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Underestimated: unexpected. Natural history collections in regional museums. A case study based on the collections of molluscan shells in the Doncaster City Museum & Art Gallery

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Abstract

This paper analyses the molluscan collections in the Doncaster Museum and Art Gallery. Collections relevant to historic regional biodiversity distributions are present in the Hargreaves and Morehouse collections. The Morehouse collection illustrates the inter connectedness of collectors and collections during the late 19th and early 20th centuries. Unrecorded transfers of collections between museums especially that of Bean material from Scarborough Museum to Doncaster were uncovered. The Bean material contains specimens of historic and possible type significance. This paper concludes that smaller regional collections contribute valuable additions to the UK and global biodiversity collection resource and warrant further research and enhanced access.

Keywords: Conchology, historic collections, collection significance, social networks, Doncaster Museum

Introduction

The aim of this paper is to illustrate that perceived, unremarkable collections held in regional UK museums form a part of an important network of collection resources. While in themselves such collections do not rank highly in terms of taxonomic significance, they do hold specimens of value and taken together with similar collections held in similar museums constitute a national resource that should not be underestimated. These along with their counterparts in the larger national and university museums form a much larger national, and ultimately international, resource. In addition to any taxonomic value, such collections often hold a local value in reflecting past biodiversity. Finally, such collections may also have a social history dimension reflected in the collectors and their network of sources.

In recent years various collection-based projects have unveiled hidden value in collections held in museums not recognised for their holdings of molluscan shells. The web site (https://gbmolluscatypes.ac.uk) listing the location of type specimens of Mollusca in Great Britain and Northern Ireland is the most recent product of such investigations (Ablett *et al*., 2019). Wider ranging, molluscan collection, reviews have been carried out at The Royal Albert Memorial Museum, Exeter (Oliver, Morgenroth, and Salvador 2017; Oliver and Morgenroth 2018: Morgenroth, Oliver, and Breure 2018); at Tenby Museum and Art Gallery (Oliver *et al*., 2020) and at Hergest Croft (Oliver and Pegg, 2021). In most of these surveys the focus was on specimens of historic, taxonomic value related to specific authors.

In this paper the entire collection of molluscan shells in the Doncaster City Museum & Art Gallery is reviewed. Such collection surveys are not new, and others were done in relation to the Effective Collections project funded by the Esmée Fairbairn Foundation, including one that I carried out in 2012 for the Doncaster Museum and Art Gallery. Such reviews were made to assist managerial decisions and were not designed to be published. Two small papers resulted from this review (Oliver, 2012; Oliver, 2015) but the bulk of the results outlining the history of the collections, their wider significance and the contributions of one of the few female collectors, Elsie Morehouse, remained unpublished.

Documentation

As with many smaller museums the level of documentation is variable but here the work of a former curator, Dr Peter Skidmore (1936–2009) (Hower, Limbert, and Buckland, 2010) has been critical in understanding the provenances of the natural history collections. For the Mollusca he created a hand-written card index detailing the various collections held in Doncaster. Doncaster Museum embarked on acquiring collections from other museums either whole or in part and this appears to be the actions of the Director E.F. Gilmour between 1951–1967. This practice has resulted in the unexpected presence of material exemplified by part of the Bean Collection, being acquired from the Scarborough Museum where one would expect to find it in its entirety.

Collections from other museums include those from Worksop, Chelmsford, Carlisle and Kilmarnock; none of which carry registration numbers but are simply marked, for example, 'ex Carlisle mus'. Material from Selby Museum is accessioned under 1965.739 and that from Wakefield Museum under 1981.176. None of these collections carry accession numbers from their original museums. The major collections acquired from individuals are J.A. Hargreaves (1920, No 20.29) and Elsie Morehouse (1974, 269.74), with minor collections from J.A. Patterson (1965, 1965.837); W. Parkin (1975, 1975.258) and E. E. Gregory (1861–1937) by M. C. Barlow (1976, 1976.540.10).

In this review the focus is on the Hargreaves and Morehouse collections followed by summaries of the collections acquired from other museums.

Collections from individuals

John Ashworth Hargreaves (1856–1929)

John Ashworth Hargreaves was a founder member of the Scarborough Field Naturalists Society, a member of the Conchological Society of Great Britain and Ireland, Yorkshire Conchological Society, Yorkshire Naturalists Union and trustee of the Scarborough Philosophical and Archaeological Society (Gyngell, 1929). He published two significant papers on the land and freshwater Mollusca of Scarborough (Hargreaves, 1909) and the marine Mollusca of Yorkshire and the Dogger Bank (Hargreaves, 1910). The accession register described his collection as an almost complete collection of British land, freshwater and marine shells, some hundreds of specimen lots in all. It was accepted in 1920 and the sum of £10 was paid.

