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Author(s): Stewart, N. F. & Taylor, M. A.

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THE 'BALFOUR' TEACHING HERBARIUM : PERTH MUSEUM

Introduction

In 1978 one of us (MAT) supervised the re-storing of many of Perth Museum's important natural science collections. One of these, the 'Balfour' Herbarium, was known to have been inherited from the Literary and Antiquarian Society of Perth. At the time only a cursory examination of the collection was possible but a more recent examination of both the collection and related archives has shown it to be a unique (?) example of a 19th century university teaching collection.

The Edinburgh Situation

The herbarium of Edinburgh University is thought to have been started by John Hope who was Professor of Botany from 1761 to 1786 but for many years it remained disorganised and neglected. At the beginning of 1839 the University collection was united with the herbarium of the recently formed Botanical Society of Edinburgh who agreed to organise it. At this time the joint collections were housed in the University and in return the Professor of Botany, then Robert Graham, was "entitled, for the instruction of his class, to take out from the joint collections such portions thereof, from time to time, as he shall think necessary, the same being always duly restored."¹

At some stage this provision was taken a stage further and part of the collections became separated for use as a teaching herbarium. Unfortunately the early history of this teaching collection is unclear but it seems likely that since many of the Botanical classes were held at the Royal Botanic Garden, about 3 miles from the University, it was decided to keep a teaching herbarium permanently in the classroom there. In the teaching herbarium now known as the 'Balfour' herbarium, the dates on the specimens suddenly stop at 1863 which coincides with the date that the British part of the main herbarium was moved to the Botanic Garden. Presumably any new material collected by pupils after this date was added to the main herbarium rather than the teaching herbarium. Another possibility is that the 'Balfour' herbarium did not originate till this date, it being made up of specimens set aside when the main herbarium was moved. But whatever its origins, it is reported that in 1870 "a class herbarium, illustrating genera and species arranged² in families" was maintained in the main classroom at the Botanic Garden.

The Professor of Botany at this time was John Hutton Balfour who based a large part of his instruction on living and pressed material. (In³ 1875 a total of 77,704 fresh specimens were used in Botanical classes.) As part of the Botany course, students were required to produce a collection of pressed specimens for competitive examination, the best herbarium each year receiving a gold medal.⁴ Originally specimens for these herbaria had to be collected within a radius of ten miles of Edinburgh, (the same range as R K Greville's *Flora Edinensis* of 1824). In 1863 J H Balfour reported that "the facilities presented by railways has extended the range of excursions, so that twenty miles is now the extent of country embraced in the announcement for the Prize Herbaria."⁴ In 1872 J H Balfour's son, Isaac Bailey Balfour, won the gold medal by collecting 1005 plant species within this range which was "by far the largest collection ever presented for competition at the University."⁵ Alternatively students could present a collection of specimens displaying some particular topic of plant anatomy. The flower dissections in particular were highly detailed and some were framed and displayed in the museum next to the classrooms.² A reasonable number of

specimens which almost certainly came from these Prize Herbaria can be found throughout the 'Balfour' collection.

In the mid 1870s Frederick Morgan Webb the Curator of the Herbarium of the Royal Botanic Garden sorted through the British collections and in the process set aside a new class herbarium of 2,000 specimens. ⁶ Presumably the old collection had outlived its usefulness but rather than restoring the specimens to the main herbarium, it appears that Balfour realised that others might find the collection useful and kept it intact.

The Perth Situation

Throughout the 1870s there was an intense rivalry between two societies in Perth. The older, the Literary and Antiquarian Society (1784), was championed by Dr W C McIntosh who later achieved fame as a marine biologist but who at this time was Superintendent of Murthly Assylum near Perth. The younger, the Perthshire Society of Natural Science (1867), was led by Dr F Buchanan White. Several attempts were made by the 'doves' in the two societies to reconcile them but the 'hawks' would have none of it and the often voiced plan for a joint museum foundered.

In 1879 the PSNS started to raise funds to build a natural history museum in Perth and the L & A Soc responded by organising its own fund raising events to extend its woefully inadequate museum. At the same time the L & A Soc was adding a considerable amount of new material to its collections and in March 1880 W C McIntosh wrote to the secretary of the L & A Soc "Prof Balfour has arranged that I shall see the cases in the Botanical Classroom when I go over to the Examinations in the beginning of April, and that I can then have them sent to Perth at once." ⁷

In May he wrote to Prof J H Balfour "The two large and the two smaller cases containing the splendid collection of plants, came safely this morning, and we got them duly installed in our Library (Assylum) in a few minutes. They will be in perfect safety till our hall is ready.

You have made the Soc and the Fair City a most handsome gift, one indeed, whose value will increase as time rolls on. I had no idea the collection was so extensive and the nomenclature and classification so complete. Many sincere thanks for the pleasure you have given me in being the medium in transferring this boon to the Society." ⁸

The collection remained with the L & A Soc until 1914 when, along with its other collections, it passed into public ownership. It was always referred to as the 'Balfour Collection' and its true nature was not discovered until last year when it was examined following its transfer to new storage units. The collection remains intact (with exception of the lichens which were incorporated into Perth Museum's general collection in 1979) and contains about 8,500 specimens, divided into two parts which correspond with the first two parts of Balfour's 'Manual of Botany'.

Part 1 Vegetable Anatomy

The first part with about 1,000 specimens, contains studies of various aspects of plant morphology and is made up almost completely from the best of the students' prize herbaria. The subjects of these studies included flower dissections, forms of leaves, venation of leaves, forms of petioles, forms of roots, studies of germination etc.

Part 2 Plant Systematics

The second and larger part with about 7,500 specimens forms a reference herbarium. Unfortunately the information on these specimens is not very complete. Though most of the specimens have locality data, only about half have dates of collection and fewer have the collector's names. This part of the collection is made up of specimens from the old University Herbarium, the herbarium of the Botanical Society of Edinburgh and by specimens collected by Professor Balfour and his students.

The majority of the plants were collected in Scotland, especially around Edinburgh but there are many specimens from all over Britain and Europe and some from Australia, India, Africa and America. Though most of their dates lie between 1820 and 1863 some are considerably older, the oldest dated sheet being 1767.

Acknowledgements

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References

1. Extract from the Report of the College Committee of 27 December 1838 - see Fletcher and Brown (1970) "The Royal Botanic Garden, Edinburgh 1670-1970" p 117-8.
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3. J H Balfour (1875) "Statistics of the Botanical Class for 1875" in Trans Bot Soc Edin Vol XII Appendix B pxxiv.
4. J H Balfour and J Sadler (1863) "Flora of Edinburgh" p V-Vi.
5. W Thompson (1872) "Opening Presidential Address" in Trans Bot Soc Edin Vol XI p 416.
6. F M Webb (1876-7) "Notes upon some plants in the British Herbarium at the Royal Botanic Garden, Edinburgh" in Trans Bot Soc Edin Vol XIII p 88,90.
7. Perth Museum Archives No. 486.
8. RBG Edinburgh : Balfour Correspondence

N F Stewart + M A Taylor
 Perth Museum & Art Gallery
 George Street
 PERTH