Connoisseurship of Nineteenth and Early Twentieth Century Publishers' Bookbindings

A research library's charter to amass vast, scholarly collections of books links its *raison d'Atre* more closely to the workings of a museum than is commonly considered.[1] As a by-product of the seemingly endless process of selecting, acquiring, storing, and lending books, journals and other recorded information, libraries are ideally situated to understand the historical evolution of media used to create and disseminate that information. Paralleling the object-oriented research possible in a museum's ethnographic collection, library holdings provide physical evidence that supports a wide variety of scholarly investigations, including the history of commercial design (bookbindings representing some portion of the life's work of many artists, architects, designers, engravers, graphic artists, and typographers); the interpretation of how an author's original work was packaged and received by readers; evidence related to the spread of literacy in society; the evolution of the book manufacturing and publishing professions; the impact of the industrial revolution on materials and manufacturing methods; the development of advertising and its effect on mass-market appeal; and the evolving roles of women and children in the workplace. Many questions as yet unformulated may someday be answered by this material; even now, though, scholarly organizations, such as the Modern Language Association of America, are calling for "maximum retention and preservation of textual artifacts"[2] in an effort to curtail the needless and thoughtless loss of primary research material from library collections.

The vast majority of historically significant nineteenth- and early-twentieth-century publishers' bookbindings reside in the general collections of research libraries. In no way does this minimize the importance of this material historically nor the library's professional obligation to guarantee its protection. Unique or extremely rare examples of original publishers', binders', and designers' works, of value simply by virtue of their limited survival rate, reside unrecognized in the open stacks. Consequently, this circulating material is subject to wear, and remains at risk of being lost through inappropriate book repair practices and commercial rebinding, a tragedy not restricted to U.S. libraries. Mirjam Foot recently noted, "many libraries and institutions rebind their

deteriorated stock. Their argument that these books are read (and photocopied) to shreds and need more protection than can be provided by their original binding is a strong one, but is it not used too easily and too often?"[3] The decision to automatically rebind must be reconsidered in light of the cost-effective, nondamaging procedures currently available for sorting and repair.[4]

To begin curbing the needless loss of this non-renewable resource, the Library Collections Conservation Discussion Group (LCCDG) of the American Institute for Conservation (AIC) recently developed a "Checklist of Primary Evidence in Nineteenth- and Early-Twentieth-Century Publishers' Bookbindings." The Checklist attempts to identify historically significant bindings created during the past two centuries using readily observable features present in the physical object.[5] It is designed to help librarians, technicians, and conservators identify objects worthy of receiving non-intrusive repairs and possibly more rigorous bibliographical review as they are sorted for treatment in response to physical deterioration. Connoisseurship[6] of circulating collections is critical if unique or variant examples of publishers' bindings are to be spared well-intentioned but inappropriate preservation options that result in the sacrifice of an object's original integrity as a means of retaining its intellectual content. What follows is an overview of the extensive technical and historical literature related to the connoisseurship of publishers' bindings from which the Checklist was derived.

Technical Advances

Noted bibliographer and scholar Michael Sadleir identified F. Newbery of St. Paul's Churchyard, London, as possibly the first publisher (in 1761) to supply his booksellers with editions of juvenile books identically bound (green quarter vellum, paper sides and labels).[7] Philip Gaskell notes this extremely early date for a standardized publishers' binding relates to special attention directed toward juvenile books,[8] with eighteenth-century bookseller-publishers typically issuing editions in loose quires, or stitched (i.e., stabbed with thread through the side of the text) and clad in a plain paper wrapper.[9] Printed paper labels on the spines of "boarded" (paper-covered bindings with laced-on boards) occur in the 1780s and 1790s,[10] but this form of titling is not a common

practice among early publishers (e.g., Longman, Murray, Sampson Low, and Robinson) until the beginning of the nineteenth century.[11]

By the first quarter of the nineteenth century, technological improvements brought about by the industrial revolution began reaching large trade bookbinderies interested in keeping pace with the output of the iron printing press. The first mechanized device to enter the bindery was the hydraulic standing press, patented by Joseph Bramah in 1795.[12] William Burn's rolling-press, invented in 1827, replaced the laborious hand-beating of books, and displaced most of the semi-skilled "beaters" who performed this operation with 10-16 pound hammers.[13] The hand-cranked rolling-press was used to squeeze folded book sections sandwiched between pairs of tin plates and run under pressure between a pair of opposing metal rollers similar to an etching press. Reserved for better quality "bound" (as opposed to boarded or cased) work,[14] the rolling press, as with all mechanized improvements introduced into the bookbinding trade, was disseminated first to the largest trade binderies where its expense could be justified by the resultant efficiency. A penchant for maintaining craft traditions may have slowed the adoption of new labor-saving devices, which reached the smaller binderies decades after their invention, if at all.

Greater permanence in covering material for edition bindings was achieved in 1822 or 1823 with introduction of dyed, starched, and calendered book cloth.[15] The dynamic publisher, William Pickering, is credited with adapting calico curtain linings as a more durable material than paper for covering boarded work, a solution possibly introduced with the tiny *Diamond Classics* series.[16] While the actual developer of book cloth is disputed historically between two of Pickering's binders, Archibald Leighton and R.E. Lawson,[17] the use of undyed canvas (described as "hessian" in England, and commonly referred to as "burlap" in the U.S.) for edition work predates the use of cotton calico by fifty years. Durable, undecorated canvas was in use as early as 1767 for binding high-use, ephemeral publications such as educational manuals and school books.[18] Robert Leighton, Archibald's son, recalled in an article published in 1881 the process used for adding color and texture to early book cloths to make them more aesthetically interesting:

> In the early days I speak of, the white calico was bought in London, sent to the dyers to be dyed, and from thence to Mr. John Southgate of 3 Crown Court, Old Change, to be stiffened and calendered. The embossing of bookbinders' cloth was suggested to my father by the late Mr. De la Rue, and was by him carried out so admirably that his process remains in use today.[19]

Natural dyes used in early book cloths are not lightfast and fade as a result of exposure to light, elevated levels of relative humidity, and air pollutants.[20]

The durability achieved with book cloth lead to its broad and rapid acceptance by publishers. Individual binderies became enamored of the diverse and attractive grain patterns[21] possible for improving the cloth's appearance. The method for "imparting to cloth the diamond or granulated or speckled appearance which neatly hides the rectangular interlacings of the warp and weft threads"[22] was described by George Dodd in 1843. This technique relied on a cloth-embossing machine, which, again, is modeled after the etching press. Embossed patterns were transferred to starched and dyed cloth by passing the material between pairs of engraved rollers heated with gas jets in the bottom roller. Pressure and heat essentially crimped the cloth as it passed between the "male" and "female" images, imparting everything from simple morocco and watered (or moiré) grains (appearing in the late 1820s)[23] to elegant, three-dimensional ribbon-embossed finishes (by 1834)[24] for achieving three-dimensional effects.[25] David Jeremy notes that the import of engraved copper rollers from England to America was prohibited by the Board of Trade until December of 1830,[26] which lends support to a second, less-costly approach described by Joseph Rogers in 1940 as a method still being used. This method consists of squeezing book cloth between pairs of flat, engraved plates in a hydraulic or standing press to emboss a grain pattern in the starched surface.[27]

Commercial book cloth production, John Adams notes, "was fully developed by the 1830's by Thomas Hughes, the first manufacturer of bookbinder's cloth, who opened a London office in Bunhill Row."[28] Douglas Leighton suggests that "about the year 1840, bookcloth manufacturing came to be recognized as a distinct trade,"[29] with some of the earliest suppliers including the London firms of Ford and Brocklehurst (bookbinders' leather sellers), James Leonard Wilson,[30] and by 1842, the large trade bindery, Westleys and Clark.[31] Bookbinders' cloth remained a strong international export commodity for

England during the remainder of the nineteenth century, although significant price increases, as the result of raw material shortages occurring during the Crimean (1854) and U.S. Civil War (1860-63), affected all cloth manufacturing and may have contributed to the resurgent interest in paper as a covering material for cheap books during the middle of the century.[32] American book cloth manufacture did not begin to compete with English producers until 1883, and not until the turn-of-the-century were most American imprints bound in domestic cloths.[33]

Nikolaus Pevsner identifies Mr. Bell from Scotland as the inventor of the cylinder machine around 1770 which was used to print decorative patterns on calico for clothing and furniture coverings.[34] The technology was further developed in England during the 1780s, and became available in the U.S. by 1809.[35] Simple one- or two-color printed patterns appeared on dyed book cloth by the 1840s, but these were not widely used and are extremely scarce today.[36] Another printing technique for cloth—called "hand-marbling," although in fact the images were printed on cloth from a lithographic stone—was patented by C. W. Woolnough in 1851.[37] Additionally, Louis Joseph Wallerand is credited in 1860 with developing a machine that printed shaded stripes on cloth by passing the fabric over a series of wheels that allowed the resultant stripes to be diffused by means of capillary action.[38] This invention may have been simply an improvement of an earlier technology, however, as delightful examples of shade-stripe book cloth occur by approximately 1845.[39] A. W. Hofmann and his assistant W. H. Perkin dramatically affected the spectrum as well as the amount of manual labor involved in coloring all fabrics following their discovery of aniline dye in 1856. The appearance of synthetic dyes in book cloth is evident in the brighter (sometimes brilliant) colored bindings that appeared during the latter half of the century and which remain more lightfast than natural dyes.[40]

Bernard Middleton suggests forwarding (e.g., folding, sewing, rounding, backing, and lining the spine in preparation for covering) editions for case bindings became prevalent "shortly after the introduction of cloth" between 1825 and 1830.[41] W. Bowyer cites one of the earliest English publishers' case bindings as being "the Cadell edition of the *Waverley Novels*, 48 Vols., 1830, bound in smooth red cloth with paper labels,"[42] while Gary Frost notes in America, "the changeover from in-board to case construction

work [at J. J. Harper] occurred in 1831."[43] Described as "case work" as early as 1835 by John Hannett,[44] it is likely this structure evolved from the German rigid case commonly used for periodical binding in the eighteenth century.[45]

Case construction quickly became the norm for edition binding because greater production speed in gold stamping could be achieved with the use of the Imperial Arming Press invented by Cope and Sherwin in 1832.[46] In the U.S., the firm of Bernard Sheridan began manufacturing embossing presses by 1838.[47] Charles Starr of New York developed a machine for lettering and gilding the spine of tight back leather bindings that is reported to have been able to title 1,000 bibles in three hours. The concept was to support the book on a stationary platen and rotate it 90 degrees against the pallet which impressed type against the spine. This machine won a gold medal in the 23rd Annual Fair staged in New York by the American Institute in 1850,[48] and was exhibited in the Great Exhibition in London in 1851.[49] Appropriate stamping temperatures for stamping presses were first maintained by placing heating irons in the machine's heater box.[50] This system was replaced by gas heat,[51] and followed by steam heat (steam also being harnessed to power Sheridan stamping presses about 1845, the earliest powered machinery in U.S. binderies),[52] and then by electrical heating around the first decade of the twentieth century.[53]

Prior to the development of the larger Arming Press, decorative blind embossing and gold stamping, which appeared on publications such as literary annuals,[54] were applied with heated dies embossed using standing or hydraulic presses.[55] Huge fly embossing presses, introduced between the years 1825-1830 in France by M. Thouvenin and in England by Remnant and Co. and De la Rue,[56] were essential to exert the tremendous pressure needed to create intaglio (or relief) blind impressions, first on paper- or leather-covered bindings, and subsequently on cloth. These two-man presses could exert up to 80 tons of pressure[57] directly onto the covering material, and required separate impressions for the spine and each board of the cover. The engraved brass intaglio (or female) stamp was heated on the upper platen of the press with the "force" (or male counter-die) made of millboard, "sugar paper," or papier mâché, glued to the lower platen and formed by the pressure exerted by the closing press.

In 1855, glair (i.e., egg white) is described as the size used to bond gold leaf to either "muslin or leather"when case bindings are stamped in the finishing department of Harper and Brothers in New York.[58] This same technique is also observed by Tomlinson in use in England in 1868, indicating that traditional gilding practices continued to be applied to stamp covers after trade binders begin producing publishers' cloth bindings.[59]

In a rare published disclosure of trade secrets related to finishing in 1905, Louise Kinder, head binder at The Roycrofters in East Aurora, New York, set out detailed instructions to practitioners on stamping publishers' cloth bindings. One of the remarkable aspects of this account, aside from the insights provided by more than sixty contemporary formulas relating to finishing, stamping, edge gilding, and edge marbling, is the clear orientation toward mass production that is so easily overlooked in more detached descriptions of edition binding. Note this perspective in the following: "Glair from fifty to one hundred cases, according to the amount of laying on [adhering gold leaf to the cover with a light application of oil in preparation for stamping], and when about half of these have been stamped, glair another batch like the first, stamp part of them, then glair another lot, and so on. This scheme will regulate the work so that the cases will always posses the same moisture when getting stamped."[60]

Of the sixteen formulas for glair and sizing Kinder describes for finishing, he recommends ten of these for stamping. These preparations include: white of egg glair;[61] bleached shellac size;[62] liquid fish glue;[63] a combination of egg albumen glair and fish glue;[64] Le Page's glue;[65] yellow dextrine;[66] white shellac cut with grain alcohol;[67] a combination of shellac size, fish glue, and vinegar;[68] a combination of shellac size, fish glue, glycerine and rose-water, honey, and vinegar;[69] and, a combination of wax, Le Page's fish glue, glycerine and rose-water, and glair.[70]

Kinder also covers sixteen oils and greases for laying-on, that is, providing a medium to hold the gold or metal leaf in place until the cover can be stamped. Kinder notes that while the choice of this medium is critical for finishing by hand, "few exceptions, in stamping (press work), it matters very little what kind of oil is used for laying on. In many cases the stamper could do better work without the use of oil or grease. Still, he must, at any rate, use enough of it to cause the gold leaf to adhere to the work sufficiently to prevent its shifting or getting off entirely, for we all know that it

requires but a breath of air to scatter it."[71] In stamping, this oil or grease is applied "with a piece of white or unbleached flannel into which a few drops have been rubbed . . . .Never use the oil in such quantities as to stain the material, because the stain cannot be removed."[72] A few of the materials mentioned were: oil of sweet almonds (which is commercially available); engine oil (ordinary lubricating machine oil); oil of olives (commonly referred to as sweet oil); and neat's-foot oil, which is recommended for "reducing bookbinders' gloss inks in inking cloth cases."[73]

The use of aluminum-based stamping foils is sometimes referred to as "metal stamping" as opposed to stamping in gold. Middleton dates the use of Dutch gold leaf (three to five parts copper to one part zinc, recognizable today as a darkened gold with a reddish tint)[74] appearing on the cloth covers by the 1860s, although its use for gilding theater walls can be traced to the early part of the eighteenth century.[75] By 1905, Kinder observes that while "very little has ever been said on this subject in trade literature . . . . the manufacture of . . . . white and yellow metal . . . . leaf has greatly improved during the last few years,"[76] with "hand-beaten aluminum, for silver, and aluminum-gold, for gold [being] . . . .superior articles of this class."[77]

In 1908, a manual on embossing and die stamping published by The Inland Printer recommends the use of shellac[78] as a size in preparing book covers for stamping because it is "stronger in binding power than albumen, a quality necessary because aluminum or metal leaves are much thicker than gold."[79] This manual goes on to suggest, however, that, "Gold or colored leaf can be stamped on cloth covers, if not too dry, without any sizing. The covers are rubbed with a pad saturated slightly with olive oil, after which the leaf is picked up on another pad and laid on." By 1910, George A. Stephen writing about English trade binding, corroborates this observation, noting that when the "work is to be turned out as cheaply as possible, the composition of the cloth and the glue beneath it [are] depended upon to provide the necessary agglutination."[80] Confirming this practice among English stationary binders in 1912, Monk and Lawrence note that "the differences of the manufacture of two brands of cloth often necessitate some modification of treatment at the hands of the blocker. Some cloths will be found to contain even sufficient medium [e.g., starch filler] to dispense with the size which is generally used."[81]

Bronze powder, according to G. W. Wendon, was first produced in Fürth, Bavaria sometime in the mid-eighteenth century and is in fact "not powdered bronze, i.e., copper/tin alloy, but powdered brass, i.e., copper/zinc alloy."[82] Manufactured from various copper alloys (depending on the hue desired), the metal was hand beaten into extremely thin sheets between leaves of gold beaters skin in the manner used to produce gold leaf. This leaf was then hand ground on a stone slab with a stone pestle, with enough gum arabic was added to convert the powder to a paste as an aid to the grinding. The gum arabic was then removed by repeatedly washing the paste in hot water until an unadulterated bronze powder resulted.[83] Different alloys could be used to produce bronze powders of various hues, traditionally identified with picturesque names such as Pinchbeck, Mannheim Gold, Red Tomback, Dutch Pan Metal, and Mosaic Gold.[84] The alloys used in their manufacture could be oxidized to produce an array of hues ranging from rich gold, to red-gold, and on through the spectrum to shades including citron, orange, crimson, claret, purple, green, pale green, green gold, and white.[85] Metallurgist and inventor Sir Henry Bessemer mechanized the production of bronze and other metallic powders in 1843, an invention so profitable he developed and operated the plant in complete secrecy for many years employing only his three brothers-in-law. He had, in his own words, devised the means of selling "brass . . . . at a higher price than silver."[86]

Stephen suggests that just prior to World War I traditional glair sizing in preparation for stamping is "largely superseded by [the use of] dried albumen or blocking powders."[87] Kinder argues for the elimination of this degraded practice in 1905, stating, "I do not even tolerate use of powder except for lettering leather goods for the store trade."[88] Emphasizing the point, he adds, "The use of gilding powder for anything but marking (lettering) fancy leather goods, is to be condemned. . . .The powder itself is highly objectionable; it will always cling more or less to the leather or the cloth, and thus discolor it. The use of powder in finishing books means also a loss of time. Yet by far the principal objection is that the results are neither solid nor permanent. If you are in the habit of finishing with powder, discontinue this unprofitable and time-wasting practice at once."[89] Middleton notes that, the practice of sizing covers with varnish in preparation for stamping with bronze blocking powder was still employed in England in the 1930s,

but that the technique had fallen into disfavor,[90] undoubtedly due to the increasing availability of commercial stamping foils.