The collection carries Hargreaves own hand-written labels but there is evidence of secondary collectors, the most frequent being Walter Gyngell [1857–1933] who along with Hargreaves set up the Scarborough Field Naturalists' Society in 1888 (Clarke and Wallis, 1933).

The label in Figure 1 shows Hargreaves bold and

Figure 1. Label in the handwriting of J. A. Hargreaves (top two lines) and W. Gyngell (lower two lines).
© Doncaster Museum and Art Gallery.

legible writing above the scrawling hand of Gyngell below. Both men were active members of the Conchological Society of Great Britain and Ireland and frequently submitted records and exhibits at their meetings.

The collection of land snails is particularly rich in named varieties of British species and their distribution, primarily in Yorkshire. Hargreaves' collection of marine shells contains rarities poorly represented even in national collections. Examples are the large wood-boring bivalve *Xylophaga praestans* Smith, 1903. Only two records are present on the NBN Atlas and although the Doncaster record is not listed it may have been part of the type series collected from the 'Northumberland coast'. Despite the labels indicating that the shells are from Hargreaves collection, the label and accession number are for the Morehouse collection. Such mixing of collections is not unusual here and probably a situation not uncommon in many museums.

Another interesting lot (Figure 2) that has no accession number but is probably ex Hargreaves, as the shells were collected in 1900, consists of six examples of what is now known as *Idas simpsoni* Marshall, 1900.

The data associated with this lot is that of the type lot and probably came from J. J. Simpson who found these attached to sunken whale bones.

Figure 2. The rare bivalve Idas simpsoni *probably from the type lot collected by JJ Simpson. © Doncaster Museum and Art Gallery.*

While these shells came to Hargreaves, they may not have been part of the original Hargreaves donation to the museum but found their way to Elsie Morehouse. Skidmore in manuscript notes, quoting Elsie Morehouse, stated that only shells from Yorkshire comprised the Hargreaves donation and that the remainder went to a Mr North of Huddersfield and these were later acquired by Elsie Morehouse.

This last lot indicates that Hargreaves exchanged shells with other well-known collectors, most of these in the north of England. He was very friendly with Fred Taylor [1871–1949] (Jackson, 1949) and the labels show exchanges with Robert Standen [1854–1925] (Jackson, 1925) and John E Cooper [1864–1952] (Salisbury, 1953).

Examples of species now on the threatened and endangered list of species in the UK (Seddon, Killeen, and Fowles, 2014) are also represented. The freshwater Glutinous snail, *Myxas glutinosa* (Müller, 1774) was once widespread in England and Wales but has now declined to the extent that it is known to be living at a single site in Wales (Willing *et al.*, 2014). The Hargreaves shells are labelled 'Cleethorpes' and undoubtedly represent an extinct population. *Segmentina nitida* (Müller, 1774) although not endangered is listed as vulnerable (Seddon, Killeen, and Fowles, 2014) and is represented in the collection from Askham Bog, now a nature reserve not far from York.

Elsie M Morehouse (1884-1969)

Elsie M. Morehouse (McMillan, 1969) was undoubtedly an enthusiastic amateur naturalist and collector of shells (Figure 3). She was a member of many societies: Doncaster Naturalists' Society, Yorkshire Naturalists' Union, Yorkshire Conchological Society, the Conchological Society of Great Britain and Ireland and the Malacological Society of London.

Her forte was the recording of land and freshwater molluscs, mostly in Yorkshire but similar trips were made farther afield. This is her major contribution to natural history and her efforts are widely represented in her collection. She published only a few notes in the Journal of Conchology and the Yorkshire Naturalists Union Bulletin. However, she gave numerous talks and lectures to local societies and she frequently exhibited parts of her collection at the Conchological Society meetings in London.

