



**NatSCA**

Natural Sciences Collections Association

<http://www.natsca.org>

## Journal of Natural Science Collections

---

Title: Taking Stock, Effective Collections, Esmée Fairbairn and the natural science collections at Doncaster Museum

Author(s): Robinson, P. & Bowden, A.

Source: Robinson, P. & Bowden, A. (2013). Taking Stock, Effective Collections, Esmée Fairbairn and the natural science collections at Doncaster Museum. *Journal of Natural Science Collections*, Volume 1, 8 - 26.

URL: <http://www.natsca.org/article/83>

---

NatSCA supports open access publication as part of its mission is to promote and support natural science collections. NatSCA uses the Creative Commons Attribution License (CCAL) <http://creativecommons.org/licenses/by/2.5/> for all works we publish. Under CCAL authors retain ownership of the copyright for their article, but authors allow anyone to download, reuse, reprint, modify, distribute, and/or copy articles in NatSCA publications, so long as the original authors and source are cited.

## Taking Stock, Effective Collections, Esmée Fairbairn and the natural science collections at Doncaster Museum

Peter Robinson<sup>1</sup> & Alistair Bowden<sup>2</sup>



<sup>1</sup>Human History Museum Officer, Doncaster Museum & Art Gallery, Chequer Road, Doncaster, DN2 1AE

<sup>2</sup>Hulam Consulting and CIRCA contracted Curator of Palaeontology

Received: 17th April 2013

Accepted: 30th Sept 2013

<sup>1</sup>Corresponding author: peter.robinson@doncaster.gov.uk

### Abstract

This paper will present a summary of Doncaster Museum Service's holistic collections review and rationalisation process named *Taking Stock*. A brief background to the museum service and history of the development of the collections will be given to provide context. The internally developed review methodology will be discussed before concentrating on the externally resourced and integrated reviews which took place as part of an Effective Collections project and an Esmée Fairbairn Museum and Heritage strand scheme. A more in depth synopsis of the CIRCA (Catalogued, Interpreted, Researched, Conserved, Accessible) project methodology will be provided, in order to demonstrate the review strategy used for the appraisal of the palaeontology collection. It will also demonstrate how, due to the wider aims of CIRCA project, the methodological approach developed to include a specimen level review in contrast to the Effective Collections reviews which were at collection level only. Furthermore it will serve to demonstrate the route and results of a methodology developed by an externally contracted specialist within the robust strategic framework of a full and overarching collections review process. De-accessioning and disposals are discussed throughout the paper.

**Keywords:** Doncaster Museum Service; Disposal; De-accession; Collections Review; Effective Collections; Esmée Fairbairn

### Background

Doncaster Museum opened in 1900 in a small room in the old Guildhall. Nine years later the Museum moved to the ground floor of Beechfield House with its 'stock' of 1006 museum objects. From 1955 the Museum ran a small zoo in the grounds of Beechfield and some of the occupants, suitably mounted, form a part of the current natural sciences collections. In 1962 the Beechfield premises closed and two years later the Doncaster Museum & Art Gallery (DONMG) was opened on Chequer Road by the Borough Council – one of the first purpose built, post World War Two museum buildings to be entirely funded by a local authority.

The development of the collection through to the 1950s was steady, comprising largely of material directly relating to the local area. From the mid-1950s until mid-1980s there were several intensive periods of collecting which saw the Natural Science, Social History and Archaeology collections grow considerably. The majority of Natural Science collection acquisitions during this time came from other museums in the UK who were rationalising their collections. DONMG currently houses a range of collections, including Natural Sciences, Archaeology, Industrial Social History, World Cultures, Decorative and Fine Arts.

Doncaster Museum Service is responsible for DONMG and a Grade I listed Country House and social history museum three miles from the centre of Doncaster: Cusworth Hall Museum & Park. The Service cares for over 479,250 individual items (based on recent database records). At the time of writing, DONMG has subject specialist staff in Social History (including costume and photographs), Archaeology (including Antiquities), World Cultures, and Fine and Decorative Arts.

#### A review across the Service

In 2009 Doncaster Museum Service began a very large collections review project called '*Taking Stock*'. The project aimed to review the entire collections across the Service, whilst evaluating the current collecting strategy. The primary aim was to protect Doncaster's specific, unique heritage and collections. The project also wanted to find solutions to gaps in in-house specialist expertise, pressures on storage space, poor curation and storage, and to support the collections and service against further predicted cuts in local authority budgets.

The stakeholders include Doncaster Metropolitan Borough Council and the elected Mayor and Council, Doncaster residents, general service users (including academic researchers, educational institutions and special interest groups). Regional Museum Development Officers were also consulted to ensure that *Taking Stock* was developed and completed in line with the Museum Association (MA) Code of Ethics and Accreditation requirements.

For such a large scale project reviewing the entire collections, there could have been the potential for the project to be misunderstood, potentially resulting in bad publicity. A short statement outlining the objective of *Taking Stock* was developed so all stakeholders were completely aware of the processes;

"The objective of '*Taking Stock*' is to review the museums' collections at a landmark stage (after 100 years of collecting) and ensure that past, current and future collecting precisely matches the criteria of the Museum Service's Acquisition and Disposal Policy. This will guarantee the collection best serves the borough, by reflecting the heritage, culture and educational needs of its communities and representing the best use of public money."

(DMS, 2010)

DONMG curatorial staff undertook consultation with stakeholders to discover how they viewed the review project. The feedback was very positive, including some quite detailed responses which demonstrated a good understanding of what collections reviews are. Through consultation the following benefits were established;

- A more focused and relevant collection which the museum service is capable of caring for and which meets best practice.
- Improved access to collections.

- Enhanced information about the current strengths and weaknesses of the collection which will lead to a more informed and responsible collecting strategy.
- Empowerment to achieve continued and improved collections care.

#### Recent Collection Reviews

Before developing the review methodology, it was useful to examine the core objectives of DONMG (Appendix 1) to ensure that the reviews addressed current and future priorities as outlined in the Museum's Collection Development Policy (DMS, 2013a; 2013b). It was also very useful to examine other collections reviews that had been undertaken in museums across the world to see how they had worked. This was necessary for the development of a robust bespoke review strategy that would incorporate externally developed review methodologies for collections with no in-house expertise.

The process and procedures for disposal are clearly set out in the Disposal Toolkit: Guidelines for Museums (MA, 2008a). The word 'disposal' often has negative connotations because it is often misunderstood. Disposal can be defined as "the full de-accessioning of an object through transfer, return to original donor, sale or physical destruction" (Freedman, 2012). Doncaster Museum Service follows the ethics of the Disposal Toolkit (MA, 2008a), and Code of Ethics (MA, 2008b), which promotes the transfer and sharing of collections as a means of improving care, access and value.

Until forty years ago collections appear to have been relatively dynamic. During the early 19<sup>th</sup> century formation of museums in Yorkshire, there were "no scruples about selling the poorer duplicates, and indeed all societies saw this as a legitimate way of raising income" (Knell, 2007: 271). Even as late the 1950s to 1970s, "disposal by sale was not an infrequent occurrence" (Merriman, 2008: 4). Indeed Doncaster Museum Service acquired a large amount of objects in the late 1960s through transfer from other museums.

During the 1960s and 1970s, there was a growing concern over the sale of objects and an emergence of a shared notion of 'trusteeship' where collections were held in trust on behalf of the public. In 1977, the MA Code of Ethics first used the phrase that "there must be a strong presumption against the disposal of any items in the collection of a museum" (Davies, 2005: *quoted in* Merriman 2008: 4). This perspective has been maintained in later versions of the MA Code of Ethics and became a central principle of the Registration and Accreditation schemes for museums. Following this, the term 'disposal' became a taboo subject and relatively few disposals were made from museum collections in the 1980s and 1990s. There were a small number of infamous examples of disposals during this period (Robertson, 1990), for example Buxton Museum & Art Gallery were expelled.

However museums continued to collect; collections are, after all, “the museum’s ‘soul’ and *raison d’être*” (Alberch, 1993). A 1989 report for the Museums and Galleries Commission showed “that, on average, over 60% of museums’ resources were being devoted to the direct and indirect costs of managing their collections” (Merriman, 2008: 5). The National Museum Directors’ Conference Report (2003) argued that “careful review and rationalisation of collections, leading in some cases to disposal, transfer or long-term loan, can make an important contribution to ensuring that these collections are enjoyed and used”.

This set the scene of the MA inquiry which led to the *Collections for the Future* report (Wilkinson, 2005). The report accepted that “too many collections are underused – not displayed, published, used for research or even understood by the institutions that care for them” and concluded that “museums must reassert the place of their collections at the heart of the public realm, and find new ways to ensure that they really are for everyone” (Wilkinson, 2005: 4).

*Collections for the Future* focuses on the concept of ‘The Dynamic Collection’. This tackles the problem that “museums are no longer developing their collections with the vibrancy and rigour needed to ensure that they serve the needs of current and future audiences” (Wilkinson, 2005: 5). It goes on to propose that “museums also need to face up to disposal – intelligent stewardship does not mean clinging on to everything unthinkingly... Museums need to make an intelligent appraisal of their own assets and resources and do more with what they have” (Wilkinson, 2005: 9).

The MA website has a dedicated area outlining Collection Reviews (MA, 2013). Within this is a summary of a number of established review methodologies, all of which are collection level review methodologies.

There are two well established and widely used schemes:

- The Australian Significance 2.0 method works by looking at the values and meanings that items and collections have for people and communities (Russell & Winkworth, 2009). Significance helps unlock the potential of collections, creating opportunities for communities to access and enjoy collections, and to understand history, culture and environments. This appears to be a highly regarded methodology and has been used in the UK.
- In terms of reviewing utility and current condition and collection care, the exemplar methodology is that of University College London (UCL) Collections Review Toolkit (Dunn & Das, 2011). This contains two rubrics, one for assessing utility and the other for collections care.

A third approach was adopted is the Renaissance East Midlands methodology called Reviewing Significance 2.0 (Reed, 2012). This method was created by merging and adapting both the Significance 2.0 and the UCL schemes. (For details on these and other collections reviews, see Freedman, 2012.)

A specimen level assessment is the approach to reviewing individual specimens, rather than entire collections. These reviews select specimens for the future core collection; they provide the decision making process for deciding which specimens to de-accession. The emphasis at this level is on refinement of the collection; for a collection to be of a higher overall quality. It may in future grow to fill gaps, but the focus of the review process at the level of the specimen is to increase the quality by reducing the size, removing any specimen that is not adding value.

