MIKE BALDWIN

The Erat Harp Manufactory: Painted and Gilded Decoration 1821–1826

Interest in early nineteenth-century pedal harps has grown over the past twenty years. The 1994 International Harp Symposium (IHS), marking the 200th anniversary of Sébastien Erard's (1752–1831) single-action harp patent, included an examination by Rudolf Frick of Erard's Swiss origins, and an assessment by Rainer Thurau of Erard's harp action. A 1995 article by this author shows, by reference to Charles Groll's 1807 patent for double-action harp with fourchettes, that Groll was the first to develop a double-action version of the single harp action patented by Erard in 1794. Ann Griffiths's biography of Erard examines the Erard family and company. Moira Bonnington's genealogical study

of the Haarnack harp-making family, using trade directories, census information and newspapers, is the first to investigate a nineteenth-century London maker other than Erard.⁴ Mike Parker's *Child of Pure Harmony* discusses developments in single-action harp design in relation to playing technique.⁵ Robert Adelson, Alain Roudier and Francis Duvernay's 'Rediscovering Cousineau's Fourteen-Pedal Harp' examines a recently rediscovered instrument and identifies Cousineau as the originator of the double action (an accolade erroneously attributed since 1810 to Sébastien Erard) as early as 1782;⁶ and letters from Pierre Erard (1794–1855) in London to Sébastien in Paris have been the focus of research

¹ Rudolf Frick, 'Die schweizer Ursprünge de Familie Erard', *Harpa* 18 (1995), pp.15–17.

² Mike Baldwin, 'The Inventor of the Double Action Harp with Fourchettes: Groll versus Erard,' *FOMRHI Quarterly* 79 (1995), pp.29–34. Mike Baldwin, *The Mechanisation of the Harp: 1700–1840*, BSc Dissertation, London Guildhall University, 1995, examines harp development (1794–1845) through British patents.

³ Ann Griffiths, 'Erard', in Stanley Sadie ed., *The New Grove Dictionary of Music and Musicians*, second edition (London: Macmillan, 2001), vol.8, pp.276–78.

⁴ Moira Bonnington, 'The Oldest Harp Maker in the World!', *The Galpin Society Journal* LIV (2001), pp.45–55. Christian Haarnack (*b*1774) joined the Erard company, probably as an apprentice, as early as 1786, and by 1808 was head machinist; his son, Henry Haarmack (1808–1890), trained under his father before opening his own business in 1834. The Haarnack company ceased trading in 1926.

⁵ Mike Parker, *Child of Pure Harmony* (London: Author, 2005).

⁶ Robert Adelson, Alain Roudier and Francis Duvernay, 'Rediscovering Cousineau's Fourteen-Pedal Harp', *The Galpin Society Journal* LXIII (2010), pp.159–78.

culminating in their publication.7

An exhibition at Le Palais de Lascaris in 2011 celebrated the bicentenary of the registration of Erard's 1810 double-action patent.⁸ An article by Jenny Nex in the catalogue of that exhibition traces the introduction of the double-action harp in London through the analysis of the Erard ledgers; and ongoing work by Nex examines Erard's workshop accounts (1807–1809).⁹ The present article, which forms part of a larger research project centred on the Erat papers, is the first detailed assessment of early nineteenth-century harp decoration.¹⁰

THE ERAT COMPANY AND DOCUMENTS

The author's discovery in 2007 of a substantial body of documents pertaining to the Erat company, comprising an accounts journal (1821–1824), cashbook (1821–1826), inventory (1824), property leases (1812, 1816 and 1821), and the last will and testament of Jacob Erat (i) (1768–1821), opens a window on a major London harp manufactory during the 1820s. These documents, catalogued as 'Master Horne's exhibits: Sharp versus Erat', were retained after a chancery court case between George Sharp (one of the executors of Erat's estate) and the Erat family, following Jacob Erat's death, where they served as evidence. The reasons for litigation are unclear and only partial court records of the

case survive.¹² The Chancery Master's exhibits, from 1085 to c1900 and made up of a wide range of private papers, were passed on by each Master to their successor; Horne was the seventh and final Master of the Courts of Chancery (1839–1853). Although the accession date is unrecorded, it is probable that the Erat documents were transferred from the Courts of Chancery to the Public Record Office sometime after 1839.¹³ An old but undated tag, stamped 'Chancery Master's Exhibits, Horne 63,' formerly tied to the tape used to tie the documents, is now loose in the archive box with the Sharp versus Erat papers.

The Erat manufactory, founded by Jacob Erat (i) at 100 Wardour Street, Soho, is first recorded in an advertisement in the *Times* of 3 January 1798. ¹⁴ In 1819, the Erat manufactory moved a short distance to 23 Berners Street. ¹⁵ Comparison of a brief description of the Wardour Street premises in a lease (dated 30 March 1820) and a more detailed inventorial description of 23 Berners Street in 1824 (discussed briefly below) suggests business growth and a rise in social status. The new house initially provided additional space for both the family and manufactory. A photograph of 23 Berners Street taken in *c*1930 (see Figure 1 below) depicts a three-bay, four-storey late eighteenth-century brick house, with a grand portico entrance and dark-painted

⁷ Laure Barthel, Alain Roudier and le Comité Scientifique de L'Association Ad Libitum, *Mon bien cher Oncle: Correspondance de Pierre Erard à Sébastien Erard, vol.I, 1814–1817* (Geneva: Éditions Minkoff, 2006); Laure Bartel, Robert Adelson, Alain Roudier and le Comité Scientifique de L'Association Ad Libitum, *Mon bien cher Oncle: Correspondance de Pierre Erard à Sébastien Erard, vol.II, 1818–1821* (Etobon: Editions Ad Libitum, 2009); and Laure Bartel, Robert Adelson, Alain Roudier and le Comité Scientifique de L'Association Ad Libitum, *Mon bien cher Oncle: Correspondance de Pierre Erard à Sébastien Erard, vol.III, 1822–1831* (Etobon: Editions Ad Libitum, 2010). See also the website of the Centre Sébastien Erard, http://www.sebastienerard.org

⁸ Exhibition at the Musée du Palais Lascaris, Nice, 30 March–29 October 2012: 'Erard and the Invention of the Modern Harp, 1811–2011'. Exhibition catalogue: Robert Adelson, Laure Barthel, Michel Foussard, Jenny Nex and Alain Roudier, *Erard et l'invention de la harpe moderne 1811–2011* (Nice: Ville de Nice, 2011).

⁹ Nex's initial assessment of the Erard workshop accounts was presented at the 2009 Galpin Society Conference, Edinburgh.

¹⁰ An initial study, Mike Baldwin, *The Erat Harp Manufactory: An Assessment of the Company Papers, 1821–1824.* MA Dissertation, London Metropolitan University, 2010, is being built upon in my current PhD research.

¹¹ The National Archives, Kew, TNA C 110/99 Master Horne's Exhibits: Sharp versus Erat, 1821–1826. TNA PROB 11/1640/314 Will of Jacob Erat, Harp Maker of Saint Marylebone, Middlesex, dated 3 March 1821.

