

The Great Exhibition of 1851: Tracing the Scottish Contribution

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This article examines the sources that are available for researching the Exhibition of the Works of Industry of All Nations of 1851, commonly known as the Great Exhibition. It explores the development of the concept of the Exhibition, its practical administration and the interaction of its organisers with local government and business. Those sources which allow us to trace the Scottish involvement with and contribution to the Exhibition and its aftermath are explored in greater detail to highlight the specific Scottish contribution to its success. It highlights, in particular, key Scottish personalities both in the development of the Exhibition and its local promotion, and the role that the Exhibition played in binding Scotland and England closer together.

The Great Exhibition of 1851 was a defining moment in British history. It was the first International World Fair and it affected trade, manufacturing, patent law, tourism and the development of museums. The event grabbed the imagination of the whole country with over six million visitors during the 141 days that it was open. There were over 13,000 exhibitors and more than 100,000 exhibits. It was so successful financially that the Royal Commission for the Exhibition of 1851, which was the body charged with organising the event, still exists and continues to distribute the profits made 160 years ago. I will examine the Scottish contribution to the Exhibition and the archives which enable us to trace this.

The story of the Great Exhibition begins with the Society of Arts in London, set up in the 1750s by the London middle classes for the 'Encouragement of Arts, Manufactures and Commerce'. They held a number of small exhibitions during the 1840s and in the Minutes for May 1845 it was suggested that there should be a 'periodical Exhibition of the Works of Industry'.¹ Although Prince Albert, President of the Society, was very enthusiastic about this idea, he did not want it to be organised by the Society of Arts as he felt that it would difficult to get the country behind an exhibition that was thought to be arranged by a London elite. Also, he and those involved realised that to be perceived to be completely fair when awarding prizes, the organisers needed the sort of elevated status that only a Royal Commission could give them. So, although many of those associated with realising Albert's vision for the Exhibition were members of the Society of Arts, the organisation was kept completely separate. One of the people involved from the outset was the Secretary of the Society of

¹ Royal Society of Arts, AD.MA/100/12/91.

Arts, John Scott Russell, a Scottish naval engineer who had moved to London in 1844. He was as enthusiastic as Prince Albert and went on to become one of the first Commissioners for the Exhibition. Archives relating to the Society of Arts are kept in the Royal Society of Arts' own archive in London.

In order to gauge support for an exhibition, Albert sent Henry Cole, John Scott Russell and Francis Fuller to various manufacturing towns in the United Kingdom. Their reports are in the archives of the Royal Commission for the Exhibition of 1851. One from October 1849 by Cole and Fuller covers meetings held in Edinburgh, Glasgow, Paisley, Stirling, Perth, Dundee and Greenock. They detail the enthusiasm for the exhibition in Scotland and often quote individuals to illustrate this point. For example Sir William Johnston, the Right Honourable Lord Provost of Edinburgh, said: 'the proposal of the Prince was a most laudable one and would have an improving tendency in every way. The preparation for such an Exhibition would direct the mind of the whole world to the peaceful pursuit of industry and by friendly competition and generous reward would more closely than ever cement the amicable relations of all the nations of the earth.'² The success of the exhibitions of the Highland and Agricultural Society of Scotland and exhibitions of decorative manufactures in Glasgow was seen to auger well for the success of the Great Exhibition.³ The report then lists the Exhibition's promoters and subscribers in Scotland. Local newspapers also gave an indication of this support with a comment in the *Aberdeen Journal* on 19 December 1849 stating that 'it is an enterprise worthy of the country'. The enthusiasm in Scotland was typical of that in most of the United Kingdom and so Prince Albert requested the establishment of a Royal Commission to pursue these ideas.