The approach taken by the Imperial War Museum (IWM) is an example of a more absolute approach where specimens are assessed in isolation (Emily Dodd, *pers. comm.*). In this case the number of specimens involved is large and the review is limited to within one organisation, so little or no external peer review takes place. The IWM approach to their specimen level review assesses six criteria and gives a weighted score for each: Significance, meaning-making, visual impact (max. score 25); Interpretive Potential (including use in exhibitions, research and learning) (max. score 25); Rarity/ Uniqueness (max. score 15); Completeness/ Authenticity (max. score 15); Relevance: does the object fit with the Museum’s Purpose? (max. score 10); Condition (max. score 10). Each specimen ends up with a score out of 100. Those above 50% are retained, those with scores beneath 50% are considered for de-accessioning.

A more relative approach, where specimens are assessed in relation to similar specimens, has been taken by the Rural Museums Network (RMN) and the UK Maritime Collections Strategy (UKMCS). There are a number of organisations and experts involved and the number of objects in any one review is limited, for example: The RMN review of tractors (Viner & Wilson, 2004a: 26-7) across the UK involved 186 objects in 23 museums; The RMN review of combine harvesters (Viner & Wilson, 2004b) across the UK involved 32 objects in 10 museums; The UKMCS (2006) review of marine engineering collections involved 51 objects.

#### **Development of Taking Stock**

*Taking Stock* evaluated the entire museum collections across Doncaster Museum Service. The review priorities were based on a number of factors, including; the expected reduction in storage facilities (in particular the loss of one multi-collection off site store); collections without a designated specialist curator; collections in serious risk due to inadequate storage conditions; insufficient documentation; and pest infestation.

DONMG's mission statement and the objectives highlighted key areas in the collection which were important to retain and safeguard (Appendix 1). The founding collections were important to retain within DONMG, as these objects defined and shaped the museum from the very beginning and have continued to do so to the present. These 1006 objects are a fundamental part of the history of the area, preserving a time capsule at a key stage in Doncaster's engagement with its heritage. It also was essential to preserve objects, or collections, with strong Doncaster connections including provenance, owner and collector, or unique to Doncaster. Additionally, locally relevant research collections were also seen as a crucial component to preserve.

A special 'X-Factor' category was used to ensure that objects or collections which fell outside of the Doncaster related focus could be retained where they could fulfil a key role as defined by the museum's objectives. For example, an 'X-Factor' object would be one where it helped promote or elevate the status of the broader collections, aid interpretation or display, assist in marketing and revenue generation to the benefit of the collections as a whole.

The revised Service objectives and the *Taking Stock* mission statement provided the basis for the development of the internal collections review methodology (Appendix 2). A set of key statements were drawn up. Each statement is preceded by a tick box and a space for noting the reason for selecting that criteria. The criteria for disposal are then backed up with notes to assist the user in determining whether an object or collection matches the statement. It is important to note at this stage that this internal review methodology was developed to assess collections where in-house expertise existed. The first phase of review and disposal only concentrated on collections or individual objects which clearly fell outside of the Service objectives. Decisions were subject to assessment both by the Service's Acquisition and Disposal Panel and by a Focus Group consisting of a mix of stakeholders, such as members of the general public, special interest groups and external museum professionals. The internal methodology is being reviewed as a result of the lessons learnt in the external reviews described below. This will assist in developing the methodology for the next phase of internal collection reviews.

#### Putting *Taking Stock* into Practice

Reviewing the entire collections across the Service was a big challenge. To make it more manageable, collections were split into two groups; those which could be reviewed internally and those collections which would require external resources (funding and specialist advice). A traffic light system was informally implemented as a way of prioritising collections: red and amber indicated collections in primary and secondary need of attention respectively; green light collections were collections or

objects which could be looked at once all others had been addressed. Collections were discussed at curatorial team meetings and each collection was prioritised.

Due to lack of onsite subject specialist staff, the natural science collections were identified as a priority for review and requiring external specialists. The priority to look at this collection in particular was due to their vulnerability to pest infestation, their lack of detailed and structured curation, their physical size, and inadequate method of storage. This required external funding for specialist advice.

Whilst all of the collections held by Doncaster Museum Service have to some extent been reviewed or will be reviewed as part of *Taking Stock*, this paper focuses on the reviews undertaken on three main parts of the natural history collections; the Conchology, Entomology and Palaeontology collections. Two external grants were applied for to manage these reviews; one to review the Conchology and Entomology Collections and a second to review the larger Palaeontology Collections.

#### Seeking Grants

The MA developed the *Effective Collections Programme* in 2009. The aim was to provide museums with funding and support to assist with developing collection reviews, identify underused objects and explore ways of improving access, care and curation through the development of partnerships, loans, transfer or alternative forms of disposal (Cross, 2009). Resulting from the success of this grant, in 2011, the MA worked together with the Esmée Fairbairn Foundation to set up the *Esmée Fairbairn Collections Fund*. Museums were able to apply for a much larger grant to focus on research into collections, conservation, collections reviews, and development of collections. The aim of this grant was for museums to understand more about what they have.

DONMG were successful in applying to both grants bodies to assist with reviewing the natural history collections;

- The *Taking Stock* project applied for £10,000 from the *Effective Collections* Main Fund to undertake a full review of two parts of the natural science collections; entomology and conchology.
- A separate funding application to the *Esmée Fairbairn Collections Fund* was prepared for the unique DONMG CIRCA (Catalogued, Interpreted, Researched, Conserved, Accessible) project to review and revitalise the palaeontological collections (£82,785).

Although the criteria for all three reviews differed slightly and were outlined in separate briefs they had broadly the same objectives which were aligned to the main *Taking Stock* project. The collections reviews were required to cover the following:

1. Specialist & Curatorial Review - provides an overview specialist curatorial opinion on the collections. It will include an indication of the significance and quality of each collection from a local, regional, national or international perspective and for research, display, learning etc, and looking at any potential legal or ethical issues.
2. Use - looks at how the collections could be best used in the future, and whether each collection is best placed with Doncaster Museum Service or with another museum or institution.
3. Collections care - looks at how well the objects are cared for, with suggestions for improving collections care standards on a limited budget. This should include an assessment of collection care needs.

The following objectives were established for the CIRCA project to meet the needs of *Taking Stock* and satisfy the criteria for funding, required of Esmée Fairbairn:

1. The assessment/collections review will generate a flexible but robust methodology. This will develop the collection to ensure that it matches the criteria of the Museums Service *Acquisition and Disposal Policy 2006-2011* (since superseded by the *Collections Development Policy 2013-2016*) and that it incorporates the desired outcomes of the Museum's collection review *Taking Stock*. This will ultimately creating a platform for achieving the remaining objectives:
2. To identify candidates for transfer to alternative institutions, or which are suitable for disposal to ensure that the collection meets the current and future needs of the Museum.
3. To have all specimens documented on Modes. This will allow curatorial staff to know exactly what is in the collection, where gaps exist for future collecting or loans and what is available for loan, exhibition or facilitating educational outputs. This will also provide full documentation of the specimens should any specimens be de-accessioned.
4. To safely store the most important and vulnerable to ensure its long term care. To ensure that the collection is in a state that allows the museum to effectively care for it according to available resources.
5. To create a well ordered and logically organised collection which is packaged/stored in a way that affords the specimens maximum protection; facilitates ease of access (reducing the need for over handling) and is stored to improve access by non specialist staff. To maximise the use of available space and to ensure the best method of storage is employed and the most suitable environment for the collection is created.

6. To achieve publication of the most important/interesting specimens in regional or national journals, to establish good relations with other institutions (with linked collections) and to raise the profile of the collection (and its research potential) within the academic community and the general public. To generate interest in the collection by museum visitors/service users and therefore increase the use of the collection.

7. To capture and record information which will allow the collection to be effectively curated by non-specialist staff (i.e. staff without a geological or palaeontological expertise), enabling them to generate displays and facilitate research requests and public collections enquiries. The strengths of the collection, local and regional connections and star objects will be clearly identified and recorded. This will be done by adding the information to the database and ensuring all the information associated with that specimen is recorded clearly on the labels.

A standard brief was constructed for all three reviews in order that the externally contracted specialists were equipped to undertake the reviews in line with the established specifications of *Taking Stock*. The briefs all contained three key elements designed to inform the reviewers:

1. A brief history and background to the Museum Service and a synopsis of the collection to be reviewed (as far as it was known).
2. A summary of *Taking Stock* with details of the service objectives and criteria for review.
3. Details of the specific requirements to be addressed by the review (this differed between each collection due to the different nature and circumstances of each collection).

The reviewers had to submit a written report which needed to include;

1. A summary of the history and development of the collection and insights into its curation.
2. A significance assessment, outlining importance and potential (both in relation to the museum service objectives and irrespective of them).
3. Details of the key issues – considerations which have a significant bearing on the decision making process.
4. Recommendations based on the objectives with advice on how each option can be executed and the related implications.

#### **Taking Stock of the Conchology and Entomology collections**

The conchology collection was reviewed by two external reviewers; one subject specialist to review the collections and one specialist to review the

educational use. The subject specialist reviewer accessed the collections to research the associated documentation and archives to develop a report with recommendations. The report included acquisition history, listing the major collections and their provenance, the general condition of the collection in terms storage, and a key to interpreting and using the card index for the entire collection, created by the former Curator of Natural Science at DONMG (Martin Limbert). The report concludes with suggested approaches and solutions to future management, divided to deal with conservation and reorganisation (including advice on resources) linked to the objectives of the Service.

To complement the curatorial review, a separate specialist assessed the education potential of the conchology collection. The reviewer interviewed education staff, sat in on school and family sessions relating to natural science activities and looked at the collection. The report compiled by the curatorial review was also examined. They evaluated the current use of the general natural history collections along with existing and potential partnerships with schools, specialist interest groups and professional organisations.

A written report was submitted with recommendations outlining how the collection could be developed for learning. There were innovative ways of developing education and access to include the conchology collection with other natural history collections, and even link in with other collections such as World Cultures. The report provided invaluable advice relating to the use of the collection and the necessary requirements for making it accessible and usable for education, learning and general outreach.

