

RECONFIGURING EPHEMERAL HERITAGE: A HISTORICAL AND MATERIAL ANALYSIS OF THE ARMSTRONG WOODBLOCK COLLECTION (1600-1910S)

Journals of Arts & Humanities Studies

ISSN: 3069-325X (Online)

Vol. 1: Issue 3

Page 45–62 © The Author(s) 2025

Received: 05 July 2025

Accepted: 17 July 2025

Published: 31 July 2025



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ABSTRACT

This paper traces the transnational history of the Armstrong Woodblock Collection (around 3000 items) at the Huntington Library in California, USA, highlighting its dual role as both industrial relic and cultural palimpsest. Collected in England by James Tarbotton Armstrong (1849–1933) during the late Victorian print era, the collection—purchased by Henry E. Huntington in 1917 alongside his renowned British art collection—represents a significant yet often overlooked chapter in Anglo-American heritage development. Through a decade of cataloguing these matrices from the 17th to 20th centuries, this study demonstrates how 19th-century British collectors turned outdated printing tools into historical documents, a preservation approach later adopted by American institutions as tangible evidence of pre-industrial craftsmanship.

The interdisciplinary study investigates the woodblock collection, highlighting historical print matrices as important cultural artefacts that connect material culture and social history. Using technical analysis, provenance research (including network mapping of collectors' correspondence), and visual verification (matching blocks with archival prints), the study reveals the social hierarchy of woodblock collectors, the connections between blocks' wear patterns and their printing history, and reconstructs transatlantic knowledge networks. It advances the concept of technological biographies for artefact lifecycles, explores industrial mnemonics in relation to craft nostalgia, and proposes a collective model of heritage creation. Supporting data—3D scans and detailed metadata—are available through the Huntington Digital Library (internal), providing new approaches for analysing the sociomaterial aspects of pre-digital print culture.

KEY WORDS - Woodblock, Printing History, Huntington Library, James Tarbotton Armstrong, Henry Edward Huntington, Collecting History

Introduction

The Huntington Library in California, USA, houses the Armstrong Woodblock Collection (Figs. 1, 2)—a comprehensive collection of historical printing matrices comprising approximately 3,000 engraved woodblocks. Named after its private collector before being acquired by the institution, this largely uncatalogued collection offers an important case study in material culture from the pre-industrial era. This paper systematically examines the collection's physical artefacts, iconographic themes, and provenance through three analytical methods: technical analysis, archival research, and socio-historical contextualisation. My investigation focuses on two main research questions: (1) What cultural and historical factors led to the preservation of outdated printing matrices during periods of technological change? (2) How might these objects influence our understanding of value attribution in both printing history and collection practices?



Figs. 1, 2 Armstrong Collection of Woodblocks in the Huntington Library.

The Huntington Library's Armstrong Collection of Printing Woodblocksⁱ is a collection of relief-printing artefacts gathered by James Tarbotton Armstrong (1849-1933) in the 1890s to 1910s. As shown by Armstrong's letters and notes (Huntington uncatalogued archive), this collection of around 3,000 matrices illustrates the technical development of British wood-engraving techniques from early craftsmanship to industrial-era methods.

Material Significance

Spanning three centuries of print culture (1600–1910s), the collection's woodblocks reveal evolving technical practices through their material composition. 17th to early 18th-century specimens predominantly feature hand-cut pearwood blocks characterised by thick black line engravings, reflecting Renaissance-era printmaking traditions. By the late 18th century, artisans had transitioned to boxwood matrices, employing mixed black-and-white line techniques, which mirrored the growing demand for tonal variation in commercial prints. The Victorian era introduced composite matrices that fused wooden bases with metal typographic elements, utilising white-line engraving, and exemplified the industrial-age hybridisation of craft and mechanisation.

Geographical Provenance

Spatial analysis of publication records and Armstrong's acquisition patterns reveals two main production centres. Workshops in London, clustered around Fleet Street—the historic core of British printing—produced sophisticated metropolitan imagery, while northern locations such as Newcastle-upon-Tyne specialised in chapbook matrices for regional distribution. This divide aligns with broader 19th-century industrial geographies, contrasting metropolitan refinement with provincial practicality.

Iconographic Scope

The collection's pictorial content includes at least seven vernacular print genres that influenced pre-industrial visual culture. Chapbook narratives comprise approximately one-third of the collection, alongside broadside ballad illustrations, juvenile literature vignettes, and devotional imagery. Political satires and technical diagrams sit alongside ephemeral commercial prints, such as rare trade card matrices—a comprehensive visual lexicon of early modern public communication.

Curatorial History

Although Huntington's holdings were acquired in 1917, the collection remained uncatalogued until 2006. A thirteen-year voluntary project (2006–2019) established a comprehensive digital record within the Library's Collections Management System, documenting each artefact across thirteen analytical categories. These range from production chronology and technical specifications to conservation assessments, with a particular emphasis on tracking reuse patterns across editions—a critical metric for understanding printshop economics.

Critical Questions

The collection's century-long neglect calls for fundamental reassessments of cultural valuation. Scholarly

debates focus on whether printing matrices go beyond their utilitarian origins to qualify as historical documents, supported by material evidence that allows for multiple interpretative frameworks. Art historical analysis points out crude cutting techniques and structural cracks, indicating intensive workshop use, while economic history perspectives interpret wear patterns as evidence of high-volume commercial production. Industrial historians trace the development of block-making through composite matrices, and bibliographers reconstruct printing practices by examining reused blocks found in diverse publications.ⁱⁱ

Collectors' Paradox

The 1917 acquisition exemplifies conflicting preservation philosophies. Correspondence between Armstrong and Huntington reveals a contradiction between a preservationist aim to protect craft heritage and a contrasting market-driven approach. This tension between cultural stewardship and commodification physically manifests in the blocks themselves — their worm-eaten surfaces and recomposed designs serving as palimpsests of competing value systems. The matrices thus embody what might be called *industrial palimpsests*, bearing layered narratives of artistic intention, commercial exploitation, and curatorial reinterpretation across three centuries of graphic production.

Research Methodology

This research has primarily employed detailed and thorough historical and archival studies, including object description and measurement, catalogue recording, publication searches, and provenance research through ancestral lineage and biographies of collectors. To determine the date of the blocks, this research has reviewed a wide range of print productions in the UK and the US to match the woodblocks, at the British Library, Huntington Library, Newcastle City Library, National Art Library at the V&A, and the Internet Archive. The Armstrong Woodblocks catalogue I created now includes 3219 itemsⁱⁱⁱ, a database of word and image records of the collection kept at the Huntington Library. This paper provides a concise overview of the key findings from a decade of research.