 $^{^{12}}$ The National Archives, Kew, TNA C 13/2027/32 Courts of Chancery: Pleadings filed in the Six Clerks Office: Sharp versus Erat. Examination, 1828.

¹³ The Public Record office (now the National Archives) was created in 1838.

¹⁴ My thanks to Maria Cleary for bringing this information to my attention.

¹⁵ The piano maker Robert Stodart traded from two Wardour Street addresses during the 1790s and leased one of these (106 Wardour Street) to Thomas Sheraton in 1796, close to Erat at 100 Wardour Street. By 1821, the Stodart firm had moved to 1 Golden Square and 27 Berners Street, the later close to Erat at 23 Berners Street. Erat's proximity to Sheraton and Stodart, and his relationship with Broadwood, hints at a web of trade based relationship both within and outside of the musical instrument industry.



Figure 1. Rudall Carte & Co. Ltd, (c1930) at 23 Berners Street, formerly the Erat Harp Manufactory (London Metropolitan Archives, ref. SC/PHL/01/298-153).

stucco at ground floor level. Whereas the Horwood map (1792–1799) shows a garden and mews to the rear,¹⁶ an 1821 Sun insurance document refers to a 'manufactory behind.'¹⁷ The 1824 inventory nonetheless also refers to a 'back yard', indicating that the manufactory covered only part of the

former garden; but by the time of the later Goad Fire Insurance Map (31 years after the Erats had departed), it extended over the entire garden. That Erat's business also continued at Wardour Street is shown by renewal of the lease in 1820, and by trade directories which suggest a period of concurrent use ceasing three years after Jacob Erat's death. Despite the sub-letting on 1 September 1821 of 100 Wardour Street to John Mitchell, by Martha Erat (Jacob's widow and other executor) and George Sharp, the company continued to advertise and probably to operate from both addresses until 1824.

Following Jacob's death, the business was held in trust by his executors, Martha, and George Sharp (Professor of Music, also of Berners Street). Erat chose a third executor, the piano maker John Broadwood (1732–1812). Broadwood's death in July 1812 and the naming of all of Erat's children, the youngest born in June 1811, places the initial writing of his will between June 1811 and July 1812.²⁰ A clause in the will permitted the appointment of a new executor should one of the original executors die or wish to be relieved of their duties. There is no evidence to suggest a new executor was appointed to replace Broadwood.

Erat's eldest sons, Jacob (ii) (1799–1836) and James (1801–1858), succeeded to the business on Jacob's 25th birthday, 8 December 1825. The company continued producing harps until the death of James Erat in March 1858. Between 1821 and 1824 the Erat company produced on average 6.7 harps per month; according to their serial numbers, approximately 4,500 were made between 1796 and 1858. Although the number of employees is not recorded, inventorial and accounting information permits an approximate assessment of the size of the workforce.

The 1824 inventory, for instance, lists nine workbenches in the manufactory Smiths' Shop, with 'wages due on work in hand' recorded against five of them; three more are in the Wood Shop; and one further bench in [Mr] Maunder's Shop – a total of 13, indicating capacity for 13 employees. The cashbook records payment of travel expenses to Bradley, Challis, Sullivan, 'Mr Maunder', and a boy;

¹⁶ Richard Horwood, *Plan of the Cities of London and Westminster, the Borough of Southwark and parts adjoining, shewing every house* (London: Horwood, 1792–1799).

¹⁷ London Metropolitan Archives, Sun Fire Insurance Records MS11936/488/976442, dated 14 February 1821.

¹⁸ British Library, Goad Fire Insurance Plans, BLL01005006606, Sheet 232, dated 1885–1955.

¹⁹ Henry Kent Causton, Kent's Original London Directory: 1824(London: Henry Kent Causton, 1826).

²⁰ Erat's will was amended in approximately 1819 to include the relocation of the business to Berners Street and reveals that, at the time of his death, he was living at Park Street, Camden Town. A lease for this property, dated 5 June 1812, survives (TNA C110/99). The leasing of this property may have coincided with the writing of Erat's will. If this is the case the will may be dated between 5 June 1812 and 17 July 1812.

The Galpin Society Journal LXVI (2013)

and payment of wages to Merritt and Augustus – a total of seven employees. Including Jacob and James Erat, only nine individuals are named; additional journeymen may have been employed during busy periods.²¹

The journal and cashbook start on 21 February 1821 but are not coterminous. The 548 page journal (which extends to 28 June 1824) measures 420mm by 300mm by 65mm (the pages 410mm by 270mm). It is bound in brushed leather, with embossed foliate edges on the front and backboards. The spine is embossed with five black horizontal lines, spaced 60mm apart, and carries a red parchment label entitled 'Journal' in 9mm gold. The front cover is embossed with a 10mm gothic letter C in black. End sheets are marbled red and dark blue. A pasted label on the inner cover names J. Kirton of the General Stationary Warehouse, 1 Portland Street, Cavendish Square, as the supplier. The pages are printed with 45 feint horizontal lines at 8.4mm intervals; headers are 12.7mm high. Nine columns, recording the cost of individual items or services, measure (left to right): 127mm (entry number), 194mm (description), 15mm (pounds), 9mm (shillings) and 10mm (pence); a further four columns, ruled in red, measure 8mm, 13.5mm, 8mm and 13mm recording cumulative totals for each income stream. Running totals are carried forward at the top of each page. Pages are numbered consecutively 1 to 542, in copperplate script, top right on recto and top left on verso. The final four pages are unused and unnumbered.

The 156 page cashbook (which extends to 31 May 1826) measures 430mm by 170mm by 19mm (the pages 380mm by 162mm). The cashbook is bound in calf-skin; a black capital E is stamped on the front cover. The end leaves are of white paper, and the inner cover carries the same supplier's label as the journal.22 Five ruled columns measure (left to right) 23.5mm (date), 20.2mm (description), 12mm (£), 7.5mm (s) and 15mm (d). A header row on the first page, ruled in red ink, measures 26.5mm. Pages are numbered consecutively from 1 to 153. Two pagination errors are evident: page 80 and page 103 are repeated consecutively. There are typically 42 entries per page. Encompassing 63 months (21 February 1821 to 31 May 1826) and comprising 5,654 entries (each recording date, item or items purchased, and amount spent), the cashbook documents the daily purchases necessary for the

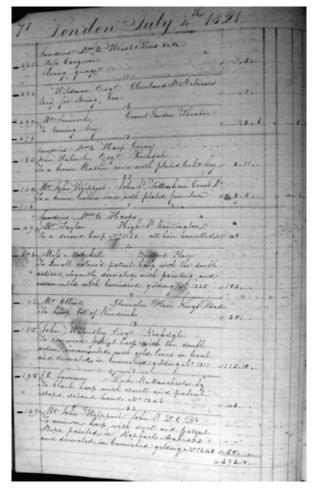


Figure 2. A typical page (p.71) from the journal, for 4 July 1821, showing details of harp sales, 'sundries to harps' (photo by the author, by permission of the National Archives).

manufacture of harps and administration of the business. Initially in regular use, with 1044, 1433, 1487 and 1353 entries in 1821, 1822, 1823 and 1824 respectively, the number of entries falls after Erat's sons take over the company to only 245 and 93 entries in 1825 and 1826.