The educational recommendations from the conchology collections were broad enough to also fit the entomology collections. The specialist who undertook the entomology collection review had a wide range of skills and they were able to adapt the educational recommendations, providing comments, information and advice specific to this collection.

The entomology collection review was undertaken by one reviewer who completed the review in a few weeks. The reviewer spent time at the Natural History Museum, London, researching key links with Elphinstone Forrest Gilmour (director of the museum from 1953-1967). The majority of the time was spent working directly on the entomological specimens and associated archives at DONMG.

The reviewer designed a new type of methodology based on scoring identifiable discreet collection element. Based on the taxonomy (e.g. British Isles Lepidoptera, World Lepidoptera, etc.) the reviewer used a scoring system from 1-9 to rate relevance and importance to several defined user groups. Each user group was explained along with the necessary collection/specimen attributes required by each user group.

The specialist developed a report with recommendations, which was invaluable in locating discreet collections and finding out how the collection has been organised in the past. These reports for both the entomological collections and the conchology collections have added an enormous amount of information for the current staff to manage the collections more efficiently. The main aim of any review is to discover more about what we have in the collections.

#### **Taking Stock of the Palaeontology Collections: a detailed account of the review and redefining the purpose of the collection**

The palaeontology collection had been flagged as a collection without internal expertise and in need of specialist curation. It had been given an amber rating under the traffic light classification, as a collection not immediately requiring attention. However, in 2009 the museum took on a volunteer who had significant knowledge of palaeontology and had expressed an interest in researching and creating an exhibition from a mixture of the museum's collection and his own extensive private collection. The exhibition, named *Fabulous Fossils*, was incredibly popular with the museum visitors. Researching for the exhibition, the volunteer made significant discoveries within the collection. An application to the *Esmée Fairbairn's Collections Fund* (Museums and Heritage strand) was applied for to research the collection further. It is important to highlight that this collection was not an immediate priority for *Taking Stock*. However, someone working directly on the collections and who was willing to give up their time and expertise provided the ideal opportunity to develop and submit a detailed grant application.

The successful grant enabled a new and innovative project to begin to review the palaeontology collections. It was named CIRCA (Catalogued, Interpreted, Researched, Conserved, Accessible); the acronym signalling the main objectives of the project. This project is the most complete and collaborative collections management scheme to be carried out under the umbrella of *Taking Stock*. It built on the collection reviews from the Effective Collections project, developing a set of criteria and methodology for rationalisation, curation and redefining the purpose of the collection.

#### **The history of geological collecting at DONMG**

Before looking at the review methodology, it is important to understand the context of the collection. This section gives a brief summary of the history of geological collecting nationally and then provides a history of collecting at Doncaster Museum Service.

The history of geology collecting and the development of provisional museums across England is intrinsically linked. But it hasn't been a story of consistent growth. For two hundred years, the rise and fall in the popularity of collecting minerals, fossils and rocks, has been the driving factor in the for-

mation and early success (or not) of many museums. Five key periods in this so called roller-coaster of museum geology (Knell, 1996) have been defined (Fig. 1): two periods of growth in interest, two falls of popularity and most recently a period which history may judge to be a resurgence or just a period of false optimism.

Around 1850, geology as a subject was the height of fashion, and this marked the 'Heroic Age'. During this period of discovery, "for the provincial gentlemen, works on regional geology John Phillips, Gideon Mantell and others, provided models for imitation and a framework for local studies" (Knell, 2007: 261). This period saw the formation of philosophical societies and in Yorkshire this resulted in a suite of these new social and intellectual organisations – Leeds (1818), Bradford (1822), Hull (1822), Sheffield (1822), York (1822), Whitby (1822), Wakefield (1826), and Scarborough (1827). Not only was geology collecting at the forefront of the development of museums, but local museum collecting was at the forefront of the development of the science. Each was led by a charismatic single scientist, for example William Smith was the curator at Scarborough (Osborne, 1999: 312-20), John Phillips was keeper at York (Pyrah, 1998: 37-45) and George Young at Whitby (Osborne, 1999: 44-49). Each of these men published works which were critical to the science of the day.

Between 1860 and 1870 there was a fall in popularity in museums, which marked the second phase of collecting. It was summarised at this time as: "the Provincial Philosophical Societies of England have completed their career they are the debris of an age that has passed away" (Hudson 1851: *quoted in* Alberti, 2003: 342). It was in part due to the fact that "the real science of geology was becoming more rigorous and systematic, and its publications less approachable and more specialized" (Knell 1996: 34-5). There was also the loss of the 'great men' who were critical to geology collect-

ing, the development of the science and the fortunes of the local museum. Written after the event, this quotation summarises this reliance: "It is ... a dangerous thing for a public museum to depend thus upon the support or interest of a single individual, or even on a few amateurs ... and it has indeed often happened that when the leading scientific spirit of a locality has been removed, the museum has degenerated, and lapsed into a state of neglect" (Ruddler, 1877: *quoted in* Knell, 1996: 39).

From 1860-1870 until the 1920s there was a 'boom' related to the rise in natural history societies and field clubs, marking the third phase (Alberti, 2001). This latter 19<sup>th</sup> century rise in popularity was distinctly different. Natural history more generally had blossomed and was a common pastime at a local level: "there is scarcely a town in the kingdom, and in the North of England scarcely a village, in which some such society, either 'Botanical' or 'Entomological, or 'Naturalist' does not exist" (The Naturalist 1, 1864-1865: 1: *quoted in* Alberti, 2001: 119). In addition the natural history was becoming a profession, with civic colleges (later universities) beginning to be established from the 1870s onwards and academic positions in the natural sciences being founded. During the 1890s, in the early years of the MA the "natural sciences dominated proceedings" and "at its annual meetings geology was a popular subject for focused discussion and for the illustration of more general principles" (Knell, 1996: 44).

The critical debate during this time was the purpose of museums and their collections. The pre-existing focus on scientific research, adopted from the early 19<sup>th</sup> century philosophical society museums, resulted in collections which were focused locally. Some saw this as a strength, for example museums should "devote themselves to the thorough and complete working out of the productions of their own districts" (Knell, 1996: 42) or "the great value of your museum is and ought to be in its

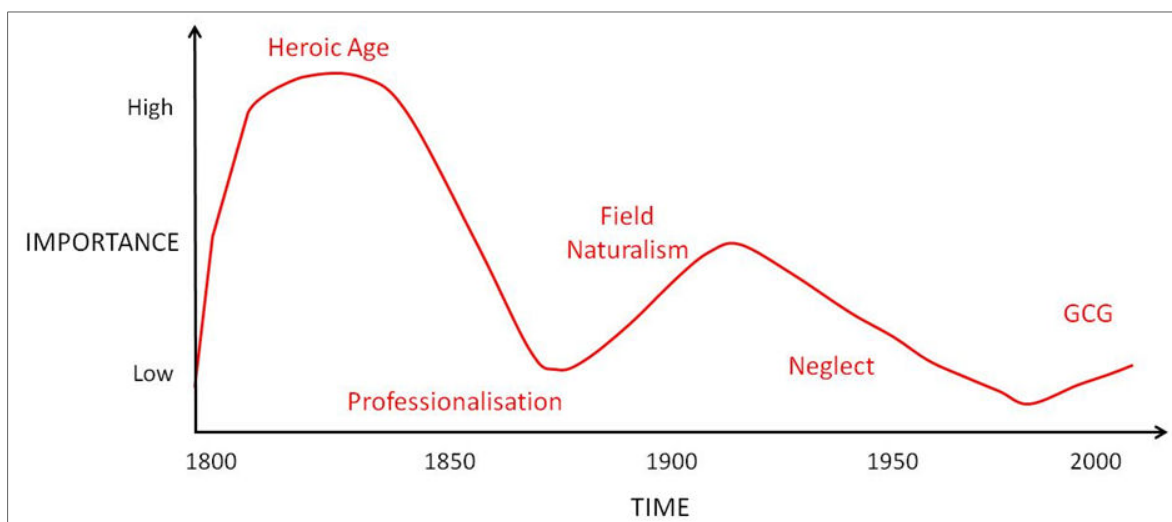


Fig. 1. The five periods of Museum Geology Collecting.



ments which illustrate your own land and sea" (Knell, 1996: 42). However others saw collections to be biased by the cabinets of local collectors (Alberti, 2001: 130). The alternative view to the higher scientific objectives of collections and museums, developed as a consequence of the Reform Act of 1867 and the Education Act of 1870 – "the buzzword for museums for the next 70 years became education" (Knell, 1996: 42). The local museum became the educational museum; its aim was to supply broad knowledge, not local knowledge.

The fourth period of the relationship between geology collecting and museums is a slow decline from the early part of the 20<sup>th</sup> century. "The reorganization of the Science and Art Department prior to the Great War was widely blamed for thrusting the science once more into a period of general decline.... The loss of material from the 1920s onwards, much of it dating back to the earliest days of local geological exploration, was remarkable... Neglect and loss through sale, dumping, burial and theft was regrettably commonplace" (Knell, 1996: 47-48).

The fifth and final period of the relationship between geology and museums is the current era, which began with the formation of the Geological Curators Group (GCG) in the 1970s. More critical however was a nationwide review of geology collections carried out by the GCG and its damning conclusions published by Doughty (1981). In this period, museums were more professional, better funded, better staffed and more conservation aware than ever before and this report had repercussions well beyond the subject of geology. "Curators were already aware of disarray in their own museum ... but no one had the overview [which the GCG report laid bare].... But 'the profession', as it is now known, is a very recent invention and was predated by more than a hundred and fifty years of poorly resourced amateur (i.e. without training, method or standard) involvement. ... While individual collections may have found order for a few years, [the GCG report highlighted that] most have probably spent much of their time in total or partial chaos, or simply in an unmaintained state" (Knell, 1996: 50-51). A second major change during this current period is the recent MA inquiry into museum collections, published in 2005 as *Collections for the Future* (Wilkinson, 2005).

#### **The Doncaster Museum Service Geology Collection**

The first and most important step was to map the history of the development, curation and use of the collection. This was essential for developing a review methodology but also for judging the worth of each specimen or group of specimens against the criteria established under *Taking Stock*.