1. The Collection History and the Two Collectors: James Tarbotton Armstrong (1849-1933) and Henry Edward Huntington (1850–1927) — A Study in Contrasts

James Tarbotton Armstrong appears as a contradictory figure in bibliophilic history—an inventor turned connoisseur whose legacy connects Victorian print culture with American institutional collecting. Born in Devon, England^{iv}, Armstrong studied at University College London and the University of Glasgow before developing naval weaponry systems, including torpedo mechanisms patented in 1900. His involvement with print culture also manifested through administrative roles at London's Ex Libris Society, where he served as treasurer (Figs. 1, 2, 3). Financial difficulties, the cause of which is unknown, led to his bankruptcy declaration in June 1906 (*The London Gazette*, June 8, 1906). Afterwards, he moved to Los Angeles.

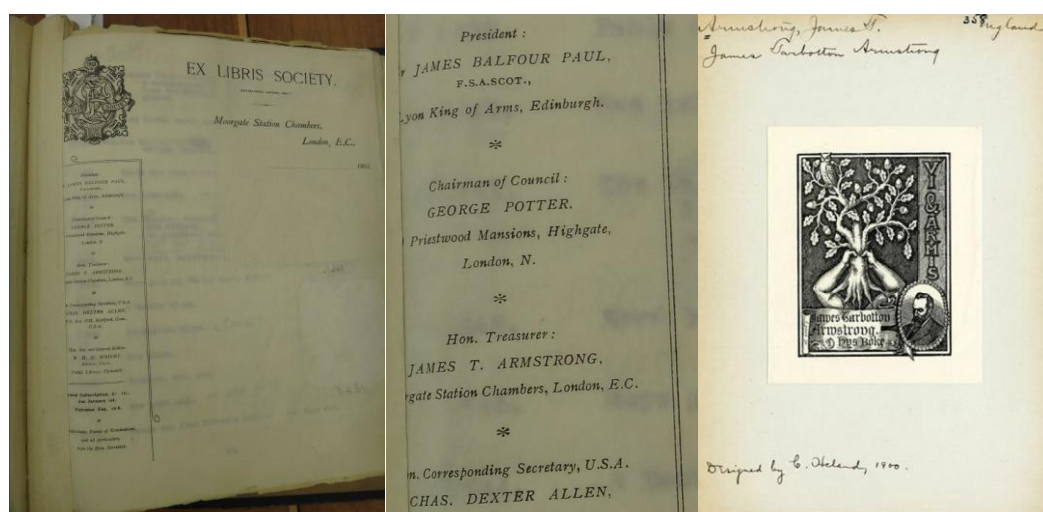


Fig. 1 The paper Armstrong used for his catalogue with the title of Ex Libris Society.

Fig. 2 Detail of the former page, showing Armstrong as the treasure of the Ex Libris Society.

Fig. 3 J. T. Armstrong's Bookplate 1900, Special Collections Department, University of Delaware Library

This transatlantic move preceded Armstrong's eventual interaction with Henry E. Huntington, culminating in the 1917 transfer of printing matrices now housed at The Huntington. Archival correspondence (1914-1921) indicates the transaction developed through multiple stages, beginning with Armstrong's initial contact as a representative of the "Scribblers' League" literary society.^v

Henry Edward Huntington (1850-1927), on the other hand, was a wealthy business magnate. Having amassed wealth through the development of the Pacific Electric Railway, Huntington pursued cultural capital through systematic acquisitions. His establishment of the Huntington Library, Art Museum, and Botanical Gardens, along with his wife, Arabella Huntington (1850-1924), created an institutional framework for Armstrong's displaced collection.

The Huntington-Armstrong Correspondence: Documentary Evidence and Promotional Strategies

The Armstrong-Huntington correspondence (Huntington record number: b1859968/ Box 1)^{vi} uncovers a complex negotiation spanning seven years. Their initial contact in 1914, through the "Scribblers' League"—a Los Angeles literary society with which Armstrong was associated and used as a means of personal rapport before their professional dealings. Huntington's acquisition of the 3,000-piece printing matrix collection in 1917 signifies not just a sale, but the convergence of Armstrong's need for financial rehabilitation, Huntington's strategic expansion into industrial-era artefacts, and mutual interest in preserving British print heritage.

In November 1914, an article introducing Armstrong's woodblocks appeared in *The Bookman: An Illustrated Magazine of Literature and Life*, a once-popular literary periodical based in New York. The article, titled "The Romance of the Wood Block," was written by Hugh Thompson. Thompson was a regular contributor to *Munsey's Magazine*, an American mass-market magazine.^{vii} Thompson accompanied the piece with eight illustrations, printed from the woodblocks owned by J. T. Armstrong at the time, stating "This article is not only a piece of literary news, but also tells the story of the great Armstrong collection of wood blocks—the only large one in the world" (*The Bookman*, Nov 1914, p.341).^{viii} The overall tone of the article is one of praise for J. T. Armstrong's collection, and it is likely an advertisement at Armstrong's request.

This publication coincided with Henry Huntington's recent marriage to Arabella Huntington in 1913. The Huntingtons' return to Los Angeles after their European honeymoon provided a brief window for Armstrong's contact attempts. Records show that Armstrong visited the couple's San Marino estate during their November 1914 residency in California (Armstrong's letter to Huntington, 14/8/1914), although no significant collection discussions took place until the 1916 correspondence.

The Formation of Institutional Collections and Woodblock Acquisition (1915-1919)

Between 1915 and 1919, Henry and Arabella Huntington systematically built their institutional collections, with a particular focus on English rare books and European paintings. Unlike modern museums, which increasingly depend on auction houses or donations, the Huntingtons' early acquisition approach relied on a network of specialist advisers. Joseph Duveen, the distinguished British art dealer who advised Gilded Age collectors, including Henry Clay Frick, J.P. Morgan, Samuel H. Kress, Andrew Mellon, and John D. Rockefeller, served as their primary art consultant. Meanwhile, librarian George Watson Cole managed the scholarly acquisitions of bibliographic materials.

The 1917 woodblock purchase stood out as an anomaly in this context. Conducted neither through traditional auction channels nor based on expert advice, this transaction arose from direct negotiations initiated by collector Armstrong. The lack of payment records in the Huntington archives leaves the exact terms unclear, although correspondence analysis suggests it was completed between June and August 1917. This unconventional way of acquiring items sharply contrasted with the Huntingtons' systematic collecting methods, highlighting the peripheral status of these artefacts within their institutional framework.

As early as April 1917, Armstrong corresponded with Huntington (Fig. 4), enclosing an article about his woodblock collection. This likely refers to either Hugh Thompson's 1914 feature in *The Bookman* or Henrietta Boeckmann's 1916 scholarly article in *International Studio* (Fig. 5), the latter of which reproduces thirteen block impressions from Armstrong's holdings. Notably, Boeckmann's 1923 letter to Huntington (Huntington b1859968/ Box 1), promoting Armstrong's collection, claimed no personal acquaintance with the

collector; yet her detailed reproductions and advocacy suggest undocumented coordination. These textual discrepancies reflect Armstrong's multi-layered promotional efforts to facilitate the transaction.