The journal opens with an appraisal of liabilities and assets. Entries were made monthly, each categorised by type of transaction (such as strings, harp covers, repair to harps, harp hire, music desks and stool hire, harps, wrest pins, porterage, and cash). Although the date of entry heads each page, transactions are not dated individually. In addition to comprehensive monthly sales records, an annual year-end list of harp sales was entered on 31 December each year. The 275 harp sale entries

 $^{^{21}}$ In a forthcoming article I will trace the migration of Erard employees to other businesses in the second decade of the nineteenth century.

²² As the journal and cashbook start simultaneously, on 28 February 1821, it is likely that they were purchased together.

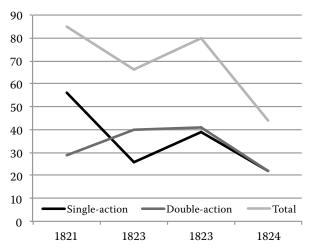


Figure 3. Sales by action-type for the period 1821–1824.

over 41 months afford extensive information about decorative finishes and manufacturing processes, analysis of which allows conclusions to be drawn about the specialised skills of the workmen and trends in taste. Whereas the decorative particulars of new harps sold (82) are described in detail, second-hand sales (129) are noted more cursorily. Of a further 64 harps which are not defined as new or second hand, 56 are described in detail, suggesting that they were probably new. The decoration of harps hired out to customers (371 payments pertaining to 162 instruments) is not described. All harp sale entries record the customer's name, address (sometimes abbreviated to the postal area), and the price paid. For example:

Mr John Weippert. John St. T. C. Rd [Tottenham Court Road]

To crimson harp with swell and patent stops, painted in Raphaels Arabesks and decorated in burnished gilding No. 1348 £50

John Weippert was a renowned harp teacher and composer for the instrument.²³

A full transcription of harp descriptions (in Microsoft Excel), preserving original spelling, has helped quantitative analysis. Spreadsheets, initially composed from year-end sales lists, were cross-referenced with the detailed monthly entries. The inclusion of income streams (harps sold; harps on hire) permits classification by type of transaction.²⁴ In a similar Excel transcription of the cashbook, entries have been classified by type.²⁵ Materials (pigments, gold leaf, and varnish) and tools are identified.

HARP SALES

Between 1821 and 1826 the Erat company produced two principal models of harp: the single-action (Empire model) based closely on Erard's 1794 singleaction patent,26 and the double-action (Grecian model), based on Erard's 1808 and 1810 doubleaction patents.²⁷ Of 275 harps sold between 1821 and 1824, single-actions accounted for 143 (52%) and double-actions 132 (48%); in other words singleand double-action harps were sold in approximately equal number (see Figure 3). Although Jacob Erat patented a double-action harp mechanism in 1813,28 which was used in a small number of instruments combining design features of the Grecian harp with decorative details referring to Etruscan pottery, there is no evidence that this harp was produced between 1821 and 1826. Erat was working on further innovations at the end of his life, but these were not successfully patented, and apparently were not produced. Pierre Erard, in a letter to his uncle Sébastien dated 8 January 1819 wrote, 'The patents of Willis and Erat which I opposed are still in abeyance, the attorney general not yet having given

²³ Weippert bought two harps during the journal period, one single-action (No.1348 on 4 July 1821) and one double-action harp (No.1413 on 3 March 1824); he also hired one single-action (No.819 on 2 May 1823). Repeat customers were common, accounting for 58% of sales, indicating that the Erat company supplied a network of harp teachers and music shops. Some harp teachers received commission. It is arguable that Weippert must have been a valued customer, since a cashbook payment of 7s 10d entered on 1 October 1821 records 'snuff for Mr. Weippert.'

²⁴ Categories used by the clerk include the serial number of the harp, the action type, whether the instrument was new or second-hand, a description of the mechanism, the colour, gilding type, decoration, the customer's name and address, the ledger date and the price paid.

²⁵ Categories used are: wages, taxes, travel, legal, carriage and shipping, domestic and housekeeping expenses, tools, gifts, services, sales, materials for the men, postage, publicity, music, materials, pigments, entertainment, employee expenses, commission payments, sundry expenses.

²⁶ Sébastien Erard, Certain improvements in the harp and pianoforte both large and small. No. 2016, (London: HMSO, 1794).

²⁷ Sébastien Erard, *Certain improvements upon pianofortes, large and small, and upon harps* (London: HMSO, 1808); and Sébastien Erard, *Certain further improvements upon pianofortes and harps* (London: HMSO, 1810).

²⁸ Jacob Erat, *Improvements in the construction of a pedal harp* (London: HMSO, 1813). Mechanically, Erat's 1813 mechanism combines Erard's 1794 *fourchette* innovation with elements of Cousineau's bequille action.

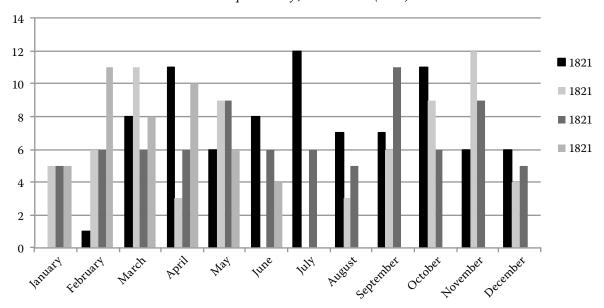


Figure 4. Harp sales by month for the period 1821–1824.

his decision.'29

Sales records start in February 1821, following Jacob Erat's death. Sales are initially lower then than in subsequent years, perhaps reflecting a family in mourning and company in transition. Harps sales by month (for 1822 to 1824) show sales peaks for February–April and September–December, with a decline during the summer months (June, July and August), which may reflect society's summer exodus from London. An atypical peak in July 1821 may suggest late delivery of harps ordered earlier in the year but delayed due to Jacob Erat's death (see Figure 4).

An earlier inventory dated 21 February 1821, compiled soon after Jacob Erat's death, indicates that undecorated harps (referred to as 'in white') were held in stock awaiting orders and finishing to customers' requirements. Seventeen unfinished harps, with a total value of £68, were stored in the attic.³⁰ Ten further harps, in 'Maunder's shop', ³¹ were valued at £40. An average price of only £4 each for these 27 instruments suggests that they were unmounted (or lacked their mechanism). In the 1821 inventory, completed double-action mechanisms

were valued at £7; by the time of the 1824 inventory this had risen to £12 7s, an increase of 57%. Although not recorded in 1821, single-action mechanisms alone were valued in the 1824 inventory at £4 15s each. If they too had increased by 57%, their value in 1821 might have been £2 14s.

COLOURS

The journal records the colour of 185 harps (67.3%) and indicates that the firm produced harps in black, blue, variegated blue, smalt (a cobalt blue colour made of ground potassium glass), crimson, green, variegated green, grey, lilac, salmon, purple, variegated purple, red, yellow and imitation rosewood. The colour of 90 harps (32.7%) is not noted. Additionally, the company sold second-hand instruments, but their colour was only occasionally recorded³² (see Figure 5).