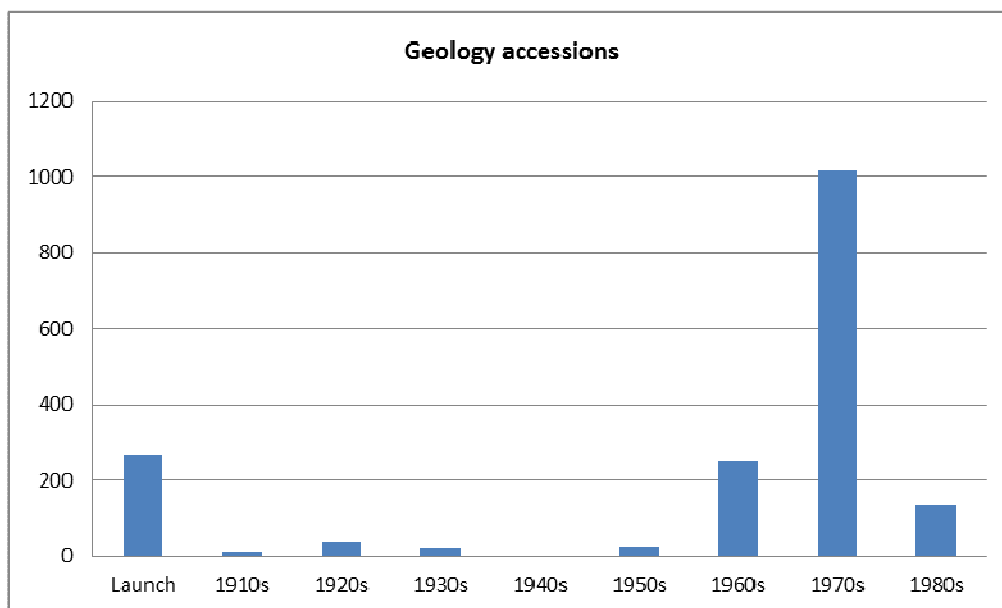
The history of the geology collections at DONMG from the beginning to present day are outlined in Fig 2. The founding collection of DONMG held 1006 objects, which contains 267 geology accessions (180 of which were palaeontology). These

include a significant collection of fossils from the collections of Herbert Henry Corbett and Henry Culpin; both senior members of Doncaster Microscopic and Scientific Society and key players in the establishment of Doncaster Museum. These were collected, and perhaps also purchased or swapped, during the latest part of the 19<sup>th</sup> century and earliest part of the 20<sup>th</sup> century. This was during the second boom period where naturalist and field clubs were the dominant force (rather than literary and philosophical societies). The main difference that these collections are from those put together in the early 19<sup>th</sup> century is that it was education not science that pre-occupied the collectors. Unlike the Literary & Philosophical Society founders of York or Whitby Museums who collected locally and methodically and then published their results, the founders of Doncaster Museum Service were concerned with educating the people of Doncaster. This helps us to understand the lack of local emphasis and the comprehensive nature of the collection.

A second result of this relatively late foundation is the predominance of biology over geology, as part of the field naturalist revolution. This collection was also built around several local scientists for the appreciation of all, as opposed to being built up by one man for the privileged few. Following the formation of the DONMG collections, the geology collections appear to originate from local residents through a trickle of donations; less than 50 accessions in each decade from 1910 to 1960. Little is known about the use made of these collections during this period for display or learning. However it is clear from interviews with previous curators that a permanent display was established from the opening of the new Chequer Road Museum in 1964, focussing particularly on the geology and fossils of the Doncaster area, but covering most geological periods. A stratigraphic collection seems to have been formed from a core of the early well provenanced material and additional collected specimens, which remained distinct from a more general display collection.

The rapid expansion of the geology collections came initially in the late 1960s, with the development of the new museum building and larger stores. This was linked to Elphinstone Forrest Gilmour's aspiration to place Doncaster Museum on the national stage "through sheer weight of collections" (quote from an anonymous retired member of staff). This initial expansion in the mid-late 1960s appears to have been linked to a number of collections accepted from other museum institutions (e.g. Dick Institute, Wood End Museum, Brighthouse Museum, Worksop Museum, Bridlington Museum, Lincoln Museum, Wakefield Museum). It is unknown to what extent these other museums simply donated spare or unwanted material, or to what extent Gilmour was swapping or buying material (or indeed if he was selling unwanted material from the DONMG collections).

The succeeding phase of expansion in the 1970s, which amount to over half the total geology acces-



**Fig. 2.** Number of geology (fossils, minerals and rocks) accessions during each decade. (Note: an accession may be one specimen or hundreds).

sions, was related to the appointment of Anne Pennington George and the efforts of an enthusiastic volunteer Don Bramley. Together they are thought to have amassed the large number of accessions that entered the museum by donation (e.g. the Gregory Collection, in late 1974 or early 1975), by personal collecting (e.g. Paul Buckland and Don Bramley), but also by purchase in the 1980s (e.g. Anne Pennington George's collection of precious and semi-precious gem stones, the dinosaur egg and the ichthyosaur). Since then the number of geology accessions has declined, perhaps due to refocusing of expertise (Anne Pennington George became the Education Officer), loss of volunteers, acquisition budget cuts, and lack of space.

### Collection Priorities

It was important to assess the value of the palaeontology collections for Doncaster Museum Service for the future. If a specimen is judged by this review approach to be of low value, it means it is of low value for Doncaster Museum Service in future, but may be of value for another museum through transfer.

The CIRCA review, like all collections reviews which have assessed museum collections, is reviewing the 'value' of the fossils for DONMG and will take into account the following key factors (the previously mentioned 'X-Factor' objects would fall under factors 1-3.);

#### 1. Audiences (who are the collections for?)

The audience for Doncaster Museum Service is primarily local (almost 70% within 15 minutes travel time and almost 85% within 30 minutes travel time). The Museum has a clear geographic focus and this can aid strategies; from the core purpose and business plan to

collecting, exhibitions and events. Doncaster Museum Service is funded by the taxpayers of Doncaster. This is also a very clear driver for the strategy of the museum and one which must exert a strong influence on the make-up of the collections and future collecting. It doesn't necessarily mean that the people of Doncaster are the only audience, nor that they're only interested in Doncaster, but it does provide a strong focus for audience and usage (e.g. exhibition/event content). However, though there is a clear local focus, there are current audiences from further afield and attracting people into Doncaster is a Council priority. The collections are primarily for the people of Doncaster, but they also used be people from further afield and they are a potential tool to attract people to visit the Borough.

#### 2. Utility (what are the collections for?)

The palaeontology collections appear to have been built up with education broadly in mind. Their main use to date has been in an exhibition and as the basis of the school handling collection. There is no evidence that the collection has been used by anyone, with the one exception that the Institute of Geological Sciences (now British Geological Survey) visited in the 1970s. With lack of expert staff, it is unlikely these collections will be used to their full potential. It is far more likely that expertise will be brought in for time limited projects (for example, new exhibitions).

#### 3. Exhibitions

There are two broad future uses for displays: as a basis for a relatively comprehensive, permanent type of exhibition; and as a basis for high-light, temporary exhibitions. The future palaeon-

tology collections needs to maintain a comprehensive coverage (see below).

#### 4. Education

The core audience for DONMG's education outreach is primary schools. This implies that only a basic education handling collection is required for day-to-day use, one which is relatively small, but high quality with specimens which are clear examples of their type totalling perhaps 50 specimens of mainly fossils with some rocks, minerals. For secondary school and higher education, the main collection would be used. It is likely that as part of the CIRCA project a non-accessioned handling collection would be formed.

#### 5. Comprehensiveness

If exhibition use is the main priority for the future palaeontology collections and the desire is for a versatile collection which will hold specimens that can be used in a variety of permanent and temporary exhibitions, then there are implications on the future comprehensiveness of the collection. The taxonomic coverage needs to include all common and easily displayable high-level taxonomic groups (nominally phyla, class or subclass), to illustrate the diversity of life on Earth. There will be four levels of geographic focus: the greatest concentration will be local (Doncaster Metropolitan Borough Council area); then the regional collecting hotspots of the Derbyshire, South and West Yorkshire Pennines and North Yorkshire coast; then the rest of the UK; finally international. All stratigraphic periods need to be covered, so that the historic development of life on Earth can be illustrated. There needs to be a much greater emphasis on quality, rather than on quantity.

#### 6. Founding Collection, social history of the collections and important collectors

The initial specimens that were part of the museum on the first day it opened (the Founding Collection) holds a special place in the overall collections and the social history of a museum. There are 267 geological donations (fossils, rocks and minerals) noted in the original Stock Book; 215 individual fossil specimens in the palaeontology database. The Founding Collection is considered to be so important that all specimens will be kept. Related to the Founding Collections is the ongoing development and evolution of the collection. What was added, by whom, when and why? Also, what was removed, by whom, when and why? This gives a narrative to the relative importance of different scientific and social priorities.

#### 7. Doncaster specific and unique

The key focus of *Taking stock* is to create a focused and manageable collection where Doncaster's specific and unique natural and

cultural heritage is protected, preserved and made accessible. Therefore a crucial objective of any review is the retention of specimens which originate from Doncaster or which have a strong connection with Doncaster (for example through a collector). This does not however mean that as with the founding collection, all local specimens will be kept.

#### Non-priorities for the collections (excluding specimens or groups of specimens with a Doncaster provenance)

Whilst it is important to consider the future collection priorities to set a strategic context within which a review can take place, it is perhaps equally important to reflect on what is not a priority. Listed below are the most important non-priorities. In the context of the CIRCA review all of these were important factors in assessing the consequences of disposal/dispersal and in effectively managing disposal.

##### 1. Scientific (current) value

This is material which is known to be of significant scientific value, which means those specimens which are type, figured, cited and, to a lesser extent, contributory material. Without the specialist expertise to be able to care for and give access to this kind of material it will not be a priority to keep or store known scientifically valuable material which does not have a Doncaster provenance or strong Doncaster connection.

##### 2. Scientific (future) value

This is the potential value that a collection may have as a source of scientific research. It is not a priority for DONMG to hold a reference collection which scientists would normally be expected to consult when doing research.

##### 3. Low level taxonomic comprehensiveness

The future collection will be taxonomically comprehensive for DONMG, with greatest coverage of taxa from the local and regional hinterland and essential coverage of all higher level taxonomic groups (nominally at phylum and class level).

##### 4. Intraspecific variation

For scientists interested in particular species, every example contains useful information on diversity, and large groups give a quantitative view on the detailed variety, balance and disparity. It is not a priority for DONMG to hold collections with multiple specimens of the same species. The focus on the palaeontology collection is for display purposes, so rarely more than one specimen may be retained for this reason.