The history of the commercial stamping foil industry has been collected by Glenn Hutchison through oral history interviews he conducted over the years with pioneers of that trade. According to Hutchison, the first patent for imitation gold leaf was filed in 1886 by Dr. Leonard Oeser, a chemist from Goppingen, Germany.[91] Oeser's company (still operating today as Oeserwerks) manufactured imitation gold foil on a roll by a wet transfer process. The backing for this foil was a continuous roll of glassine paper that was hand coated on one side with wax. The web was draped in the form of a "U" that dipped into a shallow body of water onto which a dispersion of bronze powder was suspended. The metallic flake bronze powder adhered to the wax coating as the web passed the material floating on the water's surface. Once dry, this coated web was sealed with a layer of varnish.[92] Hutchison believes real gold powder was not manufactured in roll form for at least four or five years after the development of imitation gold, while the first patent for colored pigment foil was not developed until 1906, again by Oeser.[93]

In the U.S., both Jonathan Swift and Robert Gruppe exert a claim on being the initiators of the roll leaf manufacturing trade in 1911; Swift by importing the technology to the U.S., and Gruppe, through the development of machinery used to produce metallic stamping foils. Mr. Hutchison surmises that both accounts are plausible and may have occurred independently, noting it is not coincidental that the transfer of this technology to the U.S. coincides with the declaration of World War I in 1914 when all German patents were no longer honored by Allied entrepreneurs. As Swift and Gruppe never collaborated with each other and remained competitors throughout their lifetime (Swift establishing a self-titled firm in Hartford, Connecticut, while Gruppe founded Peerless Machine Company in Union City, New Jersey), it is reasonable that both gained access to information that for a time was in the public domain the transfer of which lead to the founding of the U.S. stamping foil industry.

Hutchison provides a description of one of the earliest proprietary processes used to manufacture stamping foils. Beginning with a continuous web of glassine positioned at one end of a 30 foot table, the paper was unrolled and manually treated on the flat surface in 30 foot lengths. The sheet was first hand coated with a layer of wax to which

metallic flake powder was adhered. The metallic flake powder (gold, silver, bronze, aluminum, or carbon black) was evenly sprinkled onto the wax coating with a tool similar to a flour sifter. Finally, a thin coating of varnish was applied to the surface of the metallic flake both to seal it to the glassine backing and to provide a thermo-setting adhesive that bonded the metal flake to the book cover when the foil was stamped.[94]

Inked type printed from iron printing presses appeared on the covers of paper wrappers and boards bindings by 1803,[95] although engraved, decorative images (dealt with under "Decorative Styles") seem to predate it. This approach to titling inexpensive books was limited to typographic layouts, sometimes with decorative boarders, which in addition to standard bibliographical data could also include publishers' advertisements on the rear cover. Black ink was used subsequently to print similar data directly on the cloth covers of some of earliest publishers' series during the late 1820s (e.g., *The Family Library*, *The Parlour Library*, etc.).[96]

By contrast, French gift books bound in boards began sporting decorative colored paper covers printed from wood blocks by mid-1820s, with chromolithographic images later applied as separate onlayed centerpieces.[97] In England, development of colored wood block printing for yellowbacks (cased or paper-covered boards bindings, frequently with advertising on the back cover, and considered the prototype for the modern paperback) is attributed to Edmund Evans, whose technique proved so economical that two-, three-, and four-color covers prevailed for this genre of cheap book from the inception of the style in 1853 through the decline of the wood block printing industry at the end of the nineteenth century.[98]

Decorative black ink stamping on cloth bindings to accentuate areas that might have been stamped previously in blind did not began until the mid-1840s according to Sadleir.[99] Lionel Darley attributes the use of this technology to improvements in the stamping press that allowed the engraved block to come into contact with an inking roller by means of a moveable platen.[100] Sybille Pantazzi identifies John Leighton as the first designer to employ black ink on cloth in this decorative application,[101] although the technique was not widely exploited until the 1870s.[102]

Ruari McLean suggests colored inks were first printed on cloth bindings from engraved, wooden blocks during the 1840s, with Henry Noel Humphreys one of the

technique's early innovators.[103] Sadleir notes an early example from 1844 with stamped in dark blue and greenish ochre ink on cream-colored cloth.[104] So-called "bookbinders' gloss inks"[105] or "bookbinders' cloth inks"[106] are described in 1924 as differing from printers ink used on paper cover stock "in that they are not made of linseed-oil varnish entirely, but contain a percentage of gum and a powerful gloss drier,"[107] the "gum" being a gummed varnish containing linseed oil.[108] The earliest commercial manufacture of these inks is not clearly defined, but E.T. Marler (14 Charles Street, London) registered a trademark for Lion Brand Gloss Blocking Inks in 1884.[109] Zaehnsdorf, notes in his *The art of bookbinding, A practical treatise* that two of the earliest models of stamping machines for printing colored ink intermixed with gold stamping were manufactured by Hopkinson and Cope. These "are made to be driven by steam and will print and emboss 500 to 600 covers per hour, and are heated by steam or gas. The inking apparatus is placed at the back of the press, so that while the workman is placing another cover, the ink roller, by automatic action, inks the block ready for the next impression. The inking or printing of covers is done without heat, so, to avoid loss of time, an arrangement is made that the heating box can be cooled immediately by a stream of water passed through it."[110]

The Victorian love of novelty expressed itself in publishers' bookbindings with the variety of materials applied as onlays to achieve visual interest. Die-cut, glazed colored papers pasted to cloth bindings as imitations of leather inlays—a technique called mosaic binding—originated in France in approximately 1842.[111] English examples using paper onlays began appearing in the 1850s,[112] with an early example from the John Carter collection at the Bodleian Library (c. 1848) decorated with a series of colorful die-cut cloth onlays.[113] Other types of onlays, including die-cut photographs[114] and chomolithographic "scraps"[115] occur with some frequency during the 1860s. Glazed paper onlays remained an option for adding "spot color" to bindings through the early 1880s, when the use of colored printing inks displaced them due to the development of the movable platen on the embossing press. An anomaly referred to as the "Patent Stereographic Binding" by its innovator applied spot colors of dye to a leather case binding in a pastiche of decoration with leather onlays.[116] Covering materials made to resemble more exotic commodities (e.g., faux leather,[117] printed cloth simulating

wood,[118] papier mâché imitating wood or malachite,[119] or cellulose nitrate coatings resembling porcelain or ivory[120]) was another manifestation of a desire to imitate objects of wealth without incurring great expense.

Middleton notes that pasteboard, made by hand from sheets of paper pasted and pressed togther, was largely superseded by millboard for publishers' trade bindings during the nineteenth century.[121] Cowie, in the appendix of *The Bookbinder's Manual*,[122] provides names and addresses of eleven "manufacturers or dealers in milled boards" from 1828, indicating that an active trade in binders board was in place in London by the second quarter of the century. R. H. Clapperton notes that John Dickinson's improved cylinder-mould papermaking machine of 1811 was capable of making two-ply paper from a one-vat machine, with the patent explicitly claiming that the addition of multiple vats was all that was required produce board of any thickness. While it is not known whether Dickinson actually manufactured mill board, it is clear that John Franklin Jones of Rochester, New York, received an English patent for a seven-vat, board machine by 1863, indicating that by that date, the technology for producing machine-made mill board had been transferred from England to the U.S. and back again.[123]

Describing its manufacture in 1854, Dodd traces the raw material for hand-made millboard to paper trimmings originating from the work of "bookbinders, paste-board makers, envelope-makers, account-book and pocket-book-makers, printsellers, and paper-hangers." Once converted to pulp, Dodd notes how the raw fiber was formed into sheets on a "flat table or slab, with a raised edge all around to form a sort of shallow mould," neglecting to mention the much-needed wire screen through which the pulp's water drained.[124] Despite this minor oversight, Dodd's valuable observation continues; "into this mould the pulp is laded, to a depth depending on the thickness of the millboard to be made, and this pulp, by drying between felted cloths, by drying in the open air, by gentle pressure in a press, and then by powerful pressure between rollers, assumes at length that hard, tough, strong, smooth, uniform consistency which distinguishes millboard, and which makes that material so invaluable to the bookbinder."[125]

Millboard (now called binders board) was manufactured in three grades including dark brown (mottled with black) English rope-fiber board,[126] also called tar board. This extremely dense, well rolled material, "dark with tarred hemp,"[127] was used for leather

work and stationary bindings (as well as for trunks), and was available in the U.S. for 9 cents per pound in 1889.[128] Machine-made millboard (produced on a cylinder papermaking machine) was available in the U.S. by 1858, as a record in the files of the New Jersey-based Davey Company describes the installation of a new machine built by Edwards Clark in that year.[129] Softer, dull-grey, paper-fiber millboard cost 4 ½ cents per pound by 1880.[130] Strawboard, the most easily damaged of the three materials, was in use by the 1860s for the cheapest work. Adams notes that strawboard was imported to England from the Netherlands by 1880, forcing a steady decrease in strawboard prices through the turn-of-the-century.[131] Reuben Poole reports that "American Excelsior" was produced in Dayton, Ohio by 1880 and sold for 4 1/4 cents per pound.[132]

Increased production speed in edition work, necessitated by the expanding number of publications and their edition sizes, can be attributed to the introduction and slow dissemination of iron machinery into commercial binderies. Some of these tools include the board shear (attributed to Warren De la Rue, English, c.1836),[133] the guillotine paper cutter (patented by G. Wilson, English, 1840),[134] the backing machine with a built-in roller (patented by Charles Starr of New York City, 1850),[135] and the sawing-in machine (manufactured by W.O. Hickock, c.1851).[136] Steam power was first applied to American embossing presses about 1845,[137] and arrived in England approximately ten years later[138] but, as before, these advances occurred first only in the largest binderies. Cyrus Chamber's (American) folding machine of 1856 was the first bindery-related machine designed specifically to be steam driven.[139] Poole notes that by 1889, the rotary board cutter called the "ripper" could cut 10,000 pairs of millboard in a day, and that "A single house in New York can turn out of its bindery about 10,000 volumes per day."[140] However, edition binderies on both sides of the Atlantic, especially the smaller shops, remained primarily hand-powered concerns until the last decades of the nineteenth century.

Regrettably, many of the "developments" that contributed to increasing the production speed in trade binderies also degraded the structural integrity of the book.[141] Among the infamous inventions that continue to plague modern book conservators are caoutchouc (rubber) adhesive binding, patented by William Hancock in 1836;[142] W.O.

Hickock's press for sawing in the backs of the sections mentioned above, and Henry Heyl's wire stitcher for stapling multiple sections into a text block, patented in 1876.[143]

In contrast to these industrial "speed tricks," some technological advances were either non-damaging to the book as a physical object, or in fact an improvement over previous options. Middleton identified Mark Bingley as receiving a patent for manufacturing machine-made, stuck-on endbands in 1846, but believes this predates their actual appearance.[144] Appearing sporadically, stuck-on endbands in the 1860s-80s were often made from a piece of striped or solid-colored calico folded over a core of thin cord, becoming a machine-sewn bead by the 1890s.

David McConnell Smyth patented the first through-the-fold book sewing machine in 1868. This invention virtually eliminated edition hand sewing by the end of the century[145] and eventually eliminated the need to saw kerfs into the book's spine. Smyth's prototype machine, first licensed exclusively to New York publishers D. Appleton and Co. in 1868, operated under the supervision of master binder William Matthews.[146] This model, which still required saw kerfs cut into the backs of the sections, originally sewed all-along on cords using straight needles. The technology did not, however, begin to broadly impact publishers' binding practices until it had undergone significant modifications. Smyth's second through-the-fold sewing machine achieved national recognition when it received a gold medal of honor at the annual exhibition of the American Institute of New York in 1879. By 1880, Smyth Manufacturing Company began commercially marketing its machines "No. 1" (for octavo sections up to ten inches long) and "No. 2" (for longer signatures). The revised, curved-needle design sewed two-on, alternating three stitches per section to minimize spine swelling. By the time Smyth developed machine "No. 3," the preparatory step of sawing kerfs into the backs of the sections prior was eliminated, either tapes or cords could be used as sewing supports, and the machine was capable of sewing 55-60 sections per minute.[147]

By the beginning of the twentieth century large commercial binderies made covers for publishers' bindings by machine. The Smyth case-maker required its cloth be precut to the correct dimensions and produced between 450 and 750 cases per hour, while the Sheridan case-maker took its cloth straight from the roll, turning out 1,000 cases in the same amount of time. The operation of the two machines was different enough that

one can observe tell tale differences today. The Smyth case-maker turned in the cloth at the head and tail first, while Sheridan cases are characteristically turned in first at the fore-edge.[148]

The importance of these individual advances on the development of publishers' bookbinding was summarized eloquently by Hellmut Lehmann-Haupt in 1967: "The nineteenth century brings about changes of such fundamental importance [and] . . . . revolutionizes the entire structure of bookbinding practice to such an extent that all previous changes, by comparison, seem like insignificant and superficial details." [149]

Decorative Style: Background

Edition bindings, like so many decorative, utilitarian nineteenth-century works, were designed to appeal to an increasingly literate, longer-lived working class armed with discretionary income.[150] In England, where the Industrial Revolution first took root, competition among publishers to attract the common reader increased dramatically after 1825. Early in the century, an average novel was published in an edition of 750 copies with the expensive (31*s*. 6*d*., often issued in three-volumes) first edition targeted primarily to circulating libraries and their for-fee users; by 1900, a first edition of 75,000 books priced at 5*s*. or 6*s*. was more common.[151] Exploiting a high-volume market for cheap publications was first undertaken by the publishing house of Constable, whose 1827 *Miscellany* series, priced at 3*s*. 6*d*., proved to be an economic disaster. By 1846, however, Irish publishers Simms & M'Intyre were much more successful with what Sadleir identified as the first cheap fiction series, *The Parlour Novelist,* priced at 2*s*. in wrappers and 2*s*. 6*d*. in cloth boards.[152] So thoroughly did the concept of inexpensive, mass-produced fiction sweep the English publishing trade that within just six years of the appearance of *The Parlour Novelist*, *The Times* (of London) observed fully half the books on the market were priced under 10*s*.[153] Estimates today suggest even at those prices, cheap new books were so dear each passed through the hands of five second-hand readers on average before being discarded.[154]

Early Experimentation and Simple Pictorial Imagery

The first patent for coating color on a single surface of paper was granted to George Cummings (English) in 1764. His recipe is quoted here in full, as it provides an explanation for the terms "stone"[155] or "surface"[156] papers and the reason these coated papers exhibit such resistance to light fading:

> Use a composition of lead white, twelve pounds; plaster of Paris, four pounds; stone lime, three pounds, finely pulverized; well mixed together and ground very fine with water. Add six or seven pounds best double size dissolved over a fire until the composition is of such a consistency as to lay on with a brush. The surface thus obtained is coated three or four times with a mixture of the best nut, or linseed oil, and the best white varnish, in the preparation of four ounces of varnish to one pound of oil. Each coat should be exposed to the air until thoroughly dry.[157]

Stone papers were first used for spine labels on boards (paper) bindings in the 1790s,[158] introduced for endpapers in Bibles by 1821,[159] and largely displaced plain white endpapers in cloth bindings by mid-century. English papermaker Thomas Cobb developed a method of pulp-dying paper around 1800 that produced a thin, evenly colored sheet widely used for sides in boarded work during the first half of the nineteenth century, finding application as colored endpapers in inexpensive leather bindings after 1850.[160] Colored and marbled papers, used for sides, endpapers, or die-cut onlays, could be burnished to a glossy finish with polished flint or agate, a technique mechanized in the U.S. by 1855.[161] Patterned endpapers, printed by letterpress or lithography in about thirty five stock patterns, appeared in gift books by 1841. From this auspicious beginning, endpapers printed largely by lithography in one color, and primarily in floral patterns, found inclusion in cheap publishers' bindings from about 1878 through the early years of the twentieth century, although the practice never became more than intermittent.[162]

Early examples of decorative imagery applied to the covers of publishers' edition bindings occured in English children's books by 1777; the paper binding printed from a wood block in one color (usually black, though sometimes red).[163] Literary annuals also used wood-block images printed in one color (sometimes on glazed, colored papers). French and German examples survive from the first two decades of the nineteenth century,[164] while their English counterparts date from the 1820s.[165] Both forms of gift

books seem to have heavily relied upon decoration as a marketing tool to help generate interest in what are, in essence, non-essential, luxury items.

Gold stamping on book cloth was developed in 1832 by Archibald Leighton and his finisher, John Young,[166] with the technique making its trans-Atlantic migration to America by 1834.[167] While gold had been applied to the covers of gift books prior to the introduction of cloth,[168] decorative gold images were routinely incorporated with the titling information on the spine, followed shortly thereafter by gold stamped imagery appearing on the front cover, c. 1832-34.[169]

Blind-stamped intaglio (or relief) images on leather, then cloth, also occurred during this experimental period in publishers' binding.[170] Blind-stamped borders framing the edges of the cover became a standard visual design concept by the 1840s, with binderies attempting to maintain unique "house" styles while relying upon commercially engraved border stock.[171]

The introduction of silver as a decorative stamping metal occurred only six years after gold. Michael Sadleir provides evidence for this in a letter from the English publishing firm of Longman to Lady Blessington dated 1838 describing a "new and very elegant device for lettering cloth in silver" they suggested using on her book then in production, *Desultory Thoughts and Reflections.*[172] The following year, in another letter to Lady Blessington, the same firm discussed a silver-stamped binding that had tarnishing.[173] The binders Leighton and Son exhibited specimens of silver stamping, "said to be protected from tarnishing," at the Exhibition of the Works of Industry of All Nations (the Great Exhibition held in London in 1851),[174] but Allen suggests these, as with other attempts at preventing oxidation, were unsuccessful.[175] Noted designer Christopher Dresser published a contemporary description of "some very fine bookbindings . . . enriched with oxidized silver,"[176] exhibited by Gruel Engelmann of France at the International Exhibition of 1862, suggesting that tarnished silver, rather than a technical failure, may have been employed, at least sparingly, as a distinct Victorian finishing technique. Dutch gold, which describes a range of materials from copper leaf to an alloy of copper and zinc,[177] is mentioned as early as 1837[178] and is observed from its coppery hue on publishers' bindings as having been used as a substitute for gold by the 1850s.