Black harps (70) and rosewood harps (29) constitute the largest colour groups in the journal accounting together for 36% of total sales (or 53.5% of those for which the colour is noted). Black, rosewood, variegated blue, variegated green, green, purple and yellow harps remain popular with sales

 $^{^{29}}$ See Bartel, Adelson and Roudier (2010), p.43, translation by Peter Moss. Interestingly, there is also a record of payment of £50 in the Erat journal for a patent not obtained, and a further amount of £14 15s 2d for costs incurred to Mr Wyatt on 21 February 1821.

³⁰ The inventory does not describe harp type.

³¹ A Dutch clock, the only timepiece recorded in the inventory is located in Maunder's shop and may indicate he was the manufactory foreman. Payment of travel expenses in the cashbook are generally recorded against Christian names (Jacob and James [Erat], Bradley and Samuel) or surnames (Challis and Sullivan). Maunder is consistently referred to as 'Mr. Maunder', again perhaps indicating his experience, age or position within the company.

³² Journal entries record harps taken in exchange for new instruments. Although makers' names are not recorded, it is likely that some instruments were by other London-based makers such as Erard, Dodd, Schwieso and Stumpff.

$Baldwin-{\it Erat\ harps}$

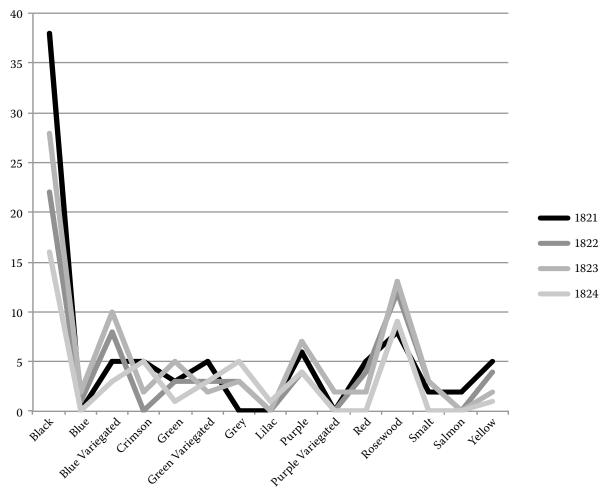


Figure 5. (Left) data, (Above) graph. Harp sales by colour for the period 1821-1824.

recorded annually throughout the journal period. Sales of blue harps are only noted in 1822 and 1823; grey harps in 1822, 1823 and 1824, and crimson in 1821, 1823 and 1824. One salmon coloured, one variegated purple and one lilac harp (the only harps in these colours sold during the journal period) are recorded in 1821, 1823 and 1824 respectively. Red and smalt harps are recorded in 1821, 1822 and 1823.

It is noteworthy that among discrete purchases of pigments in the cashbook (where quantities are only rarely recorded), black occurs most frequently (20.7%), and that it appears to be the case that more black harps survive from the period of the Journal than of any other colour³³ (see Figures 6–9 in the colour section for examples of paint colour used on a selection of Erat harps). Instruments decorated in imitation of rosewood were also popular. Where this painted grain finish survives, it is often, at first sight, difficult to distinguish from veneer; however,

closer examination reveals a repetitive pattern (that is evidence of the use of a graining tool).

PIGMENTS

Comprising different shades of eight colours, 26 pigments are recorded in the cashbook (see Table 1 below). Black pigments account for 20.7% of pigment purchases: ivory black (8%), lead black (6.9%), Japan black (3.4%) and black (precise pigment not recorded, 2.3%). It is difficult to assess the exact quantities bought as, with rare exceptions, weights and volumes are not recorded, and the only indication of relative quantities is the price. Two entries list purchase by unit of weight: 1lb of ivory black costing 2s on 9 August 1823, and 2lbs of the same pigment costing 6s on 30 June 1824 (perhaps the latter purchase was of higher-quality material); and one by unit of volume: 1 gill (a quarter of a pint) of best Japan black purchased for 9d on 9 August 1823.

³³ Erat's use of black reflects popular trends in furniture decoration; black (particularly the Japan black finish) was applied to furniture during this period as a background for gilded ornaments.

The Galpin Society Journal LXVI (2013)

Colour	Pigment	No. of purchases	Total by colour	% of pigment within colour	% of total purchases	% of colour
Black	Ivory black	7		38.9	8	
	Lead black	6		33.3	6.9	
	Japan black	3		16.7	3.4	
	Black	2	18	11.1	2.3	20.7
	Pink rose	7		46.7	8	
	Vermillion	4		26.7	4.6	
Red	Red	1		6.7	1.1	
Red	Crimson lake	1		6.7	1.1	
	Dragon's blood	1		6.7	1.1	
	Red lead	1	15	6.7	1.1	17.2
	White lead	9		60	10.3	
White	Nottingham white	3		20	3.4	
wille	White flake	2		13.3	2.3	
	White	1	15	6.7	1.1	17.2
	Antwerp blue	3		25	3.4	
	Prussian blue	3		25	3.4	
Blue	Smalt	3		25	3.4	
	Cobalt blue	2		16.7	2.3	
	Blue	1	12	8.3	1.1	13.8
Green	Copperas	6		60	6.9	
Green	Verdigris	4	10	40	4.6	11.5
	King's yellow	5		62.5	5.7	
Yellow	Turkey saffron	2		25	2.3	
	Dutch pink	1	8	12.5	1.1	9.2
Brown	Stone ocre	2	2	100	2.3	2.3
Grey	Duncan grey	1	1	100	1.1	1.1
Unspecified	Colours	3		50	3.4	
	Paint	2		33.3	2.3	
	Lead	1	6	16.7	1.1	6.9
Total		87	87			

Table 1. Pigment purchases for the period 1821–1826.

For the most part the vendors of these pigments are not identified, but in the case of the gill of best Japan black, proximity in the cashbook to gold size bought from Mr Draycott (the only supplier of gold and gold size listed elsewhere in the journal), suggests that he may also have supplied this pigment.³⁴

Red pigments account for 17.2% of pigment purchases: pink rose (8%) and vermillion (4.6%), while crimson lake, dragon's blood, red lead and an

unspecified red pigment each account for 1.1%.

White pigments also account for 17.2% of pigment purchases: white lead (10.3%), Nottingham white (3.4%), white flake (2.3%) and flat white (1.1%). White harps are, however, not recorded in the sales journal. White pigments would have been mixed with other colours; 34 harps are recorded with white fronts (soundboards).³⁵ Lead white, the only white oil colour available until the discovery of titanium

³⁴ A detailed study of suppliers is ongoing.