##### 5. Higher level educational teaching and handling collection

Historically, there has been very little demand for use of the palaeontology collections to support higher education learning. There is very

little scope for increasing this demand presently, resulting in little need in retaining a collection with the specific purpose of teaching comprehensive course in palaeontology. However it ought to be noted that the priority to keep a stratigraphically, taxonomically and geographically representative collection means that this future collection can be used, should it be needed.

### Review Methodologies

The issues facing the palaeontology collections at DONMG are neither unique nor new. The big question is how does a museum even begin to rationalise a collection; How to make sure the process is rigorous and transparent? How to ensure value is assessed in a meaningful way and how to avoid unintended consequences? How to ensure our peers of today and successor curators of tomorrow are happy with this approach? It is important for the public to understand why these decisions were made.

Summarised above (page 9) were several examples of different collections reviews which have been successfully carried out in museums across the world. The Significance 2.0 methodology was piloted on the palaeontology collections at Doncaster, with mixed results. It was very time consuming, and reviewed an entire collection and generated overarching conclusions. This method did not assist to examine the strengths and weaknesses at the specimen level. Where collection level reviews are probably more useful is where there are many discrete and coherent collections, for example in a very large collection containing discrete and readily definable collections from different donors. However the Doncaster collections are integrated and except in a small number of cases, they are not made up of discrete individual collections. The collection level review approach was therefore not adopted for the DONMG palaeontology collections.

The review undertaken at DONMG has been developed from examining and extrapolating the main objectives of the Museum Service, and looks at the purpose of the individual specimen. For Doncaster Museums Service, there is a very clear purpose, stated in the Collection Priorities outlined above. This gives the Founding Collections and specimens, or groups, with a local provenance primary significance and secondary importance to display quality specimens which are the best of their group. There are not many competing priorities. There is one given (all specimens from the Foundation Collection should be kept) and two binary choices (is this specimen local and is it of display quality?), followed by a relative decision (which is the best of a group). So the methodology for specimen level assessment at Doncaster is distinctly different. In addition the collection size is just about manageable using a relative approach (where like specimens are compared and the best kept). In fact it will not be possible to view all similar specimens at the same time (the collection is too large for this

ideal solution), so the Stratigraphic Collection, which is comprehensive and relatively well documented, will be used to form a baseline against which other collections are judged.

### CIRCA Review Methodology

The review process is made up of three stages. The first stage assesses specimens individually, focusing on the two key areas of the Collection Priorities (questions 1 and 2). The second stage is a comparative process, assessing the best fossils from a group of similar fossils (questions 3 and 4). The final stage is a check (question 5). The process is described below and summarised in the flow chart (Fig. 3). A template Excel spread-sheet has been produced to record the review process (Table. 1).

At Question 2 and Question 4 there is the option to de-accession if the flow chart is followed. Here, a specimen is so visually poor it cannot be displayed so it will go through the disposal process.

Question 3 of the review notes what additional features each specimen has that might be of interpretation potential. For each of the following categories, the specimens can be marked from 0 – 4 (0 = No Value, 4 = Great Value). Some examples of the variety of features which may be of interest include;

- Palaeontology (Good example of a particular/distinctive body plan for the particular group; published record - type, figured, cited, contributory material; zone fossil)
- Palaeoecology (additional evidence of how it lived, including shape, growth, movement, relationship to other organisms (e.g. parasites, encruster), trace fossils, diet (e.g. gut contents), predation, palaeopathology)
- Taphonomy (additional evidence of what happened after it died, including, decay processes, transport, fossils concentrations, rapid burial, flattening (e.g. different orientations of eurypterids, showing different features), diagenesis, different modes of preservation)
- Provenance (Collection or donation associated with interesting person, collected from interesting location, general depth and richness of the documentation associated with a specimen)

The kinds of features and variety within a group that would be of interest cannot be easily defined, but can be illustrated through a number of examples (this is not an exhaustive list, but an illustration of the sorts of features that will be of interest in producing an exhibition):

- Within the Cambrian and Ordovician trilobites, a comprehensive collection worthy of display would contain: Well preserved examples of common and typical forms; Unusual forms like Trinucleus or Agnostus; A slab with the different parts of a trilobite broken up, either showing initial decay of an animal before burial, or a caste exoskeleton made during a growth stage and moult; Examples of different trilobite eyes; Trace fossils.

- In the Jurassic ammonites, a comprehensive collection would contain at least: Variety of species found on the North Yorkshire (Dinosaur) Coast; Different forms of preservation; Worn shell showing septa; Damaged by predation.

The aim of question 4 is to ensure the collection is comprehensive, i.e. which are the best specimens in each group of fossils that we want to be represented to maintain a comprehensive collection? Taking into account the specimens that have already been kept due to being part of the Founding Collection (Q1) or their great exhibition quality (Q2), of the remaining possible display quality specimens with some taxonomy, palaeoecology, taphonomy and provenance value (Q3), which specimens are worthy of keeping from the group and which should be de-accessioned? Question 4 provides the opportunity to fill in missing gaps; specimens marked "Relatively good" are kept due to the added value palaeontology, palaeoecology, taphonomy or provenance value they have for interpretation in an exhibition. Those specimens marked "Relatively poor" specimens are ones which are not as good quality as similar examples, and these are marked for de-accessioning.

The final question looks to see that all periods of collecting and important collectors are represented. This ensures that the social history behind who collected what, when and perhaps even why, can be illustrated should that be of interest as part of an exhibition. At the end of the questions, the specimen will either be retained or marked for de-accessioning.

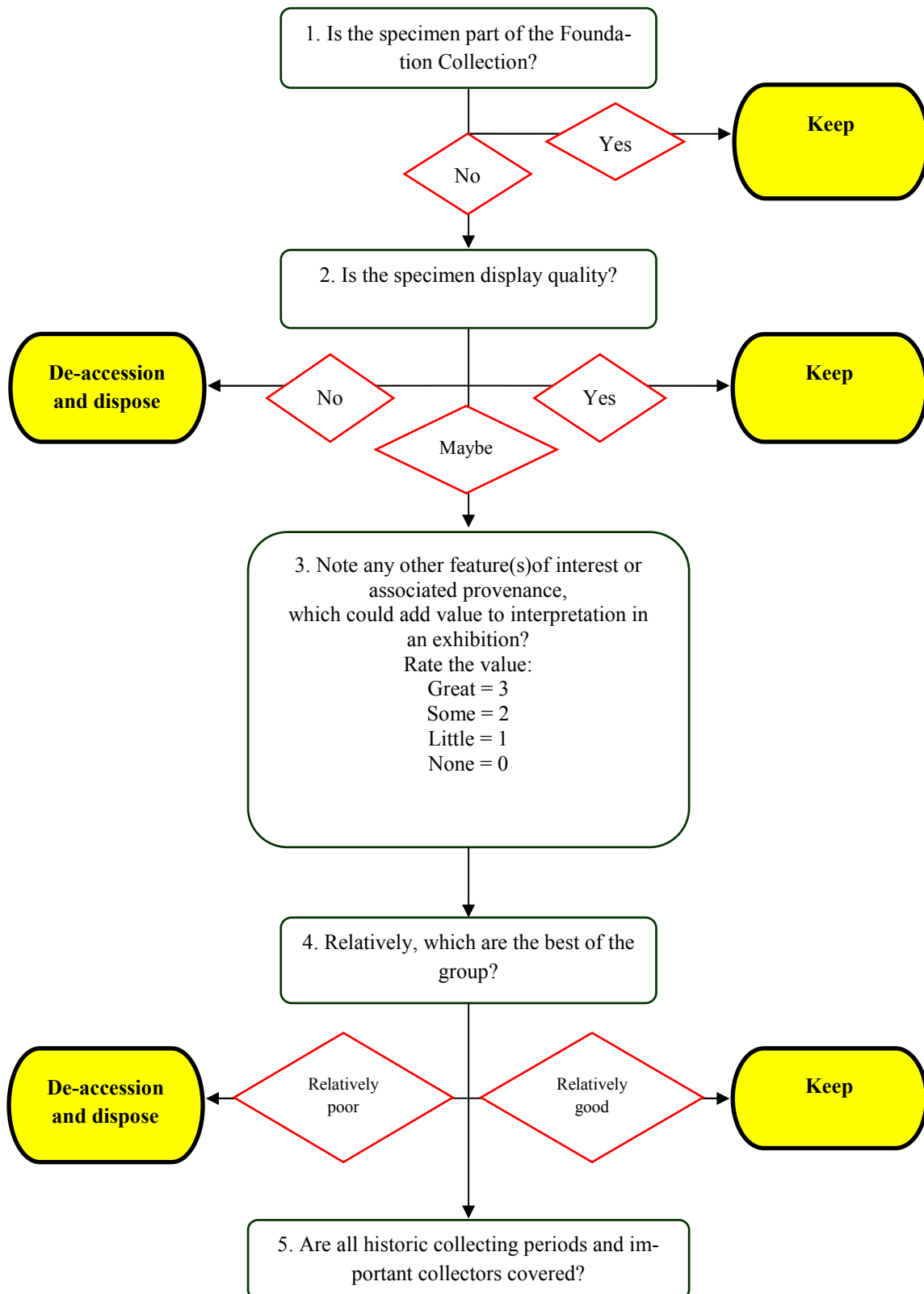
**Disposal process**

Following the review of collections and their assessment by specialist curatorial staff (or contracted staff), specimens identified for de-accessioning through the *Taking Stock* process follow the process:

1. A proposed list of de-accessions is presented to the museum's Acquisition and Disposal Panel (consisting of the relevant museum manager, Conservation and Collections Care officer, Registrar and Curatorial team) for consideration/ amendment/approval. The list includes recommendations relating to the outcome of de-accessioned items and/or collections exploring each successively, only using the final options as a very last resort:
  - a. Exchange of items between museums
  - b. Free gift or transfer to another accredited museum
  - c. Free gift or transfer to another institution/ organisation within the public domain
  - d. Return to donor
  - e. Sale of item to an accredited museum
  - f. Transfer outside the public domain
  - g. Sale outside the public domain
  - h. Recycling of item
  - i. Destruction of item
2. Examples of particularly contentious or difficult cases are taken to a focus group (consisting of ex-staff, external specialists/experts, museum users and other interested parties or stakeholder groups such as Specialist Subject Networks and local societies) for feedback/consultation.

