

History of the Museums

The Museum of the Royal College of Surgeons of Edinburgh houses one of the largest and most historic collections of surgical pathology material in the United Kingdom. It has been



built up by many generations of Fellows and Conservators to further the educational opportunities for surgical students but it was also from its earliest times open to members of the public to improve general public understanding of medicine.

The text that follows is based upon the 1978 *“The Museum of the Royal College of Surgeons of Edinburgh”*

by Violet Tansey & D.E.C. Mekie”. Copies are available in the College. Mrs Violet Tansey and Professor D E C Mekie undertook a study of the origins and the development of the Museum collections, set out in chronological order.

Professor, Keepers and Conservators

1. The beginning (1804 – 1821)
2. “A collection of curiosities” (1699 – 1763)
3. The years of expansion (1821 – 1841)
4. The interregnum (1841 – 1887)
5. The resurgence (1887 – 1921)
6. Teaching and research (1921 – 1939)
7. Living pathology (1939 – 1955)
8. The Conservancy of D. E. C. Mekie (1955 – 1974)

*CR=Council Records; Sed = Sederunt (Meeting of Council)

Professor, Keepers and Conservators

Professors:

1804-1821 John Thomson
1807-1809 James Wardrop (Assistant)

Keepers:

1816-1821 John William Turner
1821-1826 Robert Hamilton
1823-1826 Alexander Watson

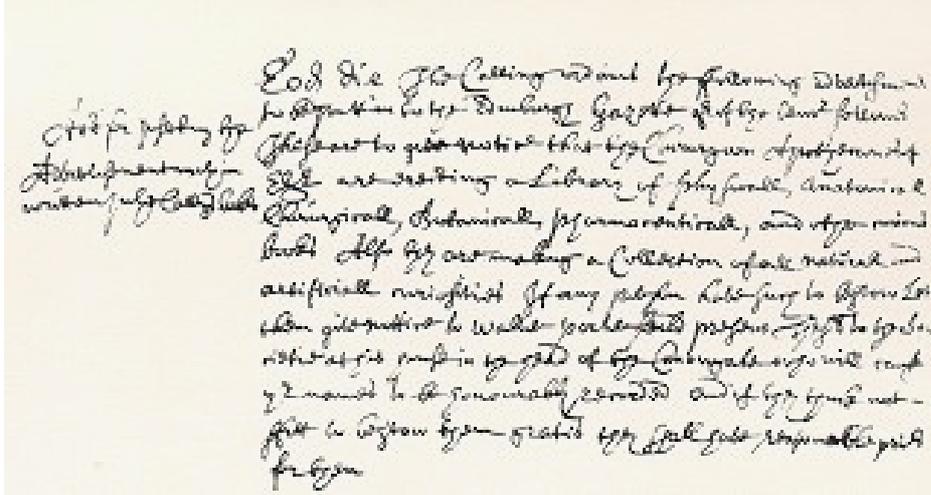
Conservators:

1826-1831 Robert Knox
1831-1841 William MacGillivray
1841-1843 John Goodsir
1843-1845 Henry Goodsir
1845 Archibald Goodsir (a few months)
1845-1852 Hamlin Lee
1853-1869 William Rutherford Sanders

1869-1875	James Bell Pettigrew
1875-1887	Robert James Blair Cunynghame
1887-1900	Charles Walker Cathcart
1900-1902	Theodore Shennan
1903	David Waterston (February to October)
1903-1920	Henry Wade
1921-1936	David Middleton Greig
1936-1939	Charles Frederic William Illingworth
1939-1947	John William Struthers
1947-1955	James Norman Jackson Hartley
1955-1974	David Eric Cameron Mekie Ian Kirkland Professor Dugald L Gardner

"A collection of curiosities" (1699 – 1763)

Early in their history the Guild of Barber Surgeons of Edinburgh determined that they should create a museum. This is borne out by the advertisement inserted in the Edinburgh Gazette of 1699:



“These are to give notice that the Chirurgeon Apothecaries of Edinburgh are erecting a library of Physicall, Anatomical, Chirurgicall, Botanicall, Pharmaceuticall and other Curious books. They are

also making a collection of all naturall and artificiall curiosities. If any person have such to bestow let them give notice to Walter Porterfield present Treasurer to the Society at his home in the head of the Canongate who will cause their names to be honourably recorded and if they think not fit to bestow them gratis they shall have reasonable prices for them.”

(CR Sed 16 Sept 1699)*



No records are available to show the character or size of the collection which was thus started. It was apparently maintained for over half a century but in 1763 it was decided to hand over to the Keepers of the University Library the collection of books and such curiosities as were possessed by the Incorporation (CR Sed 24 June 1763). Two preparations only were retained and they are now the oldest items in the College Museum:

1. Skeleton of a young subject with mummified muscles still attached, mounted in a mahogany case and bearing the inscription “Gifted by Archibald Pitcairne Doctor of Medicine Fellow of the Royal College of Physicians 1702”.



2. Skeleton, also of a young subject, mounted in a similar case and inscribed "These Anatomical preparations were gifted to the Incorporation of Chirurgian Apothecaries of Ed. by Alexr. Monro 1718".

There is a later reference in the Minutes of the College to this collection (CR Sed 6 May 1823):

"Dr Pitcairne presented a letter from Sir Patrick Walker with a manuscript catalogue of the books and other curiosities gifted by sundry persons to the Royal Society of Chirurgeons at Edinburgh from 1697 to 1730. President authorised to thank Sir Patrick Walker for this very curious present and Messrs Pitcairne, Maclagen and Turner appointed to examine the book and compare with old College Minutes."

The fate of this catalogue has not been ascertained. It would merit further investigation but is outside the scope of the present study.

I. The Beginning 1804-1821

Alexander Monro Tertius held the combined Chair of Anatomy and Surgery in the University of Edinburgh. As Professor of Anatomy he seems to have been a pathetic figure. It is recorded that his lectures in Anatomy were regarded by his students as a source of comedy for they consisted of reading notes prepared by his grandfather nearly a century earlier, even to the reference of "my visit to Leiden in 1719". As Professor of Surgery, little information is available. It is known that such articles as he wrote were regarded dull and uninteresting. A major handicap was that he never practised surgery himself. The main burden and reputation for the teaching of surgery in Edinburgh at this time rested with his colleagues including John Bell, John Thomson and James Russell.

The Royal College of Surgeons had made repeated representation to the University pointing out the inadequacy of Monro's courses and recommended that the teaching of Surgery should be separate from Anatomy. They proposed that a new Professor in this subject should be appointed. Having failed to induce the University to implement these changes, the

Royal College of Surgeons decided in 1804 to establish the post of Professor of Surgery in the College and appointed John Thomson the first Professor.



The College, considering the duties and responsibilities of the newly elected Professor of Surgery, drew up a series of rules and recommendations which are set out in the records of the College (CR Sed 5 Oct 1804). Amongst these are:

No 10. "That it would greatly facilitate the teaching of surgery and prove useful as well as creditable to the College to form a Museum of morbid preparations, casts and drawings of diseases and that all the members of the College should be requested to give their assistance in promoting this very necessary part of the plan by supporting it with all such articles of this kind as may be in their power."

No 11. "That this Museum shall be the property of the College and be open under such regulations as the College may adopt, to the inspection of all its members."

The decision to form a museum was in accord with the fashion of the time. There were many notable museums of anatomy and pathology, the finest example in the United Kingdom being the Hunterian Museum in London. Other similar institutions existed in Germany and France. The care of the collection was to be the responsibility of the newly appointed Professor, but the College also appointed Curators. (CR Sed 5 Oct 1804): "That five members shall be elected annually who, along with the President and Professor of Surgery, shall form a Committee for the management of the Museum, and who shall see that everything be duly taken care of; but the trouble of preparing all morbid specimens of chiralurgical diseases presented to the College and of keeping them in proper arrangement shall devolve exclusively upon the Professor." From this time there is constant reference in

the records of the College to the part played by the Curators in the development and administration of the Museum.

Early growth of the Collection

The precise way in which the specimens were first obtained and how they were recorded is difficult to ascertain with accuracy. Such information as is available comes by study of the manuscript catalogue of the Museum which dates from 1807.

The majority of the earlier specimens, it is recorded, were donated by John Thomson, Robert Erskine and James Wardrop. These presumably came from private collections of the contributors named since it was customary at this time for teachers to have personal collections of specimens. This is illustrated by the fact that a specimen (GC No 68) was obtained from a patient in 1778 and was rescued from a cupboard in the Royal Infirmary of Edinburgh.

The task of managing even the early small collection was onerous. In addition to the arranging and cataloguing of the collection, John Thomson was responsible for the actual mounting of the specimens and the labelling of the jars, for no laboratory assistance was supplied. This practice was continued for many years as is shown by a much later entry in the time of Mr MacGillivray when he had affixed 563 labels which he had written by hand (CR Sed 2 with his private infirmary practice in 1807 James Wardrop, now aged 25, was appointed a Curator and assisted him in the Museum (CR Sed 11 Nov 1807).



It is to be borne in mind that the collection was housed in the original Surgeons' Hall which dates from 1697.

The General Catalogue - the early entries

From the beginning a catalogue of all the material was maintained. This original General Catalogue of the Museum consists of three foolscap, half-calf, leather-bound manuscript volumes which date from 1807 and were continued until 1907.

It is impossible to be certain who made the earliest entries in the catalogue. The first 220 entries indicate that the writer was dealing with a collection and had grouped the specimens on an anatomical basis before making his entries in the catalogue. The major donors of these specimens, as has been noted, were Thomson, Erskine and Wardrop. These entries appear to have been made by one person for the script is constant throughout, firm, large and oblique. It is surmised that the writer was Wardrop himself, a view supported by an entry (GC No 3), a case of "schirrous" tumour of the breast; the report is in the first person and the specimen noted as having been donated by Wardrop.

John William Turner



From entry No 221 in the catalogue there is a marked change. This may well correspond to the departure of Wardrop to London in 1809, for there follows a series of entries up to No 358 in which the information given is minimal and the writing varies so that identification or authorship is impossible. From GC No 359 the entries in the catalogue are quite distinctive in character and clearly the work of another individual. They appear to come prior to and including the period when J W Turner was Keeper to the Museum. The regularity of entries is possibly explained by the fact that he was systematically overtaking a backlog following Wardrop's departure to London, the entries consisting only of the diagnosis. The names of the donors are often omitted and sometimes appear to have been entered separately, possibly at a later date. The entries are

all neatly spaced and the script is small, round, fine and regular. The writer of this section of the catalogue is a matter of surmise. The uniformity suggests that the work was undertaken as a single continuing exercise and possibly represents the work of J W Turner or one of his assistants. Unfortunately there are only fragmentary notes known to have been written by Turner available for comparison of the calligraphy.

However, we do know that in addition to bringing the catalogue up to date Turner reviewed the earlier entries as is shown by the marginal notes he made and initialled as in entry GC No 123.

The First Keeper

The Minutes of the Meeting of Council 21 July 1814 record the setting up of a committee to consider regulations for the administration and usage of the Museum, the duties of the Keeper and the maintenance of the catalogue. The most important entries were Nos 4, 6 and 9:

No 4. "The Keeper of the museum shall be elected annually along with the other office bearers of the College. At the same time two members shall be chosen, who together with the Professor of Clinical Surgery if a member of the College shall be appointed curators of the museum and shall assist the Keeper in the discharge of his duty."

No 6. "The Keeper of the museum shall be responsible for the things contained in it and for the money appropriated for its use...."

No 9. "The Keeper shall prepare and preserve, describe and register in a book kept for the purpose all the articles deposited in the Museum. He shall also give an accurate history of all the diseases to which morbid specimens may refer, as far as he is able to procure it."

These regulations were approved and in 1816 J W Turner was appointed the first Keeper of the Museum. The name of Turner, however, is mentioned earlier in the records than the date of his appointment. This clearly was at a period when he was an apprentice or had just completed his apprenticeship with John Thomson for he only obtained his Diploma in 1809.

The practice in those days was for senior members of the craft to have apprentices and it is probable that they were used to assist in the Museum. This may account for the earlier mention of Turner. It is difficult to explain how some of the early specimens are recorded as being donated by Turner. A possible explanation is that he had a practice at this time but more probably these specimens were obtained while he was assistant to John Thomson.

In the Report of the Curators (contained in Sed 15 May 1817) it is stated: "The curators of the Museum held their half yearly meeting on the 14th May 1817 .. . there being upwards of three hundred preparations of diseased organs They also found that a catalogue of the preparations according to their number has been made out and deposited in the Museum."

This is the first mention in the records of the existence of a catalogue. The original entries in the catalogue clearly refer to a collection and an attempt was made to group specimens of comparable character together. Thus numbers 1 to 23 were all lesions of the breast.

This arrangement could not be continued and subsequent entries in the catalogue by Turner are in numerical sequence but not grouped according to pathology. There is one entry, No 10a, in which Turner has interpolated between two cases of breast lesion a specimen of mitral stenosis. The reason for this anomalous entry is unknown. Turner resigned as Keeper in 1821.