The Commission came into being by Royal Charter on 1 January 1850. A group of Commissioners was appointed and also a small Executive Committee who could work full time for the Commission. There followed a series of committees, comprised of Commissioners and others, who were to organise various aspects of the Exhibition such as, for example, the subscription committee and the building committee. In addition there was the working-class committee, who were responsible for encouraging participation among the working classes and for ensuring that there would be suitable, affordable facilities for them when they visited London. One of the people heavily involved in the organisation was Lyon Playfair, a Scot who had been to school and university at St Andrews and then moved to London in 1838. He was largely responsible for devising the classification system for showing and judging, whereby all exhibits were divided into 30 classes and then into numerous smaller subdivisions. After his involvement in the Great Exhibition, Playfair moved to Edinburgh

² Royal Commission for the Exhibition of 1851, H/1/1/37, Cole and Fuller Report, October 1849.

³ A discussion of the role that earlier English exhibitions played in encouraging support for the Great Exhibition can be found in T. Kusamitsu, 'Great Exhibitions before 1851', *History Workshop*, 9 (Spring 1980), 70–89.

as Chair of Chemistry in 1858 and in 1868 was elected to Parliament as the first representative of the Universities of Edinburgh and St Andrews. There are some papers pertaining to him in the Royal Commission's Archive but the main collection of his papers is in the archives at Imperial College London.⁴

One of the problems confronting the Commission in 1850 was the selection of a suitable building for the Exhibition, permission already having been granted to site a temporary structure for this purpose in Hyde Park. An open competition was held by the Commission's Building Committee who set out the rules for the design, including listing which trees needed to be preserved and suggesting a single-storey building, top-lit and made from fireproof materials. From a total of 253 entries received, six were from Scotland, namely Robert Sandeman and D. Erskine, both of Edinburgh, David Forbes and W. Rankin, both of Stirling, G. Campbell Smith of Banff and James Wylson of Glasgow.⁵ Some of the designs appeared in publications at the time and a few drawings are at the Victoria and Albert Museum, but most do not survive. The Commission's Archive only contains a list of those who submitted entries rather than any of the designs themselves. In the event, none of these 253 competition entries was used and the Building Committee opted instead for a design by Joseph Paxton for a 'Crystal Palace'.

In order to organise the Exhibition, the Commission established a system of local committees throughout Great Britain. The minutes of the second meeting of the Commission state that the 'functions of the local committees will chiefly consist in the recommendation of local Commissioners to represent the interests of their locality, in the organization and collection of subscriptions, in encouraging the production of suitable objects for exhibition, in affording information in the locality relative to the Exhibition and in facilitating the means of visiting it'.⁶

The Exhibition was completely funded by subscriptions and the £300,000 reserve fund which had been established in case there was a shortfall did not need to be touched. The Archive of the Commission contains details of the local committees and the amount of subscriptions that they raised (Table 1). The £2,400 in subscriptions from Glasgow was second only to Manchester's £4,000, followed by Leeds where £1,600 was raised. Unfortunately, the Commission's Archive does not contain details of the individuals who contributed although local sources do give occasional details. For example, the *Caledonian Mercury* reported on 31 January 1850 that the Merchant Company of Edinburgh had made a donation.

Although there are no archives created by local committees at the Commission, there are lists of the names of their secretaries, chairmen and treasurers, as well as the amount of space allotted to them inside the Crystal

⁴ Imperial College Archives, GB0098 B/Playfair.

⁵ Royal Commission for the Exhibition of 1851, F/3/1/1, *First Report of the Commissioners for the Exhibition of 1851*, 1852.

⁶ Royal Commission for the Exhibition of 1851, C/1, Minute Book, 1850–71, p. 7.

Place	Amount	Place	Amount
Aberdeen	£190	Galashiels	£60
Arbroath	£1 11s.	Glasgow	£2,400
Cupar	£18 10s.	Greenock	£100
Dalkeith	£6 3s. 6d.	Jedburgh	£13 6s. 7d.
Dumbarton	£80	Kelso	£21
Dumfries	£140	Kilmarnock	£44 10s.
Dunbar	£11 9s. 8d.	Kirkcaldy	£68 10s. 3d.
Dundee	£100	Paisley	£126 8s.
Dunfermline	£133 1s.	Perth	£40
Edinburgh	£300	Selkirk	£24
Elgin	£21 14s. 4d.	Stirling	£80
Falkirk	£3 5s. 1d.		