All embossing processes relied on hand-cut brass stamps, and these were engraved with far greater skill than is commonly imagined today.[179] Brass engraving was performed exclusively with steel gravers until the 1870s or 1880s when the routing machine, in use since 1828 for removing background material in wooden type,[180] replaced the hammer and chisel for clearing away large areas of unwanted metal on brass stamps.[181] Photographically-etched processes blocks (called zincographs or "zincos") were developed by Firmin Gillot in Paris in the mid-1860s and began to be used for book cover stamps during the 1880s.[182] While never superseding brass stamps for quality work, zincos were cheaper to produce, and became the norm for average quality work by the turn-of-the-century.[183] Photoengraved steel blocks were also used by the mid-1880s for long runs (such as textbooks) because of their durability.[184] Electro-types (commonly called electros), originated in England and Russia in 1839, and by 1850 had largely replaced stereotype plates in the U.S. for duplicating type for printing.[185] Electros were made by taking a wax mold from type and coating it with graphite for conductivity, after which it was immersed in electrolyte bath for several hours. The three-dimensional sheet of copper that formed was filled with molten lead for support.[186] Kinder notes the use of electros for stamping editions of cloth case bindings in 1905.[187]

Ball suggests the cost of brass stamps in England during the early 1850s varied between £2/2/- and £3/3/-, rising in price dramatically by 1862 to between £5/15/- and £7/17/8.[188] By 1899, the cost of a stamping die (presumably a zinco or an electro) in the U.S. was approximately $8.00, representing 10% of the total gross costs (materials, labor, and office expenses) required to produce an edition of 1000 bookbindings.[189]

The tradition of binders signing their work, which originated with initials incorporated into fifteenth-century panel stamps, carried on into the nineteenth century, most likely as a means of advertising a firm's accomplishments or denoting pride in one's better work. These signatures occur in a number of ways: as an impression stamped inside the rear cover (e.g., F. Westley, 1814, being the earliest recorded), as a name printed or stamped on an endpaper (e.g., F. Remnant, 1824), or as a binder's ticket glued to the inside rear board (e.g., F. Westley, 1829). Embossed covers from the 1820s and 1830s occasionally include the embosser's name in blind on the cover, which may or may not also be the name of the binder.[190] Binder's tickets, however, were the most common

form of this signature; but even these, which seem to fall away after the 1880s, are rare, occurring in approximately one out of fifteen bindings executed during the most prevalent period of their use, c. 1850-60.[191] Bookbinding designers also incorporated their initials or devices into the cover image, and occasionally received mention in the book's colophon or in an advertisement about the book. On the whole, though, the majority of book designers works were never unidentified.

Apart from a few minuscule signatures marks hidden subtly within the engraved image, little is known about the engravers who cut bookbinders' stamps during the nineteenth century.[192] One significant exception occurs in Sue Allen's biographical sketch of John Feely.[193] Here, Ms. Allen explores one Irish emigrant engraver's life in America and his artistic output during a period when engraved binding stamps were fast "becoming the most important aspect of the American book cover."[194] During the 1840s and 1850s, American bookbinding stamps were commonly used to produce a central gilt impression on the front cover (often repeated in blind on the rear cover) surrounded by a stock, blind border. This colloquial image was both decorative and documentary, adhering to the then-prevalent design principle, "the subject of a book . . . . [shall] be known from its cover."[195] The spine was treated independently, often presenting the engraver with challenges in terms of spatial constraints. Not infrequently, the engraver's gilded solution proved so successful at artistically integrating the book's title with its theme that the casual eye of the browser was as captivated as a bee by a blossom.

The simple elegance of this pictorial approach was not appreciated universally as the century wore on. One American journalist in 1880 stated "so long as this brassy monster is the *figure* and *landscape* painter of the publishers . . . the art of cloth binding will remain in its primitive stage."[196] Expressing a similar view not long after, John Leighton (Archibald's great-grandson) reminisced, "at the advent of the Victorian era we had no artists with special training for cloth ornamentation, hence book decoration advanced but slowly."[197] A principal designer of English mid-Victorian book covers, Leighton's perspective, "with regard to publishers' cloth work, and the marvelous strides it took, growing from a mere lettering patch to an ornate coverture, more or less appropriate," is pertinent to this discussion. "All was due to art," he asserted, stemming from design principles disseminated from leading architects, such as "Pugin [who] had

begun to demonstrate our ignorance of construction; and Owen Jones, our defective colouring. But," he concluded, "it was left to the great exhibitions of 1851 and 1862 to open our eyes."[198] The Great Exhibition of 1851, housed in the Crystal Palace and the first international exhibition ever held attracting more than six million visitors,[199] was fueled by a curiosity for factual knowledge that characterized the age. The array of decorative machines, household articles and artistic works shared one common attribute: a thick application of ornament, lavished flat or in relief, on every available surface characterizing the style recognized today as High Victorian design.

High Victorian Design

Homey, cluttered, and ostentatious, drawing inspiration and a sense of orientation from an interpretation of past historic designs, High Victorian design was extremely popular during the long-lived reign of Queen Victoria. At its height, High Victorian design appealed broadly to nineteenth-century tastes and is notable for its reliance on geometric balance and bulging curves often terminating in top-heavy, pointy shapes. Its showy ornamentation satisfyed the rising middle class' desire to emulate upper-class accouterments while remaining morally rooted to references from antiquity.[200]

Augustus W. N. Pugin, first to codify a philosophic approach to this design style, equated successful decorative art with a strong reliance on historical, especially medieval, models.[201] During his brief forty-year life span, Pugin spearheaded the Gothic Revival in England, an architectural and decorative arts movement that drew heavily from ecclesiastical models appealing to Victorian ideals of Christian virtue. Pugin also extolled the beauties of nature, stating in 1849, "it is impossible to improve on the work of God . . . . the natural outlines of leaves, flowers, etc. must be more beautiful than any invention of man,"[202] a position that would later influence both the Arts and Crafts and Art Nouveau schools. He worked in a wide variety of mediums, including architecture (e.g., reconstruction of the Houses of Parliament after the fire), furniture, stained glass, metal work, ceramics, religious vestments, and wallpapers. His career culminated in the design of the Medieval Court in the Crystal Palace.[203] Although unsigned, the bindings on at least three of Pugin's ten publications are his own, and it is likely he worked on others not yet identified.[204]

Increasingly, English architects during the first half of the nineteenth century designed both the exterior and every aspect of a building's decorative interior, prompting a demand for trained designers that spurred the establishment of the government School of Design in London in 1837.[205] Manufacturers also began to exploit the power of the graphic arts to "educate" and attract buyers to their increasingly diverse array of utilitarian goods. As the processes for printing pictures with text became more affordable, the market for printed communications extolling product virtues thrived, and professional advertising was born. It can be argued that exposure to this pictorial imagery helped broadcast new, culturally-acceptable values, aesthetics, and morals to the masses even more dramatically than printed texts, where literacy would have been a prerequisite for communication.[206] As recently asserted by Patricia Anderson, "in the early and mid-nineteenth century the printed image more than the word represented a cultural break with the past, for it demanded neither formal education nor even basic literacy. The new, inexpensive printed image thus [became] the first medium of regular, ongoing mass communication."[207]

John Leighton's impact on bookbinding design during the mid-nineteenth century was phenomenal. Estimated to have produced at least 1,000 binding designs during his career,[208] Leighton (whose pseudonym was Luke Limner) was a man of diverse talents and interests. He was an amateur inventor (patenting the rubber stamp in his brother's name in 1866) as well as a prolific designer of illustrations, title pages, book-plates, bank-notes, playing cards, Christmas cards, Valentines, posters, mosaics, ceramics, and metal work.[209] A Fellow of the Society of Arts and a founding member of the (Royal) Photographic Society, Leighton also wrote numerous books[210] and is noted for delivering the first lecture on the influence of Japanese art on the West.[211] His seminal publication and the work most pertinent to this discussion, *Suggestions in Design for the Use of Artists and Art Workman*,[212] was a two-color printing pre-dating Owen Jones' more famous chromolithographic work, *The Grammar of Ornament*, by three years, similarly illustrating examples of design from all periods as a source book for commercial designers (then termed "artists"). Leighton's affinity for ornamental, High Victorian style set a standard within the field of publishers' binding design during his prolific career spanning from approximately 1843 through 1883.[213] Christopher Dresser, another

preeminent designer of the period, notes in his review of the International Exhibition of 1862 that Leighton work had "done much for the progress of bookbinding . . . [that the profession's] advancement [was] largely due to his skill and industry."[214]

The architect Owen Jones established himself by the mid-nineteenth century as an authority on color through the self-financed publishing of one of the earliest, large-scale (folio grand eagle) chromolithographic works, a two-volume study of Moorish ornament entitled, *Plans, Elevations, Sections, and Details of the Alhambra*.[215] At the age of forty-one and already acknowledged as a premiere colorist, Jones was given responsibility for the color scheme of the interior of the Crystal Palace (1851).[216] He executed the commission in what he termed a "primitive" polychromatic pallet—red girders, supported by yellow columns highlighted in blue—adding warmth to Paxton's utilitarian glass and steel structure, which, although a decorative approach that drew controversy, pleased Prince Albert, the driving force behind the Exhibition.[217] Following the publication of his highly influential chromolithographic history of pattern and color, *The Grammar of Ornament* in 1856,[218] Jones accepted other public commissions including the redesign of the Alhambra Court when the Crystal Palace was transplanted to Sydenham (with Matthew Digby Wyatt, 1854), as well as the design of the Chinese, Japanese and Indian Courts for the new South Kensington Museum (1863-1864). In addition to having a tremendous influence on decorative art during the period,[219] and designing numerous interior furnishings such as wallpaper, fabrics, and furniture,[220] McLean credits Jones with founding and largely supplying the early Victorian chromolithographic gift-book industry.[221] Ball attributes at least 34 bookbinding designs to Jones—executed in his patented
technique for stamping faux leather bindings called "relievo," as well as the more conventional gold and blind stamped cloth, and chromolithographic paper—most of which cover books he also designed and printed.[222]

Dubbed the "first modern product designer,"[223] Christopher Dresser was identified by age thirteen as a star pupil at the government School of Design. He was asked to contribute a page of botanical images to Jones' magnum opus, *The Grammar of Ornament*, at the age of twenty-two,[224] and received an honorary Ph.D. in botany from the University of Jena at twenty-six.[225] His symmetrical, botanical designs were the

result of scientific observations from nature which he adapted to industrial applications in a variety of media including carpet design, ceramics, furniture, glassware, lace, linoleum, metal-work, stained glass, textiles and wallpaper. Dresser's work reflects adherence to the principle of "fitness of purpose," about which he commented, "unless a work of utility fitly answers the purpose of its creation, it cannot be considered worthy of commendation."[226] His influence on the design of publishers' bookbindings is evident in the botanical symmetry Jones applied to the cover of *Paradise and the Peri* (c. 1860),[227] as well as the covers of his own numerous works on botany and design.[228] Dresser's theories of design link Pugin's love of nature with the Arts and Craft ideal of combining art and utility to beautify functional objects, exemplified by in a statement made by Matthew Digby Wyatt immediately after the Great Exhibition: "The highest property of design is, that it speaks the universal language of nature, which all can read."[229] His aims for improving book decoration are encapsulated in a critique of the bookbindings exhibited at the International Exhibition of 1862, where he stated: "An error which we have crept into in modern days respecting book-covers, is this,—we think that the contents should be expressed by some symbol on the cover: thus we totally set aside an ornamental treatment, and put some extravagance or ugliness upon the exterior of the book, with the view of indicating its contents."[230] This criticism was shared by Dante Gabriel Rossetti and his pupil William Morris, and would influence the design of publishers' binding throughout the remainder of the century.

A number of other influential bookbinding designers executed work in the High Victorian style, though many of their covers were unsigned and as yet unidentified.[231] Among the most tasteful was Henry Noel Humphreys, whose experiments with colored inks on cloth (mentioned earlier) and work with papier-mâché to imitate carved wooden boards set him apart. Humphreys was also a prolific author, illustrator, and has been identified by Leathlean as one of the earliest "art directors" (for the periodical *The Ladies' Companion*).[232] Other significant English binding designers and illustrators working in the High Victorian style include: Robert Dudley, William Harry Rogers, John Sliegh, Albert Warren, and Sir Matthew Digby Wyatt.[233]

Arts and Crafts

Dante Gabriel Rossetti, a founder of the Pre-Raphaelite Brotherhood in 1848, is best remembered for his sultry, idealized portraits of women described by Walter Crane as "primitive and archaic on the one side . . . modern and realistic on another."[234] In addition to painting, Rossetti also designed a diversity of decorative objects including picture frames, wall paper, stained glass and furniture, many before beginning his association with Morris, Marshall, Faulkner, and Co. in 1861.[235] A prolific illustrator and binding designer, Rossetti executed twenty-one publishers' bindings between 1854 and 1896 (five issued posthumously). His covers were novel for their time, exhibiting a stripped down aesthetic influenced by Japanese craft objects (which were just reaching England at that time) and which helped force Gothic Revival into a rapid decline following the International Exhibition of 1862.[236] Walter Crane, himself an influential author, illustrator, painter, decorative artist, and binding designer,[237] remarked, "there is no doubt that the opening of Japanese poets to Western commerce, whatever its after effects—including its effect upon the arts of Japan itself—has had an enormous influence on European and American art."[238] The influence of Japanese design is evident in the bookbindings of Crane, as well as those of Rossetti and American painter James McNeill Whistler, both known for their interest in collecting Japanese craft objects.[239]

William Morris' passion for hand-crafted quality in the decorative arts in addition to his considerable talents as a designer, writer, and lecturer combined to make him the most influential spokesmen of the Arts and Crafts Movement. An Oxford graduate of independent means, Morris had both the financial wherewithal and the socialist idealism to devote his life to improving design and manufacturing standards for the purpose of bringing high-quality, utilitarian objects – including printed fabrics, wallpaper, embroidery, furniture, and metalwork – to the working class at affordable prices. However well-intentioned his enthusiasm, the work produced by the firm of Morris, Marshall, Faulkner, & Co. ("Fine Art Workmen in Painting, Carving, Furniture and the Metals," founded in 1861),[240] remained fiscally restricted to all but the moderately wealthy. Morris, who served as president of the Arts and Crafts Exhibition Society after its founder, Walter Crane,[241] remained deeply enamored of medieval working practices that seem to place him in opposition to technological advances. He was, however, a pragmatist, and considered his ultimate aim to instill uncompromising standards in the

broader workplace rather than to simply resisting mass production. The Kelmscott press, for example, produced fifty-three self-proclaimed "beautiful books" between 1891 and 1898, most of which Morris issued in simple hand-bound vellum or linen cases with paper labels as housings until they could receive more permanent bindings. He also designed, however, two publishers' bindings for his own, mass-produced works, including *Love is Enough*.[242] Commenting on this trend, Frank Lloyd Wright would argue with "a gradually deepening conviction," in 1901 "that in the Machine lies the only future of art and craft."[243]

Art Nouveau and the Turn of the Century

Rossetti's spare use of line heralded the curvilinear naturalism of Art Nouveau that flowered (so to speak) into the first international design style, first occurring in 1883 in Arthur H. Mackmurdo's famous title page, and the less famous binding design for *Wren's City Churches*.[244] Commercial bookbinding absorbed these new influences, mixing the new with the old in what is sometimes a muddle of disparate styles that nevertheless lead to an increasing popularity in minimal cover design during the last two decades of the century. This is evident, for example, in the covers of Whistler's two books and most of the cover designs produced by Sarah Wyman Whitman for Houghton Mifflin in Boston.[245] Even Aubrey Beardsley, whose drawings can approach the frenetic pitch of pointillism, executed a number of Art Nouveau bindings that exercise tremendous restraint, including an unparalleled example that relies upon only three curved lines to achieve its entire effect.[246]

The last quarter of the nineteenth century saw a proliferation of binding designers as decorative covers became the norm for most books published.[247] Many of these designers practiced a variety of disciplines in addition to cover design, ostensibly to maintain a steady source of income. To give some idea about the degree of diversity, cover designers are known to have doubled as architects (including Bertram Grosvenor Goodhue,[248] Henry Thayer [partner in the Decorative Designers],[249] Charles F. A. Voysey,[250] and Stanford White[251]); type designers (such as Frederic W. Goudy,[252] Bruce Rogers[253] and Charles Ricketts[254]); designers of decorative objects (including Walter Crane, Selwyn Image, and William Morris); illustrators (such as Aubrey Beardsley,[255]

Kate Greenaway, and Will Bradley[256]); poster designers (including Ethel Reed, Frank Hazenplug,[257] Edward Penfield, and Frank Berkeley Smith[258]); and painters (such as John Sloan,[259] Elihu Vedder,[260] and James McNeill Whistler[261]). These diversified involvements suggest the aesthetic aims of these designers were realized as thoroughly through binding design as with their other pursuits, underlining the importance of including these works within the intellectual scope of the person's career.

Pioneering Women

Few accounts exist to document women's professional role in binderies, yet it is likely women have always been involved with the craft, as they are depicted in the earliest engravings related to the trade.[262] The last quarter of the nineteenth century marked a transitional period in U.S. employment history, as it was then women began expanding beyond their traditional roles of folding, sewing, endbanding, or preparing covers for gilding to include the creation of original designs for publishers' bindings. *The Sixteenth Census of the United States* classifies this activity as a "Professional Service" rather than the less prestigious work of "Operatives, Laborers, and Allied Occupations,"[263] demonstrating that with this redefinition of "women's work" came improvements in status. Whether the *Census* accounted for bookbinding designers under the category of "Designers" or as "Artists" is unclear (both are deemed "Professional Services"), but a comparison of the ratio of women to men in both employment classifications from the years 1870-1930 clearly demonstrates a sharp increase in the number of women involved in these careers in the United States.