³⁵ 'White front' may denote an unpainted or unvarnished timber finish. The term 'in the white' occurs in the 1824 inventory as a description for unfinished harps.

white (titanium dioxide), produced a warm hue with yellow-red undertones.³⁶

Blue pigments account for 13.8% of pigment purchases: Antwerp blue, Prussian blue and smalt 3.4% each, cobalt blue (2.3%) and an unspecified blue pigment (1.1%). Prussian blue, an accidental discovery of the early eighteenth century and in popular use by the nineteenth century supplied a vivid, ultramarine colour to artists though at a fraction of the cost of lapis lazuli. Although Prussian blue was sometimes used as an alternative to smalt, the Erat cashbook demonstrates both were in use. Antwerp blue was derived from Prussian blue with the addition of a white pigment. Cobalt blue, expensive though very stable, produced a vivid, ultramarine colour.³⁷

Green pigments account for 11.5% of pigment purchases: copperas (6.9%) and verdigris (4.6%).³⁸ Copperas was available in three colours; red copperas (an earthy orange colour), blue copperas (a vibrant, light blue) and green copperas (a light, pale green). The precise colour is not defined in the cashbook.

Yellow pigments account for 9.2% of pigment purchases: King's yellow (5.7%), Turkey saffron (2.3%) and Dutch pink (1.1%). King's yellow, a synthetic, arsenic-based pigment, was used on nine harps during the journal period. Turkey saffron or saffron yellow was made from the crimson stamens of the saffron crocus (Crocus sativus) and suggests more than one yellow finish was used. Turkey saffron may have been used to colour varnishes to produce translucent finishes. Dutch pink, a hue of yellow (the word pink was frequently associated with the colour yellow prior to the nineteenth century) produced from buckthorn berries (*Rhamnus cathartica*). Both saffron yellow and Dutch pink were fugitive colours, not light fast and prone to fading over time.

One brown pigment, stone ochre accounts for 2.3% of pigment purchases. Stone ochre would have been used to tint varnishes and may have been used in combination with some red pigments when producing an imitation rosewood finish.

Three generic terms are used to describe and account for 6.9% of pigment purchases: colours (3.4%); paint (2.3%); and lead (1.1%). Whilst black, white and red lead pigments may account for this final term statistically accounting for 10.3% of

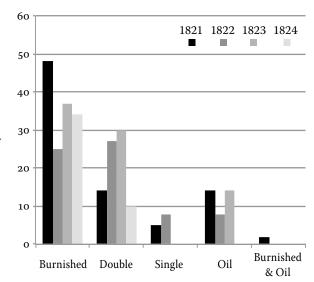


Figure 10. Harp gilding by type for the period 1821–1824.

pigment purchases, white lead is the most likely.

Five entries note the purchase of varnish, one each in 1821, 1822 and 1823 and two entries in 1824, totaling 18s 10d and averaging 3s 9d per purchase. Lacquer (also spelt 'lacker'), the preferred finishing method, is bought on 214 occasions, totaling £8 19s 3d and averaging 10d per purchase; unfortunately, quantities and vendor are not recorded.

GILDING

Of 275 harps sold, 139 (50.5%) are described as gilded (see Figure 10). Four gilt finishes are recorded: 'burnished', 'double', 'gilt' and 'oil'. 'Burnished' must be water gilding; 'double' apparently indicating the greater (but not necessarily literally double) thickness of the gold used, may refer to water or oil gilding (it is not clear which); and 'gilt' (without 'double') is probably indicates unburnished gilding of normal thickness (thinner than 'double'), although it may also simply be a generic term for any gilding. 'Burnished & oil' gilding are explicitly recorded in combination on only one harp (a red single-action with a white front, sold to Kitchiner, and recorded in the journal on 14 November 1821), but surviving instruments suggest that the combination was more widespread.

Burnished gilding is applied to 26.2% (51.8% of

³⁶ The element titanium was discovered in 1791. Titanium dioxide was first analysed in 1821 and patented as a pigment in Norway in 1913; production began in 1919. C. Mc Crone, 'Polarized Light Microscopy in Conservation: A Personal Perspective', *Journal of the American Institute for Conservation* 33/2 (1994), pp.101–14.

 $^{^{37}}$ Contemporary entries in the Erard Ledgers record ultramarine harps possibly decorated with a Prussian or cobalt blue pigment.

³⁸ Copperas was available as red copperas, an earthy orange colour, blue copperas, a vibrant, light blue and green copperas, a light, pale green. The precise colour is not defined in the cashbook.

The Galpin Society Journal LXVI (2013)

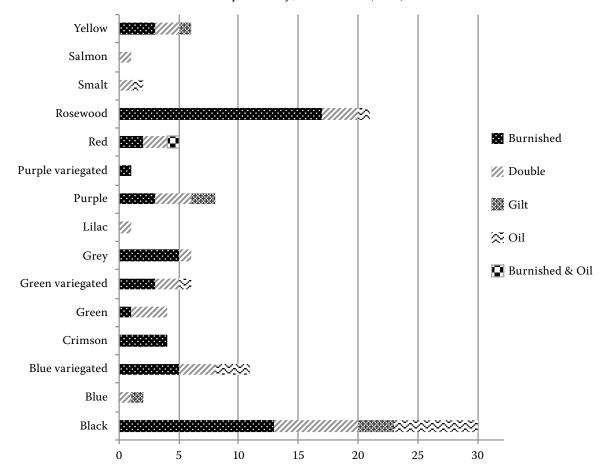


Figure 11. Colour against gilding type by year for the period 1821–1824.

those for which the type of gilding is noted) and double gilt accounts for gilding on 14.5% of harps (28.8% of those for which the type of gilding is noted). Oil gold accounts for 6.2% (12.2% of those for which the type of gilding is noted), and gilt or single gilt accounts for 3.3% (6.5% of those for which the type of gilding is noted). There is a single example of a harp with burnished and oil gold.

In 1821, burnished gilding is recorded against 58.5% of harps, falling to 36.8% in 1822. This rises to 45.7% and 77.3% in 1823 and 1824.³⁹ Double gilt is recorded against 17.1% of harps in 1821 peaking in 1822 at 39.7% before falling to 37% and 22.7% in 1823 and 1824. Single gilt appears in 1821 and 1822 accounting for 4.9% and 11.8% consecutively; and oil gilt is recorded in 1821, 1822 and 1823, accounting for 17.1%, 11.8% and 17.3%. Burnished and oil gilding is applied to one harp only.

Some extant harps have burnished gilt bands on

the pillar that, standing proud, would have been prone to wear.40 Here the use of thicker leaf would have improved durability. 'Oil gilding' and 'gilt' (single gilt) would have been applied using an oilbased size and the cashbook records purchase of gold size on 17 occasions between April 1822 and October 1823. Prices, and by implication, quantities, remained constant at 9d per purchase. A single payment of 1s 6d on 24 November 1823 suggests a change in the quantity purchased and perhaps indicates an increase in demand for a particular gilding type. Four payments of 1s for gold size from December 1823 until March 1824 and two final payments of 3s and 2s 8d on 14 April 1824 and 7 July 1824 respectively suggest a further increase in demand.

Whilst the sample range is relatively small, it is possible to detect decorative trends in which particular gilt types are applied only to certain

³⁹ This figure is artificially high as only six months of sales (January to June) are recorded in 1821; sales from 28 June 1824 to 31 December 1824 are not represented.

⁴⁰ Restoration of an Erat single-action harp (no. 690) by the author revealed burnished gilt bands on the harp capital. Single-gilt would have worn through suggesting that double-gilt was used.