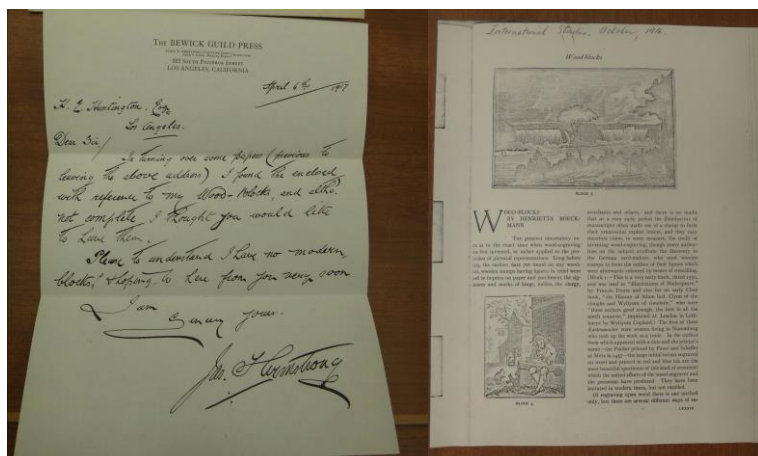


Fig. 4 Armstrong's letter to H. E. Huntington, April 1917.

Fig. 5 Henrietta Boeckmann, "Wood-blocks", *International Studio*, October 1916.

The 1919 establishment of the Huntington Library and Art Gallery through a formal deed of trust marked the shift from private collecting to public stewardship. Acquired during the library's construction in 1917, Armstrong's woodblocks were added to the collection as the institution expanded its ambitions. The absence of precise documentation regarding their acquisition timing and rationale not only exposes gaps in early archival practices but also highlights the flexible acquisition criteria applied to non-core holdings during rapid institutional growth.

The 1917 Woodblock Transaction and Its Aftermath

By June 1917, Henry Huntington remained undecided about Armstrong's woodblock collection, prompting the latter to use urgent persuasion tactics. Armstrong's correspondence of 15 June reveals strategic anxiety: "I have waited all last week expecting your visit... I must dispose of my Wood-blocks as I have an offer for a portion... It would break my heart to split the collection." The truth of this competing offer claim is uncertain. While Armstrong ultimately dispersed parts of his collection^{ix}, this may reflect either commercial pressure tactics or post-sale redistribution.

Armstrong's salesmanship extended to cultural blackmail: "The Book world would ever deplore... your Library [would be] unique in the World's history." His strategic citation of Hugh Thompson's 1914 endorsement ("undoubtedly the only complete... group extant") demonstrates sophisticated use of third-party validation. The approach proved effective; by August 1917, correspondence from Huntington's secretary references "getting the blocks in better shape," confirming the acquisition's completion.

Post-Purchase Negotiations (1920-1921)

The 31 May 1920 letter from Huntington reveals institutional priorities shaping collection management: "The blocks are packed with considerable other matter... classification must await Mr Cole's return." This logistical delay coincided with the library's public opening amid ongoing organisational challenges. Armstrong, recognising an employment opportunity, intensified his campaign. His December 1920 proposal to George Watson Cole emphasised his professional credentials: "My cataloguing method... proved successful at the Duke of Wellington's London residence."

Huntington's terse January 1921 rebuttal outlined institutional boundaries: "All arrangement work remains with Mr Cole... Duveen Brothers will catalogue pictures." This firm rejection highlighted Armstrong's failure to shift from vendor to trusted advisor like Duveen, despite three years of persistent lobbying. The exchange reveals tensions between entrepreneurial collectors and the developing professional museum practices during institutionalisation.

The nascent Huntington Library's institutional constraints shaped its early collecting practices, as shown through Henry Huntington's 31 May 1920 correspondence acknowledging space limitations: "Classification must await Mr Cole's return... packed with considerable other matter." This logistical reality influenced

Huntington's resistance to J.T. Armstrong's persistent employment proposals, evident in his brief 7 May 1921 rejection letter stating it would be "impractical to have a curator for such a small collection." The industrialist's vision emphasised George Cole's book cataloguing and Duveen Brothers' art expertise, reflecting strategic resource allocation during the institution's formative years.

Armstrong's March 1921 letter campaign adopted increasingly commercial rhetoric; his April correspondence extolled how "people can be made to want anything" through the strategic presentation of cultural artefacts. This salesmanship reached its zenith in Adelaide Armstrong's desperate April 1921 plea, where she claimed to have made the overture without her husband's knowledge, while demanding either employment or additional payment, citing financial distress traceable to Armstrong's 1905 bankruptcy (*The London Gazette*, June 8, 1906). Huntington's measured response, maintaining his original acquisition agreement while deferring cataloguing until "the stack where the books are to be kept is completed," reveals institutional discipline amidst personal appeals.

The 1928-29 McGuire assessment (Rare Books Department Annual Report), which described most blocks as "worthless except as curiosities," validates Huntington's cautious approach. However, former curator Alan Jutzi's 2007 oral history observations suggest that Huntington's personal engagement with the correspondence contradicts his institutional pragmatism.^x This tension between collector passion and institutional stewardship permeates the archival record, with twenty preserved letters chronicling Armstrong's transition from dealer to supplicant, and Huntington's evolution from private collector to public trustee.

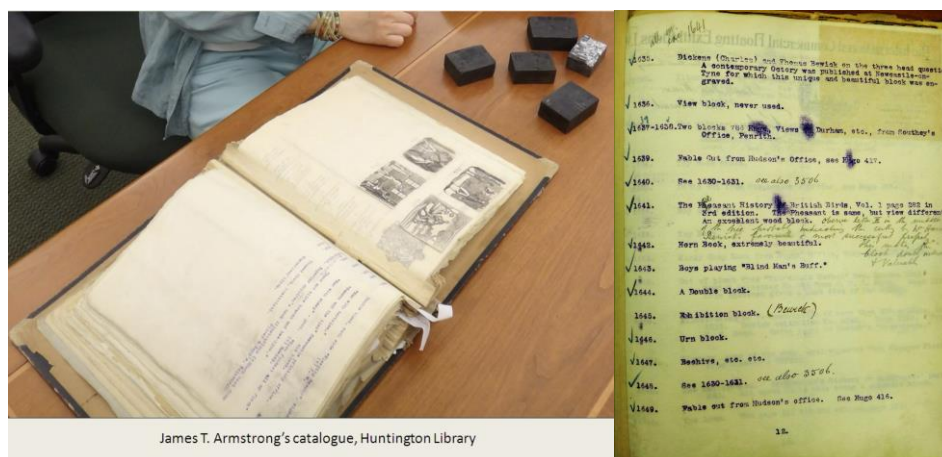
The woodblocks' ninety-year dormancy (1917-2006), paradoxically preserved through neglect, ultimately served Huntington's vision better than Armstrong's immediate commercialisation efforts. What Armstrong saw as a key curatorial highlight became, through institutional priorities, a time capsule of early 20th-century cultural economics - their material value overshadowed by their documentary importance in illustrating the shift from private collections to public institutions.

