays or boxes for the specimens in cabinets and drawers.

The physical buildings were examined by Q8, which showed that half of the museums had collections in more than one building, but these were largely classed as secure. Two had 'outside' stores. One in UCG, has been organised by Parkes, and contains collections of material, which is either reference material for completed research or yet to be worked material, much of which is uncurated except as discrete collections.

The cataloguing examined in Q9-11, yielded a picture of varied coverage, from one completely uncatalogued

collection (UCD) to effectively 95-100% catalogued. The GSI, JMM and UCC have had curatorial 'restoration' projects in recent years and largely have computerised catalogues. In TCD and NMI, a mix of computerised and paper records (hand written ledgers, labels, lists, registers) is recorded. Half of these museums claim to follow Museum Documentation Standards.

The awareness of status material in the collections varied greatly too. The GSI catalogue of Type Figured and Cited specimens (Parkes and Sleeman 1997) is the most recent, but the TCD palaeontological collections have been the subject of six catalogues to date (Nudds 1982*a, b*, 1983, 1984, 1988, 1989), with another in preparation by Wyse Jackson. The mineralogical collections in TCD were the subject of several nineteenth century catalogues (see Wyse Jackson 1992 for details). The NMI collections are the subject of 450 publications covering about 2000 status specimens. The manuscript catalogues of the Griffith Collection described by M'Coy are available for consultation and may be published soon. Important status material is known in JMM, and it was reported that there are probably some in UCC and UCD, but no catalogues are published.

Conservation was addressed in Q14-15. Although most museums had no special problems, the NMI, had most common problems, and pyrite decay was a general problem. TCD also had uranium minerals kept in lead cases, and Jarrow amphibian specimens requiring silica gel. All museums had no conservator on staff or access to trained conservation support, including the National Museum, which has a new conservation unit, but no geological conservator. The only way that specific tasks such as single ichthyosaur specimens in UCC and UCG could be conserved was at the considerable expense of bringing over a conservator from the UK or sending the specimens to the UK.

All museums, however, have trained geological staff (Q16) with at least a geology degree, many with Ph.D. qualifications. No specific mention of museum studies qualifications was made and it is assumed that none were held. UCD has all trained geologists on the academic staff, but no one person with responsibility for collections. Collections were largely viewed in the context of teaching alone, although research work obviously generates important collections within the department.

As might be expected, Q17 informed us that each museum held some archival material. The GSI archives are of course extensive and have been catalogued in recent times to a basic level. They constitute a section of the National Archives. Within the other museums, photographs, instruments, field notebooks, manuscripts and predominantly maps are widely held. Information

on these holdings is largely contained within the published reports on the collections.

Half of the Category 1 Museums have an acquisition policy (Q18), but no copies of written or published policy were requested. However, for the JMM, the west of Ireland is the main focus, and for TCD the acquisition is mostly linked to staff and student research interests. All establishments undertook identification of specimens for public enquiries (Q19), a service which is advertised through the Thumbs-Up leaflet of the GCG and through the local media during geological events including Irish Geology Day/Week. Likewise all allowed access to collections (Q21) for academic researchers, and 5 of 6 to the public too, albeit under supervised conditions. Volunteers, or occasional work experience students (Q22) only operated in two (NMI, TCD) museums with close supervision, and often working with data rather than specimens.

Q23 examined the amount of displayed collections against that in storage. Almost all had some material on permanent display and some temporary displays, but each is summarised below. The National Museum is undergoing major changes and at present little is displayed, except in the Natural History Museum. The Geological Section public exhibition area on Merrion Row has suffered extended closure due to staffing issues, despite having exhibitions in place. A joint GSI/NMI display in the GSI is currently changing. The new Collins Barracks site will have new permanent geology exhibitions in 2002. At present most of the geology collections are stored in the Beggars Bush Building. Of the other museums, TCD has permanent displays in the museum and temporary exhibitions in teaching laboratories during the summer, as well as temporary displays in cases within the impressive entrance hall of the Museum Building. However, only a minor percentage of the collections is on display. The GSI as mentioned is in a process of change, but it is likely that some display area will be incorporated within a new Public Office. Some permanent displays may be supported by temporary exhibitions. Again most of the collections are in storage. UCD has permanent displays within the Department, limited by available space, and most of the collections are in storage. The JMM and UCC have much on permanent display, but also much in storage. In summary, despite considerable displayed material, all have the majority of their collections in storage.