II. The Years of Expansion 1821-1841

From 1808, when Wardrop completed the first part of the catalogue, the growth of the Museum was slow, but the period from 1821 to 1841 was characterised by major expansion. Both by donation from individuals and by purchase the College augmented the Museum by the acquisition of large and already established collections of material. It became necessary therefore to find additional accommodation at first on a temporary basis and later by the

building of a new College hall. During most of this period Robert Knox played a dominant role. The story is complex and the records on some matters are inadequate. For the sake of clarity it has been necessary to desert the strictly chronological presentation.

The Barclay Collection

John Barclay (1758-1826) was a noted teacher of anatomy. He conducted one of the several schools of anatomy in Edinburgh and had premises at No 10 Surgeons' Square. As a teacher he had a high reputation but probably the most important of his contributions were his studies of comparative anatomy. Over a period of 21 years he built up a notable collection of material in this field. In 1821 he offered this collection as a gift to the Royal College of Surgeons of Edinburgh.

In his letter of 3 July 1821 Barclay laid down two conditions - that a hall should be built to house this collection and that it should be associated with his name in perpetuity (CR Sed 10 July 1821).

Letter from Barclay to College of Surgeons:

"Dear Sir,

Anxious to add and yearly adding to the number of my anatomical preparations notwithstanding that my rooms are already too crowded, I have long thought to prevent my Collection from being scattered, after I can make use of it no more, to have it deposited with some learned and respectable Society or body of men who could estimate its value and render it useful to themselves and others. My first thoughts were to present it to the Royal College of Surgeons of Edinburgh to which I am under so strong obligations and for which I feel and shall ever feel a most sincere gratitude. Recollecting however that morbid preparations and not preparations chiefly anatomical were what the College principally valued, it occurred to me that it might hesitate to accept my offer and grudge the expense of building a hall for its reception. But these doubts having since been completely removed upon knowing that the College has lately thought of purchasing at a very considerable expense a most valuable anatomical collection on the Continent, I feel encouraged to offer to it mine and to bequeath it simply on the condition that the College will build a Hall to receive it and that the Collection shall be allowed to retain my name, not doubting that the necessary degree of care to preserve it from hastening too fast into decay will be attended to.

I have nothing more to add than to assure you of my high respect for the College, of my warm gratitude for its former kindness and to request that you will lay these proposals before it and Believe me to be Dear Sir

yours truly (signed) John Barclay."

6 Argyll Square

3 July 1821,

To John Wishart Esq, President of the Royal College of Surgeons, Edinburgh.

The College replied in the following terms (CR Sed 18 July 1821):

"Sir,

I am directed by the Royal College of Surgeons of Edinburgh to acknowledge receipt of your letter of the third instant in which you make offer of your Museum to the College and to return you their best thanks not only for the liberality of your intentions but for the very handsome and unqualified terms in which you have presented to them so valuable a gift. In accepting your offer I beg to assure you on the part of the College that no time will be lost in providing temporary accommodation for the museum though some time must necessarily elapse before a New Hall can be erected in which your Museum can be displayed to advantage. In conclusion I am directed to express to you the deep interest the Royal College has taken in the success of that real learning and talent which you have uniformly displayed as a Teacher of Anatomy and to assure you that the College will embrace every opportunity of evincing the high sense they entertain of the manner in which you have fulfilled the objects they had

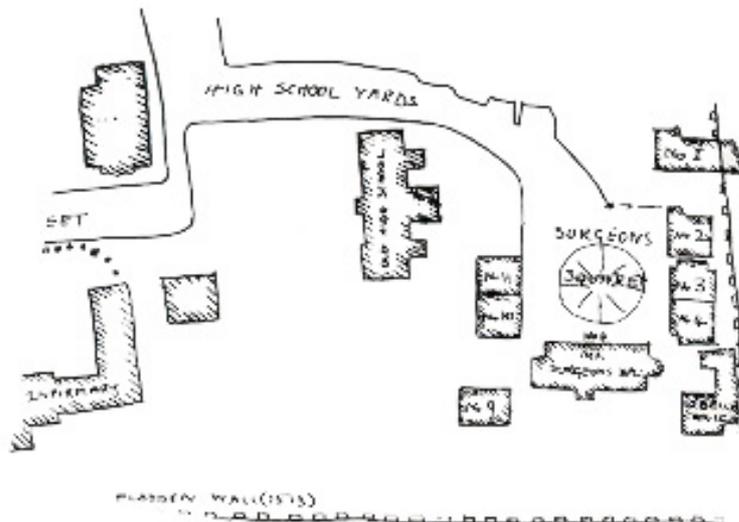
in view when upon a former occasion they placed your lectures on the same footing with those of the most eminent teachers of Anatomical science in the universities of this and of other countries. I have the honour to be..."

Although the College accepted this offer by Barclay the collection was not transferred at this time pending the building of a new hall to receive it.

Some time during this period Robert Knox became an assistant with Barclay and in 1825 became his partner. It was indicated in the contract between them that should one of the partners die the survivor became the sole possessor of the collection. From this time there are several references to Knox as "Conservator" of this collection. Prior to Barclay's death in 1826 he registered as a Deed of Trust the copy of a new letter again offering his collection to the College with the same terms and conditions but with the additional proviso that Robert Knox should be appointed Conservator of the collection for life. This Deed of Trust is contained in the volume commonly called the Barclay Catalogue.

Following the death of Barclay precise details of what happened are lacking, but from this time Robert Knox commenced his highly successful course of anatomy in No 10 Surgeons' Square-previously Barclay's School of Anatomy.

However, to house the Barclay collection of comparative anatomy presented difficulties. An arrangement was made whereby the College as a temporary measure acquired the house of



Dr McCansh. This was accepted by the Trustees of the Barclay Collection as a suitable temporary place for the Barclay Museum on the clear understanding that within two years the College would build a new hall. The Deed of Settlement was registered on 4 October 1828. This settlement was effected by the Trustees of John Barclay for the transfer of the collection and is regarded as the first part of the Barclay Catalogue.

The document contained the additional instruction that Knox should prepared an inventory of the Barclay Collection. This inventory records 1,168 items and constitutes the second part of the Barclay Catalogue. The third item included in this volume is the Deed of Trust by Barclay dated 1826 to which reference has previously been made.

In 1832 the new Hall in Nicolson Street was completed and the Barclay Collection fully transferred to the College. The condition of providing a suitable hall was now fulfilled. The transfer of the collection does raise a matter about which there can be speculation.



The agreement between Knox and Barclay talks of the surviving partner being the sole owner of the collection (Lonsdale, Henry (1870), 'Sketch of the Life and Writings of Robert Knox the Anatomist' London: Macmillan and Co.). In the Deed of Trust of 1826 Barclay does not refer to Knox as owner but as Conservator. It is possible that the contract between Knox and Barclay as partners referred only to the collection of human anatomical material used for undergraduate courses. The Collection of comparative anatomy was presumably regarded as a separate entity, already seen by Barclay as gifted to the College.

The Meckel Collection

The first collection which the College sought to acquire was that of Dr Meckel of Halle in Germany. On 30 January 1821 there was an Extraordinary Meeting of the College called by the desire of the Curators of the Museum to consider the purchase of Dr Meckel's collection for the sum of £5,000. Dr Russell as Chairman of the Curators intimated:

"The family of the Meckels of Halle in Germany had for three generations employed themselves in forming an anatomical museum which both from its great extent ... was considered to be without a rival in Europe-that this Collection was now offered for sale. . . . That the College had now accumulated a fund of upwards of £9,000-and that its income amounted on an average of the last three years to about £1,100 while the expenditure does not much exceed £400-leaving an annual saving of between £500 and £700. . . . That it appeared to him the College could not bestow a part of these funds in a manner more conducive to its own dignity as a scientific body, or to the collective and individual interest of its members, than by possessing itself of this collection."

Negotiations were continued for a period but unfortunately the collection was withdrawn from sale by the family and this College's endeavour came to naught. This story is of significance in that it illustrates the interest of the College in its Museum and the value which it placed on its development as a scientific and educational project.

The Cullen Project

The next attempt to expand the Museum by purchase was proposed in 1822 in a letter from William Cullen to James Russell. This letter setting out his proposals is contained in the Records of the College (CR Sed 2 July 1822). He stated that pathological material could be purchased in Paris and he offered his services as the College representative. Cullen, who was the grand-nephew of the famous physician William Cullen (1710-1790), had studied in Paris and had returned to practise in Edinburgh. His proposal was accepted, the College paying him a salary of £300 per annum while he stayed in Paris. In addition the College gave him the sum of £500 for the acquisition of specimens. Cullen proceeded to Paris but found that material was more difficult to obtain than he had suggested in his letter to Russell. He became acutely anxious over possible failure. A few months later he had a stroke "apoplexy" and came back to Edinburgh. He returned with but 23 specimens. Some of these are recorded as an appendix in the first volume of the General Catalogue.

William Cullen died in 1829.

The Bell Collection

The third effort to expand the Museum by purchase was in 1825 when the College sought to acquire the collection of Charles Bell. The history of this collection is linked to the story of the Great Windmill Street School of Anatomy and Medicine in London.

In 1746 William Hunter, a Glasgow graduate, commenced a course of instruction in anatomy in the Covent Garden in London. In this venture he was joined by his younger brother John. This partnership ceased when John Hunter went to Portugal in 1760. In 1770 William Hunter procured new premises and established the Great Windmill Street School. It is to be noted that John Hunter meanwhile had returned to London and established a separate School of Anatomy in Leicester Square.

After the death of William Hunter in 1783 the Great Windmill Street School as a private venture was carried on by Baillie and Cruickshank until 1799. In that year Baillie sold his share for £4,000 to James Wilson who had been demonstrator for a number of years.

Cruikshank died suddenly in 1800 while lecturing and Wilson continued by himself with the assistance of Benjamin Brodie.

In 1812 Wilson wanted to dispose of the School and eventually an agreement was made with Charles Bell who became proprietor. Wilson died in 1821. Bell was assisted in the Great Windmill Street School by his brother-in-law John Shaw. On his appointment to the staff of the Middlesex Hospital in 1825 Shaw gave up his participation in the work of the Great Windmill Street School. Bell, who was also on the staff of the Middlesex Hospital, found his hospital duties to be his chief interest and he therefore wished to dispose of the Great Windmill Street School.

The major feature of the school established by William Hunter was a valuable museum of anatomical specimens. This museum has to be distinguished from the even more famous museum established separately by John Hunter in his rooms in Leicester Square. Following John Hunter's death in 1793 his collection was purchased by the Government and transferred to the Royal College of Surgeons of England in 1806 under a Board of Trustees ('The Hunterian Museum, Royal College of Surgeons of England').

William Hunter's Museum from the Great Windmill Street School was bequeathed to Glasgow University in 1783 with the proviso that it should be retained in the Great Windmill Street School so long as Matthew Baillie, a nephew of the Hunters, was connected with the School. The transfer of this collection took place in 1807.

To replace this museum James Wilson set himself the task of building up a new collection and to this Charles Bell added greatly when he in turn became proprietor of the School. It was this combined collection which the Royal College of Surgeons of Edinburgh sought to purchase.

At a Meeting of the College on 13 January 1825 James Russell gave an account of correspondence between Charles Bell and Dr Gairdner. Charles Bell, while expressing regret at the need to dispose of his collection, made a firm offer of sale at £3,000. The Curators strongly advised the purchase of this collection and it was moved by the President: "That it be remitted to the curators of the Museum to take the most effectual steps, as to them should seem proper, for obtaining information as to the actual state of Mr Charles Bell's Museum, the number and description of the preparations, and of the terms on which he is willing to dispose of the same to the College and to report distinctly thereon to the College at a future meeting ... which motion being seconded was unanimously agreed to."

It was therefore determined to send Dr Knox and Mr Watson to visit the Great Windmill Street School in order to assess the suitability and value of the Bell Collection. Knox and Watson were each offered £21 for expenses but Knox declined to accept the money declaring that it was part of his duty and he had experienced no inconvenience. Their report to the Curators was in February of the same year.

The transaction was concluded in 1825 for the sum of £3,000. The transfer of the collection was carried out in two stages, the first half in October 1825 and the second half in August 1826.

It was shipped to Leith on board the smack Robert Bruce and was conveyed to Surgeons' Square in spring wagons lent by the Artillery.

The collection consisted of over 3,000 items. It contained many examples of pathological lesions but was particularly notable for its anatomical preparations. Some of these were of special interest illustrating anatomical development. There were also specimens showing injection techniques to demonstrate blood vessels and lymphatics. Also included was a number of wax casts, an art in



which Bell was a master.

A notable part of the purchase was a series of fifteen oil paintings of war wounds as seen by Bell after the return of the troops from Corunna and following the Battle of Waterloo.



The Bell Collection was indeed a very valuable and outstanding acquisition by the Edinburgh College and remains the pride of the present Museum.

Curators, Keepers and the first Conservator

When the Museum was started in 1804 its management was vested in a Committee of Curators of which John Thomson as the College Professor of Surgery was a member *ex officio*. Professor Thomson was personally responsible for the preparation and care of the specimens in the collection. He was also responsible for the preparation of the catalogue. This load proving too heavy, his assistant J W Turner was appointed to the newly-created post of Keeper. When Turner became Professor of Surgery in 1821 he resigned as Keeper of the Museum. From this time the routine management of the Museum appears to have been left less solely to the Keeper and became more the task of the Curators.