SIXTEENTH CENSUS OF THE UNITED STATES

Designers, Draftsmen and Inventors, Ten Years Old and Over, Gainfully Employed

	1870	**1880**	**1890**	**1900**	**1910**	**1920**	**1930**
women	13	56	305	941	3,012	7,664	9,212
men	1,278	2,764	9,086	18,002	44,437	62,987	93,518

Artists, Sculptors, and Teachers of Art, Ten Years Old and Over, Gainfully Employed

	1870	**1880**	**1890**	**1900**	**1910**	**1920**	**1930**
women	414	2,061	10,815	11,021	15,429	14,617	21,644
men	3,706	7,043	11,681	13,852	18,675	20,785	35,621

Complementing the limited documentation available pertaining to women binding designers, surviving examples of the work is primary evidence related to the history of this movement. As of this writing, Helen DeKay Gilder is believed to be the first woman to design a publishers' binding. The binding, a beautiful piece of work, was executed for *The New Day*, a book of poems written by her husband, noted editor Richard Watson Gilder, and published in 1876.[264] This book also includes a few of her line drawings, but no other examples of bookbindings by Gilder are known. While she occasionally published other drawings, a comment by Alice C. Morse concerning her work exhibited in the Woman's Building at the World's Columbian Exposition in Chicago in 1893 ("nor do we see often enough the charming flower studies, full of delicacy and feeling, which Mrs. Richard Watson Gilder occasionally gives us"[265]) reveals Gilder's tendency to maintain her amateur rather than professional status.

The first woman known to professionally design book covers was Sarah Wyman Whitman, whose life was quite interesting and worth recounting briefly.[266] Whitman was an independent and free-thinking artist ensconced at the hub of late-nineteenth century Boston society. After her marriage to wealthy wool merchant Henry Whitman, she studied painting with William Morris Hunt in Boston and Thomas Couture in Villiers-le-Bel, France, and maintained a stained glass studio in Boston called The Lily Glass Works.[267] Whitman was one of the founders of Radcliffe College for women, serving for years as a trustee, and championed education for blacks as well as women through her significant financial contributions to Booker T. Washington's Tuskegee Institute in Alabama and Berea College in Kentucky.

Embarking on a career as a book cover designer in 1880,[268] Whitman created at least 136 bindings for Houghton Mifflin in Boston, opening the "gilded door" to other women designers. Her strength as a designer was lauded by her contemporaries, as

exemplified in comments by binding historian Brander Matthews in 1894: "Many if not most of the charming covers with which Messrs. Houghton, Mifflin & Co. adorn their publications," were the result of Sarah Whitman's "skill and taste,"[269] and, "a book cover stamped by steam may be a thing of beauty if it is designed by Mrs. Whitman or Mr. Stanford White."[270] In a separate article published the same year, Matthews continues his praise for Whitman's design of writer Sarah Orne Jewett's Strangers and Wayfarers (Boston: Houghton, Mifflin and Co., 1890), saying "I know of no recent commercial binding more satisfactory than this, or more adequate to its purpose."[271] Gullans suggests her approach held economic as well as artistic appeal for Houghton Mifflin, who wanted their books to look attractive while remaining economically affordable to produce. Working within this constraint, Whitman's designs frequently relied on one color of metal, either gold or aluminum, or one color of ink, resulting in a minimum of die cutting and stamping in the finished cover. She sometimes increased the contrasting elements on the binding by combining two colors of book cloth (quarter cloth with printed cloth sides), or by using two or more colors of ink, but usually Whitman relied on a minimal, "less is more" approach. In addition to exhibiting her bookbindings, Whitman also exhibited her paintings, stained glass, and watercolors from 1878-1904,[272] which may have influenced other women at the end of the century to consider careers in commercial graphic design.[273]

Alice C. Morse, herself a prolific bookbinding designer, mentions quite a number of other women binding designers who exhibited in the Women's Building at the World's Columbian Exposition held in Chicago in 1893.[274] Margaret Armstrong, an energetic designer, produced at least 1,000 bookbindings in her distinctive and recognizable style, as well as illustrating numerous books.[275] Writing and illustrating the *Field Book of Western Wild Flowers* in 1915, Armstrong devoted the latter part of her life to writing primarily historic fiction and mysteries.[276] Lee Thayer designed covers for the Decorative Designers, a firm originated by her husband Henry Thayer and which, between 1890 and 1932, employed a number of designers and produced thousands of cover designs.[277] Though the list of women bookbinding designers is much longer and a tremendous amount of research remains to be done in this area, a few others who deserve

mention include Mary Hathaway Nye,[278] Blanche McManus,[279] Marion Peabody,[280] Amy Richards,[281] Amy Sacker,[282] and, Bertha Stuart.[283]

Dust Jackets

Printed, detachable book jackets, preceded by four- and five-sided publishers' decorative slipcases,[284] came into use by 1832. Tanselle suggests the dust jacket is closely linked to the development of publishers' edition binding, defining its original function as both protecting new bindings as well as advertising the book. The earliest surviving examples have bibliographical information printed in a similar style as the layout of the title page,[285] while examples from the 1890s reproduce the binding's decoration, suggesting they were printed from the same block as the cover. Examples prior to 1875 are so scarce Tanselle suggests as few as a dozen examples exist today.[286] The dust jacket became a standardized form in the 1880s, adopted flaps and promotional blurbs in the 1890s, became extremely popular by 1908, and essentially displaced the decorative function of the pictorial case after World War I.[287]

Conclusion

While aesthetically delightful as objects, the physical failings of publishers' bookbindings have long been understood by those familiar with their use and construction. For example, two librarians from Salem Public Library and Amherst College reported the results of a survey conducted in 1893 designed to measure the durability of publishers' cloth bindings in use. The statistics gleaned from tracking 810 randomly selected titles found that on average, books circulated 39 times before the required rebinding; American titles averaged 43 circulations, their English counterparts only 28 circulations. Less than 1 percent of the total circulated more than 100 times (two each produced by Harper & Bros., and Houghton, Mifflin & Co.), while 6 percent could tolerate 10 circulations or less.[288]

A second survey conducted in 1899 by Wisconsin librarian Hellen D. Bisco revealed that a significant number of new publishers' bindings were holding up to fewer than 30 circulations before requiring rebinding, and it was not unheard of for some titles to withstand 5 uses or less. Bisco broke her survey down by publisher and title so that

the most problematic of both were identified. Harper & Bros., and Charles Scribner's Sons received the lowest approval ratings among the librarian's queried; Macmillan, Dodd, Mead & Co., Appleton, and American Book Co., were considered adequate; while Houghton, Mifflin & Co. ranked as the publisher producing the most acceptable bindings. When informed of its standing among Wisconsin librarians, an unidentified representative of Houghton, Mifflin & Co., wrote Bisco who published their perspective on commercial bookmaking:

> "The strength of the books does not always depend on the binding alone. A great deal depends upon the quality and character of the paper, the form of the make-up for printing, whether in thin sections of thick sections, and the treatment of the book after it is printed well. We try, so far as we can, to study the make-up of the book from the first, so as to have the paper right, the imposition of the form correct as to thickness, and then we carefully look after the details in binding. What we mean by proper imposition of the signatures is to have a good quality of paper, with the grain running the right way, and then not too many pages making up the signature when folded. A good paper can be spoiled by having the signature too thick or too thin, and if the paper is heavy or stiff a less number of pages should be used . . . . When the books are ready made up for sewing, we sew them on flexible thread sewing - machines, using the highest quality of thread, and a flexible glue when lining up the backs before the books are put in their covers. All this gives strength and flexibility."[289]

In contrast, Harper & Bros. and Scribner's wrote to Bisco acknowledging their failings suggesting the "problem is a very vexing one" and affirming that both firms were "trying every year to improve the character of their books."[290]

In 1911, George A. Stephen (Chief Assistant Librarian, St. Pancras Public Libraries, and co-author of the first manual on library bookbinding) defined nine structural reasons why publishers' bindings continued to deliver such poor levels of performance. Defending the binders who he noted were capable of producing any quality required, Stephen blamed publishers' pricing as being responsible for:

> 1) Sewing too loosely. 2) The use of thread, tape and mull of inferior quality. 3) Sewing with the minimum number of tapes or cords. 4) Fixing the back lining of

> mull to the book before is has been rounded and backed, and setting the rounding and backing machine inaccurately, thereby rounding the books imperfectly and breaking many of the strands of the mull and the texture of the paper at the folds. 5) Tipping the illustrations with paste instead of either guarding them or printing them on paper sufficiently wide to allow the inner margin to be folded round the adjoining section. 6) The use of inferior glue in gluing up. 7) The cutting of slips of insufficient length. 8) Imperfect casing-in, which may be due to the application of an insufficient quantity of paste at the joints, or not setting the book squarely in the cover. 9) Insufficient pressing immediately after the casing-in operation.[291]

These factors contribute to the fragility of a commodity that today stands the greatest chance for physical survival only when the books receive low use. However, library weeding, poor quality repairs, indiscriminate rebinding, and preservation reformatting practices combine to create a staggering, yet largely unrecognized, rate of loss.[292] Although a significant percentage of the titles in question do receive relatively little use, early publishers' cloth, leather, and paper bindings are frequently in weakened condition today due to chemical deterioration, poor storage conditions, and light bleaching. Careless handling, including rough treatment by staff and patrons, photocopying, bookdrop stress, and defacement resulting from overly zealous institutional marking and labeling procedures, add to the rate of damage even for items that no longer circulate.

In an attempt to quantify the present rate of loss of original publishers' bookbindings, a survey was conducted via interlibrary loan in 1993 that sampled every copy of *A Singular Life*[293] available throughout the U.S. This title was chosen due to its age—now a little more than 100 years old—and because its binding is a plain, unsigned design executed by Sarah Wyman Whitman for a book published by Houghton, Mifflin & Co., by all reports, the producer of the most durable late nineteenth century publishers' bindings. The survey revealed that 49% of the 45 copies available had already sustained seriously defacing repairs, been rebound in library buckram, or were now simply too damaged to circulate.[294]

Can the loss or defacement of half of the surviving copies of one of Ms. Whitman's bindings be equated with the general rate of deterioration for publishers' bindings? Obviously, statistical replication of the findings of this simple survey would make its conclusion more substantial. But lacking data, what can one observe of the works created by Rossetti or Whistler? While one might assume the bindings of these and other, more famous artists are identified and receiving greater care, personal experience indicates that the majority suffer similar ignominy. Combining these factors, it is not irrational to fear that today we may have already lost half of the nineteenth- and early-twentieth-century publishers' bindings from our libraries, with the likelihood increasing in the larger research libraries that have historically supported aggressive preservation programs. As the age of the title increases so do the odds that it is already extremely endangered (specifically, the large quantity of nineteenth century books that are identifiable through electronic data bases as being held in fewer than five locations nationally). For example, another of Ms. Whitman's works, *Knee Deep in June and other Poems*, is now known to have existed only through a picture reproduced in an account of the World's Columbian Exposition of 1893.[295] This book, as with so many as yet undefined titles, seems to be extinct.

Unfortunately, the conclusion drawn by Hellmut Lehmann-Haupt when he wrote about this topic in 1967 still remains largely unaddressed. It is tragic that in the thirty years since the publication of *Bookbinding in America*, the library and conservation communities have managed to make so little progress toward improving standards for book repair which could have contributed to the stabilization of so much material. Efforts to solve the brittle book problem so completely overshadowed this problem that it may prove to be one of the great professional shortfalls of twentieth century librarianship preservation. With hundreds of thousands of original bindings lost since Lehmann-Haupt's astute observations were last printed, his observations are a fitting end to this chapter:

> "The most important conclusion that forces itself on anyone concerned with the physical future of the old and rare volumes in our private and public libraries is this—that the most satisfactory way to [repair] an old book is not the most expensive one but the one most difficult to obtain. The methods which are both

technically soundest and aesthetically most satisfying do not necessarily require the most costly materials nor always the most expensive workmanship. But these methods are not regularly practiced today. They are in a binder's no-man's-land, lying as they do somewhere between the territories covered by the collector's binder and the library binders. The need for 'intermediate' binding has long been recognized."[296]

The collection wide approach to library conservation envisioned by Lehmann-Haupt is technically available, and economically feasible. Acceptance and implementation of these concepts to retain the integrity of nineteenth and early twentieth century bookbindings is another matter.

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Endnotes

1. This point is explored thoroughly in: G. T. Tanselle, *Libraries, Museums, and Reading,* 6th Sol M. Malkin lecture in bibliography, New York : The Trustees of Columbia University, 1991.
2. Modern Language Association of America, Ad Hoc Committee on the Future of the Print Record. "Statement on the Significance of Primary Records," (typescript). June 1, 1995. Available at: http://palimpsest.stanford.edu/byorg/mla/mlaprimd.html
3. M. M. Foot, *Studies in the History of Bookbinding,* Hants, England: Scholar Press, 1993, p. 433.
4. See Grandinette, Maria and R. Silverman. (1997). "Book repair in the U.S.A.: A library-wide approach to conservation," in, *La conservation: Une science en évolution, bilans et perspectives, actes des troisiΠmes journées internationales d'études de l'ARSAG.* Paris: Association pour la Recherche Scientifique sur les Arts Graphiques, p. 274-80.
5. This overview focuses on the history of nineteenth century publishers' in England and the U.S. Parallel technological advance seems to have developed in The Netherlands and Germany, while from personal observation, Italy seems to have resisted a shift from traditional vellum wrappers. A more global comparison of the development of publishers' bindings is outside the scope of the present work. For information on the topic in The Netherlands and Germany, see: Linden, Fons van der. 1987. *Inlinnengebonden, Nederlandse uitgeversbanden van 1840 tot 1940*, Veenendaal: Gaade; and, *Gebunden in der Dampfbuchbinderei, buchbinden im wandel des 19. Jahrhunderts*, 1994. Weibaden: Harrassowitz.
6. The methodology employed by the connoisseur (as defined by *Merriam-Webster's Collegiate Dictionary*, 10th ed.) to "understand the technique, detail, or principle of an art," is thoroughly explicated in C. F. Montgomery, *The Connoisseurship of Artifacts*, in, T. J. Schlereth, (ed.), *Material Culture Studies in America,* Nashville, TN: American Association for State and Local History, p. 143-152.

7. M. Sadleir, *The Evolution of Publishers' Binding Styles, 1770-1900,* Bibliographia 1, London: Constable, 1930, p. 10-12.
8. Philip Gaskell, *A New Introduction to Bibliography*, New York: Oxford University Press, 1972, p. 153.
9. M. Sadleir, *Evolution,* p. 8-9; G. Barber, *Continental Paper Wrappers and Publishers' Bindings in the Eighteenth Century, The Book Collector* 24, no.1(1975), p. 37-49; D. Foxon, *Stitched Books, The Book Collector* 24, no. 1(1975), p. 111-124.
10. B. Middleton, *A History of English Craft Bookbinding Technique,* London: Hafner, 1963, p. 184; Jonathan E. Hill, "From Provisional to Permanent: Books in Boards 1790-1840," *The Library* 21, p. 247-73.
11. M. Sadleir, *Evolution,* p. 15-38.
12. Illustrated in, J. A. Arnett, *Bibliopegia,* p. 356-57, and pl. 5 facing p. 358; cited and illustrated in B. Middleton, *A History*, p. 225-228, figs. 77-79.
13. B. Middleton, *A History,* p. 228-230; E. Potter, "The London Bookbinding Trade: From Craft to Industry," *The Library*, 6th series, 15, no. 4(December 1993), p. 268-269; C. Tomlinson (ed.), *Cyclopaedia of Useful Arts, Mechanical and Chemical, Manufactures, Mining, and Engineering,* Vol. 1, London: Virtue and Co., 1868, p. 155.
14. G. Dodd, *Days at the Factories; or, The Manufacturing Industry of Great Britain Described,* Series 1, London, Charles Knight and Co., 1843, p. 368-69.
15. John Carter, *Publishers' Cloth: An Outline History of Publishers' Binding in England 1820-1900,* New York: R. R. Bowker Co., 1935, p. 26; and John Carter, "The Origins of Publishers' Cloth Binding," *The Colophon*, 8 (1931); Vivian Taylor, "The Development of Cloth as a Binding Material, *Bookbinder* 6(1992), p. 24-27.
16. T*he History of Bookbinding,* <<The Bookbinders' Trade Circular>>, 2/2(March 1855), p. 9-10, cited in G. Keynes, *William Pickering, Publisher,* London: Galahad Press, 1969, p. 13; see J. Carter, *Publishers' Cloth,* p. 24-27; J. Carter, *Binding Variants in English Publishing 1820-1900*, Bibliographia 6, London: Constable and Co., Ltd., 1932, p. xvi-xviii, 9-32; D. Ball, *Victorian Publishers' Bindings,* London: The Library Association, 1985, p. 11-16; D. Leighton, *Canvas and Bookcloth,* <<The Library>>, fifth series, 3/1(June 1948), p. 39-49; B. Middleton, *A History,* p. 132-135. The long-held tradition that the first cloth-covered publishers' binding was Thomas Moule's *Bibliotheca Heraldica,* London 1822, is cited in W. Bowyer, *Publishers' Binding Cloth,* <<Book Collector's Quarterly>>, (April, 1932), p. 57-59, but M. Sadleir, *Evolution,* p. 41 and pl. 10, refutes that hypothesis, illustrating Pickering's *Virgil* (1821) as an earlier example.
17. *The Bookbinders' Trade Circular*, 2, no. 2 (March 1855), p. 8-9; and *The Bookbinders' Trade Circular*, 2, no. 3(May 1855), p. 22.
18. D. Foxon, *Stitched Books,* p. 119-120. Canvas as a covering material is also mentioned in: D. Ball, *Victorian Publishers' Bindings,* p. 8; B. Lake, J. Nassau, H. Smith, *In Original Cloth,* Catalogue 99, London: Jarndyce Antiquarian Booksellers, 1994, [p. 3, 15-16]; and D. Leighton, *Canvas and Bookcloth,* p. 39-49, and plate 1; B. Middleton, *A History,* p. 132; and E. Quayle, *The Collector's Book of Books,* London: C. N. Potter, 1971, p. 106-7. A number of examples of late-eighteenth-century, canvas-covered text books with thin, wooden boards can be seen in the Education Collection of the Department of Special Collections, Joseph Regenstein Library, University of Chicago.