Monetary valuations of specimens for insurance or purchase (Q24) were held by 4 of 6 museums, but in one case it was a general valuation for the entire collection, while in others it was for only special cases.

Questions 26-28 concerned the Irish sales and promotion of geology, and as might be expected all museums had

been involved in Geology Day/Week events in the past and had hosted lectures or meetings on geological themes. The NMI had all the aspects of sales listed in Q26, but all the others had some limited sales of maps and guides, except UCD where free literature was distributed. Much of this may be related to the significant input into the Irish Geological Association (IGA) by staff and students.

Category 2 Museums [8]

The geological collections noted by these 8 museums average less than 1% of total collections. Listings provided (Q3) indicate that most represent a small sample of mostly locally derived rocks, minerals and fossils. It should be noted that most of these museums had between 5 and 20 specimens only. The degree of information available about specimens was quite variable, but overall the picture was of odd 'curios' or unconnected specimens probably donated, rather than any purposefully collected suite of material. Almost all was described as in 'good' condition (Q4).

The holdings of geological material were so small that most were just kept in general storage, without any classification system (Q5). Storage conditions (Q6) were in cardboard boxes for 7 of 8, although one was in archival, acid free boxes. A few also held collections in crates and packing cases, trays, whilst one had large specimens in acid free tissue on open shelving, and some on display. Only one had specimens within purpose bought trays (Q7), although one had specimens individually wrapped. All held their material inside the museum building (Q8), as opposed to within outside stores.

In terms of cataloguing (Q9), 5 had the specimens catalogued, one had not, and two had some material catalogued. The responses to Q10 varied considerably, perhaps indicating the question was poorly phrased. However, as far as we are aware, all local authority museums have been supplied with, or are anticipating using the same software for cataloguing. The answers to Q10 might indicate different degrees of progress with the computerisation of documentation. Five of eight said their system followed MDA standards.

No type, figured or cited material was known to be held (Q12), and again no general publications about the museum collections (Q13) were noted. Q14 indicated that none held material requiring special treatment or conservation conditions, although one commented they would like to get a survey done. Q15 indicated 3 of 8 had no conservator on staff nor access to one, and one stated they had a conservator on staff, but of the others 2 said they had access to outside conservators, and 2 said yes, which could have been a staff conservator or more likely access to one.

In terms of geological training of staff (Q16), 7 had none, and one had taken some geomorphology courses in a Geography degree. Effectively, Q17 indicated that none of these museums held any geological archival material. Q18 looked at acquisition policy, and 5 of 8 did not include geological specimens in their policy, whilst 3 said that the local rocks, fossils and minerals fell broadly within their policy, but had not been actively pursued to date. Identifications of geological specimens for public enquiries (Q19) were offered by 5 of 8, within their abilities, and as might be expected most would direct (Q20) people to the National Museum of Ireland, or to UCC Geology Department in the case of Cork Museum.

Q21 assessing access to the collections showed almost all were willing to allow public access to the collections, and for researchers, although one commented it had never arisen. None of the museums had volunteers working on the geological collections (Q22). The situation varied as regards collections on display or in storage (Q23), with many museums in the process of change, but about half were permanently displayed and half in storage. 7 of 8 (Q24) had no valuations for geological specimens, probably reflecting the insignificance of the collections overall.

In terms of promotion of geology within the museum setting, Q26 showed that of the 8 only 2 said they had retail points in the museum, and none had geology items as part of this. Only 1 museum had taken part (Q27) in Irish Geology Day (or Week in some years), when they displayed a model of a local mine. Q28 yielded more information than anticipated. Although only 1 museum had hosted lecture(s) on the local geology or landscape, 3 indicated that they had hosted temporary exhibitions on geological topics, or will shortly be doing so.

Category 3 Museums [17]

This disparate group of museums is difficult to appraise by tallying the answers to questions, as many were not completed in full because they were not appropriate to the individual museum. Some responses are perhaps more representative of the picture than forced statistical analysis.

Of the 17 museums in this category the percentage range (Q2) of geological holdings is from the 95-100% down to Athlone Castle Museum whose geological collection consists of one catalogued specimen! Hence comparisons of some aspects looked at in our questionnaire are difficult. Those with 90-100% geological collections include Athlone Mineral Engineering Department, where they are held for teaching purposes alone, and Dunmore Cave where all the specimens are part of a public display to explain the

formation of caves and the calcite formations within them. However, most of these museums had very small holdings by percentage, apart from one private collection and one private Museum with an extensive collection of foreign specimens. Another private collection was composed of specimens from the local region.