During the period 1804 -1821 the Convener of the Curators was James Russell. He was elected to the staff of the Royal Infirmary in 1800 and in 1803 was appointed to the newly-created Regius Chair of Clinical Surgery in the University. He was President of the Royal College of Surgeons in 1796 and became a Curator in 1814 (CR Sed 21 July 1814). James Russell (1755-1836) was a keen supporter of the Museum and played an important part in the negotiations for the acquisition of established collections.

Whereas it was as a personal assistant to John Thomson that Turner had been appointed Keeper of the Museum, Robert Hamilton in 1821 was a "College" appointment and his responsibility was to the Curators. It is not surprising, since he was a relatively young man and therefore had limited experience, that the Curators and more especially James Russell as Professor of Clinical Surgery took a more intimate and constant supervision of his routine work. The volume of the Keeper's work was recognised and in 1823 a second Keeper, Alexander Watson, was appointed.

Even before the acquisition of the Bell Collection and the opening of the new College Museum in 1832, the workload on the Keepers had been excessive and the accommodation inadequate. The Keepers had difficulty in maintaining the catalogue and during the period of office of Hamilton and Watson there are very few entries. The Curators, however, comment very favourably on the work undertaken and noted that Hamilton and Watson "had done all that lay in their power" (CR Sed 1 Oct 1825).

The Curators now acknowledged that the magnitude of the work in the Museum was such that they could no longer rely on the gratuitous services of Hamilton and Watson. It was accordingly determined that a full-time Conservator be appointed and that the post of Keeper be discontinued.

The post was advertised in the following terms (CR Sed 11 Nov 1825):

"The Royal College of Surgeons of Edinburgh give notice that it is their intention to place the museum under the immediate charge of a proper officer with a salary of £150 per annum and with the title of keeper or conservator, who will be expected to keep the specimens now in the possession of the College in a proper state of preservation, to prepare under the inspection of the curators all specimens of natural or morbid anatomy which they shall think worthy of being preserved, to attend

two stated hours on four days of each week within the museum to explain its contents to the visitors who may attend at these hours and generally to perform all the duties prescribed in their laws relating to the keepers of the museum.

Applicants must possess a physician or surgeons diploma and must produce sufficient proof of their ability to perform the duties required."

One of the applicants for the post of Conservator was Robert Knox who had returned to Edinburgh in 1820 from South Africa where he had been posted as an army officer. During the next few months he contributed a number of papers on observations he had made on the fauna which he had studied there. He then went for a year to Paris, returning in 1822 to Edinburgh. From this time his interest in the Museum of the Royal College of Surgeons developed. During this period he must also have become increasingly interested, and, indeed, involved in the work of Barclay and the museum which Barclay had established.

There is little evidence of the relationship between Barclay and Knox at this time but it must have been one of steady growth and culminated in 1825 when Knox became Barclay's partner. How Knox envisaged the place of comparative anatomy in the Edinburgh School is illustrated in his letter to James Russell in 1824 in which he strongly urged the formation of a museum of comparative anatomy and osteology and offered his services in its development.

Excerpt from Minutes of Meeting of Council held on 6th April 1824:

"Mr Hamilton read to the Meeting the following report from the Curators of the Museum, and also the letter there referred to from Dr Knox."

"Excerpt from the Minutes of Curators of Museum Royal College of Surgeons, April 2nd 1824. Mr Russell in the chair. Mr Russell read a letter which he had received from Dr Knox submitting a Plan for the formation of a museum of comparative anatomy which should be the property of the Royal College of Surgeons with the understanding that Dr Knox should enjoy the full use of it during his life. The letter being read and fully considered, it was agreed that the plan should be referred to the consideration of the Royal College, with the unanimous recommendation of the Curators that it should be adopted,

(signed) James Russell, Convener".

The letter referred to above is in the following terms:
Edinburgh, 2nd April 1824.

"Dear Sir,

"As you were pleased on several occasions to express an interest in some pursuits in comparative anatomy in which I am engaged, and as you are the oldest member of the Royal College of Surgeons, and deeply concerned in all that bears upon its interests, I take the liberty of submitting to you the following proposal. Engaged now for a long period solely in the study of Comparative Anatomy and Physiology, I have felt more than most anatomists the great want of a proper museum, and on an osteological collection, without which, researches into comparative and human Physiology, cannot be carried out.

But the formation and preservation of such a Museum, being altogether beyond the reach of Individual means, I have ventured to submit, thro' you, the following brief sketch of a Plan for the attainment of an object so desirable to Science. Towards the formation of a museum of comparative anatomy I am willing to bestow my whole labour and time, with that energy which the cultivation of a very favourite pursuit naturally gives; the attending expenses of presses, glass, spirits etc, to be borne by the Royal College of Surgeons.

I am moreover willing that the museum so erected should be considered as the property of the College and intended for the use of its Fellows (as is at present their pathological collection) reserving to myself during my life time the use of the museum for the furtherance of my favourite pursuits and studies. Should this proposal thus briefly sketched meet generally with the approbation of the College I shall be extremely happy to meet every view or suggestion which may be offered, and contribute to the utmost of my abilities in advancing the best interests of the College.

*I have the honour to be etc
(signed) R Knox”
J Russell Esq
Abercrombie Place*

Letter from President to Dr Knox (CR Sed 15 May 1824):

Royal College of Surgeons, 9th April 1824.

"To Dr Knox

At the request of the Royal College of Surgeons I beg to inform you that at their last meeting on Tuesday last a letter from you to Dr Russell was submitted to their notice, expressing your willingness on terms therein alluded to to put the College in possession of a Museum of comparative anatomy, retaining to yourself the free use of said museum for the furtherance of your own pursuits and objects. This communication was accompanied with an unanimous recommendation from the Curators, that the proposal should be entertained.

The College have authorised me to say that they look forward with lively interest to such a scheme, and that they beg, in limine, to offer you their best thanks for your liberal offer.

They have, at the same time, appointed that the Curators should immediately enter into terms with you, and make all those specific arrangements which are expedient not more for the College than for yourself, and have ordered that these arrangements should be submitted for consideration at next meeting of the College. Referring you, therefore, to the Curators for the farther, and I trust, favourable progress of the affair,

Believe me, Sir etc,

(signed) William, Wood, Pres."

Reply to Dr Hamilton from Robert Knox:

May 3rd 1824.

"Dear Sir,

In a letter I had the honor to receive from William Wood, Esq. President of the College, I am directed to enter into those more special arrangements (in conjunction with the Curators) relative to the formation of the anatomical museum of the College, which could not with propriety have been stated at an earlier period. I beg leave therefore to submit to you a brief sketch of the terms which I trust will be deemed equally honorable and advantageous to the Interests of the College and of myself-and I request you will have the goodness to lay them before the rest of the Curators, your Colleagues, for their approval.

There are two points on which I shall take the liberty of detaining you a short time; and I am particularly anxious that you should explain these points at greater length to the Curators than I can well do in the short compass of a letter. The first regards the time I intend devoting to the preparing, arranging and fitting up the preparations, in a word in forwarding the great and important work, the management of which I have had the honor of having conferred on me by the College. Hitherto, my anatomical pursuits have engaged my chief attention for about seven hours daily, and that, for a series of years, neither am I aware of any circumstances in my health or otherwise which should lead to any interruption in my exertions until, at least, the museum shall be in a tolerable state of forwardness

The second point on which I proposed saying a few words regards the expense attending the Collecting etc. You have seen the strictly economical mode in which I have arranged this matter, relative to which it would perhaps be imprudent for the present to enter into further details, more particularly as all matters which regard expense are placed by the agreement under the immediate direction of the Curators.

Finally it is well known to every anatomist that in the formation of a Museum by far the greater part of the expense incurred is usually connected with the enormous salaries given to those who chiefly direct or conduct its formation; now this labor I undertake on the terms agreed to. Permit me to assure the Curators thro' you, that no exertion will be wanting on my part to forward the views and best interests of the College.

I am etc, (signed) R Knox"

This correspondence led to Robert Knox becoming closely associated with the museum activities. His offer of help was accepted and from 1824 to 1826 he collaborated with Hamilton and Watson. During this period Knox was acting in an honorary capacity but received £100 to meet the expenses of the anatomical collection.

The First Conservator

Robert Knox possessed all the necessary qualifications and experience for the appointment as Conservator. In the Minutes of Council 15 May 1826 the following note was made about his work as "Conservator" of the Museum of Comparative Anatomy:

". . . in concluding this report the curators feel it to be an act of justice to express their great approbation of the services of the late conservator (of the Barclay collection). The zeal, steadiness and talent which Dr Knox has manifested in the different departments of the Museum must be evident to all who have examined it and appear to the curators eminently to merit the best thanks of the College."

Robert Knox was duly elected Conservator. There was some opposition to making the appointment immediately and it is perhaps significant in the light of subsequent events that amongst those who took this view was James Syme. Syme's opposition may have arisen from the fact that he was one of Knox's rivals as a teacher of Anatomy.

At this time some confusion exists in the records and other references regarding the term "Conservator". Robert Knox was the Conservator, as noted, of the Anatomical Museum so designated by John Barclay. Presumably he was known as the Conservator by his colleagues in this connotation. It was after his appointment by the College in 1826 that he became Conservator of the Pathology Museum of the College. Only after 1828 when the College had acquired the Barclay Collection did the two posts of Conservator which he held become merged.

On the appointment of a full time Conservator Mr Hamilton and Mr Watson relinquished their posts as Keepers of the Museum and were appointed Curators. This was doubtless an acknowledgement of the services they had rendered to the Museum but it was a source of subsequent difficulties since it becomes clear that the personal relationship between Watson and Knox was not entirely amicable.

The General Catalogue

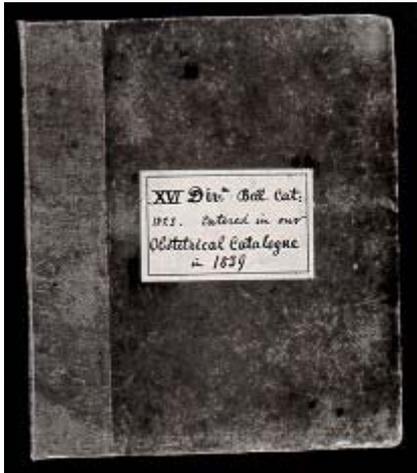
As the first major project Knox undertook to bring the General Catalogue up to date. His entries in this catalogue commence at No 941 characterised by the script which is bold and oblique, and the notes are fuller and include considerable information on the clinical course of the disease. This is without question the most detailed section of the whole of the manuscript volumes and a remarkable source of material for study of surgical pathology and practice at this time.

Of the material in this section many specimens are shown without the name of the donor. This omission was not due to oversight or neglect for, where known, the source of the specimen is meticulously noted as in the case of gifts from Thomson, the Allan collection etc. Specimens without the name of the donor presumably came from Knox's own collection.

Some of the entries in this section are written in a different hand and it is impossible to say by whom they were made. Entry GC No 973 describes a specimen donated by Mr Allan with an additional note signed by Robert Knox but the handwriting of the original entry and Knox's comment are different.

There is a catalogue in the possession of the Department of Anatomy in the University of Edinburgh of a collection of material written by Frederick Knox, a younger brother, and dealing apparently with Robert Knox's private collection. Only a few of the specimens from this collection were transferred to the Museum of the Royal College of Surgeons.

The Bell Catalogue - Catalogue of Charles Bell's Museum 1823 XVIth Division(Mackintosh Catalogue)



The second great task which Knox undertook and indeed had commenced before his appointment as Conservator was the receipt, arrangement and cataloguing of the Bell Collection. There is a large, handsome, leather-bound catalogue stated on the frontispiece to be:

“Catalogue of the Anatomical and Pathological preparations contained in the Museum of Mr Charles Bell now the property of the Royal College of Surgeons of Edinburgh.”

This has long been known as the Bell Catalogue and indeed in the account of the Museum given by the late Mr J N J Hartley the term "accompanying the collection" has led to the incorrect assumption that this manuscript volume was prepared in London and came to Edinburgh with the collection. Knowledge of the nature of the Great Windmill Street School Museum Catalogue is obtained from an original printed copy of Division XVI of that catalogue in the possession of the Museum of the Royal College of Surgeons (Fig 4). The material transferred from the Great Windmill Street School did not include examples of specimens showing gynaecological or obstetrical conditions. This material constituted section XVI in the original catalogue. In the manuscript volume of the Bell Collection prepared for the College, a section XVI is included but covers hernia.

In the Minutes of the Meeting of Council 15 May 1826 the Curators report that a catalogue of the first part of the Bell Collection has been prepared. This is brought up to date after the arrival of the second part. It is probable that this book was prepared under the direction of Robert Knox. The catalogue is beautifully written in script without error and without correction. It was clearly the work of one whose penmanship was of professional standard. It is certainly not the writing of Robert Knox and it can only be assumed that an amanuensis was employed to undertake this work.

The original catalogue of the Great Windmill Street School was a printed volume produced in divisions, bound separately and published in 1823. The pages were doubly interleaved with blank sheets on which subsequent notes or entries were made. It would be a copy of this printed catalogue which accompanied the collection transferred from the Great Windmill Street School. Knox retained the index system of this catalogue.