Looking through the other end of the glass, although the collection seller appeared desperate or lacking in dignity, the collection itself should not be devalued for that reason. The following section demonstrates, through careful examination and historical research, that the woodblock collection is surprisingly rich in treasures and provides compelling evidence of its contribution to the history of printmaking. The woodblocks, although of varied quality, were vastly underestimated in their historical significance.

2. From Charnley-Dodd woodblocks to Bewick

Reassessing Armstrong's Catalogue: Between Hype and Historical Substance

J. T. Armstrong compiled a preliminary catalogue for his woodblock collection (Figs. 6, 7), which he intended to expand but never had the chance to do so.



Figs. 6, 7 J. T. Armstrong's catalogue of the woodblock collection.

The troubled reception history of the Armstrong catalogue shows the complex relationship between dealer exaggeration and material authenticity. While Armstrong's 1917 inventory initially reads like a carnival

barker's manifesto, full of claims about "ancient relics" from King William's printer and blocks "of a much earlier time" than their 1708 documentation, later provenance research uncovers surprising truths behind the salesmanship.

The catalogue's opening remark, tracing blocks through Newcastle bookseller William Dodd (*Specimens of Early Wood Engraving*, 1862) to Emerson Charnley's earlier 1858 compilation, proves highly verifiable. It is worth citing Armstrong's statement on the first page of his catalogue. (Fig. 8)

Ancient and quaint original blocks in pear-tree, deal and other woods, cut with a common knife, ... have probably passed through many of the earliest printing offices in Great Britain, till they were discovered in the stock of the Newcastle bookseller, worthy old William Dodd, ... that the ancient relics came from John White Printing Office, he being ye King's Printer for the four great Northern Towns, Newcastle (John White's Decdt.[sic.] York, Edinburgh etc. John White brought them from York in 1708, but the blocks are of a much earlier time than when he lived.

Very rare and exceedingly quaint relics of old English wood-engraving. These blocks will be the means of discovering much fresh history about books.

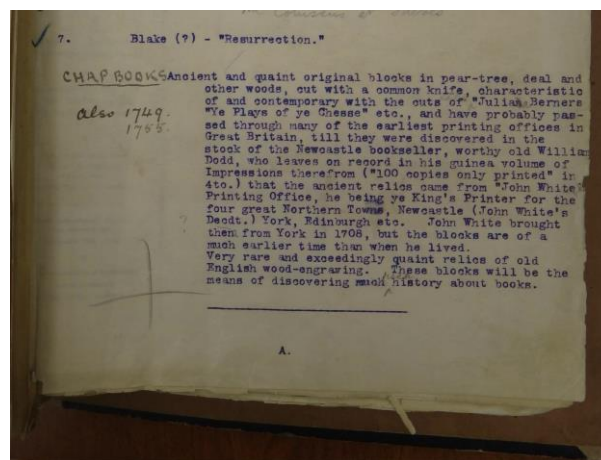


Fig. 8 First page of Armstrong's catalogue

Unfortunately, Armstrong did not specify which blocks were from the Charnley-Dodd collection, likely aiming to obscure their identification. However, his description offers some insights:

- The engraving technique was "cut with a common knife".
- The materials are made from pear-tree, deal, and other woods.
- The geographic origin is sourced from the stocks of Newcastle booksellers.

The Charnley-Dodd nucleus, although comprising only 3% of Armstrong's collection (approximately 130 blocks), significantly alters our understanding of its value. While Armstrong overstated individual attributions (his "Bewick" blocks being mostly replicas), the collection's historical significance remains strong. The White connection, once dismissed as dealer fantasy, gains credibility through William Dodd's introduction to the *Specimens* and the matching prints in John White's publications.

Armstrong's claims about "discovering much fresh history about books" through the blocks proved prescient, if not in the grand artistic terms he imagined. The rediscovery of block fragments matching prints in Charnley's 1858 *Specimens* edition demonstrated the value of these materials in reconstructing 18th and 19th-century printing practices, as their wormholes and breakages served as physical records of workshop conditions.

The tension between Armstrong's market-driven narratives and the collection's latent evidentiary power encapsulates broader tensions in print scholarship. Where Armstrong saw salable antiquity ("very rare and exceedingly quaint relics"), modern print scholars find a palimpsest of craft knowledge—the commonness of these provincial preserving technical data that had been scrubbed from refined London workshops. The Huntington's 3,000 surviving blocks, once dismissed as McGuire's "worthless curiosities," now serve as

valuable concrete evidence for understanding how regional printers adapted metropolitan techniques to local resources and markets.

In this light, Armstrong's catalogue emerges not merely as puffery but as a distorted mirror reflecting genuine historical currents. His instinct to present the collection as a key to "fresh history" proved ironically accurate—not through the romanticised provenance he promoted, but through the material testimonies these overlooked blocks offer to print culture's unglamorous underside. The true "treasure" resides not in famous names but in the ordinary mastery these blocks encode.

The Bewick Nexus: Commercial Mythmaking and Romantic Veneration

The 1895 Sotheby's auction catalogue (Sotheby, Wilkinson and Hodge, London) (Fig. 9) illustrates the complex balance between commercial opportunism and genuine cultural veneration surrounding Thomas Bewick's legacy. Its title-page claim of "the most extensive collection ever brought together of the original engravings on box-wood by Thomas and John Bewick" conceals the problematic assembly by Edwin Pearson (1838-1901), a dealer known for fabricating provenances.^{xii} J. T. Armstrong, as a purchaser of the collection^{xiii} and a follower of Pearson's cataloguing style, complied with the misattribution of many blocks in his collection to Bewick.

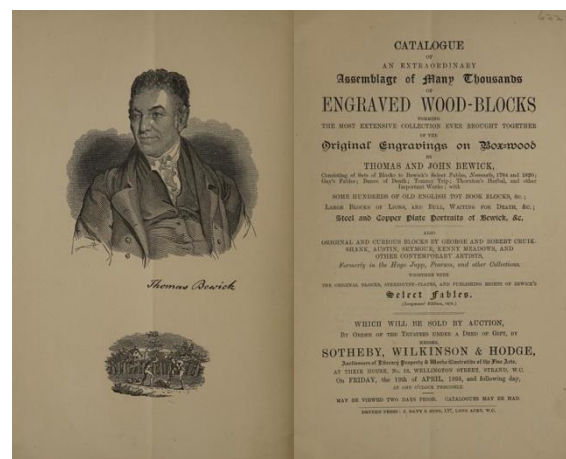


Fig. 9 The frontispiece & titlepage of Sotheby's auction catalogue of woodblocks, 1895. (from Internet Archive)