Acc.No	Individual assessment		Group assessment					Decision		
	1. Foundation Collection (Yes/No)	2. Exhibition Quality (Yes/Maybe/No)	3a. P.ontology	3b. P.ecology	3c. Taph.	3d. Prov.	4. Comparison	Keep	De-acc.	Notes
25X	Yes							1		
1977.34.1	No	Yes						1		Foundation Collection, therefore keep Great quality specimen - masses of X-factor - got 'exhibit me' written all over it!
1977.34.2	No	No							1	Broken, poor specimen with no possibility of being displayed
1980.54.1	No	Maybe	1 Little	1 Little	1 Little	3 Great	Relatively good	1		Collected from famous site (now SSSI)
1980.54.2	No	Maybe	0 None	3 Great	2 Some	0 None	Relatively good	1		Coral showing irregular (?seasonal) growth
1980.54.3	No	Maybe	0 None	0 None	3 Great	1 Little	Relatively good	1		Ammonite in septarian nodule - potential to describe early formation of concretation around ammonite before dewatering that then shattered the nodule
1981.23.1	No	Maybe	0 None	2 Some	0 None	0 None	Relatively good	1		Reasonable display quality and the best example of predation of a bivalve by a carnivorous gastropod
1981.23.2	No	Maybe	0 None	0 None	0 None	2 Some	Relatively poor		1	Interesting locality Durdle Door but we have better specimens from there
1981.23.3	No	Maybe	2 Some	0 None	0 None	0 None	Relatively poor		1	Irinucleus has interesting body plan - very wide and flat (like a snow shoe) - which is something which can be described in exhibition interpretation, but there are better examples
1982.46.2	No	Maybe	0 None	0 None	1 Little	0 None	Relatively poor		1	Shows flattening, but it's a common feature and this is not a great example
<b>TOTAL</b>								<b>6</b>	<b>4</b>	
<b>%</b>								<b>60</b>	<b>40</b>	

Table 1. A template Excel spread-sheet to record the review process.



**Fig. 3.** Flow chart illustrating the CIRCA collections review process. Following the model allowed a clear process to be followed for the entire palaeontological collections.

3. Consultation is considered by the Acquisition and Disposal panel and decisions amended accordingly if required.
4. The final proposed de-accessions are taken to the Museum's governing body (in this case the Mayor and Cabinet of DMBC) for approval.
5. Recommendations for the outcome of de-accessioned items/collections are implemented.

The CIRCA project will follow the same de-accessioning process as *Taking Stock*. There are a number of specific issues which DONMG focused on:

- The priority will be to exchange individual objects or entire collections with other material which can enhance the palaeontology collections in line with the Collection Priorities and fill any gaps that emerge as part of the Review.
- The priority will be to find appropriate museums to exchange or transfer material to. This is most likely to be geologically appropriate (for example, if there is a set of Lower Carboniferous crinoid calyces from Clitheroe that is de-accessioned, then possible homes in the North West (e.g. Clitheroe Museum/Lancashire Museum Service or The Manchester Museum) where these specimens will be particularly relevant will be sought). Alternatively, if there is a mixed set of specimens collected by one person, who has affiliations to particular locations (perhaps they were born, worked, researched or otherwise associated with particular locations). If no particular institution is found, then the next step will be to advertise through GCG. Thirdly and finally, if that produces no interested museums, then material will be advertised on the MA channels.
- If other public institutions are considered, then schools, sixth form colleges, further education colleges and universities will be approached using the Earth Science Teachers Association as a channel.
- The sale of material to accredited museums will only be approached as first step where an item was purchased for the collection at some cost and where it is felt that it is appropriate to recoupe this expense.
- If there are contentious or difficult cases, then it is proposed to invite a member of the GCG committee to be involved in the discussions.

#### Reviewing the *Taking Stock* reviews

It would be naive to propose that the methodology developed for *Taking Stock* is faultless. The framework developed was as robust as possible within the limitations of time and resources available. The methodology was designed to create a coherent approach, whilst also flexible enough to cater for the different natures and circumstances of each collection being reviewed. The reviews undertaken as part of the Effective Collections and Esmée Fairbairn Museum and Heritage initiatives also had to

meet the specific requirements of those funding strands. Both funds emphasise the re-vitalisation, accessibility and improved curation of collections they did not conflict with the objectives set by *Taking Stock*, they complimented them. The key to ensuring a coherent and consistent approach to the internal and external reviews rested on having a strong mission statement, with clear objectives and a well-defined set of criteria against which review methodologies can be developed and implemented.

Adaptability has been a significant contributor to the success of *Taking Stock*. Whilst the methodologies have been developed in reference to seminal strategies such as the Collections Council of Australia's Significance 2.0 (Russell & Winkworth, 2009) and the University College London's Collections Review Toolkit (Dunn & Das, 2011), they are bespoke reviews tailored to meet the particular requirements and circumstances of *Taking Stock*. A flexible, bespoke approach to undertaking reviews, which is based on best practice and open to continuous evaluation, is the most robust model and has the best chance of producing the required results from which sound decisions can be made about rationalisation, de-accessioning, transfer, etc.

An important part of the entire process was stakeholder consultation throughout the entire project. Stakeholders fed into the development of the museum objectives and the evaluation of recommendations coming out of the various reviews. This was a valuable way of checking the relevance of potential decisions in regards to the re-shaping of collections. Visitor/user feedback was analysed to ensure that the aims of the project met with consumer needs, and this had to also be balanced with what the museum deems should be protected and maintained for public benefit. The recommendations from the reviews have been examined by external professionals, such as the Regional Museum Development Officer and other museum professionals. These recommendations have also been discussed at a focus group including the Mayor and a cross section of museum users.

The involvement of external specialists has been incredibly valuable to the process of the project. It has ensured that the methods developed have been developed by a range of experience across the wider museum sector. This has allowed us to check, evaluate and adapt our approach to incorporate a broader sector overview to reviewing collections. It has also allowed DONMG to have a more accurate and up to date knowledge of the wide ranging impact of decisions that emerge from implementing the review recommendations. This ensured that the museum is fully aware of the implications and likely outcomes of decisions it makes, both for the Service and for the wider museum and academic communities. Importantly it bolsters confidence in the staff that the decisions made relating to collections which have relevance or importance beyond Doncaster Museum Service and its users are fully considered. Engagement with other mu-

that the best options for the disposal/dispersal of collections are outlined.

The Museum Service's Collections Development Policy (DMS, 2013), to which all *Taking Stock* reviews refer, prioritises objects and collections with a Doncaster provenance or strong Doncaster connection. This has led to a conflict in respect of the position taken regarding research collections. Where a research collection or collection of primary scientific value has a Doncaster provenance or strong local connection, the decision to retain or dispose, preferably through dispersal to an appropriately resourced Museum, has not been straight forward. It has led to decisions made on a case by case basis, with factors such as the requirements for care and access being the key components in making a decision. It has highlighted the fact that even with a robust well-reasoned review methodology, where the objectives and priorities for collecting are clear, there are no purely black and white cases. This has in turn emphasised the need to document and record the reasons and decision making process for aspects of a review, beyond the simple execution of a formulaic review process.

The development of the 'X-Factor' objects came about through a necessity to satisfy an objective of the Museum Service which fell outside the local emphasis. This highlighted the diverse use of a museum collection with a need for flexibility and compromise when developing a review methodology.

#### Lessons Learned

For DONMG, the *Taking Stock* project has demonstrated that there is no best or definitive model for reviewing collections. Provided that review methodologies are developed against a single framework of objectives and criteria for assessment then each collection is best reviewed using a bespoke methodology which meets best practice and conforms to current professional guidelines. Whether a collection is reviewed internally or by external specialists the effectiveness and accuracy of the reviews will ensure that there is less chance of important factors being overlooked. Establishing and maintaining an open and honest dialogue with external specialists is vital to facilitating effective recommendations and decisions.

Without in house specialist curatorial expertise beyond a period of review the long term development of the collection is compromised and accessibility is considerably limited, unless another system for providing specialist curation can be identified. As the CIRCA project moves towards completion it will begin to address such questions and test to what extent it is possible to find alternative solutions to in house subject specialist curation.

#### Acknowledgements:

Doncaster Museum Service would like acknowledge the MA's Effective Collections fund for providing a grant to review the conchology and entomology collections; and Esmée Fairbairn's Museum and Heritage strand for fund-

ing CIRCA project. We would also like to thank Joanne Irvine for her mentorship through the Effective Collections project, Mandy Martin Smith, Graham Oliver and Howard Mendel who undertook the Effective Collections reviews, Michael Turpenny and Dieter Hopkin for their support and professional advice relating to *Taking Stock*, Alison Holdom, Grants Manager at the Esmée Fairbairn Foundation for advice and support provided to date and Nigel Larkin for his contributions to CIRCA project. The authors wish to acknowledge the key contribution of Dean Lomax in the development and execution of the CIRCA project. The Museum Service would also like to thank former museum staff, Martin Limbert, Colin Howes, Paul Buckland and Ann Pennington-George for help and assistance related to understanding the development and curation of the natural science collections. Additionally we would like to thank NatSCA for the invitation to present a paper at their 2013 Annual conference and to sit on a panel for a discussion of Reviewing Natural Science collections; and the reviewers for their comments and input into the editing of this article. In particular we acknowledge the help and support of Jan Freedman who has contributed significantly to the structuring of this paper.