In the Bell Catalogue many of the specimens are described with wonderful clarity. There is included in many instances a valuable account of the clinical features and of the course of the disease. There is also in at least one instance (B.C.I.3.M.25) an indication that some of the specimens were probably obtained under rather dubious circumstances. Of outstanding interest are the descriptions of the war injuries - a subject of special interest to Charles Bell. These were obtained from casualties in the Napoleonic Wars, especially after the Battles of Corunna and Waterloo.

The Wilson Catalogue

It is convenient at this point to refer to an additional catalogue obtained in 1828 and presented by the family of James Wilson. Many of the specimens included in this catalogue had been transferred to the Royal College of Surgeons of Edinburgh as part of the Bell Collection and are entered in the Bell Catalogue. There are, however, some specimens in the museum originally described in this Wilson Catalogue but not described in the manuscript Bell Catalogue. It must be assumed, however, that these specimens came to Edinburgh with

the Bell Collection and, for some reason which is unknown, were not recorded as part of that collection in the manuscript catalogue prepared by Robert Knox.

The gift of this catalogue was greatly appreciated by the College (CR Sed 12 Nov 1829): "The College are aware that the manuscript catalogue of the preparations in the Bell Collection put up by the late Mr Wilson of London has been presented to the College by the son of that gentleman. The Curators recommend that as a mark of respect for the memory of Mr Wilson and as a proof that the liberality of his family is not underrated by the College, this catalogue be handsomely bound."

In the account of the Museum by J N J Hartley, Mrs Scrymgeour (daughter of James Wilson) is named as the sole donor of the Wilson Catalogue. This is clearly an error. Some of the notes in the Wilson Catalogue describe not only the nature of the specimens but also the surgical practice at this time.

As the basis of a study of early nineteenth century pathology and surgical practice the three catalogues - General, Bell and Wilson - are invaluable and would repay a more intensive scrutiny than has been given in this brief account.

In spite of internal rearrangements made in 1823 the available accommodation in the old Surgeons' Hall was still inadequate to house the original general collection and it became necessary to seek additional museum capacity.

In 1822 a committee had considered the possibility of a new hall being erected on the Calton Hill. Later proposals included a site in Waterloo Place or by the acquisition of Minto House in Chambers Street. These proposals were not pursued.

The situation became acute in 1825 with the purchase of the Bell Collection. The College met the immediate difficulty by the purchase of further accommodation. Additional space was found in the old Surgeons' Hall in which three rooms in the east wing were converted for museum purposes. In 1828 a house in the south-east corner of Surgeons' Square which had previously belonged to John Bell and was now owned by a Dr McCansh was purchased for £820.

Rooms were also rented in Nicolson Street but details of this property are lacking. In the same year the alarming report by the architect, William Henry Playfair, that Surgeons' Hall was unsafe either for housing the collection or for meetings of the College led to the rental of accommodation in No 2 Surgeons' Square from a Mr Lockhart. During this period part of the Bell Collection was housed in Knox's School of Anatomy in No 10 Surgeons' Square. The only real solution was the provision of a completely new Hall to house the Museum.

In 1828 the final decision was reached. The Riding School belonging to the Royal Academy on the east side of Nicolson Street was purchased. In 1829 the plans for the new Hall, drawn up by Mr Playfair, were approved (Figs 5, 6). Robert Knox must have played a prominent role advising Playfair on the Museum requirements. The new "Surgeons' Hall" was completed and ready for occupation in 1832.

The new building was of two storeys with an extensive basement. The lower (ground) floor provided a Library, Fellows' Room and other accommodation. The whole of the upper floor, designated as the "principal" floor in the original plans, was designed to house the Museum in two large communicating halls. This provided generous and architecturally attractive accommodation.

The hall at the western end (which today is the Main Hall of the College) was designed for the Barclay Collection and was entered by a noble staircase and entrance. It contained a gallery (no longer extant) and its size, design and decor reflect the value the College placed at that time upon the Barclay Collection. It could be displayed in a manner which bore comparison with any of the large European collections including that of Hunter. It is difficult today, since a large part of the Barclay Collection no longer exists, to envisage this hall when

it was in use. Clearly, it was the pride of the College and both thought and expenditure had been lavished on it.

The second hall at the eastern end of the building was designed to house the anatomical and pathological material and was entered from the Barclay Hall. It measured approximately 40 ft x 97 ft and possessed an all-round gallery. The shelves were arranged to form seven bays on each side both on the lower floor and in the gallery. Playfair also designed several elegant glass-topped display cases for the centre of this hall. The lighting was by windows in each bay but the gallery above was illuminated by means of roof lights. There was a special method whereby each skylight was enclosed above ceiling level.

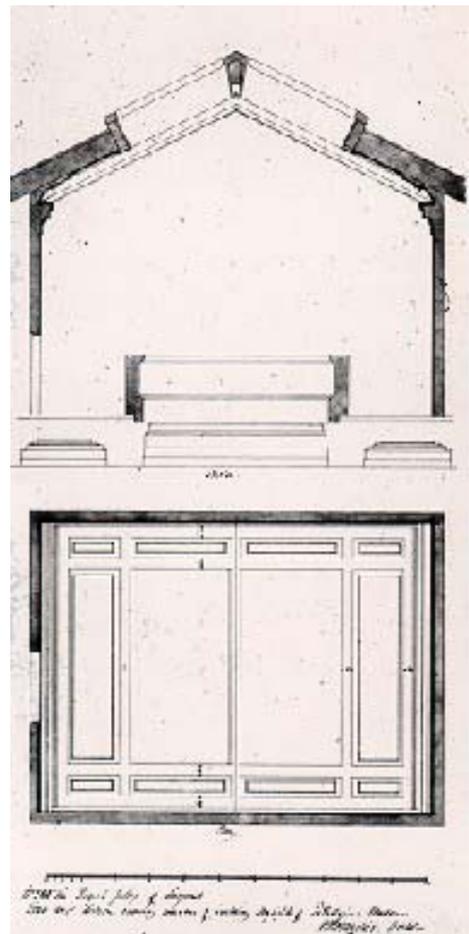
There is a mystery “room” in the Museum. Above the ceiling, over the gallery at the east end of the Museum, are the remains of two small rooms. One room has been largely demolished. In the other the walls have been plastered and there is a cornice. In the floor of the room there is a glass panel. The purpose of these rooms remained a mystery especially in the absence of any evident mode of access. It was not until the examination of the original plans that the puzzle was solved. These rooms are shown in the plans as “manner of inclosing Skylights”.

Others, which presumably extended along the length of the hall, were probably demolished when the lighting was altered at a later date. While exploring this room a specimen of a rib cage, wrapped in newspaper and straw, was discovered beneath one of the rafters. The date of the newspaper appears to be 1855 since it contains an account of the Dungarvon Petty Sessions for August of that year.

The mysteries of the College are probably not yet fully revealed.

Both Museum halls reflect the architectural greatness of Playfair. Three repair rooms were provided for the preparation of specimens. One was in the south-west corner of the main hall (now used as an ante-room to the present Hall). Above this is a room reached by a spiral staircase. The purpose of this room is nowhere indicated but later it was used as a storage room for the Library. The other rooms were situated in the Pathology Hall, one located in what is now the entrance to the Museum at the top of the staircase and the other at the far south-east corner. This room was provided with a fireplace and probably had a water supply. In addition a door through the external wall existed. It could only have been associated with an external staircase to the ground and was either designed as a fire escape or as an additional means of access to the Museum.

A maceration room for the preparation of specimens was provided in the basement below the main corridor on the ground floor. It is unnecessary in this account, which is limited to matters of interest in the story of the Museum, to describe in detail the accommodation in the other parts of the building, notably the lower floor. There were two aspects in the original plans in which inadequate provision had been made. The Hall or Fellows' Room (presently represented by the Reception Room and Librarian's office) was too small and somewhat unpretentious. Further, no provision had been made for administrative offices. This led to the need for later alteration of the building in 1908 and modification of the Museum area.



A complete set of original plans by Playfair is in the possession of the Library of the University of Edinburgh. The plans in the possession of the College are not entirely complete.

Robert Knox - the later years 1828-1831

In the years immediately following his appointment as Conservator, Knox carried out his duties in a manner which was highly acceptable to the Curators. His diligence and his expertise were appreciated as is reflected in the Minutes of the Meeting of Council on 11 November 1828:

“The curators conceived that they do no more than justice to their conservator whose labours during the last three months have been most arduous in simply submitting his own statement of the manner in which he has disposed of the valuable collections under his care.”

From 1828 a change in the relationship of Knox and the Curators becomes evident. This may be partially attributable to two factors.

The first and most clearly significant was the scandal of the Burke and Hare murders in 1828 culminating in the hanging of Burke on 28 January 1829. Knox was not accused of complicity, he was not called upon to give evidence and indeed his acceptance of bodies obtained with questionable legality was not particularly repugnant to his colleagues for many of them participated in similar activities.

It was by chance that Burke and Hare delivered the victims to Knox and not to Monro Tertius of the University. Knox became the subject of notoriety and the Burke and Hare scandal was of such a magnitude that he became ostracized by his colleagues and the victim of the rage of the mob. It is to be noted, however, that in none of the College records is mention made of the Burke and Hare scandal. Nevertheless it probably influenced the relations between Knox and his colleagues, including the Curators, and afforded to those who bore him no special love an opportunity to denigrate him.

The second factor may well have been the appointment in September 1829 of James Syme as a Curator. He had been a rival of Knox in the competitive field of instruction in anatomy and it was a time when rival teachers were not hesitant to pass scathing comment on the ability of their competitors. Syme and Knox became bitter enemies. Syme was noted for the sharpness of his strictures and the vehemence of his pursuit with animosity towards those with whom he had disagreements. This is reflected in 1831 when a considerable disputation occurred between Syme and Knox over the preparation of a specimen. The episode is reported extensively by Creswell.

There is further evidence of friction when the Curators required that the Conservator should record all the specimens which had been received over a period of years and that these should be laid out so that the Curators could inspect them in detail. This, in spite of the fact that Knox had already submitted his Report as Conservator. The motion making these peremptory and unwarrantable petty demands on Knox was moved by Mr Watson. Knox made a dignified and objective reply. The specimens were duly laid out in the kitchen of Dr McCansh's house.

Amongst the other duties which were given to Knox as Conservator was that he should act as Registrar of students appearing for the Diploma of the Royal College of Surgeons.

Regulations respecting registration:

I. A book shall be kept in the Hall of the College, which shall be open on Wednesday and Saturday from One to Three o'clock for the registration of all Medical Students who may apply.

II. The Conservator of the Museum shall conduct the registration. He shall enter in separate columns, 1st the name of each individual, 2nd the Medical Classes attended by each during the current season; 3rd the names of his Teachers. He shall register such only

as apply personally to him, shall examine all the Tickets produced by each individual, and shall not register any classes for which Tickets are not produced.

VI. All Students whose Classes are thus registered, shall be entitled to receive from the Conservator a Certificate of their Course of Study, attested by his Signature.

The relationship between Knox and the college was to be further strained. The Curators noted that an increasing number of students had not paid for a ticket of admission. They were also disturbed by the fact that fees paid were sometimes in the hands of the Curators and sometimes in the possession of Dr Knox.

At a meeting of the Council on 2 February 1829: *"Dr Robertson agreeably to notice stated that as the College were now at a very great annual expense in keeping and supporting their different museums of anatomical and pathological preparations it was most desirable that these preparations should be rendered as extensively useful as possible and as it appeared from the report of the curators that only a very small number of students availed themselves of the privilege of visiting it for which they were at present charged a fee of 5/- each, he proposed that free admission should be given to all students without exception and without the payment of any fee whatever. He moved that the following clause should be left out of the law and paying the sum of 5/-"*.

At a later Meeting of Council on 10 July 1829 it was resolved:

Each student upon being registered shall be provided with a ticket of admission to the museum of the Royal College on certain hours of certain days of the week, to be specified on the ticket.

Knox was apparently not informed of these decisions by the Council as is made clear in his letter of 30 November 1829 (Historical Catalogue AK. 1.5):

10 Surgeons' Square 30th November 1829

"Dear Sir,

I am requested to apply to you for the exact copy of a regulation passed by the Royal College in August last, with regard to the registration of those students who had no funds to fee their Classes before the close of the Album. Dr Gairdner informs me that the College passed some law, but which they determined should not be printed. Now altho' it would have been preferable that I had been aware of this law when the Registration commenced instead of when it has terminated, yet it would be as well that I am acquainted with it.

I am, dear Sir,

Your most obedient servant,

(signed) Robert Knox"

Knox continued to hold office in spite of these difficulties for a further two years but on 9 June 1831 he finally tendered his resignation with dignity and without critical comment.

Letter from Knox to the President (CR Sed 1 July 1831):

"Dear Sir

I beg leave to acquaint the College through you that it is now my determination to carry into effect a measure I have for a long time contemplated, Viz the resignation of the Conservatorship of the Museum of the College and I request you will have the goodness to consider this notice as a resignation on my part of that office.

I have the honour to be etc

(signed) Robert Knox"

The College accepted Knox's resignation and continued in Committee to revise the laws connected with the Museum and the office of Conservator.