Romantic writers' fascination with Bewick's art—evident in Wordsworth's admiration in *The Two Thieves* (1800), Brontë's lyrical tribute in *Jane Eyre* (1847), and Ruskin's celebration of his "flawless veracity"^{xiii}—created a cultural halo that dealers like Pearson exploited. Their effusive praise, exemplified by De Quincey's recollection of *Bewick's Quadrupeds* as childhood scripture^{xiv}, transformed Bewickana into collectable commodities. This veneration stemmed from Bewick's perceived synthesis of artistic refinement and rustic authenticity—qualities Carlyle reductively framed as "communion with skies and woods" versus the industrial "railway howlings."^{xv}

The Charnley-Dodd *Specimens* (1858/1862) reveal how provincial printing history became entangled with Bewick's legacy. Although only around 130 blocks in Armstrong's collection appear in these anthologies, their prints bear Newcastle imprints—broadside ballads like *The Suffolk Miracle* and chapbooks such as *Dr. Faustus*—demonstrating the vernacular visual culture that shaped Bewick's aesthetic. Dodd's 1862 introduction strategically positions these crude blocks as early influences on Bewick, claiming they "passed under his eye" and provided "material for contemplation." This narrative, though commercially advantageous, presents material evidence in the form of engraved-line observations and comparisons, showing that Bewick adapted and refined provincial carving techniques into his white-line innovations.^{xvi}

The Armstrong collection's true significance lies not in Bewick attributions but as a testament to printmaking's industrial evolution. The 730 Charnley and 806 Dodd blocks^{xvii}, among which about 130 are in the Armstrong-Huntington collection, document transitions from hand-press craftsmanship to mechanised reproduction. Their "vulgarity," which Pearson obscured, became crucial to understanding pre-Bewick print ecology.

This reassessment challenges conventional art historical hierarchies. Where Romanticists regarded Bewick as a solitary genius beyond his context, the collection reveals him as part of a shared craft tradition. The survival of the blocks through multiple ownership,^{xviii}—from White's 18th-century workshop to Huntington's institutional care—testifies not to individual genius but to the interconnected development of print culture. Their preservation, ironically secured by commercial mythmaking, now enables the demystification of that same mythos.

Under scrutiny and based on the advice of Bewick scholars,^{xix} among the approximately 3,000 woodblocks in the Armstrong collection, only about 50 are confirmed as genuine Bewick works. These include 43 *Proverbs Exemplified* (London: John Trusler, 1790) blocks by John Bewick (nos. 1630-31, 1648, 3506-44, 3579) (Figs. 10, 11), and nine blocks by Thomas Bewick (nos. 3587-95) printed for the illustrations of Robert John Thornton's *A New Family Herbal* (London: Richard Phillips, 1810) (Figs. 12, 13). The remainder of the so-called Bewick blocks can only be ascribed to the "Bewick School," meaning those created after Thomas and John Bewick. It also reflects the printing workshop practices in book illustrations from the 18th and 19th centuries, underscoring the widespread uncredited replication of designs during this period.



[37]
What's Bred in the Bone, will never Out of
the Flefs.



THIS strongly fhews the force of all example
and the evil tendency of bad ones. If we
take a glance round us, we fhall in general find,
that though, as Gay fays,

“ Learning was ne'er entailed from fon to fon;”
yet Vice is, in fome meafure, hereditary. We fhall
fee the children of the moft abandoned trawling,
E through

Fig. 10 Armstrong woodblock no. 3518.

Fig. 11 John Trusler, *Proverbs Exemplified*, 1790, p. 37.

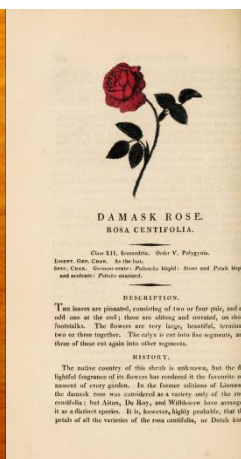


Fig. 12 Armstrong woodblock no. 3595.

Fig. 13 Robert John Thornton's "A new family herbal" (London: Richard Phillips, 1810), p. 498.

3. A Brief History of Printing Woodblocks

This section provides examples to demonstrate that the Armstrong Collection's woodblocks chronicle a technological progression in British print culture, with early modern instances (the Charnley-Dodd blocks) showing pre-industrial craftsmanship, and 19th-century examples representing industrialised manufacturing.

Chronological analysis highlights the collection’s significance as evidence of the development of printing technology. Early 18th-century blocks, typically 22mm thick with bold linear engravings, often show structural compromises. Block 17 (Figs. 14, 15, 16), originally made for John Shirley’s 1711 *London Prentice* (Fig. 17), shows period-specific modifications: its 18mm core was augmented with nailed wooden shims to meet the standardised 22mm press height. Similar adjustments are observed in blocks 15, 23, 163, and 722, where additional wooden pieces are used to address material shortages or to meet press specifications.

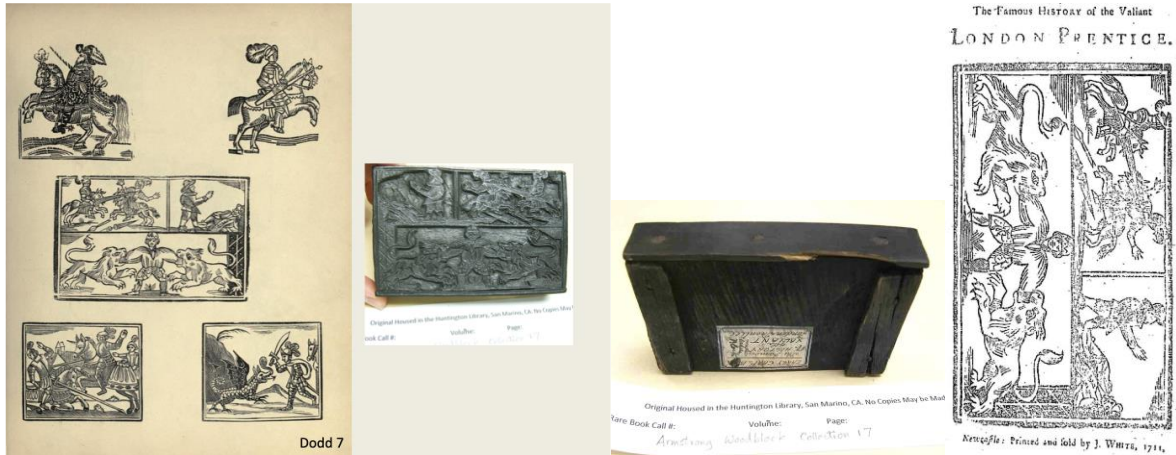


Fig. 14 Dodd 7; Figs. 15, 16, 17 Armstrong woodblock No. 17 recto & verso, printed for the Title-page to John Shirley, *The Famous History of the Valiant: London Prentice*, Newcastle: Printed and sold by J. White, 1711.