Beginnings of her serious collecting can be traced to the mid or late 1920s when her daughter Kathleen is recorded to have said that her mother

Figure 3. Elsie May Morehouse, photograph in the Doncaster Museum. © Doncaster Museum and Art Gallery.

acquired the collection of John Collier North (information deficient) of Huddersfield and that the foreign shells from the Hargreaves collection were said to be in the North collection (archival notes by Skidmore associated with his card index). Evidence in the Morehouse collection is present in the form of many notations on the reverse of the glass topped boxes e.g. "J. A. Hargreaves Coll, 1932". This indeed suggests that she acquired the North collection and her archive includes one letter from J.C. North. This connection would be unremarkable except for the fact that J.C. North was known to possess the remnants of the Hanley collection before his donation of that collection to Huddersfield Museum in 1932. This was subsequently transferred to Leeds Museum in 1957. The 1932 date does suggest that North disposed of his collections around that time, coinciding with the expansion of Morehouse's collection. Sylvanus Hanley (1819-1888) (Norris and Dance, 2002) was an eminent conchologist who wrote many books and whose collection contained many types. One cannot exclude the possibility that some of the Hanley material came to Morehouse and, in particular, one should look carefully at the North American unionid mussels in her collection. During my review I did not recognise such shells but among the seven drawers of unionids there may be some. It is not known exactly which shells came from North as there are no labels linking him to individual lots. From these beginnings the Morehouse collection has two distinct elements.

Regional land, freshwater and marine molluscs, collected by her and colleagues.

Elsie Morehouse was a very active field naturalists recording and collecting mostly land and freshwater shells. Her collecting was focused #locally but she did travel and received shells from her many acquaintances. She corresponded with experts of the day and many of her shells have been identified by them. Notable correspondence is that with J.W. Taylor (1845-1931) (Boycott, 1931) (Figure 4), Chas Oldham [1868–1842] (Anon. 1943) A.W. Stelfox (1883–1972) (McMillan, 2004) (Figure 4) and A.E. Boycott (1877–1938) (Oldham, 1938). These letters are dated from as early as 1920 and some like that of J.W. Taylor's indicate that Elsie was very much the "student" at this time. She was sending specimens for verification as well as receiving them for her own collection.

There are many lots in her collection coming from Fred Taylor (1871–1949) (Jackson, 1949) (Figure 5A) whose collection in part went to another acquaintance, John Armitage of Leeds (1900–1996) (Norris, 1997). Many of these lots predate Elsie's period of activity and therefore may or may not have come directly to her. Other sources marked on the boxes include Fred Booth (a Bradford collector) (Figure 5B) and H. Sowden (1870–1936) (Gayner, 1937), but there remain a number whose identity requires further research.

Of these there are a number of glass-topped pill boxes containing molluscs from Dog Holes Cave, Warton Crag (Figure 5C). It is likely that these are ex J.W. Jackson (1880–1978) (McMillan, 1970) who wrote the reports (Jackson, 1909/10) and later corresponded with Morehouse.

Elsie would appear to have some favourite collecting sites among them Askham Bog, close to York. Her early records from this and other sites are of significance in assessing temporal changes and most can be verified from specimens in her collection. It is likely that her notebooks recording her finds are as important as the specimens themselves.

Although her marine specimens are fewer, there are one or two rarities, but I do not believe that Morehouse collected these herself but acquired