In Q4 11 classed their specimen condition as 'good', and 2 as 'indifferent', and one as both. For system of classification (Q5) used, 3 had no answer, 4 had only material on display, 6 had no system, 2 were in an administrative/space system and only 2 were systematic, one by geological system, one by country of origin. One respondent without a system noted there was "no system as long as they were out of the way!".

Q6 yielded a varied picture, with 1 collection stored in drawered cabinets, 6 in shelved cabinets, 3 in cardboard boxes, 1 in crates and 5 in open or enclosed display. Only 4 had specimens in purpose bought trays or packaging, one had some in such and 7 did not (Q7). 13 museums had collections inside (Q8), with none in outside stores.

Seven museums claimed some degree of cataloguing, often quite simple, whilst 7 said no to Q9. Of the former, 3 followed MDA standards (Q11) with only one providing a sample of computerised records. Only one museum claimed to have status material (Q12), but descriptions provided of material indicate that at least some of these museums have significant collections, although many were also minor suites of old cabinet collections, local curios and so forth. None knew of publications relating to the collections (Q12, 13), except one mention (without a date given) in an Irish Museums Trust Guide.

In terms of conservation, (Q14) none had material requiring special treatment or conditions, although several commented on this being as far as their knowledge went. One response to Q15 was yes and one other stated that conservation support was brought in as required, and interpreting these responses, we assume that this support would be from an archaeological perspective. Other than Athlone Mineral Engineering Department, no museum had geologically trained staff.

Q17 asked about archival material, and aside from one or two respondents who had relatively modern maps and publications, only two museums had items worthy of archival treatment, one being correspondence on 1950s pollen coring of Lough Gur, the other being photographs of Sir Henry Gore-Booth's Arctic exploration from about 1880-90.

Q18 asked about acquisition policy, and six expressed some kind of policy existed, although for about half this was effectively a personal collecting choice. Comments

indicated that those museums with a formal policy only collected items of local geological interest, or by default if offered specimens. 11 said no, and 3 said yes to Q19, if they identified geological material, but only 2 said they would or had sent material to the National Museum of Ireland, and 2 to other institutions if requested (Q20). In Q21, 2 museums would not allow public access, 9 would allow access to public and research academics, whilst 2 commented they had never been asked. None of the museums (Q22) had volunteers working on the geological collections.

In Q23, 12 museums had material on permanent display, 1 on temporary display, two responded as not applicable to them, and only one collection was in storage. 12 responded that they had no monetary valuations for geological specimens (Q24). For the promotion of geology (Q26), 10 definitely had none, 3 had a shop or sales point, and 4 sold guides or books including geology. One of the 16 museums had taken part in Irish Geology Day events in the past, whilst 14 had not. Perhaps surprisingly, 5 of the museums had hosted lectures or meetings on local geology or landscape, and 9 had not.

The overall picture

In a simple blanket survey like this it is to be expected that the responses are not as clearly defined as one might like. However, it was only intended as a 'broad brush picture'. In compiling the results, it has become apparent that in many cases the comments and particularly the omissions are often far more revealing than the answers, or the fact of whether 7 or 8 of 16 had a particular feature. Much of the following summary is effectively our subjective analysis, a reading between the lines of the questionnaire.

Geology is relatively strong and vital within a small number of institutions. The 4 third level educational departments have long traditions, and established positions within their institutions (in so far as any department is secure in current circumstances - we reflect of course on the possible fate of Geology at Queen's University Belfast). Even without a dedicated museum, UCD has geological displays to attract and explain in their main entrance area. The others have discrete museums, of which only TCD is signposted and clearly open to a public prepared to make an effort to seek it out. Each suffers from the problems of a lack of security, and a lack of resources currently to make more use of the museum. They largely remain as facilities for the departments, for staff and students, and as repositories of research material. However, special events and meetings do make use of the museums, and some school visits take place at each of them.

In the NMI, geology has a reasonably high profile, and plans for the new museum situated at Collins Barracks include a considerable area devoted to earth science. One can only hope that adequate staffing resources are to be given to geology, considering that in Merrion Row where geology is presently situated there has been a dedicated Geology exhibition space, but which has remained closed for much of the time as a result of low staffing levels of Attendants.