19. R. Leighton, *The Bookseller*, 4 July 1881; quoted in W. Bowyer, *Publishers' Cloth Binding,* p. 59. J. Carter, *Publishers' Cloth*, p. 29, notes De la Rue was a paper embosser.

20. The fading of natural dyes in textiles due to light, relative humidity, and air pollutants are discussed in the following: G. Thomson, *The Museum Environment*, London: Butterworths, 1978, p. 83, 183, 187; J. S. Mills and R. White, *The Organic Chemistry of Museum Objects*, London: Butterworths, 1978, p. 155-156; T. Padfield and S. Landi, "The Fastness to Light of the Natural Dyes," *Studies in Conservation*, 11(1966), p. 181-196; D. G. Duff, R. S. Sinclair, D. Stirling, "Light-Induced Colour Changes of the Natural Dye," *Studies in Conservation*, 22(1977), p. 161-169; National Research Council, *Preservation of Historical Records*, Washington, D.C.: National Academy Press, 1986, p. 18; V. S. Salvin, "Ozone Fading of Dyes," *Textile chemist and colorist*, 1(1969) p. 245-251.

21. Grain patterns in book cloth are distinct enough to be organized chronologically by pattern; efforts at developing this form of classification scheme appear in the following sources: D. Ball, *Victorian Publishers' Bindings,* p. 24-31, 123-142; P. Gaskell, *New Introduction,* p. 237-247; M. Hartzog, "Nineteenth-Century Cloth Bindings," *Papers of the Bibliographical Society of America,* 61(1967), p. 114-119; J. W. Rogers, "The Rise of American Edition Binding", in H. Lehmann-Haupt, (ed.), *Bookbinding in America, Three Essays,* New York: R. R. Bowker Co., p. 160, and figs. 30-40; M. Sadleir, *XIX Century Fiction: A Bibliographical Record Based on His Own Collection,* Vol. 1, London: Constable and Co., Ltd., 1951, plates 29-32; T. Tanselle, "The Bibliographical Description of Patterns," *Studies in Bibliography* 23(1970), p. 73-84, 95-100; and G. Wakeman, *Nineteenth Century Trade Binding*, Oxford: The Plough Press, 1983, appendix (rubbings of Winterbottom cloth samples).

22. George Dodd, *Days at the Factories,* p. 364.

23. D. Ball, *Victorian Publishers' Bindings,* p. 29; J. Carter, *Binding Variants*, p. 60; and B. Middleton, *A History,* p. 133. Examples of publishers' bindings covered in watered or moiré book cloths are illustrated in: R. McLean, *Victorian Publishers' Bookbindings in Cloth and Leather,* Berkeley: University of California Press, 1973, p. 20; H. M. Nixon, "Bookbinding," in *The Connoisseur Period Guides: The Early Victorian Period, 1830-1860*, Vol. 6, London: Connoisseur, 1958, p. 166.

24. D. Ball, *Victorian Publishers' Bindings,* p. 11-16; J. Carter, *Binding Variants*, p. 56; and B. Middleton, *A History,* p. 134. Examples of publishers' bindings covered in ribbon embossed book cloth are illustrated in: S. Allen, "Machine-Stamped Bookbindings, 1834-1860," *Antiques*, 115 (March 1979), pl. 1; S. Allen, *Victorian Bookbindings: A Pictorial Survey,* Chicago: University of Chicago Press, 1972, microfiche 1; R. McLean, *Cloth and Leather,* p. 26, 41.

25. G. Dodd, *Days at the Factories,* p. 380-381. See also *Exhibition of the Works of Industry of All Nations, 1851, Reports of the Juries,* Vol. 2, London: Spicer Brothers and W. Clowes and Sons, 1852, p. 929, "Embossed calico was also introduced about the same period by Mr. De la Rue."

26. David J. Jeremy, *Transatlantic Industrial Revolution: The Diffusion of Textile Technologies Between Britain and America, 1790-1830s,* Cambridge, Massachusetts: MIT Press, 1981, p. 42.

27. S. Allen, *Victorian Bookbindings*, microfiche 1; D. Ball, *Victorian Publishers' Bindings,* p. 25; G. Dodd, *Days at the Factories,* p. 364, 380-381, and 381; B. Middleton, *A History,* p. 134, fig. 92; Joseph W. Rogers, *The Rise of American Edition Binding,* p. 169-170, and fig. 43.

28. John Adams, *The House of Kitcat, A Story of Bookbinding 1798-1948,* London: G. and J. Kitcat Ltd., 1948, p. 52; D. Leighton, *Modern Bookbinding, A Survey and a Prospect,* fifth annual J. M. Dent Memorial Lecture, London: London School of Printing, 1935, n. 15.

29. D. Leighton, *Modern Bookbinding,* p. 15.

30. D. Leighton, *Modern Bookbinding,* n. 15, notes that book cloth manufacturers are first recorded in *Kelly's Directory,* 1841, with Ford and Brocklehurst as the only entry. J. L. Wilson is not listed until 1843, although Leighton suspects the firm was already well established by that time. See also J. Adams, *The House of Kitcat,* p. 48.

31. G. Wakeman, Nineteenth Century Trade Binding, p. 13-14. Wakeman notes the emergence of other early commercial book cloth manufacturers in London, including: Thomas Hughes (1844), John Deed and T. Healey (1846), and A. H. Eadie, (1851, although an advertisement from 1889 suggests this firm was founded in 1838). He goes on to note three firms that exhibited book cloth at the Great Exposition of 1851, including Law & Sons, Wilson possibly the aforementioned James Leonard Wilson), and Henry Bannerman & Sons from Manchester. Archibald Winterbottom appeared in the London directories in 1868. Both Law & Sons and J. L. Wilson received medals for "bookbinders' cloth" exhibited at the International Exhibition of 1862. See London International Exhibition (1862), *Medals and Honorable Mentions Awarded by the International Juries*, London: Printed for Her Majesty's Commissioners by George Edward Eyre and William Spottiswoode, 1862, Class 28—Section B—Stationary, p. 3.

32. J. Adams, *The House of Kitcat,* p. 48, recounts that, "Best quality cloth, by Charles Winterbottom, cost 7*d.* a yard; although in 1854, during the cotton shortage caused by the Crimean War, the price was 4*s.* 6*d.* a yard; and in 1860-63 the American cotton famine caused publishers to return to binding in plain boards until conditions improved." See also: M. Sadleir, "Aspects of the Victorian Novel," *Publishing History*, 5 (1979), p. 7-47 (see p. 30); M. Sadleir, *Evolution,* p. 57-58; J. Watts, *The Facts of the Cotton Famine,* London: Simpkin, Marshall and Co., 1866; R. A. Arnold, *The History of the Cotton Famine, From the Fall of Sumpter to the Passing of the Public Works Act*, London: Saunders, Otley and Co., 1864; W. O. Henderson, *The Lancashire Cotton Famine, 1861-1865*, Economic History Series No. 9, Manchester, Eng.: Manchester University Press, 1934; D. Ball, *Victorian Publishers' Bindings,* p. 50; J. Carter, *Publishers' Cloth,* p. 33-34; D. Leighton, *Modern Bookbinding,* 17-18; and B. Middleton, *A History,* p. 134.

33. J. W. Rogers, *Rise of American Edition Binding,* p. 164-168.

34. N. Pevsner, "Design and Industry Through the Ages," in *Studies in Art, Architecture and Design,* Vol. 2, New York: Walker and Co., 1968, p. 13.

35. D. J. Jeremy, *Transatlantic Industrial Revolution,* p. 104.

36. D. Ball, *Victorian Publishers' Bindings,* p. 24-25; and J. Carter, *Publishers' Cloth*, p. 13-14. Examples of publishers' bindings covered in printed book clothes are illustrated in: S. Allen, *Victorian Bookbindings,* microfiche 1; and R. McLean, *Cloth and*

Leather, p. 19. Three swatches of printed cloth defined as "Calico for Bookbinding" are included in, *Journal of Design and Manufactures*, 1, no. 1(March 1849), prelim no. 3. Sincere thanks to Maria Fredericks and Neville Thompson for making me aware of this journal in the Winterthur Library. Later examples can be seen in, Winterbottom Book Cloth Company, [Specimen Book of Book-Cloth Binding Samples], [Manchester, Eng.: Winterbottom Book Cloth Company, 1900. See especially, William Tomlinson and Richard Masters, *Bookcloth, 1823-1980*, Mellor, Stockport, Cheshire: Dorothy Tomlinson, 1966. See also, William Spawn and Thomas E. Kinsella, "The description of bookcloth: Making a case for more precision," *The Papers of the Bibliographical Society of America* 96 (Sept. 2002341-349.

37. C. W. Woolnough, *The Art of Marbling, As Applied to Book Edges and Paper, Containing Full Instructions for Executing British, French, Spanish, Italian, Nonpareil, etc., etc. Illustrated with Specimens. With a Brief Notice of its Recent Application to Textile Fabrics, and Particularly to the Cloths so Extensively used by Bookbinders,* London: Alexander Heylin, 1853, p. 71, cited in B. Middleton, *A History,* p. 135-136. See also J. Carter, *Publishers' Cloth*, p. 13-14; and M. Sadleir, *Evolution,* p. 65. For examples of publishers' bindings covered in marbled book cloth, see: S. Allen, *Victorian Bookbindings,* microfiche 1; R. McLean, *Cloth and Leather,* p. 41; M. Sadleir, *Evolution,* pl. 6.

38. E. A. Parnell, R. MacFarlane, *A Practical Treatise on Dyeing and Calico-Printing,* New York: J. Wiley, 1860, p. 477-481, pl. 1.

39. A method for printing shaded stripes on wall paper is described in G. Dodd, "Paper: Its Applications and Novelties," in *The Curiosities of Industry and the Applied Sciences*, London: George Routledge and Co., 1854, p. 23. Examples of publishers' bindings covered in book cloth printed with shaded stripes are illustrated in: S. Allen, *Victorian Bookbindings,* microfiche 1; R. McLean, *Cloth and Leather,* p. 38-40; and M. Sadleir, *Evolution,* pl. 4. (Sincere thanks to Sue Allen for pointing out that shaded stripes on book cloth predate this published account of Wallerand's invention).

40. C. O'Neill, *A Dictionary of Dyeing and Calico Printing,* Philadelphia: Baird, 1869, p. 23-38. See also R. P. Multhauf, "Industrial Chemistry in the Nineteenth Century," in M. Kranzberg and C. W. Pursell, Jr., (eds.), *Technology in Western Civilization,* Vol. 1, New York: Oxford University Press, 1967, p. 483-484.

41. B. Middleton, *A History,* p. 74.

42. W. Bowyer, *Publishers' Binding Cloth,* p. 58.

43. G. L. Frost, "Codex Format Bookbinding Structures: A Survey of Historical Types," *Abbey Newsletter* 2, no. 4(1979), p. 42b.

44. J. Hannett (pseud. J. A. Arnett), *Bibliopegia,* London: Simkin, Marshall, and Co., 1835, p. 162-163, reprinted by Garland Publishing Co., 1990, cited in, B. Middleton, *A History,* p. 75.

45. M. V. Cloonan, *Early Bindings in Paper,* Boston: G. K. Hall and Co., 1991, p. 6, 9.

46. M. Winship, *American Literary Publishing in the Mid-Nineteenth Century: The Business of Ticknor and Fields*, Cambridge: Cambridge University Press, 1995, p 122; D.

Ball, *Victorian Publishers' Bindings,* p. 15, 17-19; E. Howe, J. Child, *The Society of London Bookbinders, 1780-1951,* London: Sylvan Press, 1952, p. 105-109; D. Leighton, *Modern Bookbinding*, p. 11-12; and B. Middleton, *A History,* p. 230-233.

47. J. W. Rogers, *American Edition Binding,* p. 148, fig. 44.

48. Rodgers, Charles T. 1852. *American superiority at the World's Fair*, Philadelphia, John J. Hawkins, p. 54-55. Starr's stamping press is described and illustrated in Zaehnsdorf, Joseph W. 1903. *The art of bookbinding; a practical treatise*, 6th ed., London: George Bell and Sons, p. 150-151.

49. *Exhibition of the works of industry of all nations, 1851. Reports of the juries on the subjects in thirty classes into which the exhibition was divided*, vol. 2, 1852. London: Spicer Brothers and W. Clowes and Sons, p. 929.

50. Middleton, 1963: p. 230; Zaehnsdorf, 1903; p. 150

51. Middleton, 1963: p. 230; Kinder, Louis H. 1905. *Formulas for bookbinders*, East Aurora, NY: The Roycrofters, p. 28-29.

52. Rogers, 1967, p. 149; Kinder, 1905, p. 28-29.

53. Middleton, 1963: p. 230.

54. An example of a blind and gold stamped, paper-covered literary annual from 1824 is illustrated in, R. McLean, *Victorian Publishers' Book-Bindings in Paper,* Berkeley: University of California Press, 1973, p. 24.

55. B. Middleton, *A History,* p. 230.

56. R*eports of the Juries,* Vol. 2, p. 929, cited in, B. Middleton, *A History,* p. 232.

57. B. Middleton, *A Histor*y, p. 232. By contrast, the turn-of-the-century Friedheim four-post embossing press exerted 400 tons of pressure. See also G. A. Stephen, *Commercial Bookbinding*, London: W. John Stonhill and Co., 1910, p. 47.

58. J. Abbot. 1855. *Harper's Story Books*, New York: Harper and Brothers, p. 146-148. A standard recipe for glair can be found in Cockerell, Douglas. 1901. *Bookbinding, and the care of books, a handbook for amateurs bookbinders and librarians*. New York: D. Appleton and Co., p. 198-199: "Finishers' glaire may be made from the white of eggs well beaten up, diluted with about half as much vinegar, and allowed to settle. Some finishers prefer to use old, evil-smelling glaire, but provided it is a day old, and has been well beaten up, fresh glaire will work quite well." A similar account is found in Joseph W. Zaehnsdorf. 1903. *The art of bookbinding. A practical treatise*, 6th ed., London: George Bell and Sons, p. 119-120: "Glaire may be purchased already prepared, or it may be made from the white of egg, which must be very carefully beaten up to a froth with an egg whisk. In breaking the egg care must be taken not to let any of the yolk get amongst the white. A little vinegar should be mixed with the white before beating up, and a drop of ammonia, or a grain or two of common table salt, or a small piece of camphor, will in some measure prevent it from turning putrid, as it is liable to do. Some workmen always have a stock of "good old glaire," as they term it, by them, fancying that it produces better work, but this is a mistaken notion, often productive of annoyance, and destructive to the comfort of the workmen. I advise the finisher to beat his glaire from an egg as he may require it. When well beaten, allow it to stand for some hours, and then pour the clear liquid into a bottle for use. I have had some dried albumen sent me, but its working has not given me such satisfaction as that freshly prepared; it may answer the purpose in other hands, but with me the gold appears to have been burnt in."

59. C. Tomlinson (ed.), *Cyclopaedia of Useful Arts,* p. 158-159. See also, Middleton, 1963, p. 174.
60. Kinder, 1905: p. 52.
61. Kinder, 1905: p. 19-20. Formula "[No. 19.] *White of Egg Glair* . . . . combine one part vinegar to every six parts of white of egg; then add six drops of oil of wintergreen, six drops of oil of sassafras, and six drops of syrup of squills. For a receptacle use a china or earthen bowl (never tin). Beat the mixture well with an egg-beater, and let stand over night. In the morning remove the crust which has formed on the surface, pour off slowly, taking care not to disturb the white sediment at the bottom, which is useless and must be thrown away, and put the clear liquid into a bottle or well-covered earthen crock . . . . For stamping leather, dilute this glair with from twenty-five to one hundred percent of water; for cloth, one hundred to three hundred per cent of water may be added, according to the material and the work."
62. Kinder, 1905: p. 21-22. Formula "[No. 21.] *Bleached and Refined Shellac Size*. Put eight ounces of crushed, bleached and refined shellac into a one-gallon vessel, add to it two ounces of ammonia carbonate, commonly known as smelling salt, and two teaspoonfuls of oil of spike, which should be absolutely colorless and clear as water. Mix it well with either a folder or a stick of wood, and add gradually one quart of boiling water, stirring briskly for a few moments, until the mixture ceases to sizzle. Place the vessel on a stove and allow the solution to simmer until every particle of shellac has been dissolved; then add another quart of boiling water and strain through a piece of course cloth into an earthen crock, where it may be kept. However, to prevent thickening, it is better to bottle it . . . . For stamping cloth or paper with either gold, white or yellow metal, the size may be used either full strength or diluted with from one hundred to one thousand per cent of cold water; the latter proportion would be suitable for dull-finished papers to be stamped in gold."
63. Kinder, 1905: p. 24-26. Formula "[No. 23.] *Liquid Fish Glue*. Some finishers and stampers insist upon using this size for stamping, principally cloth, in white or yellow metal . . . . .Dry fish glue may be bought at almost any retail drug-store, but the liquid article is not so easily procured. Unless you happen to reside in a large city, you will generally find it necessary to order a supply of that useful article sent along by express . . . . Place one pound of dry fish glue in a two- or three-quart earthen crock; add to it two even teaspoonfuls each of salicylic acid, oil of wintergreen and carbolic acid, and one and three-fourths quarts of hot water. Dissolve in bath [i.e., a double boiler]. In a cool place this preparation will keep a long time. For metal stamping it should be diluted with from two hundred to four hundred per cent of water, according to the material to be stamped. Leather will naturally require a much stronger size than cloth. Vinegar may be used for diluting, in place of water."
64. Kinder, 1905: p. 26-28. Formula "[No. 24.] *Combination 'B.' Egg Albumen Glair and Fish Glue*. For this combination an inferior grade of commercial liquid fish glue is best suited. However, the No. 23 [fish glue made from dry glue] may be used as well as the No. 14 [Le Page's superior grade liquid fish glue]. Whichever is used, put two even teaspoonfuls of it in a cup, add, in the order given, ten drops of formaldehyde and ten drops of carbolic acid. Now stir well until the mixture presents an even color; then add to it three teaspoonfuls of common white vinegar. Mix again thoroughly, using a folder or a stick of wood. Add seven more teaspoonfuls of white vinegar; if the No. 23

was used, four or five teaspoonfuls of vinegar the second time will be sufficient . . . . To every five teaspoonfuls of glair No. 20, add three teaspoonfuls of the above-mentioned mixture and two teaspoonfuls of aqua ammonia [described on p. 4 as: Commercial aqua ammonia (not the 'Household,' which is considerably weaker)]."