Table 1 Subscriptions from Scotland (Royal Commission for the Exhibition of 1851, F/3/1/1).

Palace and how many exhibitors came from their area. There are a number of letters from local committees including ones printed in the Commission's minutes and there is some information in local newspapers about the local committees. The *Dundee Courier* of 25 September 1850, for example, lists those responsible for selecting items for exhibition. The Commission has various cuttings although many of these are from the London papers and so tend to focus on the metropolitan local committees.

Although the mayors and provosts of towns were usually involved in local committees for their areas, the committees were generally separate from local government. This means that there tends to be very little information in the local government records. The local committees were usually comprised of leading manufacturers, businessmen and occasionally MPs with the most important members becoming local Commissioners. For example, the local committee for Dunfermline included J. B. Smith and J. Ferguson, both MPs. The leading lights in the Clackmannanshire subcommittee were J. and D. Patton, wool manufacturers.⁷ However, there are occasional references, such as in the Stirling Town Council Minutes for 22 April 1850⁸ when thanks are recorded to Provost Sawyer who had visited London at his own expense to attend the banquet held in honour of the Exhibition. Another exception is Perth where the local committee was dominated by the town council and papers relating to the local committee, including some minutes and correspondence, appear

⁷ Royal Commission for the Exhibition of 1851, F/3/1/1.

⁸ Stirling Council Archive, SB1/1/1, Town Council Minutes, 22 April 1850, p. 134.