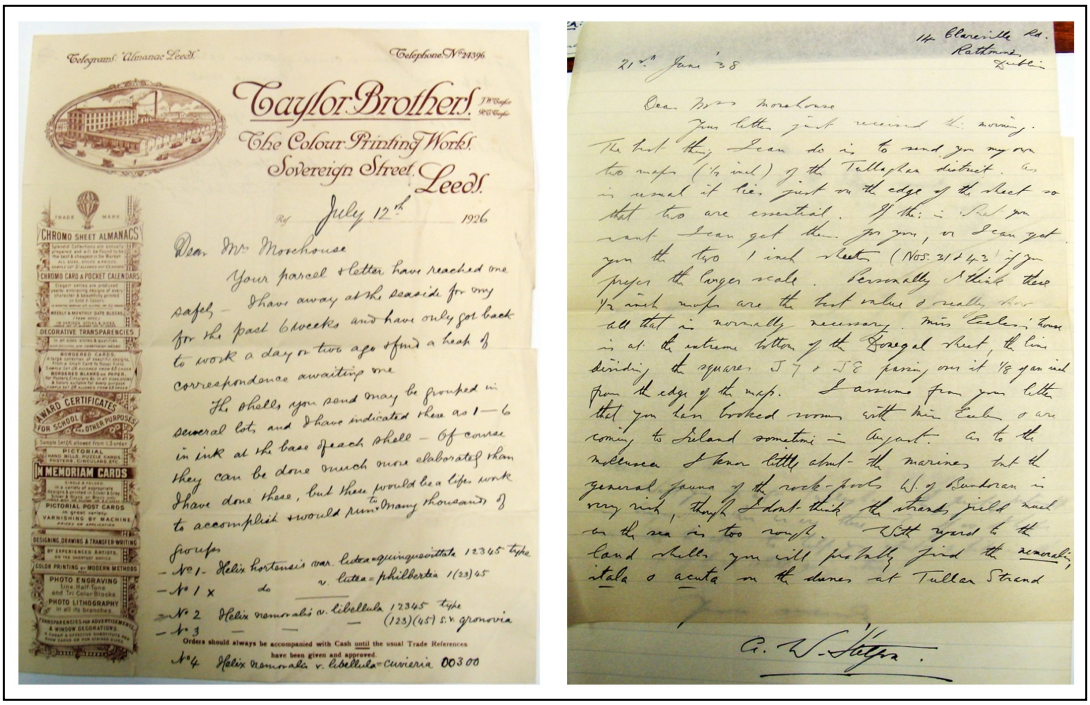

Figure 4. Examples of letters between Elsie Morehouse and recognised conchologists. Left from J. W. Taylor. Right from A. W. Stelfox. © Doncaster Museum and Art Gallery.

Figure 5. Examples of land snails exchanged from other collectors. A, Fred Taylor. B, Fred Booth. C, J.W. Jackson. © Doncaster Museum and Art Gallery.

them from other sources, perhaps directly from Hargreaves or Gyngell. Notable here are examples of *Beringius turtoni* (Bean, 1834) (Figure 6A) collected "36 miles NE by E of the Tyne, 50 fathoms"and *Liomesus ovum* (Turton, 1825) (as *Buccinopsis dalei Sowerby, 1825*) (Figure 6B) 38.4 miles ENE of Tyne".

Foreign mollusca acquired via FC North or by exchange or purchase

This portion includes all the major families of the Bivalvia and Gastropoda plus a small number of Polyplacophora. The dominant group are the gastropods and these can be further divided into non-marine and marine groups. Given the range of species and storage condition it is apparent that the land snails were Elsie Morehouse's favourite

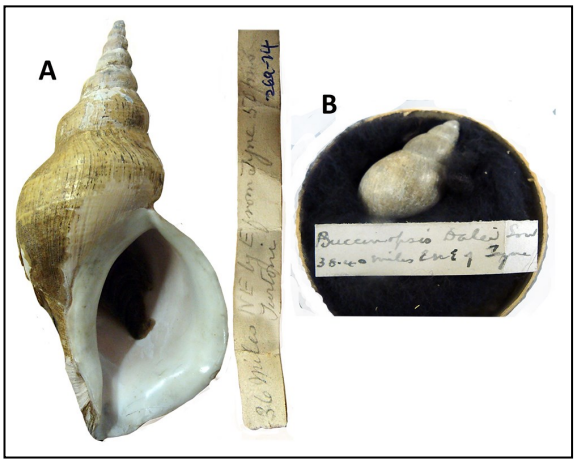

Figure 6. Two rare marine gastropods from off Northumberland. A, Beringius turtoni. *B,* Liomesus ovum. *© Doncaster Museum and Art Gallery.*

subject. She exchanged with a number of American and Australian collectors and these can be found listed in one of Elsie's notebooks.

Tropical Land Snails

The collection contains fine examples of species from the Pacific Islands, those most frequently mentioned being Hawaii, Solomon Islands and New Hebrides. There are also shells from the Philippines, Cuba and Florida with some representation from the Indian subcontinent and Africa.

Groups that are well represented are *Achatinella* (Figure 7), *Partula*, *Papuina*,(Figure 8) *Cerion*, *Liguus*, *Helicostyla* (Figure 8) and Cyclophoridae. The island faunas that many of these shells represent have been ecologically degraded and many land snail species are now endangered. On Hawaii and some of the Society Islands many have become extinct. The Hawaiian achatinellids have suffered considerably (Yeung and Hayes, 2018) and it is not surprising that some extinct species are represented in the Morehouse collection; *Achatinella decora casta* (Newcomb, 1854) and *A. abbreviata* (Reeve, 1850) are examples. At least one lot came from an eminent collector, D.D. Baldwin who lived in Hawaii and whose collection is now primarily in the B.P. Bishop Museum, Honolulu. Baldwin (1831–1912) (Anon, 1913) died in 1912 so Morehouse must have acquired these from a secondary source. A letter (Figure 7) in the archive throws light on this and indicates that Morehouse got the shells from R.H. Moses (1871–1949) (Blok, 1949) who himself got them from J. R. le B. Tomlin (1964–1954) (Trew, 1990). Indeed, there is a large series of achatinellids in Tomlin's collection in the National Museum of Wales and probably also in that of Moses now in the Haslemere Museum. Present among the cyclophorids are boxes of *Opisthostoma*, minute, but incredibly shaped shells restricted to Borneo. *Opisthostoma mirabile* and *O. decresipgnyi* are critically endangered (Schilthuizen and Vermeulen, 2004).