The collection’s condition provides inadvertent historical testimony. Other early 18th-century blocks, such as Nos. 47, 1685, 1686, and 2637 (Figs. 18, 19) show recto surface damage and edge fractures consistent with heavy press use, while their survival of multiple recuttings mirrors period practices of resource maximisation. These material imperfections, far from diminishing the blocks’ significance, authenticate their working life within historical printshops.



Fig. 18 Dodd 87; Fig. 19 Armstrong woodblocks nos. 47, 1685, 1686, 2637

Mid-18th-century specimens, such as No. 46 (Figs. 20, 21, 22), used for *The Suffolk Miracle* broadside^{xx} (Fig. 23) between 1730 and 1769, combine two layers of wood, showcasing an alternative form of joinery.



Fig. 20 Charnley 44, Dodd 41
 Fig. 21, 22 Armstrong woodblock No. 46 recto & loose verso.



Fig. 23 Broadside ballad "THE / SUFFOLK MIRACLE" (British Library Roxburghe 3.326-327)

Block 719 from the Charnley-Dodd *Specimens* (Figs. 24, 25) exemplifies early modular design through its innovative joinery. The central split line on the recto and the interlocking slots on the back, crafted without the use of nails, suggest a deliberate manufacturing method. This construction allowed the separate engraving of components for multiple editions, as evidenced by its use across at least three different publications: *The Accomplish'd Courtier* (Newcastle)^{xxi} (Fig. 26), *Wanton Tom* (Newcastle)^{xxii}, and *Bonny Peggy's Garland*^{xxiii}. The circular composition of lovers beneath a cupid, framed within square dimensions, became adaptable via this split-block technique—a precursor to later stereotyping methods.



Fig. 24, 25 Armstrong woodblock 719, recto & verso. Fig. 26 Title-page of *The Accomplish'd Courtier*.

Interchangeability reached a new level of complexity in Block 134’s celestial cityscape (Figs. 27, 28). The central void within its angel-held wreath accommodated interchangeable toponyms, as demonstrated by three 17th-century broadside variants bearing “London,” “L. Derry,” and “Ireland.”^{xxiv} (Figs. 29, 30, 31) This spatial economy contrasts with Block 29’s theological flexibility (Figs. 32, 33, 34): its deathbed scene includes a removable sub-block illustrating either salvation or damnation, fulfilling Armstrong’s catalogue description of a “Catholic block for insertion if the parson dying went to heaven or hell.” These early modular systems emphasised narrative adaptability over mass production.

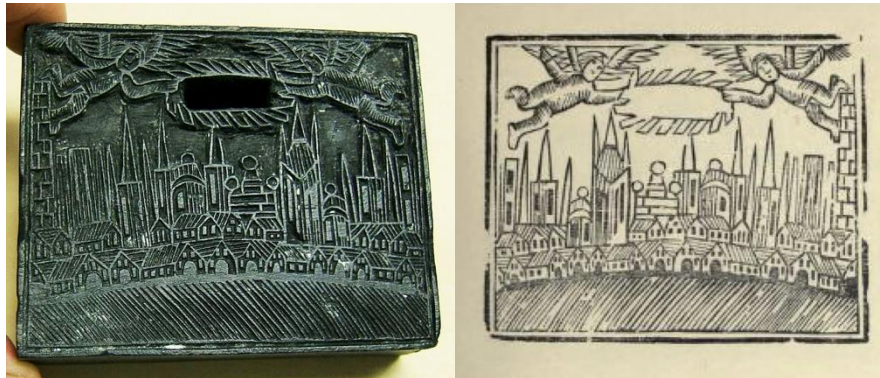


Fig. 27 Armstrong woodblock no. 134. Fig. 28 Previous block printed in Charnley-Dodd.



Figs. 29, 30, 31 Three similar blocks are printed with the city’s names in the space.



Figs. 32, 33, 34 Armstrong woodblock 29, printed in Charnley 87, Dodd 85.

19th-century blocks, on the other hand, optimised commercial efficiency. Block 3572’s electrotype-on-wood construction, a mid-century innovation (Figs. 35, 36), features a Chinese figure gesturing towards a blank space designed for tea advertisements, paralleling contemporary trade cards such as Mowbray & Son’s 1830 example^{xxv}. Similarly, Block 1475 (Figs. 37, 38) depicts a tropical scene with a central text void, used for tobacco promotions; its racialised imagery reflected imperial trade networks. Technical advancements enabled larger formats, such as Block 1091’s 15x10cm pugilist portrait (Figs. 39, 40)—a screw-joined composite that allows for concurrent engraving. Although unconfirmed as depicting Tom Sayers^{xxvi}, its verso pencil inscription and modular design align with the practices of newspaper illustration during boxing’s rise in popularity in the 1850s.



Figs. 35, 36 Armstrong No. 3572 Electrotype, recto & verso.



Fig. 37, 38 Armstrong woodblock No. 1475, recto & verso.

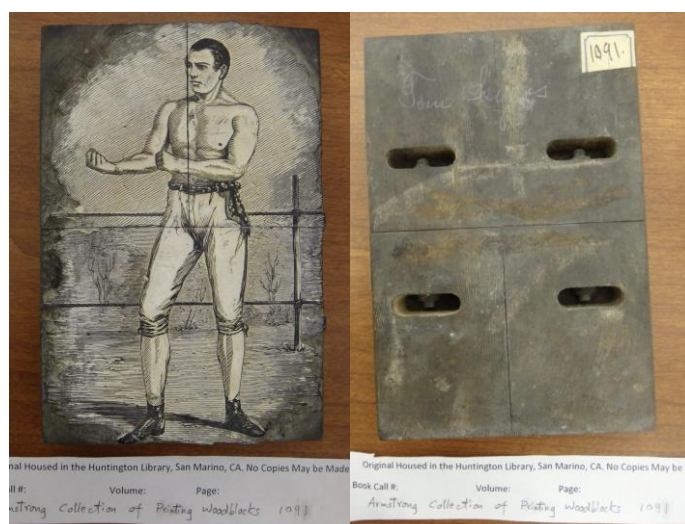
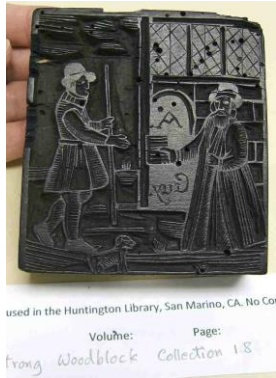
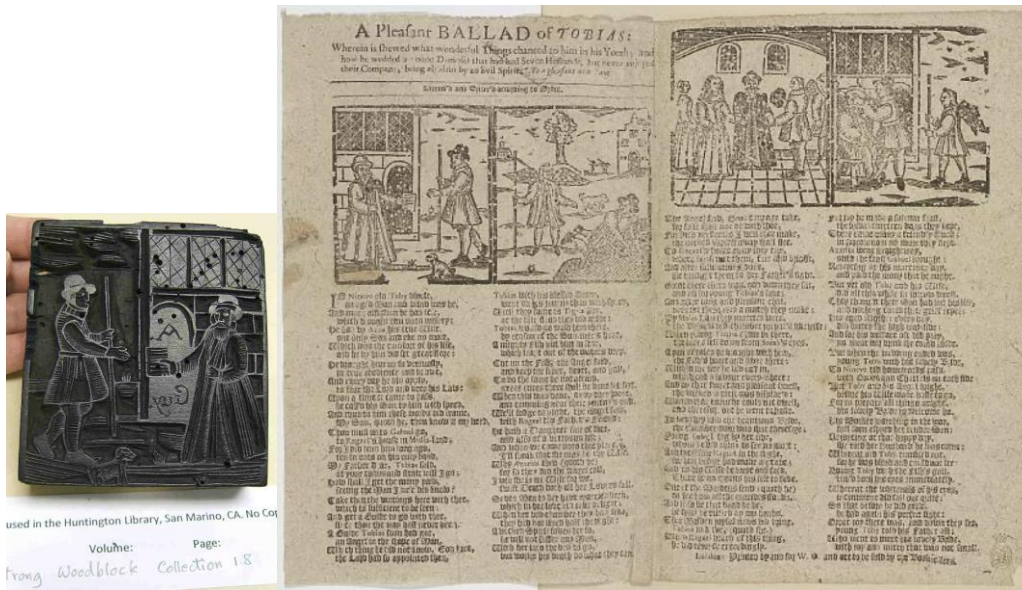
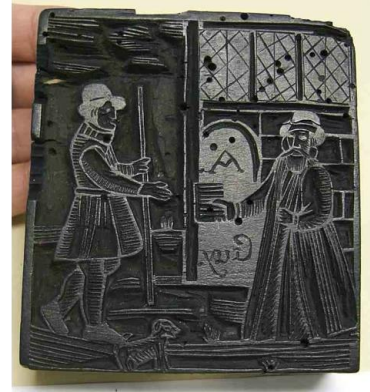