65. Kinder, 1905: p. 14, 28. Formula "[No. 25.] *Le Page's Glue*. This is a superior grade of fish glue, prepared and sold in liquid form in cans of various sizes . . . . This glue, diluted with either vinegar or water and the addition of a few drops of glycerine (or without it), can be used for stamping leather or cloth in gold or metal. It can be used alone or in combination with ordinary fish glue."

66. Kinder, 1905: p. 28. Formula "[No. 26.] *Yellow Dextrine*. This substance, too makes a more or less successful size for stamping in gold or metal. Dissolved in bath [i.e., a double boiler], it makes a good mucilage by the addition of acetic acid, and this, diluted with water, renders it suitable for stamping."

67. Kinder, 1905: p. 28-29. Formula "[No. 27.] *White Shellac cut in Grain-Alcohol*. This preparation can be bought at almost any painters' supply store and of some druggists. It is often cut in wood alcohol, but for this purpose it should be cut in pure grain-alcohol . . . . Put seven teaspoonfuls of it [i.e., white shellac cut in grain-alcohol] into a half-pint cup, add seven teaspoonfuls of aqua ammonia and fill the cup with cold water. You may add a little fish glue diluted with water, if you like, but it is not necessary. It is exclusively a metal size and can be used on leather or cloth."

68. Kinder, 1905: p. 29-30. Formula "[No. 28.] *Combination 'C.' Shellac Size No. 21, Fish Glue and Vinegar*. This combination produces a size of milky appearance, both in color and consistency. It is absolutely an original compound and gives positive results in every instance . . . . It does not stain the most delicate shades of leather or cloth, and is waterproof. White or colored writing and cover paper, cardboard, cloth, buckram or leather (real or artificial) can be stamped in gold or metal . . . . You require two agate-ware dishes (washbasins do very well). Put two cupfuls of shellac size No. 21 in one of them, and stirring briskly with a folder, add to it three-fourths of a cupful of fish glue No. 23. Into the other dish put one cupful of white vinegar (wine vinegar is preferable) and let this one dish, at least, have a perfect lining, to prevent the vinegar from coming in contact with the iron. Now place both dishes, the one containing shellac and fish glue and the other vinegar, on the stove and bring the contents gradually to the boiling point. Let simmer a few seconds, take both dishes from the stove, and stirring the shellac mixture briskly with a folder, add the hot vinegar gradually to it. The preparation is now completed. When cool, remove the scum—a film forms on the surface, similar to that found on boiling milk—strain through cheese-cloth and bottle."

69. Kinder, 1905: p. 34. Formula "[No. 29.] *Combination 'D.'* Two cupfuls of shellac No. 21, to which add three-fourths of a cupful of fish glue, consisting of equal parts of Nos. 23 [liquid fish glue] and 25 [Le Page's glue], the latter reduced with glycerine and rose-water to the consistency of the No. 23. Mix well with a folder and add one teaspoonful of refined honey to this mixture before it is added to the shellac . . . . Use three-fourths of a cupful of vinegar instead of one cupful, as in No. 28. Otherwise follow No. 28's directions closely."

and Vinegar. This

70. Kinder, 1905: p. 36. Formula "[No. 30.] *Combination 'E.'* One scant, even teaspoonful of the wax solution No. 74, one teaspoonful of Le Page's glue reduced with glycerine and rose-water to the consistency of thick syrup, one generous teaspoonful of Glair No. 19, and fifteen teaspoonfuls of cold water, stirring as the successive ingredients are added." The wax recipe is as follows: Kinder, 1905: p. 93-94. Formula "[No. 74.] *Binding Medium for Marbling Colors*. Put a cupful (one-half pint) of gum gattie into a two-quart china bowl, add to it one even teaspoonful of salts of tartar and one quart of boiling water. Keep the gum hot in bath [i.e., a double boiler] all day, adding a little hot water at intervals of an hour or so, but at least sufficient to leave one quart of dissolved gum of the consistency of thick molasses at the end of the day. The residue, being lumps of undissolved gum, you may save for a future boiling. Next, strain a quart of gum through a piece of course cloth, add four heaping teaspoonfuls of refined honey, a scant half ounce of yellow prussiate of potash reduced to very small fragments, and one ounce of common yellow laundry soap shaved fine. I have found Lautz's Acme soap to be just right for this purpose. Return this mixture consisting of one quart of dissolved gum gattie, four teaspoonfuls of honey, half ounce of yellow prussiate of potash and one ounce of laundry soap, to the bath and apply heat till every particle of soap and potash has been dissolved . . . . When this stage has been reached, melt in another dish three ounces of white beeswax (not paraffine) [sp], remove from fire, add a dash of cumole (No. 51), stir with folder and add to it gradually, stirring briskly at the same time, the hot gum solution. The preparation is now ready and should be of a creamy white color and not too pasty in texture but rather glutenous. Preserved in a jar, it will keep forever."

71. Kinder, 1905, p. 40.

72. Kinder, 1905, p. 44.

73. Kinder, 1905, p. 44.

74. Middleton, 1963, p. 185.

75. Middleton, 1963, p. 185.

76. Kinder, 1905: p. iv.

77. Kinder, 1905: p. 79.

78. Kinder, 1905: p. 21-22; 38. Kinder differentiates between orange or un-bleached shellac, and white or bleached and refined shellac that "can be purchased in bars at some painters' supply house, and then crushed [for use] with an ordinary hammer."

79. *A practical guide to embossing and die stamping,* 1908. Chicago: The Inland Printer Company, p. 42-43.

80. G. A. Stephen, *Commercial Bookbinding*, p. 45.

81. Monk, J. Leonard and W. F. Lawrence. 1912. *A text book of Stationary binding, a treatise on the whole art of forwarding and finishing stationary books, including chapters on ruling, marbling, leathers, and papers*, Leicester, England: Raithby, Lawrence and Co., p. 93. See also, Matthews, William F. 1929. *Bookbinding, a manual for those interested in the craft of bookbinding*, New York: E. P. Dutton, p. 230, under the section entitled, Blocking Cloth, notes, "Cloth, as a rule, requires no preparation."

82. G. W. Wendon. 1983. *Aluminium and bronze flake powders*, Ayr: Scotland: Electrochemical Publications Limited, p. 4.

83. Bessemer, Henry. 1905. *Sir Henry Bessemer, F.R.S., an autobiography*. London: Offices of Engineering, p. 55.

84. Bessemer, 1905: p. 71.

85. Bessemer, 1905: p. 70.
86. The quote is from Bessemer, 1905: p. 61. The British patent granted for the "Manufacture of bronze and other mettalic powders," No. 9,775, was granted to Bessemer on 15 June 1843. See, Bessemer, 1905: p. 329.
87. G. A. Stephen, *Commercial Bookbinding*, p. 45. See also, Coutts, Henry T., and George A. Stephen. 1911. *Manual of library bookbinding, practical and historical*, London: Libraco Limited, p. 131.
88. Kinder, 1905: p. ii.
89. Kinder, 1905: p. 43-44.
90. Middleton, 1963, p. 185; Kinder, 1905: p. 80. Formula No. 65 mentions "banana varnish," being "a comparatively new article. . . .used by plumbers as a binding medium for bronze powders in decorating iron work."
91. Interview with Glenn Hutchison, 19 October 1998, Universal Engraving, Inc., 9090 Neiman Road, Overland Park, KS 66214. Mr. Hutchison's personal involvement in the foil trade (which began in the 1960s) fostered a passion for defining its history, which is largely unrecorded. He has pursued this interest through oral history interviews conducted over the past three decades with most of the industry's principle
92. Kinder, 1905: p. 71. Formulas No. 57 and 57a describe the use of Zinsser's (Wm. Zinsser & Co., 197 William Street, New York City) bookbinders' Copal Varnish, an alcohol-based varnish Kinder uses diluted three parts alcohol to one part varnish for edge gilding.
93. Interview with Glenn Hutchison, 19 October 1998.
94. Interview with Glenn Hutchison, 19 October 1998.
95. M. Sadleir, *Evolution,* p. 31-33.
96. D. Leighton, *Modern Bookbinding,* p. 13, n. 2, mentions a "glazed calico" binding "printed with a wavy pattern in black" on an 1832 *Christian Directory* (London: Timson); also, B. Warrington, *William Pickering and the Development of Publishers' Binding in the Early Nineteenth Century* <<Publishing History>>, 33(1993), p. 64, describes John Murray's *Family Library* series which began printing on cloth in 1829.
97. Etude Tajan, *BibliothΠque de Monsieur et Madam G . . . Reliures—Cartonnages Illustrés Romantiques, Vente a Paris, Hôtel Drouot Salle 4 le Mercredi 18 Octobre 1995,* Paris 1995, p. 15. See also S. Malavieille, *Reliures et Cartonnages d'Éditeur en France au XIXe SiΠcle (1815-1865)*, Paris 1985.
98. R. McLean (ed.), *The Reminiscences of Edmund Evans,* Oxford: Clarendon Press, 1967, p. 25-28. See also M. Sadleir, *XIX Century Fiction,* Vol. 2; M. Sadleir, "Yellow-Backs," in J. Carter, (ed.), *New Paths in Book Collecting*, London: Constable, 1934, p. 125-161; C. W. Topp, *Victorian Yellowbacks and Paperbacks, 1849-1905*, Vol. 1, Denver: George Routledge, 1993; and I. Rogerson, *Yellowbacks, an Exhibition,* Manchester, Eng: Manchester Polytechnic Library, 1984.
99. M. Sadleir, *Publishers' Binding Styles,* p. 61.
100. L. S. Darley, *Bookbinding, Then and Now,* London: Faber and Faber, 1959, p. 68-69.
101. H. W. Davies, *Memoir,* (typescript, John Johnson Collection, Oxford University Press), cited in S. Pantazzi, *John Leighton, 1822-1912,* <<Connoisseur>>, 152 (1963), p. 264. Pantazzi mistakenly identified the author of this undated typescript as John

Johnson; Ball asserts the memoir was actually written by Hugh William Davies, managing director of J. & J. Leighton, Ltd. See D. Ball, *Victorian Publishers' Bindings,* p. 75.

102. L. S. Darley, *Bookbinding,* p. 69; and S. Allen, *Victorian Bookbindings,* microfiche 2-3.

103. R. McLean, *Cloth and Leather,* p. 34, 37.

104. M. Sadleir, *Yellow-backs,* p. 136 notes J. O. Halliwell, *The Nursery Rhymes of England*, London: John Russell Smith, 1844.

105. Kinder, 1905: p. 44.

106. Frank B. Wiborg. 1926. *Printing ink: a history with a treatise on modern methods of manufacture and use*, New York: Harper and Brothers, p. 247.

107. Wiborg, 1926: p. 247.

108. W. Ilston Cox, "Vehicles," *Penrose annual, the process year book and review of the graphic arts* 29 (1927), p. 64-65.

109. An ad appearing in, Coutts and Stephen, 1911, p. 11 of the advertisements, for E. T. Marler of 14 Charles Street, London, notes that their "Lion Brand gloss blocking inks dry hard and bright overnight," and that name received a registered trademark in 1884.

110. Zaehnsdorf, 1903: p. 150-151.

111. Etude Tajan, *BibliothΠque de Monsieur et Madam G.* See also S. Malavieille, *Reliures et Cartonnages.*

112. M. Sadleir, *Evolution,* p. 64.

113. Sir W. Scott, *Tales of a Grandfather,* Edinburgh :1846, cited in D. Ball, *Victorian Publishers' Bindings,* p. 53, n. 14. Ball believed this binding was no earlier than 1848 though its date of publication is 1846. Our thanks to Michael Turner of the Bodleian Library for showing us this book, Carter Collection d 26.

114. See for example, M. M. Foot, "*A Binding by Westleys and Co., 1864,"* in, *Studies in the History,* p. 248-250, illustrates the binding for W. Howitt, *Ruined Abbeys and Castles of Great Britain and Ireland*, 2nd series, London: A. W. Bennett, 1864, in blue cloth with circular, die cut photographs pasted to both front and back covers. I have seen the first in this series, 1862, similarly bound but in purple cloth with different photographs die cut and pasted to each cover. See also, R. McLean, *Cloth and Leather,* p. 104-105.

115. See for example, R. McLean, *Cloth and Leather,* illustrated, p. 53-54, 70-71, 107; and R. McLean, *Paper,* illustrated, p. 46-48.

116. *The Rainbow, 1848*, Albany, New-York: A. L. Harrison, Bell and Gould, 1848, illustrated in William Loring Andrews, *Bibliopegy in the United States and kindred subjects*, 2nd ed., New York: Dodd, Mead, 1902, p. 116-17, reprinted, Sidney F. Huttner (ed.), *William Loring Andrews on bookbinding history*, New York, Garland, 1990.

117. Dozens of U. S. patents were taken out for various types of imitation leathers between 1845 and 1899. I am grateful to Robert Herskovitz for helping to identifying the prevalence of this material during the nineteenth century, although the extent of its use as a covering material in edition bookbinding is still not well understood. See, Valerie Thorpe, "Imitation leather: structure, composition and conservation," *Leather conservation news* 6, no. 2 (spring, 1990), p. 7-15, and Roy Thomson, "From pottery to Skivertex: alternatives to leather," *La conservation: une science en évolution, bilans et perspectives*, Paris: Association pour la Recherche Scientifique sur les Arts Graphiques,

1997, p. 79-85. Kinder, 1905: p. 45, mentions an artificial leather used for bookbinding in the first decade of the twentieth called "Keratol.."

118., R. McLean, *Cloth and Leather,* illustrated, p. 106.

119. R. McLean, *Cloth and Leather,* illustrated, p. 106; and R. McLean, *Paper,* illustrated , p. 50-59.

120. R. McLean, *Paper,* illustrated, p. 72-74.

121. B. Middleton, *A History,* p. 64-69.

122. G. Cowie, *The Bookbinder's Manual*, London: Cowie and Strange, 1828, p. 124, reprinted in S. F. Huttner, (ed.), *Two Early Nineteenth-Century Bookbinding Manual*, Garland History of Bookbinding Technique and Design Series, New York: Garland Publishing, 1990.

123. Clapperton, R. H. 1967. *The paper-making machine: its invention, evolution and development*. Oxford: Pergamon Press, p. 70, 214.

124. This detail is described in a retrospective account of the Davey Company's board formation technique from 1842 in, H. B. Cushman, *The Mill on the Third River: A History of the Davey Company, Makers of Binders Board Since 1842,* Jersey City, NJ: The Davey Co., 1992, p. 33.

125. G. Dodd, "Paper: Its Applications and Novelties," p. 19.

126. Kinder, 1905: p. 32.

127. F. Romer, *100 Years of Books*, Jersey City, NJ: The Davey Company, 1942, p. 8, quoted in H. B. Cushman, *The Mill on the Third River*, p. 32.

128. Poole, Reuben B. 1889. "Book-binding memoranda," Library journal 14 (May-June), p. 261-64. See especially p. 264. Tar board was available in London in 1903 from Messrs. Eadie and Corfield for between 32s. and 40s per cwt. See, W. J. E. Crane. 1903. *Bookbinding for amateurs, being descriptions of the various tools and appliances required and minute instructions for their effective use*, London: L. Upcott Gill, p. 78.

129. H. B. Cushman, *The Mill on the Third River*, p. 39, and n. 7.

130. Poole, 1889: p. 264. The cost for millboard in London in 1903 was 20s. per cwt., or less. See, Crane, 1903: p. 79.

131. J. Adams, *House of Kitcat,* p. 48.

132. Poole, 1889: p. 264. Strawboard could be purchased in London in 1903 for about 10s. per cwt. See, Middleton, 1963: p. 64-69; and, Crane, 1903: p. 79.

133. Illustrated in, "A day at the bookbinder's," *Penny magazine*, (1842), cited and illustrated in, B. Middleton, *A History,* p. 232-234, fig. 83. See also *Reports of the Juries,* Vol. 2, p. 929.

134. B. Middleton, *A History,* p. 224. See also *Reports of the Juries,* Vol. 2, p. 929.

135. B. Middleton, *A History,* p. 234-235. See also Charles T. Rogers, *American Superiority at the World's Fair*, Philadelphia: John J. Hawkins, 1852, p. 53-54; and, *Reports of the Juries,* Vol. 2, p. 929. A later model by Sanborn is illustrated in, J. B. Nicholson, *A Manual of the Art of Bookbinding,* Philadelphia: H. C. Baird, 1856, p. 174.