It is clear that Knox was distressed. Right up to this time he had been busily engaged in making arrangements for the transfer of the specimens to the new Hall and after his letter of resignation was handed in he went to the country for a few days as his brother Frederick explained in a letter to the College:

13th June, 1831

Sir,

My Brother having left Town on Thursday last of the Country where he will be until Friday the 17th I, according to his instructions, opened your letter to him of the 10th inst.

I am aware that my brother has made arrangements for moving the Museum and I have no doubt therefore that he intends his resignation of the office of Conservator to take place at the annual period (Michaelmas).

I am also quite sure that he would make any sacrifice rather than a single preparation in the Museum should suffer and that in the event of any delay occurring in the appointment of a successor his efforts for the preservation of the Museum shall continue until one is appointed.

I may add that in consequence of the entire want of water and the danger of even moving about in the new Hall it was worse than useless to attempt any work there for a few days and I believe it was this fact that induced him to take an excursion in the hopes that something may be attempted on his return.

(signed) Frederick Knox

(CR Sed 1 July 1831)

It must have been a bitter blow to Knox that after all his work planning and preparing for the transfer to the new Hall he was denied the opportunity of completing the task personally.

After his resignation there is no note in the records of any acknowledgment of the value of his work or of any expression of thanks to him for his labours. This was part of the price Knox paid for his association with the Burke and Hare scandal and of the animosity of his colleagues. In spite of the difficulties and antagonisms which have been recorded he continued to work in association with the College, notably in connection with the catalogue of the Barclay Collection, until his departure to London in 1842.

There is a postscript to the story of Robert Knox which, although not immediately associated with the history of the Museum, merits record.

After leaving Edinburgh he eventually settled in the East End of London. He frequently visited a former student in Woking and on such occasions wandered over the grounds of Brookwood which had recently been opened as a cemetery. He expressed the wish to be buried in Brookwood "where the sun might shine longest on the green sod above his grave". Sir William Fergusson proposed to "erect a memorial over the grave of his renowned teacher and friend, to whom he owed so much. It need hardly be said that some sepulchral in memoriam is due to the greatest anatomical lecturer ever heard in Britain, the man of rare intellect, commanding eloquence and genius" (Lonsdale). This project was never carried out and the burial place remained unmarked.

In 1866 a headstone was placed upon the vault by his successor in office as a tribute to a great servant of the College.

William MacGillivray - Conservator 1831-1841



Immediately after the resignation of Robert Knox proposals to modify the terms and conditions under which a Conservator would serve the College were submitted by Dr Huie and Mr Watson (CR Sed 1 July 1831). It may be noted that Dr Huie was a close friend and colleague of James Syme. Mr Watson, the former Keeper, had previously shown a degree of animosity towards Knox. The new regulations were adopted and their tenor suggests that the Curators were determined that no new Conservator would have the liberty or authority which Robert Knox had enjoyed and to whom the restrictions would have been unacceptable. Amongst these regulations were:

"The Conservator shall not possess a museum of his own nor shall he directly or indirectly assist in the formation of any other, nor lecture on any subject whatever without the special consent of the College.

The Conservator or some other person appointed by him and approved of by the Curators shall be present in the Museum during all the hours it is open. . ."

Thereafter James Syme moved as another regulation: "The Conservator shall not go out of town without leave of the President of the College".

On 17 September 1831 William MacGillivray was appointed Conservator. He was not medically qualified, his interest being zoology. It was while serving with Professor Jameson in the Department of Natural History in Edinburgh that he became Conservator to the Royal College of Surgeons. There is no evidence that he possessed any training in the field of pathology. To him fell the task in the ensuing twelve months of the transfer of the various "museums" to the new building. It would be wholly unrealistic to suppose that the transfer and arrangement of the collection in the new Hall could be undertaken by MacGillivray other than by his dependence upon the work already carried out in this sphere by Robert Knox. It is true that at this time collections were essentially arranged on an anatomical basis. He would have an adequate working knowledge of anatomy but his lack of knowledge of pathology must have proved a handicap.

William MacGillivray maintained the General Catalogue and his entries appear to commence at GC. 1216 when a specimen is recorded: "Presented by Professor Turner, 8 July 1830". It was during this time that the second volume of the manuscript catalogue commenced. His entries are continued in the same script until he retired in 1841. His final entry is GC.2221. Many of the specimens catalogued at this time had been donated by Robert Knox. The entries recorded during this period are not exhaustive.

The work in the Museum must have been considerable for in November 1831 MacGillivray was given authority to employ an assistant. In one of his Reports to the Curators he records the fact that he was personally responsible for the re-labelling of 563 specimens (CR Sed 2 Aug 1832). The task of transferring was completed and the first Meeting in the new Hall was held on 16 May 1832. There is an interesting note that in preparation for the opening of the new Hall a porter was appointed on 13 April 1832 at £15 per annum and provided with a coat, a hat and a baton.

Less than a year later the old College building in Surgeons' Square was sold. It was purchased by the Managers of the Royal Infirmary but was rented from them by Robert Knox. He made certain structural alterations and there conducted his class and kept his own museum for a number of years. By August 1834 the Curators are referring to the new Museum as being in good condition "under their charge" thus emphasising the very close supervision of the Museum which the Curators now exercised.

The First Printed Catalogue (FPC)

In May 1833 the Curators decided that a new catalogue for the Museum should be compiled. A committee with Professor Turner as Convener was appointed to consult with the Conservator on the form of the catalogue. Part 1 of this catalogue recording the pathological collection was completed in November 1835 and published as a bound volume, price 4/- per copy. The arrangement within the catalogue corresponded precisely to the arrangement of the specimens on display. The catalogue is traditionally known as the First Printed Catalogue (FPC) and incorporates specimens both from the General Collection and the Bell Collection. There is no information as to who was responsible for the preparation of the entries in the new catalogue which are frequently but brief abstracts of the information contained in the earlier catalogues.

On the completion of this volume MacGillivray undertook the task of preparing a catalogue of the Barclay Collection. No copy of this catalogue appears to be extant, if indeed it was ever completed, although reports to the Curators are made of the completion of certain sections of this work. It is interesting to note that a committee to supervise the preparation of this catalogue was formed in 1836 and amongst those nominated to serve was Robert Knox.

There is no information of the publication of a Part II of the printed catalogue. Whether this was to record the material of the Barclay Collection together with the anatomical material of the Bell Collection and other sources is unknown.

The Mackintosh Collection

In November 1837 the opportunity occurred to purchase from a Dr Mackintosh the collection of obstetrical material which had originally been part of the Museum of the Great Windmill Street School (CR Sed 3 Nov 1837). This collection represented the original Section XVI of the Bell Collection to which reference has already been made. Accompanying the material thus received was an original copy of the printed catalogue of the Great Windmill Street School. The price of this collection was some £400 and to meet this financial obligation it was determined that:

" . . . the fines should be applied to pay the interest of the sum which would require to be borrowed to pay the price and that the expense of the biennial breakfast be defrayed by the members attending it. . . ." (CR Sed 13 Nov 1837).

It is worth noting that even after the opening of the new Museum the interest of the ordinary Fellows of the College in the collection was deemed to be poor. Accordingly it was determined that temporary demonstrations of specimens should be laid out in the Library of the College to stimulate a greater appreciation by the Fellows of the merits of the Museum.

In March 1841 William MacGillivray was appointed Professor of Natural History in Aberdeen and resigned as Conservator. With the opening of the new Museum and the publication of the First Printed Catalogue the conservancy of William. MacGillivray marks the end of the great period of expansion of the Museum.

The Museum as we now know it had been established. 1841 therefore marks the end of the beginning.

III. The Interregnum, 1841-1887

From 1841, following the resignation of William MacGillivray, until 1887, when Charles Cathcart was appointed Conservator, the Museum entered a period of relative quiescence.

In 1841, before making a new appointment, the College again considered the terms and conditions of this office. The President invited the Curators to consider the expenditure of the Museum and the salary to the Conservator with a view to making a reduction in Museum costs but the request for further economies was not approved by the Curators. They were anxious that the Conservator should be a person of sufficient status and professional knowledge to be able to issue certificates of registration to students (CR Sed 1 April 1841).

John Goodsir - Conservator 1841-1843



John Goodsir was elected Conservator in August 1841. When he joined the Museum he donated a number of specimens demonstrating comparative anatomy. In his first Report to the Curators in February 1842 he drew attention to the fact that many of the preparations were in poor condition and a large number required remounting. He also referred to the difficulty of identification of specimens due to the loss of labels and he introduced a system whereby the catalogue number was painted on the jars, those recorded in the General Catalogue in black and those in the First Printed Catalogue in white. In order to cope with the back-log of preparations Goodsir was authorised to employ a temporary assistant (10 hours a day at 16 shillings per week).

The offer was made by the Conservator to deliver a series of lectures on Anatomy and Physiology based on preparations in the Museum and this was accepted.

In the subsequent reports Goodsir made to the Curators there is little or no information of any innovation or major developments. Each report consists only of a statement as to the lighting, cleaning or rearranging of specimens in the collection. Considering the eminence of John

Goodsir it is disappointing that no advance was made in the Museum nor indeed was the catalogue greatly enhanced.

On receiving a University appointment John Goodsir resigned as Conservator on 3 February 1843 and he continued to carry on his duties until 2 August 1843. During this period the now customary discussion took place as to the Conservator's duties and salary. In August 1843 John Goodsir's younger brother Harry was appointed.

Harry Goodsir - Conservator 1843-1845

Harry Goodsir's conservancy was troubled by financial stringency and administrative problems. In 1844 alarm was caused because dry rot was discovered in the north-east part of the College buildings. There was urgent consultation with the architect and Playfair was again called in for consultation. It is of interest that he repudiated any liability, taking umbrage that the College had appointed two other gentlemen to supervise the maintenance of the building (CR Sed 20 June 1844).

In October 1844 the College was once more in financial difficulties and again the Museum expenditure was examined. With a view to effecting a saving it was determined that since visitors to the Museum added greatly to the cleaning expenses (9,000 visitors in 1844) the public were to be excluded from the galleries which housed the pathology collection.

It was further decided that there should be minimal activity in the field of conservancy and no new specimens should be accepted. The actual expenditure in the Museum was £47.10/- The matter of the Conservator's salary was again discussed and Harry Goodsir was asked to take a reduction in salary to £100 per annum. Not without protest he accepted the reduction and pointed out that he was engaged full time on the work of the Museum and in daily attendance should continue.

In October 1844 the door-keeper was dismissed but this decision was reversed three months later. In the Report of 1845 only one new specimen had been recorded. In spite of these financial difficulties the Curators were anxious that the value and merit of the Museum They pointed out:

"It was mainly for the reception and display of the collection that the present buildings were erected and the Parliamentary grant of £5,000 was made to the College on the plea that the public were freely admitted to inspect it. The College cannot alienate the Museum or allow it to fall to decay or exclude the public from visiting it without injuring their character as a scientific body and violating faith with the various donors. The Curators are aware that the Museum is not so frequently visited by Fellows and students as it ought to be. They believe that some means may be used to revive the interest which it merits from those for whose benefit it was chiefly formed, but this circumstance does not affect the question as to the duty of the College to preserve and exhibit it." (CR Sed 2 Oct 1844).

On 15 March 1845 Harry Goodsir resigned as Conservator in order to participate in the ill-fated Franklin expedition. From this voyage he never returned.

The duties of Conservator were taken over temporarily by a still younger brother Archibald under the supervision of John Goodsir. This arrangement lasted briefly.

Hamlin Lee - Conservator 1845-1852

In August 1845 Hamlin Lee was appointed Conservator but of him personally there is little information. Biographical references have not been found and he is one of the Conservators of whom there is no available portrait. Hamlin Lee's first Report represents the nadir of Museum activity: "No new preparations had been received". Nevertheless he was apparently possessed of considerable technical skill and the Curators recommended the formation of a series of preparations to be viewed by the aid of the microscope: ". . . while they are in some degree rendered necessary by the direction which anatomical and Physiological investigations have recently taken" (CR Sed 16 May 1846).

Hamlin Lee reported in the November that he had commenced this task. This is the first reference to microscopic work in the College.

There is in the possession of the College a number of microscopic preparations the earliest of which date from 1850. Who made these preparations is unknown, but it is possible that they were prepared by Hamlin Lee. They represent the start of the collection of microscopic preparations which today has become a separate part of the Museum.

In August 1847, still in the interests of economy, the Conservator was offered and accepted a resident appointment which included the duties of Conservator, Librarian and Officer to the College. He was to employ at his own expense a respectable and intelligent man (approved by the College) to perform the more menial duties, to deliver billets and act as door-keeper etc.

By 1852, however the Curators of the Museum became disturbed with the pressure of work which devolved upon Hamlin Lee and decided that the post of Conservator should be solely concerned with Museum duties. There is a note in the Minutes of the Meeting of Council on 3 August 1852 that many of the preparations were not identifiable, in bad condition, out of arrangement and that the catalogue had not been maintained.

Hamlin Lee appears to have been relieved of his office at this stage and, though he applied for reappointment as Conservator, his claim was not approved.