Boxes in in one cabinet contain a number of packages with many shells in them and appear to be examples of the samples as they arrived from exchange (Figure 8). These boxes would benefit from further sorting to assess their true content and worth.

This portion of the Morehouse collection warrants a more detailed examination to ascertain the extent of the presence of species of conservation concern. This can only be done with access to the Red Data lists and the malacological literature.

Bivalves

This portion of the collection is contained within a

Figure 7. Achatinellidae from Hawaii. Letter from RH Moses to Elsie Morehouse indicating that shells came from Tomlin. Right upper, part of a drawer of Achatinellidae in the Morehouse collection. Right lower Achatinella shells with the labels of D. D. Baldwin. © Doncaster Museum and Art Gallery.

Figure 8. Examples of tropical land snails from the Morehouse collection. A, species of Helicostyla *from the Philippines, large label is ex Tomlin. B, a selection of Camaenidae many from the Solomon Islands. C, various boxes of unsorted shells from Solomon Islands, Ecuador and Cuba. © Doncaster Museum and Art Gallery.*

48-drawer cabinet. The collection is not greatly representative of the group and contains few areas of possible significance. There are, however, seven drawers of freshwater unionids that do warrant further research. A problem with this portion is that it is difficult to assess their origin and many of the shells have no indication of provenance and may not have come from Morehouse. Some are marked "ScM" (Scarborough Museum), "CH" (Chelmsford Museum) and DM" (Doncaster Museum) but many are not. One or two are marked "ex Carl Mus" (Figure 9), which I take to

Figure 9. Freshwater American unionids in the Doncaster Museum. Top left, Quadrula fragosus *an endangered species ex Carlisle Museum. Top right, part of a drawer with* Lampsilis higginsii, *an endangered species arrowed. Lower right, the endangered* Cumberlandia monodonta. *© Doncaster Museum and Art Gallery.*

"Ex Carlisle Museum" as this agrees with the card index. Regardless of their origins many of the shells are well localised and have the appearance of 19th century labelling. As with the tropical land snails, many American unionids have suffered extinction and many are now on conservation lists. Some of the shells illustrated here (Figure 9) can be found on the US Fish and Wildlife Service lists of endangered species (Böhm, *et al.*, 2021): *Unio fragosus Conrad, 1835* (now *Quadrula fragosa*), *Unio soleniformis* Lea, 1831 (now *Cumberlandia monodonta (Say, 1829)*) and *Unio* (now *Lampsilis*) *higginsii* Lea, 1857.

The remainder of the Morehouse bivalves are unremarkable except for a few lots acquired from her eminent friends in London, notably H. C. Fulton (1861–1942) (Salisbury, 1943) who at that time was dealing with the remains of the stock of G. B. Sowerby III (Petit, 2009). There are also shells from R. Winckworth and determinations by J. R. le B. Tomlin. These malacologists are responsible for much of the content in our national museums in London, Cardiff and Edinburgh.

It should be apparent that the conchological world during the early part of the twentieth century was dominated by gentlemen collectors, dealers and some museum professionals, but very few women were part of this group. Elsie Morehouse was an accepted member of this group and the detailed letter to her from Robert Winckworth (Figure 10) shows how willing he was to help her develop her collection.

Marine Gastropods

Although 48 drawers of Cabinet 1 and the entire 24 drawers of Cabinet 4 are given over to marine gastropods this part of the collection is unremarkable and indeed much of it is in poor arrangement. Recognisable Morehouse material is mostly in glass topped boxes but many of the loose shells could be from that collection. There appears to be very little indication of scientific or historic relevance but the cone (Conidae), cowrie (Cypraeidae) and volutes (Volutidae) may contain some shells of monetary value on the collectors' market.

Collections transferred from other museums

In the card index Peter Skidmore records that a number of museums transferred whole or in part their collections of molluscan shells. No rationale to these transfers is made but all relate to the period of the 1960s when E.F. Gilmour was Director.