Fig. 39, 40 Armstrong woodblock No. 1091, recto & verso.

Material degradation patterns verify the working histories of these artefacts. Block 18's wormholed surface, used for John White's 1725-1769 *Tobias* broadside (British Library Roxburghe 3.514-515) (Figs. 41, 42), reveals its printing history through comparison with earlier London editions. By examining wormholes and breakages, three nearly identical designs are now recognisable. The British Library 1624-1680 London impression (Roxburghe 1.420-421)^{xxvii} and the National Library of Scotland's 1688-1709 impression (Crawford.EB.663)^{xxviii} used the same block, before White's recutting in Newcastle. Progressive damage accumulation of White's block—from Roxburghe 3.514-515's early-18th-century cracks to Charnley-Dodd's 1858/1862 *Specimens* to Huntington's current woodblock—charts three centuries of workshop use and institutional keeping (Figs. 43, 44, 45). Other blocks exhibit distinct deterioration features: No. 47's press-impact fractures (Figs. 46, 47, 48), No. 1132's catastrophic split (Figs. 49, 50), No. 723's desiccation cracks, and No. 748's thermal damage (Figs. 49, 50) collectively indicate environmental and mechanical stresses.



used in the Huntington Library, San Marino, CA. No Copy
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rong Woodblock Collection 18



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Fig. 41 Armstrong woodblock no. 18

Fig. 42 Broadside ballad, Newcastle upon Tyne: John White, 1725-1769 ?

Figs. 43, 44, 45 Comparing three editions of the 18th-century ballad, Dodd 21/Charnley 21, & Armstrong woodblock 18.



Fig. 46 Newcastle: M. Angus and Son, printers [1800?]

Fig. 47 Charnley 88, Dodd 87

Fig. 48 Armstrong woodblock no. 47



Fig. 49 Charnley 32, Dodd 35; Fig. 50 Armstrong woodblock no. 1132



Fig. 51 Charnley 59, Dodd 62; Fig. 52 Armstrong woodblock no. 723

This physical evidence ultimately reorients scholarly focus from artistic attribution to technological history. The prevalence of composite blocks and adaptive modifications documents practical responses to material constraints, while dimensional standardisation across centuries traces the slow development of printing infrastructure. Instead of celebrating individual artistry, the Armstrong collection appears as a tangible archive of craft knowledge—its scars, additions, and wear patterns forming an unspoken narrative of pre-industrial print culture.

Conclusion: Reconfiguring Ephemeral Heritage – The Multivalent Significance of Woodblocks as Material Archives

The Armstrong Woodblock Collection, which has endured three centuries of print history, has re-emerged from obscurity in the Huntington Library as a significant vessel of industrial-era memory. Through transnational archival research and material analysis, this study uncovers the dual paradox of these overlooked printing tools: they are both abandoned relics of industrialisation and unintended monuments to hand-press aesthetics.

Archival evidence shows how the complex character of collector James Tarbotton Armstrong influenced the development of the collection. His 1914–1921 correspondence with Henry E. Huntington (Huntington Archives b1859968) reveals the dual nature of late-Victorian cultural intermediaries – Armstrong both promoted the collection through romanticised language of a "golden age of print" and systematically documented records of northern workshop labour practices. This contradiction reached its peak during the 1917–1921 post-acquisition negotiations, where, despite both parties being motivated by business interests, Huntington considered the woodblocks marginal to fine art collections, while Armstrong maintained their status as independent technical archives. This cognitive dissonance reflects the ongoing challenge faced by museums, weighing the market value of cultural items against the authentic history of craft heritage.

A critical reappraisal of Armstrong's catalogue confirms that, although commercial hype permeates its pages (notably with exaggerated claims about connections to the Bewick School), it unintentionally preserves essential historical and technical data. The Charnley-Dodd blocks, for instance, demonstrate many undocumented methods of block making that cannot be observed in their printed form on paper. The study further exposes the dual marginalisation of woodblocks as cultural heritage: art history dismisses their rugged chisel marks as "unfinished works," while book history reduces them to technical footnotes of textual

vehicles. Yet when viewed through a "technological life-cycle" lens, these cracked pearwood matrices bear historical marks in the studio practices and changing conditions that have evolved over time.

The Armstrong Collection's scholarly potential remains largely unexplored. This paper initiates an investigation into production techniques and the history of the collection, with future research focusing on the subjects and publishers of the Armstrong woodblocks. It is planned to be a monograph featuring high-resolution photographs of the blocks.

Acknowledgement:

This paper is based on three conference papers: "Collecting Romanticism in the history of print", EARN (Enlightenment and Romanticism Network), Taipei, Taiwan (2016); "Constructing a miniature history of printing with the woodblock collection at the Huntington Library", BSECS (British Society for 18th-century Studies) Annual Conference, Oxford, UK (2016); and "The Private War of a long 18th-century collection – History of the Armstrong Woodblocks at the Huntington Library, BSECS Annual Conference, Oxford, UK (2015). It was made possible thanks to funding from the National Science and Technology Council, Taiwan (2011, 2012, 2013, 2015, 2016, 2022), and fellowships from the Huntington Library (2009, 2011, 2014), research grants from the Printing Historical Society (2008, 2013) and Paul Mellon Centre for Studies in British Art, Yale University in London (2018), The Bibliographical Society of America (BSA), and The American Society of the Eighteenth Century Studies (ASECS) (2008).