136. In, W. O. Hickock Manufacturing Company, Harrisburg, PA, *Between the Lines 1844-1944, An Informal History of the W. O. Hickock Manufacturing Company Makers of Ruling Machines Since 1844*, Harrisburg, PA: W. O. Hickock Manufacturing Company, 1944, p. 9, the "Improved Sawing Machine" is included in a list of equipment derived from "an early catalog" and priced at $125.00. This company still manufactures binding equipment in Harrisburg, PA, now under the management of a forth-generation

Hickock. See also J. W. Rogers, *American Edition Binding,* p. 153-154, fig. 49. Illustrated in, J. B. Nicholson, *Manual,* p. 171.
137. J. W. Rogers, *American Edition Binding,* p. 149; belts and pulleys used to drive Harper & Brothers steam-powered bindery in New York in 1855 are illustrated in, Abbott, Jacob. 1855. *Harper's Story Books*, New York: Harper and Brothers, p. 126, 132, 134, 143, 147, and 151.
138. B. Middleton, *A History,* p. 230.
139. F. E. Comparato, *Books for the Millions,* Harrisburg, PA: The Stackpole Co., 1971, p. 112; and J. W. Rogers, *American Edition Binding*, p. 151.
140. Poole, 1889: p. 261.
141. J. W. Rogers, *American Edition Binding*, p. 138-144; D. Leighton, *Modern Bookbinding*, p. 15; and B. Middleton, *A History,* p. 74-76.
142. B. Middleton, *A History,* p. 30-31; F. E. Comparato, *Books,* p. 224-225.
143. F. E. Comparato, *Books,* p. 141-142. Heyl received U. S. Patent No. 176,632 in April, 1876 for the concept of saddle-stitching consecutive sections of a multi-sectioned book to tapes or cords, followed by U. S. Patent No. 180,765 in August, 1876 for his design of the actual machinery. According to Comparato, the first book to be bound by wire-stitching was the official four volume catalog of the 1876 Philadelphia Centennial Exposition.
144. B. Middleton, *A History,* p. 108.
145. B. Middleton, *A History,* p. 20-24.
146. F. E. Comparato, *Books,* p. 167. Comparato clarifies the date Smyth began work on this invention as "1865" rather than "1856," a misnomer perpetuated in the writings of Rogers and Stephen due to a typo appearing in Smyth's obituary published in the *Inland Printer* in 1907. See also J. W. Rogers, *American Edition Binding,* p. 153; G. A. Stephen, *Machine Book-Sewing, With Remarks on Publishers' Binding,* Aberdeen, Eng.: Aberdeen University Press, Ltd., 1908, p. 4-5; and G. A. Stephen, *Commercial Bookbinding*, p. 21.
147. F. E. Comparato, *Books,* p. 173. G. A. Stephen, *Commercial Bookbinding*, p. 21-24; G. A. Stephen, *Machine Book-Sewing,* p. 4-6, illustrations 1-2; F. E. Comparato, *Books,* p. 177, 182-183; and J. W. Rogers, *American Edition Binding,* p. 153.
148. Coutts, Henry T., and George A. Stephen. 1911. *Manual of library bookbinding, practical and historical*, London: Libraco Limited, p. 22-23.
149. H. Lehmann-Haupt, "On the rebinding of old books," in H. Lehmann-Haupt (ed.), *Bookbinding in America*, New York: R. R. Bowker Co., 1967, p. 221.
150. T. S. Ashton, *The Industrial Revolution 1760-1830,* New York: Oxford University Press, 1964, p. 109; J. Bronowski, *The Ascent of Man,* Boston: Little, Brown and Co., 1973, p. 279, and C. More, *The Industrial Age: Economy and Society in Britain 1750-1985,* London: Longman, 1989, p. 77.
151. R. D. Altick, *The English Common Reader,* Chicago: University of Chicago Press, 1957, p. 263, 313; see also M. Sadleir, *XIX Century Fiction,* Vol. 2, p. 146-147.
152. M. Sadleir, *XIX Century Fiction*, Vol. 2, p. 146-147.
153. *The Times* (London), 18 May-29 May 1852, cited in A. Briggs, "Introduction: At the Sign of the Ship," in, A. Briggs (ed.), *Essays in the History of Publishing in Celebration of the 250th Anniversary of the House of Longman, 1724-1974,* London: Longman, 1974, p. 14.

154. Patricia J. Anderson, *The Printed Image and the Transformation of Popular Culture 1790-1860,* Oxford: Clarendon Press, 1991, p. 3, n. 4.
155. R. B. Loring, *Decorated Book Papers*, 2nd ed., Cambridge: Harvard University Press, 1952, p. 78.
156. B. Middleton, *A History*, p. 37-38.
157. Quoted in, M. MacLeod, *Early History of Coated Papers—How They Came of Age,* <<Paper Trade Journal>>, (27 May 1972), p. 170-175 (see p. 175).
158. M. Sadleir, *Evolution*, p. 25-26.
159. R. B. Loring, *Decorated Book Papers*, p.78.
160.
B. Middleton, *A History*, p. 38.
161. Abbott, 1855, p. 142-145.
162. Allen, Sue. 1977. "Floral-Patterned Endpapers in Nineteenth-Century American Books," *Winterthur Portfolio* 12, p. 183-224 (see especially p. 183-184).
163. B. Alderson, *The Ludford Box and "A Christmas-Box,"* Los Angeles: Department of Special Collections, University Research Library, University of California, Los Angeles, 1989, p. 25, pl. 2. The earliest examples of bindings for children's books with paper covers illustrated by wood-engraving are housed in the UCLA Special Collections, and include: "Abraham Aesop, Esq.," *Fables in Verse . . .*, London: [Carnan and Newbery], 1777; and "Tommy Tag," *A Collection of Pretty Poems . . .*, London: Carnan and Newbery, 1777. An example from 1785 with the woodcut printed in red ink on buff paper is illustrated in R. McLean, *Cloth and Leather,* p. 18.
164.
P. Gaskell, *New Introduction,* p. 249.
165. F. W. Faxon, E. Jamieson, Iain Bain, *Literary Annuals and Gift Books: A Bibliography 1823-1903,* London: Private Libraries Association, 1973; E. Jamieson, *English Embossed Bindings 1825-1850,* Cambridge: Cambridge University Press, 1972; R. McLean, *Paper;* A. Renier, *Friendship's Offering, An Essay on the Annuals and Gift Books of the 19th Century,* London: Private Libraries Association, 1964; and E. Wolf II, *From Gothic Windows to Peacocks: American Embossed Leather Bindings 1825-1855,* Philadelphia: The Library Company of Philadelphia, 1990.
166. The oft-cited exemplar for the transition from labels to stamping directly on the spine is John Murray's 1832 edition of Byron's *Life and Works*, with Vol. 1 gold stamped on a forest green paper label, while volumes 2-17 are stamped directly onto the green cloth case. See D. Leighton, *Modern Bookbinding*, p. 11-12; M. Sadleir, *Evolution,* p. 49-50; and E. Potter, *London Bookbinding Trade,* p. 269. The reissue of Vol. 1, with gold stamping directly on the spine of the case, is illustrate in D. Ball, *Victorian Publishers' Bindings*, pl. 1.
167. S. Allen, *Machine-Stamped Bookbindings,* p. 565.
168. R. McLean, *Cloth and Leather,* p. 20, 22.
169.
M. Sadleir, *Evolution,* pl. 5, illustrates Michael Scott's *Tom Cringle's Log* from 1833, stamped with a decorative spine image. See also S. Allen, *Machine-Stamped Bookbindings,* pl. 1 illustrates an 1837 example (by Hannah F. S. Lee, *Three Experiments of Living,* 7th ed., Boston: William S. Damrell), with titling on the front board over ribbon-embossed cloth.

170. Two early examples of leather edition bindings stamped in blind are illustrated in R. McLean, *Cloth and Leather,* p. 21. See also: F. W. Faxon, *Literary Annuals*; E. Jamieson, *English Embossed Bindings*; A. Renier, *Friendship's Offering*; and E. Wolf II, *American Embossed Leather*.

171. S. Allen, *Book-Cover Stamps Engraved by John Feely, 1842-1877,* in S. Allen, C. Gullans, *Decorated Cloth in America, Publishers' Bindings 1840-1910,* Los Angeles: UCLA Center for 17th- and 18th-Century Studies, 1994, p. 12.

172. M. Sadleir, *Aspects of the Victorian Novel*, p. 33.

173. M. Sadleir, *Evolution,* p. 50, n.

174. E*xhibition of the works,* vol. 2: 1852, p. 932; cited in, B. Middleton, *A History,* p. 187.

175. S. Allen, *Victorian Bookbindings,* microfiche 3.

176. C. Dresser, *Development of Ornamental Art in the International Exhibition,* London: Day and Son, 1862, p. 187, reprinted in, P. Stansky, R. Sherwan, (eds.), *The Aesthetic Movement and the Arts and Crafts Movement Series,* New York: Garland Publishing, Inc., 1978.

177. B. Middleton, *A History*, p. 185.

178. T*he Penny Mechanic* (8 July 1837), p. 292.

179. Personal conversation, 9 October 1995, with Mark D. Sherwin, master engraver and router with Adolph Bauer Inc., 763 South Street, Holbrook, MA 02343.

180. P. Gaskell, *New Introduction,* p.209; and R. R. Kelly, *American Wood Type 1828-1900,* New York: Van Nostrand Reinhold Co., 1969, p. 51.

181. The use of the Houchin engraving machine is described in, C. Gullans, J. Espey, American Trade Bindings and Their Designers, 1880-1915," in J. Peters, (ed.), *Collectible Books, Some New Paths*, New York: R. R. Bowker, 1979, p. 32-67 (see p. 35); see also S. Allen, *Book-Cover Stamps,* p. 12-13; and S. Allen, *Machine-Stamped Bookbindings,* p. 566.

182. D. Ball, *Victorian Publishers' Bindings,* p. 3, 21-22; P. Gaskell, *New Introduction,* p. 271-272; and B. Middleton, *A History,* p. 188.

183. G. White, *The Artistic Decoration of Cloth Book-Covers,* <<Studio>>, 4/19(October 1894), p. 15-23, quoted in, D. Ball, *Victorian Publishers' Bindings,* p. 21-22.

184. C. Gullans, J. Espey, "American Trade Bindings," p. 35.

185. Abbott, 1855: p. 96.

186. Gaskell, 1972: p. 206, 266-267.

187. Kinder, 1905: p. 29, 52.

188. D. Ball, *Victorian Publishers' Bindings,* p. 68.

189. T*he Paper Box Maker and American Bookbinder,* 1899.

190. D. Ball, *Victorian Publishers' Bindings*, p. 114-115. Ball lists a number of engraved covers signed in this way by Bain, Bell, De la Rue, Dobson, Remnant & Edmonds, Rock, Rowley, and Westley. An example of an intaglio cover stamped in blind from 1836, signed on both covers by Remnant & Edmonds, is: W. H. Ainsworth, *Rookwood*, illustrated by Cruikshank, London: John Macrone, 1836.

191. Potter, Esther. 1997. "The changing role of the trade bookbinder, 1800-1900," Hunt, Arnold, et. al, (eds.). *The book trade and its customers 1450-1900, historical*

essays for Robin Myers, Winchester, England: St. Paul's Bibliographies, p. 161-174 (see p. 167-168, and Fig 3).

192. For a list of American engravers see S. Allen, *Machine-Stamped Bookbindings,* p. 571-572. English engravers can be found in, R. McLean, *Cloth and Leather,* p., 159; and D. Ball, *Victorian Publishers' Bindings,* p. 204-206.

193. S. Allen, *Book-Cover Stamps,* p. 9-51.

194. S. Allen, *Book-Cover Stamps,* p. 42.

195. G. Dodd, *Days at the Factories,* p. 364.

196. *Publishers' Weekly*, 25(September 1880), p. 406, quoted in, S. Allen, *Book-Cover Stamps,* p. 14.

197.

J. Leighton. 1888. *Discussion* (following the reading of a paper by H. B. Wheatley entitled, *The Principles of Design Applied to Bookbinding*), *Journal of the Society of Arts*, (February 24), p. 371.

198. J. Leighton, *Discussion,* p. 371.

199. N. Pevsner. 1968. "High Victorian Design," in *Studies in Art, Architecture and Design,* vol. 2, New York: Walker and Co., p. 43.

200. N. Pevsner, "High Victorian Design," p. 38-107.

201. P. B. Meggs. 1992. *A History of Graphic Design,* New York: Van Nostrand Reinhold,, p. 154.

202. A. W. N. Pugin, *Floriated Ornament: A Series of Thirty-One Designs,* London: Henry G. Brown, 1849, quoted in S. Durant, *Victorian Ornamental Design,* London: Academy Editions, 1972, p. [5].

203. C. Gere and M. Whiteway. 1993. *Nineteenth-Century Design from Pugin to Mackintosh,* London: Weidenfeld and Nicolson, p. 41-57, 64; and *A. W. N. Pugin: Master of the Gothic Revival.* 1995. New York: The Bard Graduate Center for Studies in the Decorative Arts.

204. Pugin's binding designs include, *The True Principles of Pointed or Christian Architecture,* London: J. Weale, 1841; *The Glossary of Ecclesiastical Ornament and Costume—Compiled from Ancient Authorities and Examples,* London: Henry G. Bohn, 1844; and *Floriated Ornament,* London: Henry G. Brown, 1849; these attributions are cited in D. Ball, *Victorian Publishers' Bindings,* p. 90.

205. Opened initially in June of 1837 at Sommerset House, London, the School of Design was renamed the Royal College of Art by Queen Victoria in 1896. See S. Jervis, *The Penguin Dictionary of Design and Designers,* London: Allen Lane, 1984, p. 437-439; and C. Gere, M. Whiteway, *Nineteenth-Century Design,* p. 7.

206. This usage of the term "broadcast," for example, is of nineteenth-century origin, first occurring in 1829. See *The Compact Edition of the Oxford English Dictionary,* vol. 1, Oxford: Oxford University Press, 1971, p. 1117.

207. P. Anderson, *The Printed Image,* p. 3.

208. D. Ball, *Victorian Publishers' Bindings,* p. 74-84.

209. S. Pantazzi, *John Leighton,* p. 262-273.

210. Published under the pseudonym Luke Limner, see for example, Leighton's satirical *Money: How Old Brown Made It, and How Young Brown Spent It,* 2 Vols., London: Ackermann Co., 1848, and *The Rejected Contributions to the Great Exhibition,* London: Ackermann Co., 1851; his attack on the vanity of corsets and other unhealthy

attire, *Madre Natura,* London: Bradley, Evans and Co., 1870; the autobiographical *Paris Under the Commune,* London: Bradley, Evans and Co., 1871; and a proposal for political reform entitled, *The Unification of London,* 3rd ed., London: E. Stock, 1895.

211. John Leighton, *On Japanese Art: A Discourse Delivered at the Royal Institution of Great Britain May 1, 1863*, London: Privately Printed, 1863. Victorians became enthralled with Japanese design as a result of the International Exhibition of 1862 where Sir Rutherford Alcock's collection of Japanese curios were first displayed in the Japanese Court. See C. Gere, M. Whiteway, *Nineteenth-Century Design,* p. 126-135.

212. J. Leighton, *Suggestions in Design for the Use of Artists and Art Workman,* London: David Bogue, 1853.

213. A comprehensive checklist of Leighton's binding designs has yet to be published, but D. Ball, *Victorian Publishers' Bindings,* p. 26n, identified his first binding design as *Talent Will Make its Way,* (c. 1843). S. Pantazzi, *John Leighton,* p. 271, illustrates one of his last works, *The Age We Live In,* 1883.

214. C. Dresser, *Development of Ornamental Art,* p. 183.

215. J. Goury, *Plans, Elevations, Sections, and Details of the Alhambra,* 2 Vols., London: Owen Jones, issued in parts between 1842 and 1845. See R. McLean, *Victorian Book Design and Colour Printing,* 2nd. ed., London 1972, p. 77-81, illustrated, 72.

216. Jones, Owen. (1852). "On colour in the decorative arts," in Mayall, Beard, *Tallis's history and description of the Crystal Palace, and the Exhibition of the World's Industry in 1851*, London: The London Printing and Publishing Company, p. 219-226.

217. H. Cole, *Fifty Years of Public Work*, 2 vols., London: George Bell, 1884, vol. 1, p. 175; see also D. M. Reynolds, *Nineteenth-Century Architecture,* Cambridge: Cambridge University Press, 1992, p. 62. See also, Darby, Michael. 1983. "Owen Jones and his circle," in *The Islamic perspective, an aspect of British architecture and design in the 19th century*, London: The World of Islam Festival Trust, p. 61-121.

218. O. Jones, *The Grammar of Ornament,* London: Day and Son, 1856. See also O. Jones, *The Grammar of Chinese Ornament,* London: S. & T. Gilbert, 1867.

219. Jones, Owen. 1863. *On the true and the false in the decorative arts: Lectures delivered at Marlborough House June, 1852.* London: Strangeways and Walden, Printers.

220. C. Gere, M. Whiteway, *Nineteenth-Century Design*, p. 63-73, 122-124.

221. R. McLean, *Victorian Book Design,* p. 81. See also, Burch, R.M. 1910. *Colour printing and colour printers*, New York: The Baker & Taylor Co., p. 149-211.

222. D. Ball, *Victorian Publishers' Bindings,* p. 151-155. Examples of Jones' bindings are illustrated in R. McLean, *Cloth and Leather,* plates 31-33, 98-100, 102-3, and col. pl. 72.

223. S. Durant, *Christopher Dresser,* London: Academy Editions, 1993, p. 7.

224. S. Durant, *Christopher Dresser,* p. 11.

225. S. Durant, *Christopher Dresser,* p. 13.

226. C. Dresser, *Development of Ornamental Art,* p. 182.

227. T. Moore, *Paradise and the Peri,* illuminated by Owen Jones, London, Day & Son, n. d. (c. 1860); illustrated in, R. McLean, *Cloth and Leather,* p. 102.

228. Christopher Dresser published ten books; seven on design and three others on botany. The three I have seen in original bindings, *The Art of Decorative Design*

(London: Day & Son, 1862), *Unity in Variety as Deduced from the Vegetable Kingdom* (London: J. S. Virtue, 1860), and *Modern Ornamentation* (London: Batsford, 1886) are his binding designs. A bibliography of Dresser's publications can be found in S. Durant, *Christopher Dresser,* London 1972, p. 140-141, as well as in *Christopher Dresser, 1834-1904--pottery, glass, metalwork: an exhibition 3 October to 27 October 1972*, London: Fine Art Society, Ltd., 1972.