Scarborough Museum

In the card index, reference is made to the transfer

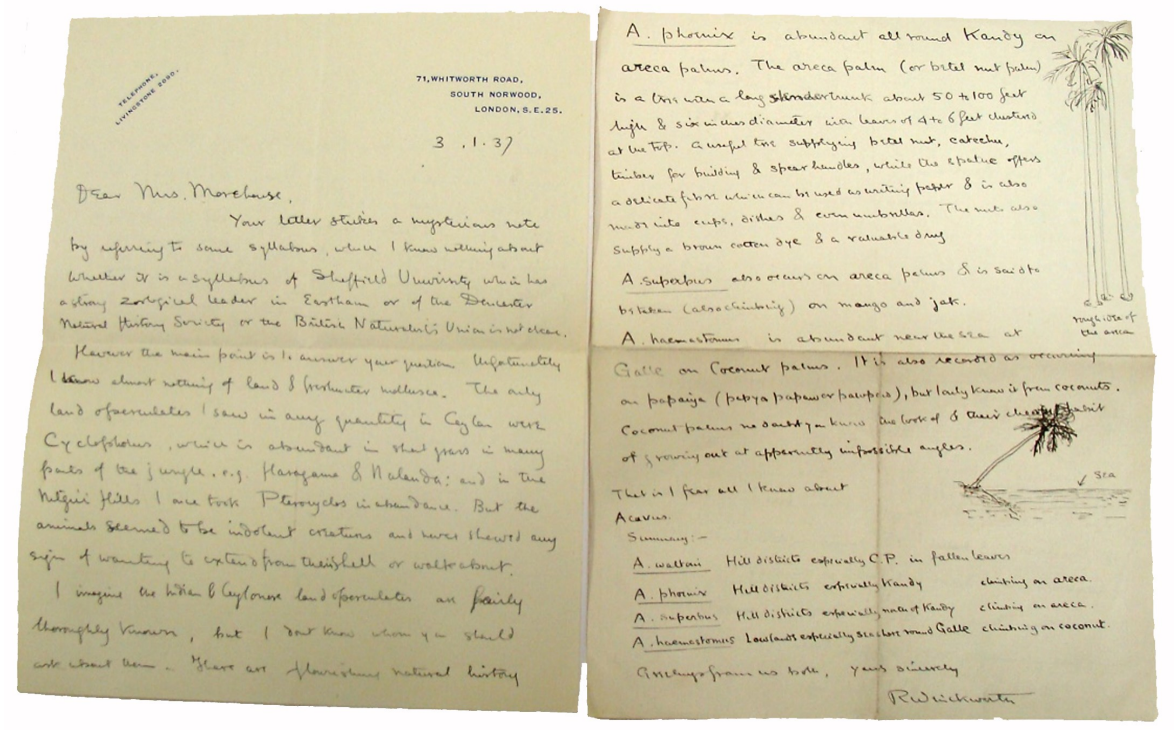

Figure 10. Letter from Robert Winckworth to Elsie Morehouse, dated 1937. © Doncaster Museum and Art Gallery.

of shells from Scarborough to Doncaster, including some of the collection of William Bean (1787-1866). Throughout the collection most of the larger shells with this provenance have "ScM" written on them, often rather boldly in marker pen. There is no documentation and no accession allocation.

The lots from the Bean collection are not marked as such and can only be recognised from the label styles. The majority carry labels in Bean's own hand and this is confirmed from the biography given by McMillan and Greenwood (1972).

William Bean was an eminent collector and had a large and important collection that was consulted by many authorities of the day and included species described by Bean himself. Given the scientific and historical value of Bean's collection it is surprising that significant material had been included in the transfer and the cursory examination made for this review uncovered some remarkable material.

The label of *Pedum spondyloideum* (Gmelin, 1791) carries a typical black-bordered label in Bean's hand (Figure 11A) and came from G. B. Sowerby and carries a label with data identical to that found in Sowerby, 1847 (p.438, pl. 41, 1-4). It is possible that the shell is the white variety in figure 3.

The specimen of *Pecten aculeatus* in Fig.11 B was also figured by Sowerby, in his *Thesaurus Conchyliorum* (1842, p. 71, pl. 13 fig. 47) (Figure 11C) but it had been described by Jeffreys in 1839 (p. 40) but was not illustrated.

Modiola cuprea was described by Jeffreys in 1859 having been sent the shells from William Bean. Bean had received these shells from a taxidermist who had retrieved them from the crop of a bird, either a sanderling or a brent goose. These shells were researched by Oliver (2012) and shown to be a Magellanic species belonging to an entirely different family, the Philobryidae and not the Mytilidae.