The GSI is wholly focussed on geology, and for some years has had the 'Down to Earth' exhibition. Although this received school group and meeting use, its usage had been in decline, and it had begun to show signs of age. Currently, the whole exhibition area, library, and Public Office space is being re-organised, and it is hoped to have an exhibition area, with more temporary exhibitions and greater usage through increased promotion. The fossil collection is now very well organised and secure following a major curation project by Parkes (see Parkes and Sleeman 1997). However, as a collecting institution, in the past if not actively doing so today, there are woeful inadequacies in the quality of specimen organisation and documentation. There is information about the many specimens, but both data and samples are difficult to retrieve without considerable effort, even for those working within the Survey. It is largely related to the collector as the key factor, and hence with retirements and moves, much personal contextual information is being progressively lost.

The picture of geology outside these institutions is a rather different story. Within Category 2 Museums, the geological specimens were very small in number, and generally kept in cardboard boxes, with inconsistent standards of documentation. Most had little knowledge of the value or insignificance of what they held, and no background or training to discriminate. Although some had had exhibition or displays of local geology, it was clearly a difficult task for curators to make sense of their local geology without any experience.

By contrast to the rather negative overall assessment of geological provision within County Museums, there was clearly an aspiration to encompass geology within the museum for several respondents. Some had begun moves to seek assistance in this regard, and clearly would readily accept expert help if it was available freely.

Category 3 Museums yielded a similar, if less consistent, picture with variations depending on the character of the museum, the age and purpose (or lack of it) of the collection and the motivations of the people concerned. In nearly all these museums, the funding and purpose was either private, without income generation being the prime motivation, or effectively State supported such

as Dunmore Cave and the Céide Fields. The latter example had one of the smallest collections, of local rock types, but was one of the best in the provision of information. Copies were supplied of the material they give to enquirers, and the display texts.

In general, despite apparent interest in the collections, there was a lack of appropriate knowledge, weak documentation, much material on display without any appraisal of conservation needs. There was also negligible promotion of geology despite a strong focus on geology in the case of some publicly accessible museums. However, from a positive viewpoint there were comments indicating some awareness of a lack of knowledge, and an openness to professional advice about the geological collections.

Common Themes

The pervasive lack of appreciation of geology is most apparent, not in the answers to the questionnaire actually relating to rocks, fossils or minerals etc. but in the persistent and pervasive linkage of geology and archaeology. Many archaeological artifacts are made of geological materials, and there have been recent trends in research exploring this, such as the Irish Stone Axe Project in UCD (Cooney and Mandal 1998). However, it is really a limited inter-disciplinary area. Yet so many of the respondents, from all but the geological organisations, misunderstood the geological nature of specimens and included archaeological specimens in their responses which were of no relevance whatsoever to the survey. This mirrors a subjective opinion that we have held about the population in general from other experience.

The four third level geology teaching departments, the National Museum and the Geological Survey all have significant collections, of national and some of international importance. In our opinion however, the allocated resources to the museum function are generally inadequate, and even within the organisations, appreciation of the longer term necessity for maintenance and upkeep of collections is limited. It would be easy to criticize without recognising the problems of space, old buildings, and competing demands on limited resources, but the curatorial needs have been marginalised or ignored. To restore collections to some order it has been necessary for external funds to be sought. In UCG and UCC this has been through FAS employment schemes, which have brought their own problems to curation. In the GSI, the Heritage Council funded thorough curation of the collection.

Recommendations for improving the status of geology in Irish Museums

Further consideration needs to be given to the survey results, and the need for a more focussed follow up survey assessed. For the present, we consider that some or all of the following steps could significantly improve the state and status of geology in Irish Museums:-

Category 1 museums

- Make museum displays relevant to the new Geography Leaving Certificate syllabus.
- Invest in expanding 2nd level, and National School visits/use of the museums.
- Develop or borrow good quality travelling exhibitions.
- Produce attractive posters/postcards/appropriate books for sale or promotion, ie particular well illustrated, popular books of relevance to schools syllabus.
- Consolidate and expand curatorial cover. Initiate a pastoral role of curatorial cover for other museums, possibly through a peripatetic curator.