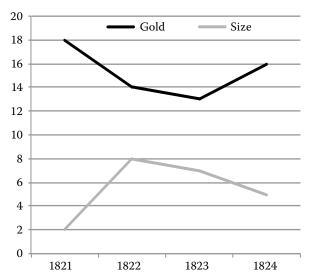


Figure 12. Gold leaf purchase by year for the period 1821–1826

colours (see Figure 11). Black harps, uniquely, were sold in all gilt types. Variegated blue, variegated green and rosewood harps were decorated in burnished, double or oil gold. Burnished gilt was the only type of gold leaf applied to crimson and variegated purple instruments. Green, grey and red harps were finished in double or burnished gold, while purple and yellow harps were available in burnished, double or single gold. Double or single gold was applied to blue harps. Smalt harps were gilded in double or oil gold. One lilac and one salmon coloured harp were decorated in double gilt.

GILDING SUPPLIES

Gold leaf is recorded on 60 occasions between 1821 and 1824, and while quantities are rarely recorded, the price of 1s 6d per book suggests that 297 books of gold leaf were bought over a 41-month period. Size, costing 1s per gill, is recorded on 26 occasions. Frequently purchased in ½ or ¾ gill, a total of 26½ gills was purchased. As the cashbook entries become less frequent in 1825 and 1826, purchases of gilding and size are not recorded (see Figure 12).

ORNAMENTATION

A total of eleven ornamental schemes are listed in the journal.⁴² A twelfth, 'elegantly ornamented' is ambiguous and is treated separately (see Table 2). 'Gold borders' may encompass 'grape borders' as

these, for the most part, were applied in gilt. For the purposes of this survey gilding data has been classified according to the descriptions recorded in the journal. Of 275 sold, the ornamentation of 139 harps (50.5%) is not recorded and 40 harps (14.5%) are described as 'elegantly ornamented.' However, pre-restoration photographs of a single-action harp, number 1357, for which no ornamentation scheme is recorded, reveal a neo-gothic, fleur-de-lis ornamental scheme (see Figures 13 and 14 in the colour section). Care is therefore needed when assessing the journal and it is possible that a wider ornamental range was available than that actually recorded.

Some schemes are applied only to harps of a particular colour or range of colours. Black lines or borders, for example, are only applied to yellow harps, while grape borders are only recorded on green or rosewood harps with burnished gilding. Green or rosewood harps with single or double gilt are ornamented variously with gold lines or borders, or 'Raphael's arabesques'.

Raphael's arabesques (sometimes spelt 'arabesks') describe interlocking foliate patterns with trophies

	No. of harps	%
Raphael's arabesques	21	7.6
White front with gold lines	12	4.4
Gold borders	10	3.6
Vignettes	9	3.3
White front with painting	9	3.3
Gold lines	7	2.5
White front	6	2.2
White front with gold borders	5	1.8
Egyptian borders	4	1.5
Painting	4	1.5
White front with grape borders	3	1.1
Black lines	2	0.7
Grape borders	2	0.7
Gold & black lines	1	0.4
Lines in front	1	0.4
Elegantly ornamented	40	14.5
No decoration recorded	139	50.5
Total	275	

Table 2. Harp ornament by type for the period 1821–1824.

⁴¹ Once full assessment of sales (including accessories such as music desks and string boxes) and repairs is completed, it may be possible to calculate the volume of gold leaf used to decorate one harp.

⁴² I have used the term 'ornamental' in reference to painted or applied decoration. 'Decorative', applied to the overall scheme, is used in discussion of combinations of paint colour, ornament and gilt type.

⁴³ Grape borders are also noted on a purple harp, though the gilding type is not recorded.

and natural motifs. Extant instruments suggest that more than one arabesque design was used during the journal period. Application methods include painting and decoupage. Arabesques were applied as soundboard and soundbox borders and as more detailed soundboard designs with mirror images on either side of the string bar. Raphael's arabesques were applied to 7.6% of harps sold, or 21.9% of those for which the type of ornamentation is noted (see Figures 15 to 18 in the colour section).

Vignettes, decoupages or paintings of Grecian figures holding drums, tambourines or trumpets, account for 3.3% of decorative finishes (9.4% of those for which the type of ornamentation is noted). Derived from the same root as the word vine, vignettes may also describe vine-leaf borders though, as these are separately defined, the former is assumed.

Gold lines account for 2.5% of ornamental finishes (7.3% of those for which the type of ornamentation is noted), black lines account for 0.7% (2.1% of those for which the type of ornamentation is noted), and a combination of black and gold lines account for 0.4% of ornamentation (1% of those for which the type of ornamentation is noted). Lines in front, probably gold, also accounts for 0.4% of ornamental finishes (1% (51.8% of those for which the type of ornamentation is noted). Four harps with Egyptian borders account for 1.5% of sales (4.2% of those for which the type of ornamentation is noted).

Painting accounts for 1.5% of ornament (4.2% of those for which the type of ornamentation is noted). Although unspecific, this may refer to trophies and figurines (vignettes) painted directly onto the harp soundboard. Whilst Erat's ornamental designs are not reproduced from pattern books, the vignettes resemble those decorating the Etruscan room at Osterley Park in West London by the architect Robert Adam (1728–1792); Arabesques resemble those used in interior design and stucco ornamentation by Adam, and also fragments of moldings and friezes collected by Sir John Soane (1753–1837), displayed at the Sir John Soane Museum, London.

Whilst some soundboards were painted to match the neck and soundbox, others were painted white. In total, white soundboards with and without ornament, account for 12.7% of harps sold during the journal period. White fronts with gold lines account for 4.4% of soundboard decoration (12.5% of those for which the type of ornamentation is noted); white fronts with painting comprise 3.3% of ornamentation (9.4% of those for which the type of ornamentation is noted). Unornamented white fronts account for 2.2% of finishes (6.3% of those for which the type of ornamentation is noted) and white fronts with gold borders account for 1.8% of soundboards (5.2% of those for which the type of ornamentation is noted). White fronts with grape borders are applied to 1.1% of harps (3.1% of those for which the type of ornamentation is noted).

Grape borders account for 0.7% of harps sold (2.1% of those for which the type of ornamentation is noted). An extant fragment of soundboard on a harp, currently being restored by Rainer M. Thurau, illustrates use of gold leaf and purple paint (see Figure 19 in the colour section). Grape borders are also evident in a portrait of a young woman playing the harp (private collection) by Robert Home (1752–1834); consequently, the harp depicted in this painting may be by Erat.

FINISHING WORKSHOPS

In a workshop inventory compiled following Jacob Erat's death in 1821, unfinished harps are catalogued in the wood shop, Maunder's shop and the attic storeroom.44 The stock in trade is valued at £2574 16s 6d; harp strings at £87 13s 3d; and 65 harps on hire at £1449 5s (averaging £22 5s 11d each). Singleactions harps are valued at £20, double-actions at £30 each. Importantly, inventory harp prices are significantly lower than sale prices in the journal, probably representing manufacturing costs before the addition of a profit margin. Erat's single-action harps cost between £42 and £80 to buy and are expensive compared to square pianos by Broadwood; in 1824, for instance, Broadwood is recorded sending six square pianos, ranging in price from £26 to £32, to Issac Willis, a music seller in Dublin.45 Doubleaction harps varied in price from between £60 and £105. Unfortunately, the Erard Ledgers for this period do not record the sale price of the harp, so comparison with a contemporary harp maker is difficult.46 Newspaper advertisements of the time suggest that Erat's instruments were sold for up to £10 less than those of Erard. This price difference is difficult to substantiate as Watlen sold a mixture of

⁴⁴ The inventory reveals little about finishing materials, tools or processes. A detailed study of this document is forthcoming.