Another lot from the Bean material in Doncaster was the subject of a second paper by Oliver (2015) who showed that this was the first record of the alien American dreissenid mussel found in the British Isles.

Also present are small card trays with an assortment of label styles some accompanied by Bean labels. Those labelled Mazatlan are probably from P. P. Carpenter who was a contemporary of Bean and lived in Warrington. Other labels have an origin in the Smithsonian (United States National Natural History Museum) stating that the shells had been identified by the famous early 19th century collector Hugh Cuming, but some cannot be traced without further research (Figures 11C-D).

The scale of the Bean material in Doncaster is considerable and can be assessed in the number of

Figure 11. Some shells from the Bean collection, ex Scarborough Museum. A. Pedum spondyloideum *from G. B. Sowerby. B. Figured shell of Pecten aculeatus in Sowerby's Thesaurus Conchyliorum of 1842. C. copy of the illustration in Sowerby, 1842. D. E. examples of shells apparently from the Smithsonian Institution in Washington, DC. © Doncaster Museum and Art Gallery.*

lots carrying his distinctive labels. In one drawer alone, The scale of the Bean material in Doncaster is considerable and can be assessed in the number of lots carrying his distinctive labels. In one drawer alone, I recognised eight such labels and a curatorial priority should be to itemise all such lots in the collections. The entirety of the Bean material in Doncaster could not be researched to the detailed levels above but the examples used here illustrate that significant historic material is present and warrants continued investigation.

The Scarborough shells that are not attributable to William Bean have little or no scientific value. I find it difficult to understand why Scarborough Museum would part with shells from the Bean collection. One can, perhaps, believe that a reference series was being developed in Doncaster at a time when the representation of the Mollusca was poor. In contrast there appears to be no reason to acquire the obscure material in the small trays and given its conservation state it would never appear to have been examined.

Worksop Museum Collection

There is no documented list of the material acquired from Worksop and elucidating the original sources of that collection is made more difficult by the closure of Worksop Museum in 1974. The only indication of this material in Doncaster is the letter "W" written on the larger shells or by inference via the card index. Of the larger shells they appear to be no more than exemplars and carry very little data. They have often been amalgamated into single lots with others of the same species from Chelmsford, Doncaster and Scarborough collections.

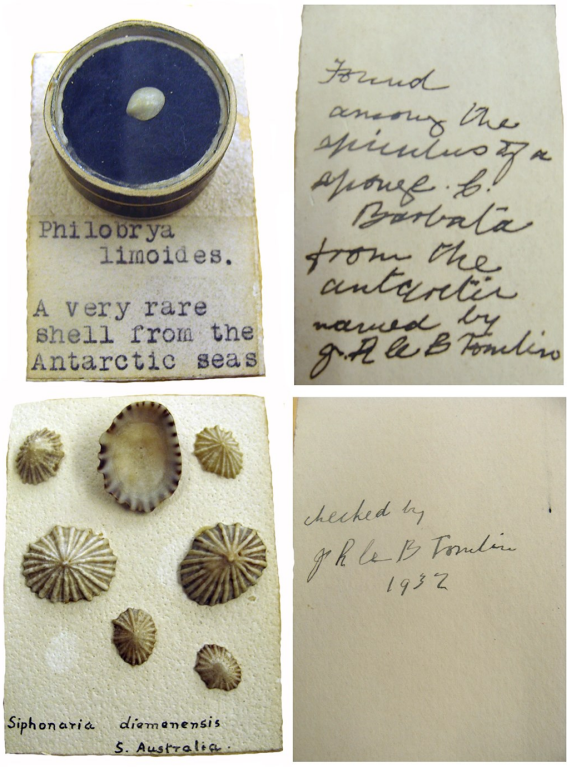

Fig. 12. Two lots from the Worksop Museum collection both indicating that they were examined by Tomlin. © Doncaster Museum and Art Gallery.

From the card index it is suggested that a large series of shells attached to a thick cream coloured card (Figure 12) is ex-Worksop Museum. One of these cards is attached to a label autographed by Adrian Norris of Leeds Museum suggesting that it is ex-Charles Allen collection. Charles Allen was a collector from Yorkshire who collected mainly land and freshwater molluscs and whose main collection is in Leeds Museum. Many of these cards are annotated indicating that the shells were identified by J. R. le B. Tomlin around 1932–1934 (Figure 12).

Chelmsford Museum Collection.