Category 2 museums

- Prioritise implementation of good local geology displays.
- Alter acquisition policy specifically to incorporate local geological specimens.
- Seek advice and assistance in promotion of geology.
- Organise lectures/ meetings/ events with geological theme (especially in connection with Irish Geology Week (in 1999) or Day (in some years).

Category 3 museums

- Seek specialist assessment of the scientific importance of collections.
- Seek specialist advice on promotion of geology by use of available collection and other local resources.
- Seek specialist advice on conservation, documentation and identification of collections.

Irish Museums Association/ Heritage Council

- Organise short training courses for museums to facilitate geological awareness, and better collections management/curation/conservation of geological specimens.
- Lobby for national funding of a peripatetic geological curator.

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Appendix 1. The questionnaire as sent to all establishments, but with different initial notes, depending on whether it was first, second, third or final request. The spacing allowed for each question was different according to our expectations of data that would be forthcoming.

Questionnaire

This questionnaire is designed to acquire data on the state and status of holdings of geological material of any sort in County and smaller Museums, and any other collections in heritage centres, visitor attractions, society or private collections. It is intended to compile results and make a report available to the Heritage Council, the National Committee for Geology, the National Museum and any interested party. It is also planned to publish the results in The Geological Curator, the journal of the Geological Curators' Group, and possibly within Museum Ireland published by the Irish Museums Association. The results will be compiled and individual confidentiality will be maintained, so please give as much information as you can.

Please would you answer the following questions as fully as possible; even if the answer is an approximation or a guess, it will be more useful than leaving the question blank. If the space allowed is inadequate to answer a question properly, please use the reverse of the questionnaire and put the question number by the extra information.

Please return the questionnaire to Dr Patrick Wyse Jackson, Dept. of Geology, Trinity College, Dublin 2.

Name of museum or establishment _____
Address _____
Telephone _____ Fax _____
E mail _____
Name of Curator/Manager/Contact Person _____

- (1) Are there any geological specimens (rocks, minerals or fossils) amongst your collections? If the answer is NO please see (17).
- (2) If there are, what percentage of your total collections do they represent?
- (3) Please describe as completely as possible what geological specimens you hold. You might note the approximate numbers, whether fossils, rocks or minerals, the age and types if known, if they have thin sections or other special features. Are the specimens of local origin, Irish or international? If you are able to attach printouts, photocopies, or listings please do.
- (4) Using the following classification please describe the condition of the majority of your geological specimens:-
 - (a) 'Good' = sound and clean
 - (b) 'Indifferent' = sound but dirty or exposed to risk
 - (c) 'Bad' = specimens deteriorating physically due to pyrite disease, fragmentation, constant abrasion, or other causes
- (5) Please describe if possible what system of classification is used to arrange material in storage. Is it for example based on geological system, or on taxonomic hierarchy for fossils or some other administrative/space system?
- (6) Please describe as best you can, what sort of storage conditions material is kept in? Is it for example in:-
 - (a) Drawered cabinets
 - (b) Shelved cabinets
 - (c) Cardboard boxes
 - (d) Crates and packing cases
 - (e) Other (describe)
- (7) Are individual specimens contained in purpose bought trays or packaging?
- (8) Is material inside the museum (or other building) or within an outside store?
- (9) Is the material you hold catalogued?
- (10) Please describe the type and quality of the cataloguing as best you can.
- (11) Does your cataloguing system follow Museum Documentation Association standards?
- (12) To the best of your knowledge, is any of the material you hold type, figured, cited or other status material? If so please describe and give references to publications where known.
- (13) Please give references for any general publications or directories listing your collections?
- (14) Does any of the material you hold require special conservation conditions or treatment? If so please describe as fully as possible.
- (15) Do you have a trained conservator as a staff member, or access to trained conservation support?
- (16) Does anybody on your staff have any geological training or background? Please describe as fully as possible.
- (17) Whether you have specimens or not, do you hold any archival earth science information such as maps, photographs, instruments, biographical sources, correspondence etc. relating to geology or geologists, or any natural scientists? If so please describe as fully as possible, and attach copies of any catalogues or listings if possible.
- (18) Do you have an acquisition policy, with any reference to geological materials?
- (19) Do you identify geological material for public enquiries?
- (20) If not, do you have alternative arrangements such as sending material to the National Museum for identification?
- (21) Do you allow access to geological collections to:-
 - (a) the public
 - (b) academic researchers
- (22) Do you have any volunteers who work on the geological holdings? If so, what supervision or constraints operate to prevent inadvertent damage?
- (23) Is any of your geological material on display, or is it all in storage? If on display, is it 'permanent' or part of a temporary exhibition or display?
- (24) Do you have any monetary valuations for geological specimens e.g. for insurance purposes, or for the purchase of a particular specimen of significance?
- (25) Are you aware of any private collections that we may not have any knowledge of? If so please could you provide a name or address for us to contact.