William Rutherford Sanders - Conservator 1853-1869

In February 1853 William Sanders was appointed Conservator. During the sixteen years that he occupied this office the record is one of negligible Museum activity. The General Catalogue contains not a single entry and the only Report of any import given to the Curators is one which details the catalogues in the possession of the Museum. These included Bell, Wilson, General, Barclay, Knox, Obstetrical, Thomson, 8 Scroll and the Printed Catalogue (CR Sed 16 May 1866).

The only activity recorded during this period other than the relabelling of bottles and the cleaning of the Museum, is that Sanders gave demonstrations to third and fourth year medical students. One incident reported is the dismissal of the door-keeper who had taken money from students for admission to the Museum.

It is clear that on the resignation of William Sanders in October 1869 the Curators were again greatly disturbed by the condition of the Museum and for several months Dr Argyll Robertson acted as interim Conservator.

There is in the Museum a Minute Book dated 1859-1880 recording the decisions of the Curators of the Museum but a fuller account of these Meetings is given in the College Records. This is the only known volume of Minutes of Curators. There is no information as to whether it was one of a series nor is it known when a decision was made to commence a Minute Book for the Curators, or cease to keep such a record.

James Bell Pettigrew - Conservator 1869-1875

In December 1869 Dr J B Pettigrew was elected Conservator. The inertia of the previous conservancy continued. There is no record of new work being undertaken. He resigned as Conservator having been appointed Professor of Medicine and Anatomy in the University of St Andrews.



Robert James Blair Cunyngame - Conservator 1875-1887



In December 1875 Dr J Blair Cunyngame was elected Conservator. The reasons for his appointment are obscure and activities during his conservancy are not recorded but he did revive the General Catalogue. He used it, however, more as a Day Book than a record of specimens which were accepted for exhibition. He also entered in the catalogue such details as the precise positioning of the specimens on the shelves. He adopted the interesting technique of pasting "cut-outs" from journals into the catalogue. Some of these referred to items of which there is no evidence that they were ever actually in the collection.

There is no record that Blair Cunyngame resigned as Conservator but in October 1887 he was elected Secretary and Treasurer to the College and apparently his Museum activities ceased.

This date marks the end of the interregnum. It had been a period of prolonged inertia and minimal Museum activity occasioned by the demands of the Council for extreme economy but characterised also by the repeated reassertions by the Curators of the significance, importance and value of the Museum.

IV. The Resurgence, 1887-1921



Charles Walker Cathcart 1887-1900

Charles Cathcart was appointed Conservator in 1887 and he held this post until 1900. On his resignation as Conservator he was appointed a Curator and served to within six months of his death in 1932. During this long period he played a major role in the new surge of growth and development. Charles Cathcart was peculiarly well prepared for this task. His classical education and particularly the study of logic and philosophy gave him an orderly mind. This led to the concept that diseases could be classified. He was a man of practical attainments and made important contributions to the techniques of histology, notably his modification of the freezing microtome.

Another characteristic was his skill in planning for the future and achieving his objectives. He seems to have had a clear idea of long-term development and his record is one of making constant though



frequently small advances all of which fitted into his overall plan.

The General Catalogue

Within a year of his appointment as Conservator, Cathcart reported to the Museum Committee his dissatisfaction with the existing catalogue.

He continued the manuscript catalogue and during his conservancy he entered no fewer than 1,300 specimens, many of which he donated personally. Many of the early entries are in Cathcart's own writing but later, when Theodore Sherman became his assistant, entries in a different script are to be found. His earlier entries are moderately adequate in detail and in

particular his recording of the dates when specimens were received are helpful. In the later part of his conservancy the entries in the General Catalogue are frequently minimal since at this time he was entering the specimens in the new catalogue which he was preparing. It would thus appear that the General Catalogue was kept at this time rather as a Day Book to maintain the numerical sequence. Occasionally the name of the donor and date are inserted.

The New Catalogue

Cathcart was, however, very disturbed by the continued use of the printed catalogue of MacGillivray as is noted in the Records (CR Sed 17 Oct 1888):

"The Conservator draws the special attention of the Museum Committee to the fact that the printed catalogue of the Museum specimens is now fiftytwo years old and that besides being now somewhat out of date in its arrangement and nomenclature it contains no reference to the 1,056 specimens which have been added since 1836."

He therefore urged that a new catalogue should be prepared. A committee was appointed to advise on this task and consisted of Sir William Turner, J Montague Cotterill and the Conservator. Proposals were advanced to this committee by Cathcart who had made a considerable study of museum catalogues of other centres. After consideration of Cathcart's recommendations the format which he had suggested was accepted (CR Sed 15 December 1888).

The entries recording the specimens were to be grouped in numbered series according to the "present views of pathology" and within each series provision was made for subdivision. It was further arranged for practical reasons that the shelves within the Museum would be numbered in a manner corresponding to the catalogue. The preparation of a new catalogue afforded the opportunity to revise the descriptions of the specimens. It has to be recalled that between the previous catalogue and the preparation of the new catalogue there had been the introduction and the development of histopathology. Therefore, it was now possible to include an account of histology. The catalogue as published consists of three printed bound volumes:

Vol I pp. 605

Published in 1893 contained his preface describing his project. The specimens recorded in this volume included general pathology and the skeletal system

Vol II pp. 538

Published in 1898 and catalogued the specimens of skin, nervous system, eye, alimentary system and genito-urinary system

Vol III pp. 662

Published in 1903 under the authorship of Theodore Shennan. This volume included all the remaining systems.

This catalogue has long been known as the New Catalogue (NC). This new catalogue superseded previous records but gave the appropriate references which these contained to earlier specimens, eg Bell, Wilson, First Printed Catalogues etc.

Classification of pathology

It is probable that it was during the preparation of this catalogue that Cathcart began to feel disquiet over the index which he had adopted for the identification of specimens. He sought a more flexible and accurate method of ascribing to each item an index grouping which would indicate both the site of the disease and its nature.

However, he was too committed and too advanced to introduce any modification to the catalogue which he was in the course of preparing. In this philosophical approach to the problem he collaborated with Alexis Thomson who at this time was engaged upon a revision of the pathology material in the Department of Surgery in the University.

His final conclusions on the structure of a satisfactory classification of pathology were contained in a lecture he delivered to the College on 26 June 1896. He employed numbers to indicate the anatomical site of the disease and alphabetical characters to indicate the nature

of the disease. Each specimen in its index number was thus identified both in regards to site and to pathological process. This material was published in the Edinburgh Medical Journal, 1896, Vol 42 pp 37 and 141.

Whatever may have been his purpose in publishing this paper, his concept was not to be put to practical use until the preparation of yet another Museum catalogue in 1929 by David M Greig to which reference will be made in due course.

It was perhaps a happy event for Cathcart to see the adoption of his classification of disease, however belatedly, as the basis of the catalogue of the Museum to which he had rendered so long and faithful service.

Accommodation

The size of the collection had increased since the last catalogue by over 1,000 specimens and during the first ten years of Cathcart's own conservancy over 1,000 specimens were added, including the Struthers Collection of anatomical preparations. Once again it became necessary to consider expansion of the Museum.

By alteration of the shelving within the Museum and by the introduction of movable stands in the bays both on the lower floor and the gallery, additional shelving was obtained (CR Sed 15 Dec 1890). In addition, Cathcart proposed that part of the general collection should be lodged in the Barclay Hall but the Council did not accede to this request.

Laboratory facilities

Inadequate space for exhibition and accommodation for laboratory and technical work was a major problem throughout Cathcart's conservancy. During this period he continued to agitate and plan for improvement. It was not until 1909, during the conservancy of Henry Wade, that the answer was found.

From the time of the opening of the new building in 1832 it is difficult to ascertain what facilities existed for the mounting and preparation of specimens and such other laboratory activities as gradually became part of Museum technique. It is recorded that accommodation in the basement was used for the maceration of specimens but later part of this was taken over for the installation of the main heating furnace for the College. There was a room in the north-west corner of the "Pathology Museum" and diametrically opposite (south-east) was another room which certainly contained a fireplace and which still has holes in the wall which might have been used for a water supply.

In the Playfair plans these were described as the -repairing rooms- but again no other notes are available to give the necessary information. Light was thrown on this when during redecoration of the Hall in 1959, it was disclosed that above the entrance to the room in the north-west corner had been painted the words "Conservator's Room".

Development of histology

After the appointment of Cathcart as Conservator there was evident need for increase in laboratory facilities. It has also been noted that the microscope had already been in use for some thirty years and Cathcart was profoundly interested in histology. He was convinced of the need for photomicrographs particularly to cover all examples of tumours. The microscope had been introduced as an instrument to the Museum by Hamlin Lee, as already noted, but its use as a routine instrument was now recognised. This is shown by Cathcart's purchase of a cupboard for microscopical preparations in 1890 (still in use today). Further evidence of his appreciation of the significance of histopathology was his determination that all examples of tumours in the Museum be examined microscopically (CR Sed 15 Dec 1890).

On 4 February 1895 there is a note that to achieve improved results he purchased a rocking microtome. In December 1895 he secured a special grant to ensure microscopic examination of the old as well as recent specimens. These activities were approved by the Museum Committee and in 1897 they were able to study photomicrographs which had been prepared. In the latter part of his conservancy particular reference is made to the part played by his assistant Theodore Shennan in the development of histology:

"The microscopic specimens which had been prepared under Dr. Shennan's supervision would be preserved, duly labelled for reference. He hoped, however, that microphotographs of many of the sections would before long be displayed in the Museum beside their corresponding specimens." (CR Sed 19 Oct 1898).

This interest in histopathology is reflected in the entries in the catalogue and the descriptions of the histological appearances of specimens.

Hill Square

The search for additional accommodation continued but the records are confusing. In 1894, following a decision to acquire heritable property, houses were purchased in Hill Square to which references are made but without precise identification. It would appear, however, that the property to which reference is made was Nos 5 and 7 Hill Square. There is no record of a No 6. It was the two upper floors of this property, presumably No 7 Hill Square, which was converted into laboratory accommodation.

The proposal to provide laboratory facilities was complicated at this time by the suggestion of collaboration between the Royal College of Physicians and the Royal College of Surgeons for the setting up of a joint project for the provision of laboratory facilities for research purposes. These negotiations were complex and prolonged. Some measure of co-operation between the Colleges was achieved in 1899 but the concept of a joint laboratory in Hill Square did not eventuate.

The College, however, continued on its own to develop these facilities for research by its Fellows.

A final decision to proceed is recorded in the Minutes of the Meeting of Council on **17 May 1897**. The planning and work within these laboratories was undertaken by a special Laboratory Committee of which Cathcart was a member.

In none of the reports is provision of laboratory facilities for Museum purposes specifically mentioned. There seems little doubt that when the laboratories were opened in 1897 Charles Cathcart used the facilities to undertake Museum work. A sum of £300 was voted to provide the scientific apparatus and other appliances for the "research laboratories". The apparatus was purchased by Cathcart with the help of Dr Hunter. It is interesting to note that amongst the equipment procured was apparatus for photomicrography, a subject in which, for Museum purposes, Charles Cathcart was especially interested (CR Sed 15 Dec 1898).

In 1902 a bridge connecting the Museum with the laboratory accommodation was built and in the same year what had obviously been Cathcart's practice was officially recognised: "The rooms there retained by the College are now available for the work of the Museum." (CR Sed 16 May 1902).

One can but surmise that the whole story was one of the quiet and gradual fulfilment of a plan conceived by Cathcart for his is the common voice throughout the whole period both in Museum and Laboratory Committees.

Charles Cathcart resigned as Conservator in 1900. He became Chairman of the Curators and his influence continued. Indeed he played a dominant part in the story of the Museum during the period in office of his two successors, Shennan and Wade.

The influence of Charles Cathcart both as Conservator and as Chairman of the Curators extended over a period of nearly half a century. He was the constant guiding influence with a clear concept of development. His contribution to the Museum was great and indeed the Museum as we know it today was largely his creation.

Theodore Shennan 1900-1902

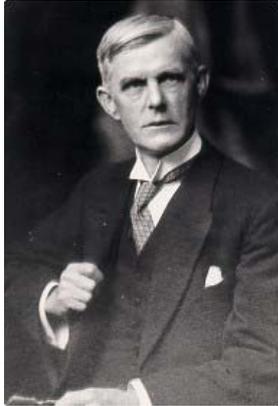


Theodore Shennan was appointed Conservator in 1900 and he held the post for two years when he became Professor of Pathology in Aberdeen. He had already made, as assistant to Cathcart, a very important contribution insofar as he had been responsible for the development of the histopathology and the preparation of photomicrographs. He had assisted Cathcart in the preparation of the

New Catalogue and is the sole author responsible for Volume 111. This heavy commitment fully occupied the brief period of his service.

For the short period from February to October 1903, David Waterston whose chief interest lay in the field of Anatomy, acted as Conservator.

Henry Wade 1903-1920



The records of the routine Museum work during the conservancy of Henry Wade are comparatively sparse. He was an extremely energetic person. In addition to his duties as Conservator he was actively engaged in Surgery as tutor to Francis Caird in the Royal Infirmary. He was also an assistant in the University Department of Pathology.