#### References:

- Alberti, S. J. M. M. 2001. Amateurs and professionals in one county: biology and natural history in late Victorian Yorkshire. *Journal of the History of Biology*. **34**. pp.115-147.
- Alberti, S. J. M. M. 2003. Natural history and the philosophical societies of late Victorian Yorkshire. *Archives of Natural History*. **30** (2). pp.342-358.
- Alberch, P. 2007. Museums, collections and biodiversity inventories. *Trends in Ecology and Evolution*. **8** (10). Pp.372-5. *Reproduced in:* Knell, S.J. (ed.) 2007. *Museums in a material world*. pp. 365-70. Routledge, Oxford.
- DMS. 2006. *Acquisition and Disposal Policy*. 2006-2011. Doncaster Museum Service.
- DMS. 2010. *Mission Statement for Collections Assessment Project*. Doncaster Museum Service.
- DMS. 2013a. *Collection Development Policy*. 2013-2018. Doncaster Museum Service.
- DMS. 2013b. *Forward Plan*. 2013-2016. Doncaster Museum Service.
- Doughty, P. S. 1981. *The State and Status of Geology in United Kingdom Museums*. *Geological Society Miscellaneous Paper* **13**.
- Dunn, J & Das, S. 2011. The UCL Collections Review Toolkit. University College London. [http://www.ucl.ac.uk/museums/research/review/documents/CR\\_Toolkit\\_Final](http://www.ucl.ac.uk/museums/research/review/documents/CR_Toolkit_Final) (Accessed 25/4/12)
- Freedman, J. 2012. Undertaking an Effective Review of Natural History Collections. *NatSCA News*. **Issue 23**. pp. 25-42.
- Knell, S. J. 1996. The roller-coaster of museum geology. *In:* Pearce, S. (ed.) *Exploring Science in Museums*. Athlone, London. pp. 29-56.
- Knell, S. J. 2007. Consuming fossils and museums in early nineteenth-century England. *In:* Knell, S.J. (ed.) *Museums in a Material World*. Routledge, Oxford.
- Merriman, N. 2008. Museum collections and sustainability. *Cultural Trends*, **17** (1) pp. 3-21.
- Museums Association. 2008a. *Disposal toolkit: guidelines for museums*. Museums Association, London. (<http://www.museumsassociation.org/download?id=15852> Accessed 25/10/2012)
- Museums Association. 2008b. *Code of Ethics for Museums. Ethical Principles for all who work for or govern museums in the UK*. Museums Association. <http://www.museumsassociation.org/download?id=944515> (Accessed 8/9/2013)



- Museums Association. 2013. Collections Reviews. <http://www.museumsassociation.org/museum-practice/collections-reviews> (Accessed 3/9/13)
- National Museum Directors Conference. 2003. *Too much Stuff? Disposals from Museums*. The National Museums Directors Conference.
- Oliver, G. 2011. *The Collections of Molluscan Shells in the Doncaster Museum and Art Gallery*. Doncaster Museum Service.
- Osborne, R. 1999. *The Floating Egg: Episodes in the Making of Geology*. Pimlico, London.
- Pyrah, B. J. 1988. *The History of the Yorkshire Museum and its Geological Collections*. Sessions, York.
- Reed, C. 2012. *Reviewing Significance 2.0: a framework for assessing museum collections' significance, management and use*. Renaissance East Midlands. <http://www.collectionslink.org.uk/programmes/reviewing-significance/1196-reviewing-significance-20> (Accessed 25/4/12)
- Robertson, I, 1990. Infamous de-accessions. *Museums Journal*, **90**(3), 32-4. Reproduced in: Fahy, A. (ed.) 1995. *Collections Management*. Routledge, London. pp.168-171.
- Russell, R. & Winkworth, K. 2009. *Significance 2.0: a guide to assessing the significance of collections*. Collections Council of Australia. <http://www.environment.gov.au/heritage/publications/significance2-0/> (Accessed 25/4/12)
- UKMCS. 2006. Mapping Document. <http://www.ukmcs.org.uk/docs/Marine-Engineering-Collections-Mapping-Document.pdf> (Accessed 7/9/12)
- Viner, D. & Wilson, C. 2004a. Sorting the Wheat from the Chaff. The Distributed National Collection: a scoping & development study of agricultural heritage collections. [http://www.ruralmuseums.specialistnetwork.org.uk/asset\\_arena/textual/dnc\\_jan2004.pdf](http://www.ruralmuseums.specialistnetwork.org.uk/asset_arena/textual/dnc_jan2004.pdf) (Retrieved 7/9/12)
- Viner, D. & Wilson, C. 2004a. Sorting the Wheat from the Chaff. The Distributed National Collection: a scoping & development study of agricultural heritage collections. [http://www.ruralmuseums.specialistnetwork.org.uk/asset\\_arena/textual/dnc\\_jan2004.pdf](http://www.ruralmuseums.specialistnetwork.org.uk/asset_arena/textual/dnc_jan2004.pdf) (Retrieved 7/9/12)
- Viner, D. & Wilson, C. 2004b. Developing the concept of the Distributed National Collection of agricultural heritage collections: Survey of Combine Harvesters. [http://www.ruralmuseums.specialistnetwork.org.uk/asset\\_arena/textual/Combinefinal\\_%20report\\_%2028.07.092.doc](http://www.ruralmuseums.specialistnetwork.org.uk/asset_arena/textual/Combinefinal_%20report_%2028.07.092.doc) (Retrieved 7/9/12)
- Wilkinson, H. . 2005. *Collections for the Future*. Museums Association, London. (<http://www.museumsassociation.org/download?id=11121> Accessed 12/6/2012)

On 23<sup>rd</sup>  
March 1910,  
Doncaster

### Appendix 1: The core objectives of DONMG

Our core  
business is:

Museum opened, with the founding objectives;

#### *Object of the Museum*

*I take it that one main objective of the Doncaster Museum should be to illustrate archaeology, history, geology and natural history of the district in which it is situated. There are already in the committee's possession many valuable specimens bearing upon these branches, which would form an admirable nucleus; and there is no doubt that when the public can have better access to the collections than is now possible, further gifts will be made.*

*In addition to these collections, however, which are most valuable in their way, it will be necessary, if the museum is to meet with that success which characterises so many provincial institutions, that there should be an exhibition of objects illustrating various branches of Applied Art. In this way the Museum will become additionally valuable from an educational point of view, and will also be able to reap many advantages, financially and otherwise, in a way presently to be described.*

(Sheppard, 1908)

It is interesting to note that the current Museum Service Mission Statement, although shortened, match the original 1910 'Mission statement' remarkably well, hinting that the service has come full circle and has returned to its original core purpose. The revised objectives would be instrumental in feeding into the revised Forward Plan (2013-2018):

The Museum Service primarily serves those living in the Doncaster Metropolitan Borough area and those connected to the King's Own Yorkshire Light Infantry and believes that its purpose can be summed up in four words:

Engage, Preserve, Inspire, Communicate

run Doncaster Museum & Art Gallery, Cusworth Hall Museum, Cusworth Park and the King's Own Yorkshire Light Infantry (KOYLI) Museum.

- To care for the 600,000 objects and specimens in the Museum and KOYLI collections and the Grade One listed Cusworth Hall and Grade 2 listed Site of Scientific Interest (SSI) Cusworth Park.
- To run a Museum Education Service
- To provide public access to the collections, largely through exhibitions and other displays, events, enquiries, digital access, talks and other appropriate methods; such as facilitating research.
- The definition of a museum accepted by the Museums Association is that 'Museums enable people to explore collections for inspiration, learning and enjoyment. They are institutions that collect, safeguard and make accessible artefacts and specimens, which they hold in trust for society.'

The key aims of the Service are:

- 1 To enthuse people about the heritage of Doncaster, the King's Own Yorkshire Light Infantry and the world around them through our museums.
- 2 To engage people in the preservation and appreciation of the wonderful collections that we care for, Cusworth Hall and its Park.
- 3 To give people great days out
- 4 To make Doncaster proud of its Museum Service

Objectives:

- 1 Raise the profile of the Museum Service and Doncaster's heritage
- 2 Developing new audiences (including schools)
- 3 Improving our financial sustainability
- 4 To ensure that we have collections that we can care for and that are accessible
- 5 To improve our Museum buildings and Cusworth Park, making improvements to our environmental sustainability.

Objective 1 contributes principally to key aims 2 and 4.

Objective 2 contributes to key aims 1 and 2.

Objectives 3, 4 and 5 contribute to all of the key aims.

**The core objectives from the Doncaster Museum Service Forward Plan 2013-18**

**Appendix 2: Original collection assessment form for disposals and accompanying guidance notes.**

The collection assessment forms were trialled but quickly replaced with the creation of a spread sheet for recording multiple decisions, to make the process more efficient and to take advantage of the features of Windows Excel for analysing and reviewing recorded information and decisions (shown on page 26).

<p style="text-align: right;">02/09/2010 09:29:47</p> <p style="text-align: center;"><b>Notes for Completion of the Collections Assessment Form</b></p> <p><i>The notes below are intended to provide guidance on decision making in relation to the Criteria outlined above and assist in filling in the additional information for each criteria.</i></p> <ol style="list-style-type: none"> <li>(1) Consideration of the object or collection's relevance to Doncaster should be paramount (i.e. is it made, used, found or otherwise strongly associated with the Borough). It is useful to apply the question 'if we were collecting this object/collection now, would it be accessioned?'</li> <li>(2) Consideration should be paid to the collecting areas and strengths of other museums (i.e. is the object or collection from the collecting area of another museum &amp;/or does it better fit the A&amp;D policy of another museum. Objects or collections which are purely research reference collections and are not relevant to the museum's A&amp;D policy, should also be considered as candidates for transfer).</li> <li>(3) Consideration should be given to the museum's ability to care for and provide access to the object or collection to Accredited Standards. For example, does the museum have the appropriate facilities and financial means to maintain the object/collection and is there a better more appropriate home for the object/collection where it might more naturally be accessed or used?</li> <li>(4) Consideration should be paid to duplications where they are not part of an integral collection or where group of related items and examples exist within the museum's collection which are of a better quality and/or provenance.</li> <li>(5) Particular consideration should be paid to objects or collections which have been wrongly accessioned – such as display props, educational handling items, loans, objects or collections where collecting is ethically dubious and items with no transfer of title.</li> <li>(6) Particular consideration should be paid to items which due to their irreparable state of decay have no information, display, interpretive or educational value.</li> <li>(7) Applied to objects or collections where the hazardous substance is detrimental to the health of staff or customers or to the safety/stability of other collections and where the hazardous substance cannot be removed without destroying the integrity of the object/collection.</li> </ol>	<p style="text-align: right;">02/09/2010 09:29:47</p> <p style="text-align: center;"><b>Taking Stock: Collections Assessment Form</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Object/Collection:</td> <td style="width: 50%;"></td> </tr> <tr> <td>Accession No:</td> <td></td> </tr> <tr> <td>Other No:</td> <td></td> </tr> <tr> <td>Brief description:</td> <td></td> </tr> <tr> <td>Assessed by:</td> <td></td> </tr> <tr> <td>Date Assessed:</td> <td></td> </tr> <tr> <td>Disposal Photo No:</td> <td></td> </tr> <tr> <td>Disposal Number:</td> <td></td> </tr> <tr> <td>Temporary Disposal Number:</td> <td>TD</td> </tr> <tr> <td>Number allocated until A&amp;D panel make decision</td> <td>D</td> </tr> <tr> <td>Documentation checked and clear to dispose</td> <td>No donor record <input type="checkbox"/> donor contacted/approved <input type="checkbox"/> donor unable to be contacted <input type="checkbox"/> donor return <input type="checkbox"/></td> </tr> </table> <p>The object/collection:  <i>Tick each appropriate reason for disposal and fill in further explanatory information below – N.B. More than one box can be ticked if relevant. For Criteria 1 – 5 please give your suggestions for re-homing/transfer to another museum.</i></p> <p>(1) Not relevant to the museum's Acquisition and Disposal Policy <input type="checkbox"/>          Reason:</p> <p>(2) Is more relevant to the collections of another museum <input type="checkbox"/>          Reason:</p> <p>(3) Cannot be cared for or made accessible, to the required standards <input type="checkbox"/>          Reason:</p> <p>(4) Is a duplicate <input type="checkbox"/>          Provide further information:</p> <p>(5) Should not have been accessioned into the museum's collections <input type="checkbox"/>          Reason:</p> <p>(6) Has deteriorated beyond economic repair or resource <input type="checkbox"/>          Details of condition as noted by Curator:</p> <p>(7) Contains material that is hazardous to people or collections <input type="checkbox"/>          Explanation:</p> <p>(8) Has been lost or stolen <input type="checkbox"/>          Supply Evidence:</p>	Object/Collection:		Accession No:		Other No:		Brief description:		Assessed by:		Date Assessed:		Disposal Photo No:		Disposal Number:		Temporary Disposal Number:	TD	Number allocated until A&D panel make decision	D	Documentation checked and clear to dispose	No donor record <input type="checkbox"/> donor contacted/approved <input type="checkbox"/> donor unable to be contacted <input type="checkbox"/> donor return <input type="checkbox"/>
Object/Collection:																							
Accession No:																							
Other No:																							
Brief description:																							
Assessed by:																							
Date Assessed:																							
Disposal Photo No:																							
Disposal Number:																							
Temporary Disposal Number:	TD																						
Number allocated until A&D panel make decision	D																						
Documentation checked and clear to dispose	No donor record <input type="checkbox"/> donor contacted/approved <input type="checkbox"/> donor unable to be contacted <input type="checkbox"/> donor return <input type="checkbox"/>																						