- (26) Please note which of the following you have concerning promotion of geology:
- (a) A shop/sales at reception (b) Guidebook/book/postcards/other printed material for sale
(c) Sale of replica dinosaurs/related goods (d) Sale of mineral or fossil/replica specimens
(e) Other (please describe)
- (27) Have you taken part in Geology Day on any occasion?
- (28) Have you ever hosted any lectures or meetings on local geology or landscape?
- (28) Are there any further comments or observations relating to this survey that you want to make?

Appendix 2

Category 1 Museums

- Cork Geological Museum, Department of Geology, University College Cork, Cork
- Department of Geology, University College Dublin, Belfield, Dublin 4
- Geological Museum, Trinity College, Dublin 2
- Geological Survey of Ireland, Beggars Bush, Haddington Road, Dublin 4
- James Mitchell Museum, National University of Ireland, Galway
- National Museum of Ireland, Collins Barracks, Dublin 9

Category 2 Museums

- Cork Public Museum, Fitzgerald Park, Mardyke, Cork
- Kerry County Museum, Ashe Memorial Hall, Tralee, Co. Kerry
- Limerick Museum, Limerick
- Louth County Museum, Jocelyn Street, Dundalk, Co. Louth
- Monaghan County Museum, 1-2 Hill Street, Monaghan
- Rothe House Museum, Parliament Street, Kilkenny
- Tipperary South Riding County Museum, Clonmel, Co. Tipperary
- Wexford County Museum, Castle Hill, Enniscorthy, Co. Wexford

Category 3 Museums

- Athlone Castle Museum, Athlone Castle, Athlone, Co. Westmeath
- Ballymore Historic Features, Ballymore, Camolin, Co. Wexford
- Bray Heritage Centre, Bray, Co. Wicklow [no survey details but known to contain geological material]
- Céide Fields Visitor Centre, Ballycastle, Co. Mayo
- Ceim Hill Museum, Ceim Hill, Cooldurragha, Union-Hall, Co. Cork
- Celtic & Prehistoric Museum, Ventry, Dingle, Co. Kerry [no survey details but known to contain geological material]
- M. Doran, Belleck Castle Hotel, Ballina, Co. Mayo
- Dunmore Cave, Mothel, Ballyfoyle, Co. Kilkenny
- Dysert O'Dea Castle, Corofin, Co. Clare
- Glencvagh National Park, Church Hill, Letterkenny, Co. Donegal
- Ionad Arann, Cill Ronáin, Inismor, Co. na Gaillimhe
- Lissadell House, Ballinfull, Co. Sligo
- Lough Gur Visitor Centre, Holy Cross, Brough, Co. Limerick
- Millmount Museum, Old Drogheda Society, Drogheda, Co. Louth
- Museum Chorca Dhuibhne, Baile an Fheirtearaigh, Co. Chiarrai
- Newbridge House, Donabate, Co. Dublin
- School of Mineral Engineering, Athlone Institute of Technology, Athlone, Co. Westmeath
- G. Spencer, Silverspring, Mooncoin, Via Waterford
- Tullowphelim Historical Society Museum, Bridge Street/ 56 Dublin Road, Tullow, Co. Carlow
- Valentia Heritage Centre, Knightstown, Valentia Island, Co. Kerry [no survey details but known to contain geological material]

Surveyed Museums/Sites with no geological collections

It should be noted that of these museums, some reported specific objects or maps/archival material which we felt was insufficiently 'geological' to count within the scope of the survey. Examples include Chinese snuffboxes at the Chester Beatty, photographic and topographical maps at the Royal Society of Antiquaries, early maps at Castletown House and archaeological material in Galway City Museum.