⁴⁵ Michael Cole, *Broadwood Square Pianos* (Cheltenham: Tatchley Books, 2005), p.99.

⁴⁶ The Erard ledgers are preserved at the Royal College of Music Museum of Instruments, London, and cover the period 1797–1917.

new and second-hand harps and these would have been priced accordingly.

A later, more detailed inventory, compiled between 8 and 9 December 1824, in accordance with Jacob Erat's will,⁴⁷ similarly affords only scant evidence of finishing. Although two workshops, the 'varnisher's room' and 'gilder's room', are identified and inventoried for the first time, suggesting workshop reorganisation, few tools and materials are listed. Only 25 hire harps, valued at £528 (averaging £21 2s 4%d each), are catalogued, while single and double actions are valued as in the 1821 inventory. The absence of tools and decline since 1821 in the number of hire harps may indicate deliberate undervaluation. Although the 1824 inventory is much the more extensive of the two (221 entries rather than 155), the total valuation (£1902 18s 6d) is £671 19s less than that recorded in 1821.

The varnisher's room was furnished with two benches, a stove and pipe, and a cupboard containing stone bottles. Sundry brushes are valued at 7s 6d, and 8 quires of paper (1s 6d each) are priced at 12s. A gallon of varnish is valued at £1 12s; 13 copper plates for borders are priced at £20; and sundry engraved borders are valued at £1. Examination of surviving harps reveals two methods of border application: in some cases decoupage borders were applied to the soundboard, others were hand painted. Work in hand is valued and described. Eight harps, described as 'under varnish', are valued at £8 3s each. Two unvarnished harps (possibly un-mechanised doubleactions), described as 'in white', are priced at £7 each.48 An additional un-mechanised harp (again probably double-action), 'varnished and gilded', is valued at £12 12s, suggesting that varnishing and gilding cost £5 12s.49

The gilder's room is furnished with two benches valued at 10s each. One harp, varnished and in oil gold but without machine, is priced at £10 3s. Payments to Mr Brown, the gilder, are noted in the cashbook in early 1821.⁵⁰ Whilst a dearth of work-

in-hand, in comparison with that in the varnisher's room, may suggest a waiting period, it is possible that an off-site contractor undertook some of the gilding.⁵¹ There is scant evidence of the composition moulding used to decorate harps. Three brass moulds valued at £3 (20s each) and three wooden moulds valued at £1 10s (10s each) are stored in the second floor counting house. Five moulds, valued at 10s each (presumably wooden), are also catalogued as being in the wood shop. These moulds, used in combination, represent a small range of those required to decorate Erat's harps. A Journal entry dated 31 December 1821 lists 49 purchases of composition ornaments from W. H. Freeman, including 44 feet of 'pine ovala [ovolo? moulding]' at 2d per foot; 107 feet of bottom moulding at 3d per foot and 215 feet of small strap at 1s 1½d. One set of seahorses, applied to the pillar base plate, costs 3s 6d.

CONCLUSIONS

Between 1794 and 1820, the London harp industry underwent a period of expansion. Companies formed and traded in close proximity in an area bounded by the New Road (now Marylebone Road) to the north, Charing Cross Road to the east, Piccadilly to the south and Park Lane to the west. By 1821, six harp makers (including Erat) were established, with Barry at 18 Frith Street, Dodd & Son at 92 St Martin's Lane, Erard at 18 Great Marlborough Street, Schwieso & Grosjean at 11 Soho Square and Stumpff at 44 Great Portland Street. In 1826, Delveau appears at 28 Conduit Street, and Grosjean and Schwieso's partnership was dissolved; Grosjean (now with Williams) remained at 11 Soho Square, while Schwieso moved to 263 Regent's Street. As a result, competition was fierce: between 1794 and 1826, 13 harp patentees registered no less than 18 patents. Erat's survival, where others failed, can be attributed to careful and considered business choices.

The form of the Regency harp was influenced by

 $^{^{47}}$ In his will, Erat instructed that his sons, Jacob (1799–1836) and James (1801–1858), should succeed to the business on the eldest's 25th birthday (8 December 1824).

⁴⁸ Single-action harps 'in white' (un-mechanised) are valued at £5 13s, while double-action harps 'in white' are valued at £6.8s

 $^{^{49}}$ This suggests a double-action cost price (without strings) at £24/19/-. Double-action harps range in sale price from £53 to £115.

⁵⁰ 12 April 1821 & 2 May 1821 Payments to Mr. Brown the gilder £1 on each occasion.

⁵¹ The Old Bailey Online records a court case (29 May 1828) in which a gilder's apprentice is tried for the theft of a harp from the harp maker James Delveau's home. Thomas Maddocks, apprenticed to William Henry Jennings, did not have permission to collect the harp for gilding and was convicted of theft and sentenced to death (recommended to mercy on account of good character). See http://www.oldbaileyonline.org, reference no. t18280529-18, consulted 24 January 2009.

neo-classical architecture, reflecting awareness of archaeological discoveries in ancient Greece and Italy, and Grecian and Etruscan colours influenced the Erat palette. Parissien writes, 'The rediscovery of the ancient world [...] brought with it a new and vibrant palette of colours discovered amid the ruins of Rome and Greece: lilacs, bright blues and greens, bright pinks, blacks and, most characteristically, terracotta red-browns, often used in combination with black to create an 'Etruscan' colour scheme.'52 These colours, used in interior decoration during the eighteenth century enjoyed a resurgence in popularity during the Regency period.53 Nicholson suggests 'a list of useful colours for house painting,' [and pigments].54 These include black (lamp black); white (white lead); yellow ('ochers, also patent yellow'); blue (Prussian blue, and blue black); red (red lead, vermillion and purple brown, or India red, crimson, lakes, 'to which add vermillion or white according to the tone') and green (grass, verdigrise). Colour combinations are noted; for purple, for example, he suggests that one should 'mix lake blue, and white.' Parissien also notes that by the early 1830s light colours were becoming popular, including light blues, lilacs, French greys and pinks.⁵⁵ Whereas Erard harps, between 1821 and 1824, were painted yellow, rosewood, grey, ultramarine, smalt or green (seven colours) with yellow being the most popular, Erat harps are listed in a much wider range of 15 colours, with black accounting for a quarter of those sold. Erat colour choices, therefore, suggest a company at the forefront of colour technology. The Erat use of variegated paint finishes is not noted in the Erard Ledgers. The meaning of 'variegated' is unclear, though may suggest the application of two colours, applied one over the other to create a marble effect; marbling and graining were commonly applied to household woodwork during the 1820s.