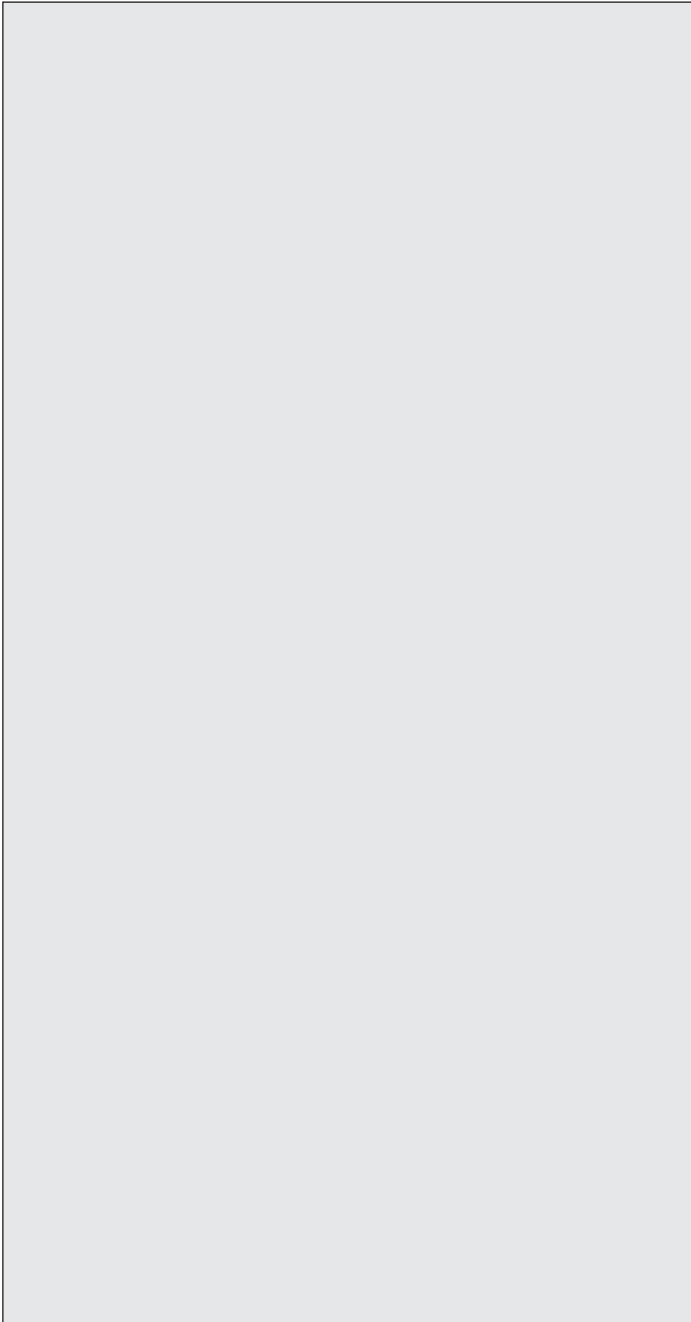


Plate 1 Plan of Woollen and Worsted Classes showing exhibits from Scottish cities, 15 February 1851 (Royal Commission for the Exhibition of 1851, E/1/7).

in the Council records.⁹ In Stirling, some of the records for the Stirling Local Committee, Clackmannanshire Subcommittee and Alloa Committee survive but have come to the Stirling Council Archives as a private deposit, not as part of the local authority records.¹⁰ However, this is not the norm.¹¹

Although the local committees consisted of the affluent in each area, they were very keen that the working classes should feel involved and should visit the Exhibition. Local committees submitted details to the Commission of how they were dealing with the working classes and these are included in the Commissioners' minutes for 16 May 1850. In Aberdeen, a committee of twelve working-class men was going to be set up; in Dundee, the provost was going to meet with the working classes; in Stirling, a committee of 32 men was set up to furnish information about the Exhibition and to help the less wealthy to visit it. In Edinburgh, the local committee reported that there would be separate meetings for the different trades and that the trades themselves had declared that they would raise 10,000 sixpences from working men towards the cost of the Exhibition.¹²

The exhibits were divided into 30 classes and the locations of these classes inside the Crystal Palace were carefully mapped out. Some of these plans are in the Commission's Archive. Most indicate where the different classes of exhibits were to be shown but some break this down further by town. So, for example, there is a plan which shows the location of fabrics from Glasgow. The plan of classes twelve and fifteen, 'Woollen and Worsted' (Plate 1), shows the location and size of exhibits including those from Galashiels, Glasgow, Edinburgh, Aberdeen, Perth, Elgin, Paisley, Selkirk and Stirling. The plan for 'Flax and Hemp' shows exhibits from Aberdeen, Glasgow, Kirkcaldy, Dundee, Greenock and Dunfermline.¹³ Dunfermline had more space than any other town in this class except Belfast. The plan for class fifteen, division two, 'Shawls' shows a very large area allocated to Paisley.¹⁴ From these plans and the lists of subscriptions raised it can be seen that there was no direct correlation between contributions and the amount of space occupied at the Exhibition. Indeed some areas, such as Cupar, raised money but sent no exhibitors.

The day-to-day organising of the Exhibition is detailed in three main series

⁹ Perth and Kinross Council Archive, PE15 Bundles 310 and 311, PE16 Bundle 491.

¹⁰ Stirling Council Archive, PD80.

¹¹ My thanks to the Scottish local archivists for their assistance in tracing the records of local committees and other material relating to the Great Exhibition. Special thanks to Robin Urquhart, National Records of Scotland; Pam McNicol, Stirling Council Archives; Steve Connelly and Jan Merchant, Perth and Kinross Archives; and Ian Flett, Dundee City Archives.

¹² Royal Commission for the Exhibition of 1851, 8/A/2/1, Minutes of the Proceedings of Her Majesty's Commissioners for the Exhibition of 1851, 1850–52, p. 172.

¹³ Royal Commission for the Exhibition of 1851, E/1/8, Flax & Hemp, n.d.