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Notes:

ⁱ The collection on Huntington Library's online catalogue:

<https://catalog.huntington.org/search/?searchtype=&searcharg=b1859968&sortdropdown=-&SORT=D&extended=0&SUBMIT=Search&searchlimits=&searchorigarg=b1859968>

ⁱⁱ Recent scholarship on printing matrices includes "Charnley-Dodd woodblock Workshop", Weston Library, Oxford University, UK (17 June 2016); the workshop "The Matrix Reloaded: Establishing Cataloguing and Research Guidelines for Artefacts of Printing Images", School of Advanced Study, University of London, UK (22 Sep. 2017).

ⁱⁱⁱ The exact number of the extant woodblocks in the collection is unsure. Armstrong's catalogue lists 3976 items with gaps and missing blocks, while my block-by-block record of 3219 items, some as series and more than one block.

^{iv} <https://ancestors.familysearch.org/en/LB5N-WCC/james-tarbotton-armstrong-1849-1933>

^v The "Scribblers' League" was a literary society in Los Angeles as Armstrong described and perhaps was associated at the time. (An advertisement from the 1933's newspaper *Eagle Rock Advertiser* shows a meeting of the League at Pasadena, an area local to the Huntington Library.)

^{vi} All the letters cited in this section are from the Huntington archive.

^{vii} Reference from <http://www.unz.org/Author/ThompsonHugh>.

^{viii} Thompson, Hugh, "The Romance of the Wood Block", *The Bookman: An Illustrated Magazine of Literature and Life*, New York: Dodd, Mead & Company, November 1914, p. 341.

^{ix} Christopher Heppner, "A Collection of Wood Blocks and Related Material at McGill University", *The Book Collector*, vol. 35, no. 1 (Spring 1986), 53-66. Léa Constantin, "McGill University Rare Books and Special Collections: A collection of woodblocks", https://www.mcgill.ca/library/files/library/woodblock_collection_-_description_-_public_final.pdf. However, the staff of McGill University Library has not been able to locate the provenance record of their woodblock collection in my recent contact.

^x According to the previous chief curator of the Huntington Rare Books Alan Jutzi, Henry E. Huntington rarely wrote letters himself. Jutzi proposed the cataloguing project in 2006, and thanks to him, this research is possible.

^{xi} Nigel Tattersfield, *Dealing in Deceit: Edwin Pearson of 'The Bewick Repository' Bookshop 1838-1901*, Newcastle upon Tyne: The Bewick Society, 2020.

^{xii} The Pease Collection in Newcastle Public Library contains an annotated copy of the 1895 Pearson catalogue, with purchasers' names including Armstrong. See Heppner, "A Collection of Woodblocks and Related Material at McGill University", *The Book Collector*, Vol. 35, No. 1, 1986 (London: The Collector Ltd.), p. 56.

^{xiii} Ruskin was enthusiastic in Bewick and recognised his "magnificent artistic power, the flawless virtue, veracity, tenderness, the infinite humour of the man". Quoted in John Rayner's Introduction to *A Selection of Engravings on Wood by Thomas Bewick*, ed. N. B. L. Pevsner, London: King Penguin Books, 1947.

^{xiv} *The Collected Writings of Thomas De Quincey*, ed. David Masson (Edinburgh, 1890), VII, p.69n; Tattersfield (2011), Vol. I, p. 182.

^{xv} Thomas Carlyle read Bewick's *Memoir* (written in the 1820s, unpublished until 1862) and made a comment in a letter to his friend John Ruskin that Bewick was "Not a great man at all; but a very true of his sort, a well completed and a very enviable-living there in communion with the skies and woods and brooks, not here in ditto with the London Fogs, the roaring witchmongeries, and railway yellings and howlings." Quoted in John Rayner's Introduction to *A Selection of Engravings on Wood by Thomas Bewick*, ed. N. B. L. Pevsner, London: King Penguin Books, 1947.

^{xvi} Kainen, J. (1959). *Why Bewick succeeded: A note in the history of wood engraving*.

^{xvii} Christopher Heppner, "A collection of wood blocks and related material at McGill University", London : Queen Anne Press, 1986.

^{xviii} The early collectors passed the collection from John White to Thomas Saint, Thomas Angus, George Angus, Emerson Charnley, William Dodd, Thomas Hugo, Edwin Pearson, James Tarbotton Armstrong, Henry Edward Huntington and other unknown collectors. Léa Constantin, "A collection of woodblocks, McGill University Rare Books and Special

Collections”, April 2013. https://www.mcgill.ca/library/files/library/woodblock_collection_-_description_-_public_final.pdf

^{xxix} Thanks to the precious suggestions from three Bewick experts, including Iain Bain, Nigel Tattersfield, and Graham Williams, whom I interviewed in 2017 in the UK.

^{xxx} British Library Roxburghe 3.326-327 <http://ebba.english.ucsb.edu/ballad/31051/image>

Newcastle upon Tyne: Printed and Sold by John White. 1730-1769?

^{xxxi} Google Books: <https://books.google.co.uk/books?id=DP1eAAAACAAJ&printsec=frontcover&hl=zh-TW#v=onepage&q&f=false>

^{xxxii} Google Books: <https://books.google.co.uk/books?id=IP1eAAAACAAJ&printsec=frontcover&hl=zh-TW#v=onepage&q&f=false>

^{xxxiii} British Library 11621.c.3.(7.) 11606.aa.24.(19.)

^{xxxiv} The three broadsides ballad are “Major General Kirks / Happy Arrival, / To the Relief of London-Derry: with some Particulars, Relating to his Glorious / Undertaking”, London, Printed for A. Milbourn, at the Stationers Arms on Green-/Arbour Court in the Little: Old-Baily, 1689 (Pepys Library, Magdalene College); “OXFORD in Mourning, / For the Loss of the Parliament...”, 1681 (British Library Roxburghe collection); “The Souldiers Prayers for / King VVILLIAMS”, London, printed for Iames Bissel at the Bible and Harp in / West Smithfield near the hospital gate, 1690. (Magdalene College Pepys collection)

^{xxxv} Trade card of Mowbray & Son, tea dealers and grocers (engraved by Hoare & Reeves, England, c.1830. Victoria and Albert Museum, London). <https://www.vandaimages.com/2006AU1958-Trade-card-of-Mowbray-Son-tea-dealers-and-grocers.html>

^{xxxvi} The verso features Armstrong’s pencil writing: “Tom Sayers”, a 19th-century boxer.

^{xxxvii} <http://ebba.english.ucsb.edu/ballad/30287/image>

^{xxxviii} <http://ebba.english.ucsb.edu/ballad/33280/image#>