Imitation rosewood was a popular choice amongst Erat's customers, accounting for 10.5% of finishes. Whittock describes a method for imitating rosewood in which a ground 'is prepared with

vermillion lake and flake white, mixed together to a beautiful rose red, letting it partake more of the pink than the scarlet.'56 When dry he instructs the painter to 'take Vandyke brown, nearly opaque, and with a small tool spread the colour in various directions over the ground [...] then with another dry tool beat the colour while wet against the grain that is in an opposite direction to the way in which it was laid on.' He adds, 'before the colour is dry, take a piece of wash-leather on the point of a stick, and with great freedom take out the light veins that appear to be part of the veins formed by a knot.' He suggests taking 'the darkest tint of Vandyke brown, and with a sable pencil give free and strong touches under the parts taken out with the leather, and in other parts where the ground is thinly covered.' He finishes, 'Then blend and soften the whole together with the badger-hair softener; and when varnished the imitation will be excellent.' This technique demonstrates the skill and finesse of Erat's employees.

Decoration significantly affected price. A variegated blue single-action harp, decorated with oil gold and double gold vignettes cost £42; a doublegilt, variegated green harp, elegantly ornamented, could be purchased for £47 5s; and £81 18s bought a burnished gold imitation rosewood harp, 'elegantly ornamented with painting'. A crimson double-action with Raphael's arabesques sold for £60; a black, double-gilt harp, with white front and gold lines, cost an additional £8 5s; for £80 one could purchase a yellow harp with burnished gilding and 'gold lines in front', and £105 would buy a variegated green harp with burnished gilding, on which the white front was decorated with grape borders (see Table 3 for various examples). Discounts were available to teachers, the trade, repeat customers, and purchasers of more than one harp. Erat also accepted harps in part exchange for new instruments. An assessment of customers is on-going.

Whilst decorative influences are not specifically recorded, the firm of Erat would have been familiar

⁵² Steven Parissien, Adam Style (London: Phaidon Press, 1992), p.156.

⁵³ Parissien (1992) notes that Neo-classical colours were not immediately popular and that 'traditional Palladians' continued to use the blander colour schemes of previous decades. He writes, 'In 1771 the conservative William Chambers wrote to a client in London's Berners Street, stating that "My intention is to finish the whole in fine stone colour as usual excepting the Eating Parlour which I propose to finish pea green with white mouldings." Chambers, an architect, was responsible for the design and construction of 13–22 and 44–58, Berners Street, between 1764 and 1770.

⁵⁴ Peter Nicholson, Mechanical Exercises: The Elements and Practice of Carpentry, Joinery, Bricklaying, Masonry, Slating, Plastering, Painting, Smithing, and Turning, first ed. (London: J. Taylor, 1812), pp.258–59.

⁵⁵ Parissien (1992), p.139.

⁵⁶ Nathaniel Whittock, *Decorative Painter's and Glazier's Guide* (London: Issac Taylor Hinton, 1828), p.40.

Page No.	Serial No.	Date	Action type	Colour	Gilding	Ornamentation	Customer Name	Customer Address	\mathcal{F}	Shillings
96	1344	14/09/1821	Single- action	Blue variagated	Oil golds	Double gold vignettes	Mr Beavan	London, Cullum Street	42	
427	1442	01/09/1823	Single- action	Green	Double gilt	Elegantly ornamented	Ludwig Lenhold	Moscow	47	5
71	1348	04/07/1821	Single- action	Crimson	Burnished gilding	Raphael's arabesks	John Weippert	London, John St. Tottenham Court Road	50	
86	1333	15/08/1821	Double- action	Rosewood	Burnished gilding	Gold vignettes	Mr Packer	Bath	65	
427	1450	01/09/1823	Double- action	Grey	Burnished gilding	Ornamented with painting	Mr C. Hale	Cheltenham	73	10
356	1403	12/03/1823	Single- action	Rosewood	Burnished gilding	Elegantly ornamented with painting	Messrs Higgins, Whiteley & Co.	London, London Street	81	18
71	1325	04/07/1821	Double- action	Smalt	Double gilt	Elegantly ornamented	Miss Mitchell	London, Bedford Place	105	
531	1474	18/05/1824	Double- action	Rosewood	Burnished gilding	White front ornamented with gold borders	Mr Birchell	London, Percy Street	115	10

Table 3. Examples of harp descriptions including price range signifying the effect of decoration on price.

with the work of contemporary architects, and of colours and ornaments used in interior design. Initially operating from 100 Wardour Street, close to the premises of Thomas Sheraton (1751–1806) at 106 Wardour Street, it is inconceivable that Erat wasn't aware of Sheraton's work. Soundboard ornamentation, influenced by Robert Adam (1728–1792), though not directly copied from his pattern books, differed from that used on harps by Erard. Adamesque (Raphael's) arabesques were unique to Erat instruments. The Erard ledgers for this period record harps with white soundboards with paper ornaments, painted ornaments, myrtle borders, blue scrolls (applied over smalt or ultramarine painted finish) and red scrolls (applied over red paint).

Colour and ornamentation, chosen by customers, were motivated by interior design choices. Harps were ordered to suit decoration and reflected the latest trends. As such, Erat's harps were not only a statement of taste, but also a reflection of fashion

trends and therefore customer status.

The wide ranging Erat documents (1821–26) reveal a hitherto unknown level of detail, particularly compared to the Erard ledgers, which only list harp sales. Decoration was an important marketing tool. Although superficially similar to Erard's harps in design and ornamentation (particularly applied composition moulding), on closer examination, differences are evident. The technical and decorative similarities were a deliberate and shrewd business choice, positioning the Erat company advantageously in relation to their nearest and more conspicuously successful competitor. Erat copied and subtly varied Erard's technical and decorative designs, benefitting from Erard's ten-year intensive research and development programme, without incurring his significant costs. Cleverly, Erat also exploited the similarity in their names. Following Jacob Erat (i)'s death in 1821, his sons, Jacob Erat (ii) and James continued to pursue this business strategy and, by the early 1830s, it was almost impossible to distinguish between harps by Erard and Erat. Erat's instruments, like those by Erard, reference neoclassical design, though contemporary neo-gothic influences are also evident. Harp descriptions, and lists of materials used in finishing, reveal a surprisingly wide decorative palette. Fifteen colours, 12 ornamental schemes, and five gilt types, resulting in 900 possible permutations, are combined to form 50 decorative combinations (by no means all represented on extant instruments). Future research projects will examine the Erat documents in more detail, and will identify colour and decorative schemes applied to the full range of accessories recorded in the journal, such as stools, music stands and string boxes; a comprehensive survey of the Erat inventories, leases and wills will also be undertaken.

ACKNOWLEDGEMENTS

I wish to thank the National Archives, the London Metropolitan Archives, Lewis Jones (London Metropolitan University), Peter Moss, and the owners and custodians of harps used to research this article, Sylvain Blassel, Bonhams (London), Paul Holden at Lanhydrock House (National Trust), Mike Parker (Parker Harps) and Rainer Thurau (Thurau-Harfenmanufaktur).