¹⁴ Royal Commission for the Exhibition of 1851, E/1/9, Class 15, Division 2, Shawls, 12 February 1851.

of records held by the Commission. The first series is the Commission's minute books where there is a complete run from the first meeting on 11 January 1850 to the present day.¹⁵ The second is a series of incoming correspondence, which is very comprehensive. This includes 250 letters for 1850, 874 for 1851 and 55 for 1852. These include negotiations to allow for the exemption in custom duty of goods being imported for the Exhibition; requests to London institutions such as the Bank of England, Woolwich Arsenal, Bedlam Hospital, Westminster Abbey and the Tower of London, to receive visitors during the Exhibition; correspondence regarding the choice of the Hyde Park site, the choice of builder and ongoing construction of the Crystal Palace; the arrangements of the local committees and establishment of the central organisation; and, the aftermath of the Exhibition.¹⁶

One letter in this series is from Shetland and gives a lovely insight into the working of the Exhibition and a, fortunately uncommon, breakdown in the system. James Copland wrote to the Commission in August 1851 to say that a box of items, mainly manufactured by 'poor females' was sent from Shetland to the Exhibition. On arrival it was 'entered as received in the books kept at the Exhibition' and admitted by the Superintendent. However, when Dr Copland arrived to exhibit the goods, the box could not be found. It was only located a month after the Exhibition had opened and, at that stage, eight of the twelve exhibits were found to be missing. Dr Copland therefore wanted to claim £15 compensation; annotations on the reverse of the letter suggest that £10 was paid.¹⁷ This is one of the few letters from exhibitors expressing problems and it does appear that, on the whole, the receiving of goods progressed smoothly.

The third series of records is Prince Albert's correspondence,¹⁸ which is on permanent loan from the Royal Archives at Windsor Castle and contains incoming and outgoing correspondence appertaining to the Great Exhibition. These were usually written by secretaries on his behalf and illustrate how involved Prince Albert was with the organisation of the Exhibition. He was consulted about even the smallest details. In one example, Lord Granville, Vice-Chairman of the Commission, writes to Colonel Grey, Prince Albert's private secretary, and describes load testing the floors of the galleries by rolling 252 cannon balls over them.¹⁹ On the next page it is reported that 'the contractors have given up all hope of the £1,000 [the bonus available for meeting their targets]. They say they have hired all the scaffolding in London but cannot get enough'. This was written on 11 March 1851, less than two months before the opening of the Exhibition. Further correspondence remains at the Royal Archives.

¹⁵ Royal Commission for the Exhibition of 1851, C.

¹⁶ Royal Commission for the Exhibition of 1851, A.

¹⁷ Royal Commission for the Exhibition of 1851, A/1851/409 and 410, Letters from James Copland, n.d. and 11 August 1851.

¹⁸ Royal Commission for the Exhibition of 1851, H/1.

¹⁹ Royal Commission for the Exhibition of 1851, H/1/6/26, Lord Granville to Col. Grey, 11 March 1851.

Place	Exhibitors	Place	Exhibitors
Aberdeen	63	Galashiels	13
Arbroath	4	Glasgow	129
Dalkeith	1	Greenock	7
Dumfries	14	Jedburgh	1
Dunbar	1	Kilmarnock	7
Dundee	23	Kirkcaldy	9
Dunfermline	8	Paisley	36
Edinburgh	157	Perth	23
Elgin	6	Selkirk	2
Falkirk	7	Stirling	27

Table 2 Exhibitors from Scotland (Royal Commission for the Exhibition of 1851, F/3/1/1).

The Great Exhibition opened on 1 May 1851 and from then until its closure on 11 October that year, very detailed statistics were maintained. These were recorded in the Commission's *First Report to Parliament* and from this we can see the temperature inside the Crystal Palace each day, the number of people attending each day, the number of people visiting the toilets and the number of exhibitors from each country including Scotland (Table 2). This gives a total of 538 Scottish exhibitors, which is about 15 per cent of the total number of exhibitors from the UK at a time when Scotland had about 8 per cent of the UK population.

A number of medals were awarded at the end of the Exhibition. There was one for jury members and local committee members, an Exhibitors medal, a Prize medal and a Council medal awarded to outstanding exhibits. Complete sets were also given out to commemorate the Exhibition and Edinburgh is on the list of places receiving one such set.²⁰ The moulds for the medals are at the Victoria and Albert Museum in London.