Once again there is no documentation from Chelmsford indicating the original collector. There is a list itemising the shells. In general, the material is in poor condition and stored loose or in shallow trays. Most of the specimens have "CH" written on them but those in trays do not. Again, working from the card index and the list it can be assumed that those trays carrying pale coloured mauve or turquoise labels with large capitalised text are from Chelmsford (Figure 13). There is very little of

Fig. 13. Mauve and turquoise labels indicative of the Chelmsford collection in Doncaster. © Doncaster Museum and Art Gallery.

significance in this collection primarily because the locality data are so poor and often contradictory.

Minor collections

Patterson Collection

This collection was donated to Doncaster in 1965 by J. A. Patterson of Bentley, Doncaster. There is no indication of its size but appears to be of tropical marine species with little significance.

Parkin Collection

This was donated by Mr. William Parkin in 1975 and in the register is listed as being housed in 168 assorted boxes. Some of these are incorporated into the drawers but many were found in a large box kept in cupboard. These have had the accession number written on them (1975.258) and many are very distinctive "brass" plated tin circular and rectangular glass topped boxes. Rather surprisingly many of the lots date from the 1880s and collected for example at York, Oldham and Kent.

Barlow/E. E. Gregory Collections

This was donated in 1976 under the accession number 540.76.10, by a Mr. M.C. Barlow but the shells were collected by E.E. Gregory (1861-1937). This is a small collection of British molluscs and was found in a box in a cupboard. A Mr. Gregory is mentioned in Morehouse's obituary (McMillan, 1969).

Discussion

The collections in Doncaster have significance in three main areas.

Regional biodiversity assessment

Both Hargreaves and Morehouse collections represent a 'three dimensional' record of the molluscan fauna of Yorkshire and the north of England. It should be remembered that such collections are the only resource that can be checked to validate past biodiversity records. They record past distributions and are therefore integral to understanding faunistic change that may be natural or anthropogenic, such as climate change. Taken together with other regional collections, such as those in Leeds and Scarborough, an extensive verifiable biodiversity resource exists that could add considerably to the records held on the National Biodiversity Network.

Part of the UK molluscan research resource

The Morehouse collection reflects the interconnectedness of the early twentieth century world of collectors and collections. It was during that period that our national and larger city and university museums acquired the bulk of their collections. The collections of Tomlin and Salisbury form the core of the collections in the National Museum of Wales and National Museums of Scotland respectively. Winckworth's collection went to the Natural History Museum in London as did much of Fulton's stock. The Manchester Museum collection was augmented greatly by Robert Standen, he and all of the above played a part in helping Elsie Morehouse to develop her interest and collection. The days of such widespread collecting have faded, making all our molluscan collections part of an irreplaceable global resource. It is very likely that many of Elsie's tropical land snails are now difficult or impossible to acquire and may not be present in any museum in the countries they were collected from.

In a recent paper on the Linter collection in Exeter, Morgenroth *et al.* (2018) recognised seven syntypes of *Opisthostoma linterae* with three more in the Natural History Museum, London. In the Morehouse collection are another eight (Figure 14) also collected from the type locality. Thus, a total of 18 are available from which variability and similarity to other species can better be assessed. These are accompanied by letters from experts on the taxonomy, A. J. Peile (1868–1948) Winckworth, 1949) and F. F. Laidlaw (1876–1963) (Dance, 1964) and together illustrate the connections between collections and collectors.

Nature is dominated by variation and having good series of examples of each species is the only way that we can recognise it and assess it. A 'one of each' approach to natural history objects would relegate their value to not much more than curiosities.

Much of the Morehouse collection adds to our national resource and should be available via the Global Biodiversity Information Facility.

Social history, history of collecting and collectors.

Collections are made by people and reflect the social conditions of the times that they were created (for example see Oliver and Pegg, 2021). They help to reflect on the individuals and the sense of places in which they were formed. Both J. A. Hargreaves and Elsie Morehouse were ardent Yorkshire folk, and both played an important part in developing natural history societies, biological recording programmes and the establishment of

Figure 14. Opisthostoma shells as an example of the connections between collections and collectors. Top left, a letter from A. J. Peile. Top right, a letter from FF Laidlaw. Lower left and shell, Opisthostoma linterae *part of the type series. Lower Right examples of two red listed species,* O. mirabile *and* O. crespignyi. *© Doncaster Museum and Art Gallery.*

nature reserves. Their stories are worth telling and their collections reflect their lives. Elsie Morehouse was one of only a few women who made a large collection and contributed greatly to an understanding of her local fauna. There is a story to tell about her.

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