Screen shot of the Excel collections assessment spreadsheet. This is the replacement for the collections assessment form on page 25. Transferring the form on to an Excel spreadsheet has made the information in the review process much easier to manage in terms of making checks, conducting searches and grouping items under such categories as reason for disposal, location and suggested recipient.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Drumber	Accession number	Description	Photo no	Reason	Location	Approved by major?	What do we intend to do with object?	Approved by major?	contacted new destination?	response	Notes			
1	?	Widewater Gainborough Lincshire 1950, Field Valed col		Provenance N Lincs										
2	D1*	1 small box - surface material, basins, mostly Roman			Basement 1 Rack 47 Shelf C									
3		1 small box - surface material, rims and other sherds, mostly Roman			Basement 1 Rack 47 Shelf C									
4		1 small box - surface material, rims, body sherds, Late Iron or Late Roman			Basement 1 Rack 47 Shelf C									
5		1 small box - surface material, rims, bodies, mostly Roman			Basement 1 Rack 47 Shelf D									
6		1 small box - surface material, rims, bodies, Roman			Basement 1 Rack 47 Shelf D									
7		1 small box - surface material, body sherds, Thick walled			Basement 1 Rack 47 Shelf D									
8		1 small box - surface material, body sherds, Thick walled			Basement 1 Rack 47 Shelf D									
9		1 small box - surface material, body sherds, mostly Roman			Basement 1 Rack 47 Shelf D									
10		1 small box - surface material, body sherds, mostly Roman			Basement 1 Rack 47 Shelf D									
11		1 small box - surface material, body sherds, mostly Roman			Basement 1 Rack 47 Shelf D									
12	D2*	?												
13	D2*	?												
14		1 small box - surface material, Mixed finds - mostly Roman			Basement 1 Rack 47 Shelf K									
15		1 small box - surface material, Mixed finds - mostly Roman			Basement 1 Rack 47 Shelf L									
16		1 small box - surface material, Mixed finds - mostly Roman			Basement 1 Rack 47 Shelf L									
17	D2b*	?												
18		1 field walked material from Vicot. 1802. Mt Dave Green			Basement 1 Rack 47 Shelf L									
19		1 small plastic sealed bag - St Pancras Church, 2 rim sherds, Roman			Basement 1 Rack 47 Shelf L									
20		1 small plastic sealed bag - St Pancras Church, 1 base sherd, Roman			Basement 1 Rack 47 Shelf L									
21		1 medium box - marked Vicot area - Field House Farm, Vorked Hill - one of which is a really fine Late Roman			Basement 1 Rack 47 Shelf L									
22		1 medium box - marked Vicot area - Field House Farm, Vorked Hill - one of which is a really fine Late Roman			Basement 1 Rack 47 Shelf L									
23		1 small box - marked Vicot area around St Pancras Church 1803, box contains Roman Pot			Barby Dun Archaeology store Rack									
24		1 small box - marked Vicot area around St Pancras Church 1804, box contains Roman Pot			Barby Dun Archaeology store Rack									
25		1 medium box - marked Vicot area 1801 - containing Roman Pottery			Barby Dun Archaeology store Rack									
26	D3*	?												
27		1 St Pancras Church, Vicot Finds from digging of grave in the Provenance N Lincs			Basement 1 Rack 47 Shelf K									
28		1 small box containing two bags marked 50* west of tower containing 2 sherds Roman pottery, the other Basement 1 Rack 47 Shelf K			Basement 1 Rack 47 Shelf K									
29		1 small box containing Roman Pottery, Marked Vicot St Pancras Church found while digging grave			Barby Dun Archaeology Store Rack									
30	D4*	?												
31		1 Vicot Pottery Kiln Site, Field walked collection per ML, Provenance V, walled V Yorks			Basement 1 Rack 47 Shelf L									
32		1 small box - kiln waste, Christian wares - nice part complete base and lower body of cup			Basement 1 Rack 47 Shelf L									
33	D5*	?												
34		1 Field walked material, Area N of Spiral Farm, Blgh, Pw, Mt, JT Provenance N Lincs			Basement 1 Rack 47 Shelf B									
35		1 finds bag containing sherds of Medieval Pottery			Basement 1 Rack 47 Shelf B									
36	D6*	?												
37		1 Cowick Moor - Mound/Menor Site (Pitouse Excavation Area) Provenance East Filling			Barby Dun Store, Archaeological Ar									
38		1 large piece of worked wood - site record) includes some plan and section drawings, display note			Barby Dun Store, Archaeological Ar									
39		1 kilned limestone block, Cowick			Plant Room, Rack 1, Shelf 7									
40		1 small box containing Cowick Moor 5th/6th Centuries Vessels, Down			Plant Room, Rack 1, Shelf 7									
41		1 small box containing Cowick Moor 1007-1112 (w/ft in area) Cowick, Andler 620/19			Basement 1 Rack 44, Shelf 14									
42		1 bag (rims) of medieval pottery, marked with 1007-1112 (w/ft in area) Cowick, Andler 620/19			Basement 1 Rack 44, Shelf 14									
43	2A.37	1 totally reconstructed medieval iron glass jug - marked CM26; - Discarter Conservation Lab No			Basement 1 Rack 44, Shelf 14									
44		1 totally reconstructed medieval iron glass jug - marked CM26; - Discarter Conservation Lab No			Basement 1 Rack 44, Shelf 14									
45		1 plastic box containing bagged and conserved surface fragments (foot wide shoe soles etc) - box marked			Basement 1 Rack 48, Shelf A									
46		1 plastic box containing bagged and conserved surface fragments (foot wide shoe soles etc) - box marked			Basement 1 Rack 48, Shelf A									
47		1 small box containing conserved leather shoe soles - box marked Footwear - Cowick			Basement 1 Rack 35, Shelf 1									
48		1 small box containing conserved leather shoe soles - box marked Footwear - Cowick			Basement 1 Rack 35, Shelf 1									
49		1 treated wood (conserved by VAT 103) Area 2 from base of peat layer, resting on clay			Basement 1 Rack 35, Shelf 1									
50		1 treated wood (conserved by VAT 103) Area 2 from base of peat layer, resting on clay			Basement 1 Rack 35, Shelf 1									
51		1 treated wood (conserved by VAT 103) Area 2 from base of peat layer, resting on clay			Basement 1 Rack 35, Shelf 1									
52		1 treated wood (conserved by VAT 103) Area 2 from base of peat layer, resting on clay			Basement 1 Rack 35, Shelf 1									
53		1 treated wood (conserved by VAT 103) Area 2 from base of peat layer, resting on clay			Basement 1 Rack 35, Shelf 1									
54		1 treated wood (conserved by VAT 103) Area 2 from base of peat layer, resting on clay			Basement 1 Rack 35, Shelf 1									
55		1 treated wood (conserved by VAT 103) Area 2 from base of peat layer, resting on clay			Basement 1 Rack 35, Shelf 1									
56		1 treated wood (conserved by VAT 103) Area 2 from base of peat layer, resting on clay			Basement 1 Rack 35, Shelf 1									
57		1 treated wood (conserved by VAT 103) Area 2 from base of peat layer, resting on clay			Basement 1 Rack 35, Shelf 1									
58		1 box containing 1 pot (thin wares) - but clearly used as from kiln site			Plant Room, Rack 6, Shelf 4, box 951F									
59		1 box containing 2 part pots			Plant Room, Rack 6, Shelf 4, box 951F									
60		1 in box ZA69-63 medieval bricks, ZA 69-61, 63-64 roof peg hole tiles, 65 coping tile			Plant Room, Rack 6, Shelf 4, box 951F									
61		1 in box ZA69-63 medieval bricks, ZA 69-61, 63-64 roof peg hole tiles, 65 coping tile			Plant Room, Rack 6, Shelf 4, box 951F									
62		1 in box CBM and glazed ceramic sherds			Plant Room, Rack 6, Shelf 4, box 951F									
63		12 large boxes - 11 medium box all marked Convent Wood - from Moat. Contains worked wooden obje			Barby Dun Archaeology Store, Rack 5									