Information about exhibitors and exhibits can be found in various catalogues that were produced though these list all British exhibits together rather than having a specific section on Scotland. The *Reports of the Juries* also give quite detailed descriptions of medal-winning exhibits. For example P. Lawson and Son won a Council medal. Their exhibit is described as:

ear, grain etc of every variety of cereal and also models of all the roots which it has been found practicable to cultivate in Scotland: the specimens are beautiful and the arrangement scientific and excellent. No consideration of cost or trouble has been allowed to interfere with providing all that is necessary to render this

²⁰ Royal Commission for the Exhibition of 1851, 8/A/2/1, p. 441.



Plate 2 Display by P. Lawson & Son (Royal Commission for the Exhibition of 1851, F/6/2).

collection a true and complete illustration of the vegetable products of Scotland. A Council medal has been awarded to Messrs Lawson for their admirably displayed, very complete, instructive and scientifically arranged collection of the alimentary products of Scotland.²¹

The Commission's version of the *Reports of the Juries* contains a photograph of the Lawson display (Plate 2). There is a series of prints by Dickinson²² in which individual exhibits can sometimes be seen and there are illustrated catalogues such as the *Art Journal Catalogue*.²³ Exhibitors were asked to furnish the Royal

²¹ Royal Commission for the Exhibition of 1851, F/6/2, p. 51.

²² Royal Commission for the Exhibition of 1851, F/2/2, *Dickinson's Comprehensive pictures of the Great Exhibition of 1851, from the originals painted for His Royal Highness Prince Albert, by Messrs. Nash, Haghe and Roberts RA. Published under the express sanction of His Royal Highness Prince Albert, President of the Royal Commission, to whom the work is, by permission, dedicated. London: Dickinson Brothers, Her Majesty's Publishers, 114 New Bond Street. MDCCCLIV.*

²³ Royal Commission for the Exhibition of 1851, F/1/1/5, *The Art Journal Illustrated Catalogue. The Industry of All Nations 1851. London: Published for the Proprietors, by George Virtue, 1851.*

Commission with copies of their current trade catalogues of which the Victoria and Albert Museum has an extensive collection.²⁴

Sometimes a business's own records may have details about their exhibits and, where they exist, local committee records may include information. For example, in Perth, there are requests from Charles Gibson and Thomas Gorie for space at the exhibition.²⁵ However, the Commission's minutes and correspondence contain little information about individual exhibitors, as communication tended to be with the local committees rather than directly with exhibitors. Local newspapers give details of some exhibits, such as curling stones mentioned in the *Caledonian Mercury*, 24 February 1851, and the gas and steam-generating apparatus in the *Glasgow Herald*, 10 March 1851. These sources can be used to research the development of specific companies or industries.²⁶

It can be seen that Scotland's involvement in all aspects of the Great Exhibition was extensive. The idea of an exhibition was more popular in England and Scotland than in the rest of Britain and the organisers visited Scotland on a regular basis. In his book *The Great Exhibition: A Nation on Display*, J. A. Auerbach suggests that the exhibition acted to bind England and Scotland more closely. He states that it could be seen as propaganda: 'This liberal, Peelite, free-trade enterprise that was largely English, not British, nevertheless came to be seen as a non-partisan national event'.²⁷ Even some of the exhibits expressed nationalistic themes and 'created and diffused a national image: that England, Wales, Scotland and Ireland together constituted one nation'.²⁸

The Great Exhibition made a surplus of £186,000 and so the Royal Commission was given a supplemental charter on 2 December 1851 to enable it to remain in existence and to use these funds 'to increase the means of industrial education and extend the influence of science and art upon productive industry'.²⁹ The Commissioners asked for ideas as to what should happen to the money. Among the many responses listed in the Commission's *Second Report to Parliament*³⁰ are those from Glasgow Mechanics Institution, Glasgow Anderson's University and Paisley Mechanics Institution who all thought that the money should go to Mechanics Institutions and schools of design, and the Royal Scottish Society of Arts, who thought that £10,000 should be granted to them for a new building. In the Commission's correspondence there is a letter

²⁴ National Art Library, Victoria and Albert Museum, EX.1851.124–35.