Wade added many specimens to the urological collection for he had a special interest in this subject. Doubtless much of this material was obtained from the post-mortem room of the Royal Infirmary but unfortunately he supplied little information regarding these specimens. No clinical notes were given although a detailed description of the specimen was prepared.

At a much later date a collection of whole sections illustrating kidney disease and prepared during Wade's research work undertaken in the Laboratory of the Royal College of Physicians was donated to the College by his former assistant, Mr David Band. These are of extraordinary interest and value and have a special place in the histopathology collection in the Museum.

In 1907 a new method of recording specimens was introduced. All specimens received were entered in a Scroll Book (Day Book). This book had a special convenience since the pages were perforated and a detached portion with essential details could be forwarded with tissue to the Laboratory of the Royal College of Physicians where at this time the histology work for the Museum was being undertaken. The entries were brief and not fully descriptive. For proper cataloguing much fuller information would have been required.

Later, the specimens were given a General Catalogue number but entries into the manuscript volume were not made. What notes were made for student use in the Museum or permanent catalogue record prepared by Wade is not known. Some minimal entries in the interleaved copy of Cathcart's catalogue may represent entries by Wade.

For the convenience of persons visiting the Museum, books representing sections of Cathcart's catalogue (although details of these are lacking) were kept in the bays. Note is made during Wade's earlier period of office that he gave a series of demonstrations to the Postgraduate Course in surgery.

College alterations 1908

The major development during this period was the provision of a new exhibition hall for the collection and new accommodation for laboratory facilities.

At a Meeting of the College on 16 July 1907 the President indicated to the Fellows the need for radical alteration of the internal arrangement of the College buildings. The existing accommodation was "the subject of unfavourable criticism" particularly the absence of an adequate hall. A committee, which included Charles Cathcart and was assisted by Mr Paul, architect, drew up the proposed plans of alteration. This involved modification of the Barclay Hall of the Museum to become the main Hall of the College.

The following note is of significance as indicating the changed importance of Comparative Anatomy:

"... It is necessary to point out clearly that in order to carry out the whole scheme it is essential either to get rid of the Barclay Collection or to remove it to some other part of the College property. The Collection has ceased to be of any value to the Fellows or to anyone visiting the Museum and it is occupying much needed space to no purpose. . . ." (CR Sed 16 July 1907)

The idea that the College should dispose of the Barclay Collection was supported by Cathcart, but he opposed the suggestion that the Hall thus vacated should be used for other than Museum purposes. This proposal was not in accord with the wishes of the President and on a division Cathcart lost by one vote.

The proposal to dispose of the Barclay Collection was withdrawn and the President reported that new accommodation would be found for it by the development of property now possessed by the College on the north side of Hill Square (CR Sed 10 Mar 1908).

There is an interesting vignette which at this point may be recorded. At the same Meeting of Council the President announced that monies for the alterations would be obtained from the Pattison Fund which had become available for College purposes. Immediately Cathcart proposed that money from this fund should also be used for the purchase of the Annandale Collection of specimens. Cathcart had a keen eye for the opportunity of advancement of the Museum. His proposal was accepted.

Information regarding the proposed changes is difficult to find. A new Museum Hall was created out of the two upper storeys of No 7 Hill Square which had previously been the research laboratories. The whole interior of this part of the building was gutted. A spacious hall with a gallery and a beautiful ornate ceiling was created and the arrangement for the display of specimens was in accord with that designed by Playfair for the original museum.

The new Barclay Room

The decision to retain the Barclay Collection, at least in part, required new accommodation. This was secured by the reconstruction of the second and top floor (west) houses of No 9 Hill Square adjacent to the new Museum Hall. The front rooms of the second-floor flat were combined to form a hall to house the larger specimens on free stands while around the walls was a series of cabinets with panelled glass doors in which smaller specimens could be displayed.

To allow the better display of the larger specimens, eg the elephant, part of the floor of the top flat was removed. The back or north part of the top flat was retained providing a demonstration room and a gallery. Access to this upper room was by a newly constructed internal stair. At the same time the original access by common stair to the top flats of No 9 was closed and access to the house (top, east) was secured by the gallery already mentioned. This house was also gutted to be available as a storeroom. The new Barclay Room and the new Museum Hall communicated both on the main floor and gallery levels. These modifications afforded the necessary space to compensate for the loss of the former Barclay Hall.

To replace the loss of the laboratory accommodation in No 7 Hill Square, new accommodation was provided in the second floor flat (east) of No 9 Hill Square. Provision was made for a room for the Conservator, a laboratory for histology, a mounting room for specimens and a small dark room which was used on occasion for photography. This accommodation, apparently regarded as adequate at the time, served until 1959.

The reconstruction work was speedily undertaken and was completed and ready for opening on 14 December 1909. An account of these developments was published in the British Medical Journal, October 1909, and in The Scotsman on 27 September and 15 December 1909.

The alterations in the old Barclay Hall necessitated the provision of a new and separate entrance to the Museum. This was constructed on the north side of the main building. Entrance to the Museum was achieved through the former Repair Room in the north-west corner of the Museum and which had later been used as the Conservator's Room. The skill with which these alterations were carried out and the manner in which the decor of the new apartments was blended with the old reflect greatly to the credit of the architect, Mr Balfour Paul.

First World War

The latter part of Wade's conservancy was disrupted by his military services in Palestine and in the Egyptian Campaign where his work was one of great distinction. The Museum is

fortunate in possessing photographs and maps which he collected during this period. It was during the period of Wade's war services that Charles Cathcart, as Chairman of the Curators, again assumed responsibility for the care of the Museum.

V. Teaching and Research - 1921-1939

David Middleton Greig.



During his years of surgical practice in Dundee David Greig had been an ardent collector of pathological specimens, especially those relating to diseases of bone and abnormalities of the skull. He also had amassed a large collection of plaster casts with particular reference to deformities of the hands and feet and many photographs. He was intensely interested in the more esoteric examples of pathological change and had built up a large collection of reference cards to which he constantly referred and about which he was frequently consulted. His reputation as an authority on bone pathology was already established.

In 1920 it was known that he proposed to retire from practice and engage in research. The Curators saw this as an opportunity and determined to offer him the Conservancy of the Museum on a whole-time basis. They also decided to increase the honorarium to £300. When he was appointed he offered to donate his collection to the Museum. This material was well known to Charles Cathcart and the Curators.

Many stories are told about Greig and his collection, some of which have been related by his nephew Dr B S Simpson who recalls visiting the attic of his uncle's residence in Dundee and finding the place full of this material. Some of the stories suggest that the collection was acquired with an unusual enthusiasm. The actual number of items thus added to the Museum is difficult to ascertain but it ran to several hundreds and included 300 skulls. The latter were housed in the wall cases in the Barclay Hall.

The appointment of David Greig marks a change in the character of the appointment of Conservator. Whereas previously the office was usually held by younger Fellows who acted under the close direction of the Curators, from this date the Conservators appointed have been more senior Fellows of wider experience who have been able to assume a greater degree of independent responsibility for the management of the Museum.

The Greig Catalogue

Within a short time of assumption of office Greig was clearly dissatisfied with the method of cataloguing and identification of the specimens in the Museum and with such catalogues as were distributed throughout the Museum for the use of the students:

The Conservator explained his proposal to have a catalogue of the anatomical specimens prepared and to have the specimens arranged so as to run in groups parallel with those in the pathological collection; also a new catalogue of the pathological collection which will include instruments, microscopical sections, lantern slides and other articles likely to add value to the collection. (CR Sed 24 July 1922).

The Convener of the Museum Committee* was instructed to write to the Secretary of the College asking for a sum of £125 to account, to buy a typewriter and to obtain the services of a typist for the preparation of a catalogue.

In preparing his new catalogue Greig took the opportunity to revise descriptions of all specimens. His method of working was methodical in the extreme. A section of the collection was placed on a side table in the Conservator's room and each specimen was examined with meticulous care. As examples of precise description Greig's work cannot be faulted. He was particularly interested in minor variants of anatomical appearances as well as pathological

processes. He had a conscience for etymology and as a Greek scholar was a forbidding character to those whose language was less precise than his own. This was nowhere more clearly seen than in his descriptions of the skulls in the collection of which only a relatively small number are now on display.

Greig was familiar with the loose-leaf method of filing and he adopted this as the format for the catalogue he now prepared. He accepted as the basis for the indexing of the sheets the system which had been devised by Charles Cathcart and published in the Edinburgh Medical Journal in 1896. Each item in the collection was given an index code indicating the anatomical and pathological group to which it belonged and to this was added a serial number for individual specimen identification. A printed copy of this index was prepared in 1929. The catalogue sheets bore the same index number and were housed in a special filing cabinet and remained the accepted technique throughout the following thirty years. Material allied to each specimen bore the same index code.

Before this date copies of the catalogue had been made available in the Museum for the use of students. As the revision of the catalogue proceeded they were replaced by a series of new typewritten sheets held in specially designed containers in each bay.

The acquisition of a typewriter and Greig's appreciation of the merits of loose-leaf filing and card indexing constituted a revolution in the method of museum recording. The day of the bound volume of the printed and manuscript catalogue was over.

*The term "Curators" now falls into desuetude. Henceforth references are to a "Museum Committee".

Museum developments

Collections of material during this period had been received from

- J Haig Ferguson (Obstetrician Collection);
- J S Fraser and
- A Logan Turner (Otorhinolaryngology Collection);
- and J H Gibbs (a Dental Collection).

The last formed the basis of a specialised dental collection which was housed separately from the main collection.

The revision of the catalogue afforded the Conservator the opportunity of studying each case and where possible obtaining photomicrographs. In this work Greig had the valuable assistance of J W Dawson who was pathologist in the Laboratory of the Royal College of Physicians. As well as photographs illustrating individual specimens, photomicrographs of specific lesions not illustrated by naked eye specimens were displayed with the collection. Greig also took the opportunity, during the revision of the catalogue, to assimilate his own collection into the Museum Catalogue.

The Scroll Book which Wade had introduced was maintained by the secretary, Miss Frances Brown, who kept a record of new specimens and ascribed to each a General Catalogue number.

A major task at this time was the remounting of many specimens.

Much of this work was done by William Waldie, the Museum attendant, but in 1922 Greig "procured" for him an assistant from Dundee - an achondroplastic dwarf, James Jack. There was no question of Greig's fascination for achondroplasics and there are in the College a large number of clinical photographs of the new assistant. However, James Jack long outlived David Greig and at a much later date, still working in the College, he pronounced: "He didn't get me, and he's deid".

The policy that all specimens in the collection should be on exhibition was continued but the acquisition of many new specimens led to marked overcrowding within the Museum so that many specimens had to be displayed by attaching them to walls and pillars.

In 1925 Greig assumed the additional duties of Librarian. This task was probably deemed to be possible since he had the assistance of a secretary, Miss Brown, who later became Assistant Librarian on a fulltime basis. During the earlier part of his conservancy Greig

arranged a number of demonstrations for postgraduates. In the 1920s, following the war, private tutorial courses in surgical pathology were conducted in the Museum by Charles Whittaker using Museum material for illustration.

Later, comparable courses were conducted by Illingworth and Dick, and Bruce and Aird. This practice continued until the outbreak of the Second World War. The merit of these courses is shown by the fact that each produced its own published book.

Whittaker contributed to the Catechism Series with a book on -Operative Surgery-, Illingworth and Dick produced a popular "Textbook of Surgical Pathology" in 1932 which was largely illustrated by photographs of specimens from the Museum, and Ian Aird's "Companion in Surgical Studies" - was based upon the notes of the courses which he had given in conjunction with John Bruce. Other lecturers who carried out tuition work were Miss A McGregor and Mr H C Orrin.

After the war postgraduate teaching of surgery became the responsibility of the Post-Graduate Board for Medicine. However, certain courses and demonstrations were still conducted within the Museum.

Research

During his period as Conservator, Greig was actively engaged in research based upon a meticulous study of specimens within the collection. From his pen flowed many articles mostly published in the Edinburgh Medical Journal and often based on the more esoteric abnormalities of structure and form. Greig was impressed with the work of Leriche and Policard and published a monograph on this subject in 1931 (Greig DM, Clinical Observations on the Surgical Pathology of Bone, Edinburgh: Oliver & Boyd. 1931).

It cannot be said that Greig was an easy writer to understand but his writings were always authoritative. The many articles based on his personal observations included:

Skull in osteosclerotic anaemia; Congenital kyphosis; Intertarsal developmental ankylosis; On symmetrical thinness of the parietal bones; The cephalic metastases of suprarenal blastoma in children; On the paramastoid process in the human subject and its association with deformation of the atlas and epistropheus; Congenital distal dislocation of the ulna; On the persistence of complete Wolffian ducts in female; Localised congenital defects of the scalp; A case of cleido-cranial dysostosis; Congenital anomalies of the foramen spinosum; Scoliotic vertebral osteosis; Congenital microcolon; Cleft sternum and ectopia cordis; Subcutaneous glomal tumours-painful subcutaneous nodule; Congenitally high scapula; Congenital and symmetrical perforation of both parietal bones; Hypertelorism; Schistoglossus and double tongue; Oxycephaly; The skull of the mongoloid imbecile; Abnormally large foramina parietalia; On intracranial osteophytes; Congenital scoliosis and dolichocephaly as correlated developmental defects; A Neanderthaloid skull; An unusual anatomical peculiarity of clinical significance of the transverse process of the atlas.