- Blarney Castle Estate, Blarney Castle, Co. Cork
- Bunratty Castle and Polk Park, Newmarket on Fergus, Co. Clare
- Castletown House, Celbridge, Co. Kildare
- Cavan County Museum, Virginia Road, Ballyjamesduff, Co. Cavan
- Chester Beatty Library, 20 Shrewsbury Road, Dublin 4 (moving shortly to Dublin Castle)
- Coole Park Visitor Centre, Coole Park, Gort, Co. Galway
- Donegal County Museum, High Road, Letterkenny, Co. Donegal
- Doon Archaeological and Nature Peninsula, Castlecarr, Clogher, Claremorris, Co. Mayo

- Dublin Civic Museum, 58 South William Street, Dublin 2
- Galway City Museum, Spanish Arch, Galway
- Ireland's Historic Science Centre, Birr Castle, Birr, Co. Offaly
- Killaloe Heritage Centre, Killaloe, Co. Clare
- Kilmallock Cottage Museum, Chapel Height, Kilmallock, Co. Limerick
- King House, Boyle, Co. Roscommon
- Knock Folk Museum, Knock, Co. Mayo
- The Famine Museum, Strokestown Park, Strokestown, Co. Roscommon
- Longford Museum and Heritage Centre, 1 Church Street, Longford [This museum is closed pending new premises, and may have geological collections in storage, but could not complete the survey questionnaire at this stage.]
- Pighthouse Collection, Corr House, Cornafean, Co. Cavan
- Portumna Castle, Portumna, Co. Galway
- Roscrea Heritage Centre, Roscrea, Co. Tipperary
- Royal Society of Antiquaries of Ireland, 63 Merrion Square, Dublin 2
- Sliabh an Iarainn Visitor Centre, Drumshanbo, Co. Leitrim
- Westport House, Westport, Co. Mayo

Miscellaneous collections

There are a few collections or geologically interesting locations which have not been included in other categories. We note the Office of Public Works (Dúchas) offices at 51 St. Stephen's Green, originally the site of the Museum of Irish Industry in the mid 1800s. Here the entrance lobby has a series of panels of polished building stones from Ireland adorning the walls (Wyse Jackson 1993). The Botany Department of University College Dublin has specimens of plant fossils from Kiltorcan. Muckross House Gardens and Traditional Farm, in Killarney, Co. Kerry has a collection that was made for a former exhibition on County Kerry but it is not classed as part of their current collections.

The Royal Irish Academy, responded to the survey with details of their holdings. We have not included them in analysis, as it is functionally outside the scope of a 'museum'. Many of their journals and maps have been transferred on permanent loan to other libraries and universities. However, they do have 18th and 19th century monographs and memoirs, geological maps and also the Praeger Papers, including photographs. They also have three volumes of Ganly Geological Correspondence (1837-43), and a collection of sketches of geological subjects by the geologist/artist G. V. Du Noyer (1817-69). The Royal Society of Antiquaries also hold Du Noyer works and notebooks, though this was not recorded on their questionnaire.

Museums with no collections (not based on returned surveys)

The following museums and sites are recorded as having no geological collections based on phone calls to request return of the completed questionnaire. In these cases it is not always certain that the appropriate person was contacted and there may be collections at some locations.

- Barryscourt Castle, Carrigtwohill, Co. Cork
- Ionad an Bhlascaoid Mhoir (Blasket Centre), Dun Chaoin, Co. Kerry
- Castlepollard Museum, Castlepollard, Co. Westmeath
- Clonalis House, Castlerea, Co. Roscommon
- Connemara National Park Visitor Centre, Letterfrack, Co. Galway
- Donaghmore Museum, Donaghmore Museum, Co. Laois
- Emo Court, Emo, Co. Laois
- Glendalough Visitors Centre, Glendalough, Co. Wicklow
- Grianan Aileach Visitor Centre, Burt, Co. Donegal
- Lackagh Museum, Turloughmore, Co. Galway
- Leenane Cultural Centre, Leenane, Co. Galway
- Malahide Castle, Malahide, Co. Dublin
- Parke's Castle, Fivemile, Bourne, Co. Leitrim
- Ulster Cultural Institute, Glencolumbkille, Co. Donegal

Non respondents/ Non contactable during survey

- Ardagh Heritage Centre, Ardagh, Co. Longford
- Bray Heritage Centre, Bray, Co. Wicklow
- Carlow Museum, Town Hall, Carlow
- Castle Matrix, Rathkeale, Co. Limerick
- Sligo County Museum, Stephen Street, Sligo