²⁵ Perth and Kinross Council Archive, PE15 Bundle 311.

²⁶ In 'Coal Furniture in Scotland', *Furniture History*, 23 (1987), 36–7, David Jones uses the Exhibition Catalogue to trace a coal chair by Williamson which is now at Osborne House.

²⁷ J. A. Auerbach, *The Great Exhibition of 1851: A Nation on Display* (Yale, 1999), 87.

²⁸ *Ibid.*, 113.

²⁹ Royal Commission for the Exhibition of 1851, 8/C/2, Supplemental Charter, 2 December 1851.

³⁰ Royal Commission for the Exhibition of 1851, F/3/1/2, *Second Report of the Commissioners for the Exhibition of 1851 to Parliament*, 1852.

from Glasgow Anderson's University requesting that some of the surplus fund be used to finance a new scientific institution there.³¹

However, the Commissioners bought instead an 87-acre site in South Kensington in London which they envisaged would become a centre for manufacturing, arts and education. There were many designs for this site from people such as James Pennethorne, C. R. Cockerell (who designed the National Monument in Edinburgh with William Henry Playfair) and Gottfried Semper. Prince Albert also had his own ideas for the development of the site. In the event, the estate was not developed on the lines of one of these grand designs but progressed in a much more piecemeal way. Over the next few years, the Commission helped to establish the Victoria and Albert Museum, the Science Museum and the Natural History Museum, the Royal Albert Hall and institutions such as Imperial College and the Royal Colleges of Music and Art. The continuing link between the estate and the Exhibition is illustrated by a letter in the Perth Council Archives stating that the provost of Perth was not invited to the opening of the Royal Albert Hall in 1871 because Perth had not given £100 to the Great Exhibition.³²

The estate has changed over the years as the Royal Commissioners are no longer ground landlords for the museums, but they continue to be landlords for some private tenants, the Royal Albert Hall and Imperial College, the latter two paying a fixed peppercorn rent for their 999-year leases.

Money from the Commission's investments is used to support an educational programme which involves the distribution of about £2 million of bursaries each year. Established in 1891, these educational schemes have some very eminent alumni including seven holders of the Order of Merit, four Presidents of the Royal Society, plus over 150 of its members and thirteen Nobel Laureates, the most recent being Peter Higgs, Emeritus Professor of Physics at Edinburgh University. The Commission's Archive holds a file on each alumnus containing his application form, correspondence, references, and often reports written at the end of each year of the award as a condition of its terms. Scottish award holders have included Alexander Todd, who went on to become Chancellor of the University of Strathclyde, and J. C. Irvine, who was Principal and Vice-Chancellor of the University of St Andrews. They join many other Scottish scientists who have been in a position to further the cause of science in Scotland and around the world largely because of their 1851 scholarship. In turn, they continue Scotland's contribution to the Commission; both Todd and Irvine served as Commissioners for many years.

After the 1851 Exhibition there were further events, the next being in 1862. However, although the Commission gave the site for this exhibition, they did not organise it. In the end, it was managed by a separate Commission with very close links to the Royal Society of Arts (RSA). The 1851 Commission holds the

³¹ Royal Commission for the Exhibition of 1851, A/1851/840, Letter from William Murray, 6 December 1851.

³² Perth & Kinross Council Archive, PE16 Bundle 491.

charter confirming the 1862 Commission but most of the archives are at the RSA and The National Archives. The Victoria and Albert Museum also holds some material and indeed they collect material relating to all world fairs.

The Great Exhibition of 1851 can be described as a defining moment in many aspects of life: trade, registration of patents, tourism, and growth of museums, to name but a few. Despite the English and particularly metropolitan bias of its organisers, it is clear that Scotland played a major role in its success, in providing key personnel and engendering wide participation across the country. The Commission's Archive and local sources can be used to research the involvement of individuals, the development of products and industries, the extent of the participation of specific towns and the role of the Exhibition in cementing the idea of Britain and Empire. Although there are archives relating to the Exhibition in a number of different places, the Royal Commission archive is the most comprehensive collection and is a good place to start any research.