Greig willingly gave advice on research matters to younger Fellows. His comments on any written work submitted to him were always of merit even if expressed in terms sometimes uncomplimentary to the writer. Not least, he had an eye for spelling which was not in accord with the derivation of the word from the Creek.

David Greig's greatest contribution to the tradition of the office of Conservator was the manner in which, both by his personal effort and the help he gave to his colleagues, he demonstrated the research potential of the Museum collection.

He became seriously ill in 1936 and died in that year.

Charles Frederic William Illingworth



When Charles Illingworth was appointed Conservator in 1936 he already held an appointment in the Department of Surgery with Professor Sir David Wilkie and was a Surgeon of what later became the Western General Hospital.

His work as a lecturer and co-author of the "Textbook of Surgical Pathology" had made him very familiar with the Museum content and therefore well suited him for his new role. Illingworth's tenure of office was relatively brief and he had therefore little opportunity to make any major advance in the work of the Museum. He was particularly concerned, as certain specimens which were contributed during this period demonstrated, with the preparation of good teaching material.

On his appointment as Regius Professor of Surgery in Glasgow he resigned as Conservator in 1939.

VI. Living Pathology 1939-1955

John William Struthers 1939-1947

In May 1939 J W Struthers was appointed Conservator. Why this choice was made is not quite clear for Struthers was at the time Secretary to the College. It may well have been that the appointment was determined by the international situation.



On the outbreak of war it was decided that the specimens in the Museum would best be saved from the risk of damage by storing them in the basement of the College. They remained there until 1943 when it was apparent that the risks of air raids were diminishing and it was desirable that the College activities should, at least in part, be resumed.

During these years the only work conducted in the Museum was the repairing of damaged specimens by the one and only member of staff, James Jack. In addition Smith, the College Officer, and Jack undertook firewatching duties in the College buildings.

It was not until 1945 that the Museum Committee was again convened and consideration was given to the future. It was determined that a Conservator should be appointed on a whole-time basis and under conditions comparable with those which had held on the appointment of David Greig. There was a suggestion at this time that the Conservator might also be the Director of Postgraduate Studies; in the event this was not carried through.

With the demobilisation of members of the Edinburgh surgical staff immediately after the war, careful consideration was given to the future of postgraduate teaching. The Museum Committee had already agreed that tutorial teaching should be continued on lines similar to those carried out before the war.

After further and wider discussion it was determined to reactivate the Postgraduate Board which would represent the University and the two Royal Colleges and would be responsible for postgraduate instruction. Further, following the Goodenough Report in 1947 undergraduate teaching was no longer to be undertaken in the old School of Medicine. This accommodation then became available for postgraduate instruction and relieved the Museum from having to provide accommodation for classes although it remained unavailable for the postgraduate students who wished to study there.

J N J Hartley was appointed in 1946 but it was not until a year later that he assumed duties and the period of conservancy of J W Struthers ceased.

James Norman Jackson Hartley 1947-1955



J N J Hartley was an energetic and enthusiastic worker with a keen interest in pathology, especially its clinical application. He had trained under Professor Sir David Wilkie and had for many years been a successful practising surgeon in Carlisle. He was a firm believer in the essential unity of the clinical and the pathological aspects of disease and considered that pathological material could be studied meaningfully only in conjunction with the clinical aspects of the case

and the clinical investigations which had been undertaken. It was this concept of -surgical pathology- that determined his approach to his task as Conservator and characterised the work which he undertook.

Rehabilitation of the Museum

Although the Museum had been reopened and the specimens replaced in 1943 the work had been carried out under difficulties and with a very limited staff. It was not until Hartley assumed duties in 1947 that full rehabilitation of the Museum could be undertaken. This task entailed considerable technical conservancy.

Even prior to taking up his appointment the new Conservator was well aware of the magnitude of the task which faced him. After the long years of inactivity during the war the standard of conservancy had fallen and there were inadequate facilities to make this good. The only accommodation for photographic work was a converted cupboard in No 9 Hill Square and the apparatus was hopelessly inadequate. Finally there was serious overcrowding in the Museum and the acquisition of valuable new material from Mr J W Struthers, Mr J M Graham and Dr A Rae Gilchrist meant that the Museum facilities were overstretched.

Hartley requested and obtained two new members of staff, a full-time secretary and a qualified laboratory technician. These appointments were made in 1947. Because of the difficulties in housing the pathological collection consideration was given to alternative use of the Barclay Room and its collection of comparative anatomy, but a decision was not taken at this time. However, in 1953 it became possible to expand into a flat in No 4 Hill Square to which access could be gained from the Museum. This afforded new laboratory accommodation, new photographic facilities and a room for perspex work. It also provided a small demonstration room which could be used in conjunction with the Basic Science Courses organised by the Postgraduate Board. The arrangement of the new accommodation was carried out with the greatest care by the Conservator and his planning was exemplary. One of his innovations was the provision of a photographic service for Fellows. Initially the facilities were limited but it was the commencement of an expanding venture.

Hartley's interest in the relationship of surgical pathology to the clinical features of the case is evident in the manner in which he insisted on the fullest clinical details being incorporated in the records of all new specimens. Indeed, he was unwilling to accept specimens which were not fully detailed in their clinical history. A notable example of full documentation is seen in the work which he undertook with Dr A Rae Gilchrist and Dr R M Marquis, from whom a very valuable collection of material illustrating cardiac disease was acquired. These were associated with illustrations of both the radiological and electrocardiographical findings. This aspect of his work was recognised and in October 1950 the following note is recorded in the Minutes of the Museum Committee:

The careful clinical documentation and illustration of the new and many of the older specimens is greatly enhancing the value of the Museum to students of surgical pathology and the Committee gratefully acknowledging the work involved desire also to bring it to the notice of the College.

One way in which the services of Mr Hartley to the College were enhanced was by his nomination by the President to the Council on which he served for several years.

Postgraduate education

During the earlier part of Hartley's conservancy postgraduate teaching was difficult to organise but slowly it increased in volume. Under the Postgraduate Board a more formal programme of instruction was arranged and for the most part conducted in the vacated accommodation of the old School of Medicine. Consequently, formal classes were no longer conducted in the Museum and only two individual tutors continued to give tuition there, 1-1 C Orrin and A D Smith. In many ways the arrangements during this period were provisional and it was clear that further development and more systematic programmes were desirable.

Particularly during the presidency of Sir Walter Mercer, J N J Hartley was actively interested in the further development and provision of organised postgraduate teaching.

A college for instruction in Basic Sciences had been established in London by the Royal College of Surgeons of England in collaboration with the University of London and there were suggestions that a comparable centre could with advantage be established in Edinburgh. It was envisaged that this might be organised by the College. Accommodation could be found in the old School of Medicine. It was anticipated that the College Museum would be closely linked with any division of pathology in this new Postgraduate School. In the event, as a venture for which the College of Surgeons was solely responsible, the programme could not be undertaken: the financial liabilities, both capital and recurrent, were beyond its resources.

The eventual solution was a tripartite agreement between the University, the Royal College of Physicians and the Royal College of Surgeons, leading to greater development and power of the Postgraduate Board.

Later, most of the old buildings were demolished and new accommodation was provided by funds from the Pfizer Foundation and from the Lister Trustees, thus providing Edinburgh with adequate and handsome accommodation for its [Lister] Postgraduate Medical School. These buildings were on ground belonging to the College and incorporated part of the old School of Medicine. Within this new School were Departments of Physiology, Anatomy and Pathology under the direction of senior lecturers appointed by the University for postgraduate teaching. These complex developments in postgraduate education do not directly affect the story of the Museum but they determined subsequent Museum policy. The Museum is independent of the Postgraduate Board but was a major facility for postgraduate students and represented the chief independent contribution of the Royal College of Surgeons to the Edinburgh Postgraduate Surgical School.

Hartley left his impress on the Museum by three major contributions:

1. The manner in which he restored the College from the difficulties of its wartime interlude and gave it once again a valuable Museum for the instruction of postgraduate students and where Fellows could obtain much research material.
2. The initiation of a photographic service not only to meet Museum needs but also to help the work of Fellows.
3. The introduction of the concept that the Museum should present to the student the "whole" picture of a disease both clinical and pathological. He appreciated the significance of the term "living pathology".

In the Minutes of the Museum Committee, October 1952, a very delicate and at the same time very true assessment of Hartley's work is recorded:

Finally the Committee would like to assure the College that the Museum is being efficiently managed and kept up to date by its enthusiastic and energetic, if somewhat retiring Conservator.

VII. The Conservancy of David Eric Cameron Mekie, 1955-1974

There have been several outstanding Conservators of the Museum of the Royal College of Surgeons of Edinburgh and it must be apparent both to those who have worked with him and to those who read this brief account of his stewardship that Eric Mekie is undoubtedly among that number.

His conservancy began in 1955 at a time when the Museum housed and displayed one of the largest collections in Great Britain of pathological, anatomical and historical material.



It had been the traditional policy that all items in the collection should be on exhibition, but by 1955 the collection had outgrown available display space. The overcrowded shelves and the added brackets created an effect which was disturbing and unpleasing, obscuring the architecture of the hall and diminishing the significance of individual exhibits.

It was decided to pursue a policy of selective display, the items chosen being representative of the lesions which could be characterised by the term "surgical pathology" and which were of particular interest to the postgraduate student. Some rarer lesions were included in the display but most esoteric conditions and all duplicate specimens were put in reserve for the use of research workers and for examinations.



The success of such a system depended upon easy and reliable retrieval and to this end a new form of classification was introduced with a fixed and permanent index number for each specimen based on the site and nature of the disease, its aetiology and presence or absence of complications or variations.

The General Catalogue was revised and reconstructed to include all the specimens and so to supersede all previous catalogues and become the one authoritative record of all material in the Museum. The General Catalogue number and the pathological index number were cross-referenced and filed separately.

The Historical Collection

As many of the specimens of comparative anatomy in the original Barclay Collection were irrelevant to the present purposes of the Museum it was decided to select the most appropriate specimens and combine them with the other items of the historical collection of the College, including some on permanent loan from the Anatomy Department of the University of Edinburgh, for display in the Barclay Room and its gallery. Here are remembered such personalities as Liston, Syme, Knox, Simpson, Lister and Struthers and in more modern times, Wade, Logan Turner, Hogarth Pringle and Wilkie.

The Menzies Campbell Collection

The value and interest of the Historical Collection were greatly extended by the donation in 1965 by Dr J Menzies Campbell, a dentist of distinction in Glasgow and an outstanding dental historian, of his unique collection of historical material. It was given, and accepted by the College as a "closed" collection and is now displayed in its own room at the east end of the gallery of the Barclay Room (Fig 11). Dr Menzies Campbell personally catalogued his collection and presented a principal copy to the Museum.



The Radiological Collection

This was begun in 1970 and has been developed with the help of Dr W A Copland. A bequest from the late Mr Bruce M Dick was used to adapt the room which had originally been the Museum workshop and later the staff room and the viewing equipment was donated by Kodak. Whole plate reproductions of the original X-rays are mounted in special volumes and these are accompanied by quarter plate prints on which are indicated the points to which the student should direct his attention and by such notes of the clinical and radiological features as are relevant (Fig 12). Also in this room is an exhibition of diagrams of fractures and dislocations seen in practice and a series of illustrative specimens.

The Histopathology Collection

In 1961 Dr E K Dawson, a pathologist of international repute and distinction, came to work in the Museum of the Royal College of Surgeons of Edinburgh. In addition to performing the diagnostic histology for Fellows she undertook a great deal of research work on the material in the Museum and donated to the College a large quantity of histological material including whole sections of breast and other organs some of which have been specially mounted for demonstration purposes. The opportunity afforded by the advent of Dr Dawson and the material she contributed was taken to build up a histological reference library which is available for consultation and for research workers and is housed in a room to which the name "Dawson Room" has been given.



The acquisition of the second floor flat (south) in No 4 Hill Square eventually led to the development of a photographic department and the appointment of a full-time professional photographer. These facilities were available to Fellows at a modest fee. The ground floor and basement of No 10 Hill Square were converted in 1962 for use as a store and general workshop. To meet other requirements of the College the ground floor was subsequently given up and the basement of No 2 Hill Square was fitted as a storeroom. In 1976 the top flat of No 4 Hill Square was converted for use as the Museum office and records department and to house the histological collection.

The Conservator's room and the room for mounting and for specimens awaiting mounting were transferred from No 9 to No 4 Hill Square and the space vacated was used to provide a large and a small demonstration room. In the latter are kept the catalogues and memorabilia of Sir Charles Bell and it was called the Bell Room.

Eric Mekie's conservancy began at a time when the traditional concept that a museum should house a comprehensive display of pathological rarities had become obsolete, when the requirements of the surgical student for self education had overtaken the instincts of the collector.

He was presented with a formidable task but, with his enthusiasm, practical wisdom and industry coupled with his natural gifts of clear exposition and uncomplicated administration, he was the equal to it. The period was one of radical change in both structure and function but with it a gradual development and modernisation of the Museum so that it now takes its place as an effective educational instrument of the College. [Text 1978]