229. Wyatt, Matthew Digby. 1852. "An attempt to define the principles which should determine form in the decorative arts, read before the Society of Arts April 21, 1851," in *Lectures on the results of the Great Exhibition of 1851*, second series, no. 7, London: D. Bogue, p. 413-432. Quote is from p. 420.

230. C. Dresser, *Development of Ornamental Art,* p. 183.

231. Twenty identified, and nearly as many unidentified designers from the High Victorian period, as well as their known works, are listed in D. Ball, *Victorian Publishers' Bindings,* p. 86-94.

232. For a list of H. N. Humphreys' cover designs and publications, see D. Ball, *Victorian Publishers' Bindings,* p. 148-51. See also R. McLean, *Victorian Book Design,* p. 99-114; H. Leathlean. 1989. "Henry Noel Humphreys and the Getting-Up of Books in the Mid-Nineteenth Century," *The Book Collector* 38, no. 2(Summer), p. 192-209; H. Leathlean. 1987. "Henry Noel Humphreys and some Pre-Raphaelite Imagery," *Journal of Pre-Raphaelite Studies* 7, no. 2(May), p. 41-54; H. Leathlean. 1993. "The Archaeology of the Art Director? Some Examples of Art Direction in Mid-Nineteenth-Century British Publishing," *Journal of Design History* 6, no. 4, p. 229-245; and P Muir. 1985. *Victorian Illustrated Books,* rev. ed., London: Batsford, p. 40.

233. S. Pantazzi. 1961. "Four Designers of English Publishers' Bindings, 1850-1880, and Their Signatures," *Papers of the Bibliographical Society of America*, 55, p, 88-99. See also D. Ball, *Victorian Publishers' Bindings,* p. 147-167; color illustration of examples of bindings by Dudley, Rogers, Sliegh, and Warren, can be found in, P. Goldman. 1994. *Victorian Illustrated Books, 1850-1870, The Heyday of Wood-Engraving,* Boston: David R. Godine, p. 123-124; a binding by Wyatt is illustrated in N. Pevsner, "High Victorian Design," p. 95; and Wyatt's work is discussed together with a checklist of his publications in, N. Pevsner, "Matthew Digby Wyatt," in *Studies in Art Architecture and Design,* vol. 2, p. 96-107, and Appendix, 266-268.

234. W. Crane, *Ideals in Art,* London: George Bell and Sons, 1905, p. 5, cited in, C. Spencer, *The Aesthetic Movement 1869-1890, Catalogue of an Exhibition at the Camden Arts Center London 15 August - 7 October 1973,* London: Academy Editions, 1973, p. 9.

235. A. Grieve. 1973. "Rossetti's Applied Art Designs—1. His Picture Frames," *Burlington Magazine* 115, no. 838(January), p. 16-24.

236. G. Barber. 1970. "Rossetti, Ricketts, and Some English Publishers' Bindings of the Nineties," *The Library*, 5th series, 25, no. 4, p. 314-330. See also A. Grieve. 1973. "Rossetti's Applied Art Designs—2. Book-Bindings," *Burlington Magazine*, 115, no. 839(February), p. 79-84; D. BALL, *Victorian Publishers' Bindings,* p. 159-162; and C. Gere and M. Whiteway, *Nineteenth-Century Design,* p. 126-135.

237. Lists of books illustrated or written by Walter Crane can be found in I. Spencer. 1975. *Walter Crane*, London: Studio Vista, p. 200-205; and P. G. Konody. 1902. *The Art of Walter Crane*, London: George Bell, p. 141-144. Crane discusses his design work in, *An Artist's Reminiscences*, London: Methuen and Co., 1907. His binding design is

discussed in D. Ball, *Victorian Publishers' Bindings,* p. 96; and examples of his craft design work are illustrated in C. Gere, M. Whiteway, *Nineteenth-Century Design*, plates 201. 205, 214, and 291.

238. W. Crane. 1911. *Of the Decorative Illustration of Books, Old and New,* 3rd ed., rev., London: George Bell and Sons, p. 160.

239. C. Gere, M. Whiteway, *Nineteenth-Century Design,* p. 127.

240. T*he Encyclopedia of Arts and Crafts, The International Arts Movement, 1850-1920,* New York: E. P. Dutton, 1989, p. 11.

241. Walter Crane was a prolific designer of wallpaper, textiles, embroideries and ceramics, with his most significant contributions in the area of graphic design. For a bibliography of works illustrated or written by Crane, many of which are also in his binding design, see P. G. Konody, *The Art of Walter Crane,* p. 141-144. See also W. Crane. 1892. *The Claims of Decorative Art,* London: Lawrence and Bullen; W. Crane. 1898. *Of the Decorative Illustration of Book*s; *The Basis of Design,* London: George Bell and Sons; W. Crane. 1900. *Line and Form,* London: Bell and Sons; W. Crane. 1905. *Ideals in Art: Papers—Theoretical—Practical—Critical,* London: George Bell and Sons; W. Crane. 1907. *An Artist's Reminiscences,* London: Methuen; W. Crane. 1911. *William Morris to Whistler,* London: George Bell and Sons; and G. Smith, S. Hyde, *Walter Crane, 1845-1915: Artist, Designer and Socialist,* exhibition catalog, London: Lund Humphries in association with the Whitworth Art Gallery, University of Manchester, 1989.

242.

The publishers' bindings designed by William Morris include: W. Morris. 1870. *Volsunga Saga. The Story of the Volsungs and Niblungs with Certain Songs from the Elder Edda,* London: F. S. Ellis, (although there is some controversy over this attribution; for example, G. Barber, *Rossetti, Ricketts, and Some English Publishers' Bindings,* p. 322, suggests this cover was designed by Philip Webb, while I. C. Bradley, *William Morris and His World,* London: Scribner, 1978, p. 55, notes, "The green cloth binding with stamped gold pattern was designed by Morris and Philip Webb," and an ad in the back of the copy of *Volsunga Saga* in the Special Collections at the University of Chicago states: "Now ready, crown 8vo, in an ornamental binding designed by the author"); W. Morris. 1873. *Love is Enough,* London, Ellis and White, (see D. Ball, *Victorian Publishers' Bindings,* p. 89; this binding is illustrated in S. Allen, *Victorian Bookbindings,* microfiche 3); and the octavo edition of W. Morris. 1890. *The Earthly Paradise,* London: Reeves and Turner (see D. Ball, *Victorian Publishers' Bindings,* p. 89-90; and H. B. Forman. 1969. *The Books of William Morris,* reprinted, New York: Burt Franklin, p. 71-72, 80.

243. Frank Lloyd Wright. 1901. *The Art and Craft of the Machine,* [lecture to the Chicago Society of Arts and Crafts, delivered at Hull-house, March 6]; quoted in, M. L. M. Bryan, A. F. Davis, *Years at Hull-house,* Bloomington, Indiana: Indiana University Press, 1993, p. 86.

244. A. H. Mackmurdo. 1883. *Wren's City Churches,* Orpington: G. Allen. See "Arthur H. Mackmurdo," in N. Pevsner, *Studies in Art, Architecture and Design*, Vol. 2, p. 132-139. See also C. Gere, M. Whiteway, *Nineteenth-Century Design,* p. 198-202; and, Steven Heller and S. Chwast. 1988. *Graphic Style, from Victorian to Post-modern,* New York: H. N. Abrams, p. 41-42.

245. For a short list of Sarah Wyman Whitman's cover designs, see C. Gullans, "The New Generation: Sarah Whitman and Frank Hazen," in S. Allen and C. Gullans, *Decorated Cloth in America*, p. 97-107.

246. The most restrained of Aubrey Beardsley's covers, and perhaps the simplest publishers' binding of all time is, E. Dowson. 1896. *Verses,* London: L. Smithers; illustrated in, S. Weintraub. 1976. *Aubrey Beardsley, Imp of the Perverse,* University Park, PA: Pennsylvania State University Press, p. 217. Others examples also illustrated in Weintraub include: L. Antier. 1897. *The Souvenirs of Leonard*, London: Smithers, (p. 260); *Ben Jonson his Volpone or, The Fox*, London: Smithers, 1898, (p. 248); and *Sapho*, London: John Lane, 1895, (p. 257). Two versions of the binding for A. Pope. 1897. *The Rape of the Lock*, London: L. Smithers,, are illustrated in C. Slessor. 1989. *The Art of Aubrey Beardsley*, London, The Apple Press, (p. 82); also illustrated in Slessor (p. 115) is Beardsley's cover for T. Malory. 1893-94. *The Birth, Life, and Acts of King Arthur*, London: J. M. Dent. Beardsley's covers for the 34-volumes Keynote Series, published by John Lane in London and Roberts Brothers in Boston beginning in 1893, are listed in advertisements included in the books from the series which include, G. Egerton. 1894. *Discords*; A. Grant. 1895. *The Women Who Did*; and U. Taylor. 1896. *Nets for the Wind.*

247. Literature concerning publishers' bindings from the turn-of-the-century is extensive, and includes for example: W. A. Bradley. 1907. "Cover design for cloth bindings," *Printing Art* 9, p. 226-232; S. W. Marvin. 1903. "The use of book cloth in binding books," *Printing Art* 2, p. 17-21; B. Matthews. 1903. *Bookbindings, Old and New, Notes of a Book-Lover, with an Account of the Grolier Club, New York*, London: George Bell and Sons; [T. Morris]. 1899. "Mr. Talwin Morris's Designs for Cloth Binding," *Studio* 15, p. 3844; H. Orrinsmith, "On the Preparation of Designs for Book-Bindings," in G. White (ed.). 1897. *Practical Designing: A Handbook on the Preparation of Working Drawings*, London: Bell, p. 227-236; S. T. Prideaux. 1903. "Edition Binding," *Printing Art* 2, p. 1-13; G. A. Stephen. 1910-1911. "Decorative Book-Covers," *Penrose's Pictorial Annual* 16, p. 113-123; E. F. Strange. 1900. "The Decorative Work of Gleeson White," *The Library* 1, p. 11-18; and G. White. 1894. "The Artistic Decoration of Cloth Book Covers," *The Studio* 4, no. 19 (October), p. 15-23.

248. Bertram Grosvenor Goodhue is best remembered as an architect, having designed the Los Angeles Public Library's Central Library, the Nebraska State Capitol in Lincoln, the National Academy of Sciences and National Research Council in Washington, D.C., and the United States Military Academy at West Point, New York. Also notable is his design of the Cheltenham and Merrymount type faces. For his bookbinding designs, see B. G. Goodhue. 1931. *Book Decorations,* New York: Grolier Club; C. H. Whitaker (ed.). 1925. *Bertram Grosvenor Goodhue, Architect and Master of Many Arts*, New York: Press of the American Institute of Architects, (Reprinted by DaCapo Press, 1976). See also C. Gullans, J. Espey, *American Trade Bindings,* p. 32-67; and J. F. O'Gorman. 1985. "Either in Books or [in] Architecture": Bertram Grosvenor Goodhue in the Nineties," *Harvard Library Bulletin* 35, no. 2, p. 165-183.

249. Henry Thayer worked for a time as an architect in the firm of McKim, Meade, and White. See C. B. Gullans, J. Espey. 1970. *The Decorative Designers, 1895-1932,* Los Angeles: University of California, p. 2, and Gullans and Espey, *American Trade Bindings,* p. 48.

250. For an illustration of C. F. A. Voysey's binding for the collected first volume of *The Studio,* 1893, as well as his furniture, wallpaper, and textile designs, see C. Gere, M. Whiteway, *Nineteenth-Century Design,* p. 236-244. See also N. Pevsner, "C. F. A. Voysey," in, *Studies in Art, Architecture and Design,* vol. 2, p. 140-151.
251. Examples of Stanford White's bindings are illustrated in B. Matthews, *Bookbindings, Old and New*, p. 213, 217, 225, 240, and 265. White's buildings, which include Madison Square Garden, can be seen in: D. G. Lowe. 1992. *Stanford White's New York*, New York: Doubleday; and McKim, Mead, White. 1973. *A Monograph on the Works of McKim, Mead, and White*, New York: Benjamin Blom. The architectural firm of McKim, Meade, and White is mentioned in C. B. Gullans, J. Espey, *The Decorative Designers,* p. 2, and C. B. Gullans, J. Espey, *American Trade Bindings,* p. 48.
252. C. B. Gullans, J. Espey, *American Trade Bindings,* p. 58-60.
253. Bruce Roger's cover for, L. Bell. 1895. *A Little Sister to the Wilderness*, Chicago: Stone and Kimball, is illustrated in *The Encyclopedia of Arts and Crafts*, p. 139.
254. Charles Ricketts' type faces are illustrated in, C. S. Ricketts. 1904. *A Bibliography of the Books Issued by Hacon & Ricketts,* London: Ballantyne Press.
255. See for example, S. Weintraub, *Aubrey Beardsley.*
256. A very thorough account of Bradley's book designs can be found in; A. Bambace. 1995. *Will H. Bradley: His Work, A Bibliographical Guide*, New Castle, DE: Oak Knoll Press.
257. C. Gullans, *The New Generation,* p. 75-96; and C. B. Gullans, J. Espey, *American Trade Bindings,* p. 46-49.
258. C. B. Gullans, J. Espey, *American Trade Bindings,* p. 62-63.
259. *John Sloan, 1871-1951, His Life and Paintings, Washington: National Gallery of Art,* 1971; L. Loughery, *John Sloan, Painter and Rebel,* New York: H. Holt, 1995; J. Sloan, *American Art Nouveau, The Poster Period of John Sloan,* Lock Haven, PA: Hammermill Paper Co., 1967; B. St. John, *John Sloan,* New York: Praeger, 1971.
260. The most spectacular of Elihu Vedder's bindings is for the *Rubaiyat of Omar Khayyam*, Boston: Houghton, Mifflin and Co., 1884, which he also thoroughly illustrated. Other examples of his binding design can be found on books he wrote, including; *The Digressions of V*, Boston: Houghton, Mifflin and Co., 1910; *Miscellaneous Mood in Verse*, Boston: P. E. Sargent 1914; and *Doubt and Other Things*, Boston: Four Seas Co., 1923. See also R. Soria, *Elihu Vedder: American Visionary Artist in Rome (1836-1923)*, Rutherford: Fairleigh Dickson University Press, 1970.
261. J. M. Whistler, *The Gentle Art of Making Enemies,* London: W. Heinemann, 1890; and J. M. Whistler, *Eden Versus Whistler: The Baronet and the Butterfly,* Paris: Louis-Henry May, 1899.
262. Two plates by Louis Simonneau dated 1698, for example, one depicting a woman sewing and the other a woman edge gilding, were engraved for an earlier treatise prepared for the Academy but appear in, *Descriptions des arts et metiers*, Paris: Chez Desaint and Saillant, Libraries, 1761-62. Books written on the topic include: M. Tidcombe, *Women Bookbinders, 1880-1920*, New Castle, DE: Oak Knoll Press, 1996; M. J. Lee, *A Study Investigating the Impact Women Have on the Bindery*, (master's thesis), Rochester Institute of Technology, 1992; M. V. Kleeck, Women in the

Bookbinding Trade, New York: Survey Associates, Inc., 1913; and London Consolidated Society of Journeymen Bookbinders, *Reply to a Letter from the Committee, of the Southwark Auxiliary Bible Society, to the Committee of the British Foreign Bible Society Embodying the "Report of a Sub-Committee Appointed by Them, [The Committee of the Southwark Auxiliary], to Investigate Certain Statements Respecting the Binder for the British and Foreign Bible Society, and the Female Workers in her Employ*," [England], s.n., J. Catchpool, 1850.

263. These two tables are based on, A. M. Edwards, *Sixteenth Census of the United States: 1940, Population, Comparative Occupation Statistics for the United States, 1870 to 1940*, Washington, D. C.: United States Government Printing Office, 1943, p. 120, 128.

264. R. W. Gilder, *The New Day,* New York: Scribner, Armstrong, 1874. This binding is noted in [B. Matthews], *Commercial Bookbindings: An Historical Sketch, With Some Mention of an Exhibition of Drawings, Cover, and Books at the Grolier Club, April 5 to April 28, 1894,* New York: [The Grolier Club], 1894, p. 10; and is illustrated in W. Spawn, *Bookbinding in America 1680-1910,* Bryn Mawr, PA: Bryn Mawr College Library, 1983, p. 100. We are grateful to Sue Allen for bringing Ms. Gilder's work to our attention.

265. A. C. Morse, "Women Illustrators," in, M. H. Elliott, (ed.), *Art and Handicraft in the Women's Building of the World's Columbian Exposition, Chicago 1893,* Paris: Goupil and Co., 1893, p. 71.

266. C. Gullans, *The New Generation,* p. 55-107. I am indebted to Elizabeth Call for bringing the following to my attention: Wider, Sarah Ann. 1998. "Books and their covers: Sarah Orne Jewett and Sarah Whitman through my daughter's eyes," *Colby Quarterly* 34, no. 2(June), p. 172-194. Maria Grandinette generously identified an oil painting by John White Alexander entitled "Portrait of Sarah De St. Prix (Wyman) Whitman that is reproduced in the catalog of an exhibition entitled *Louis Comfort Tiffany and Stanford White and their circle, September 24, 1998 - January 4*, 1999, Roslyn Harbor, New York: Nassau County Museum of Art, p. 16.

267. B. S. Smith, (1999). "Sarah de St. Prix Wyman Whitman," *Old-time New England* 77, no. 266 (spring/summer), 46-64.

268. Whitman's first cover design was for, S. Coolidge, *Verses,* Boston: Roberts Brothers, 1880. See also C. Gullans, J. Espey, *American Trade Bindings,* p. 37-39.

269. B. Matthews, *Commercial Bookbindings,* p. 14, 174-175, 200.

270. B. Matthews, *Bookbindings, Old and New*, p. 175.

271. Matthews, Brander. 1894. "Commercial bookbinding; notes of a book-lover," *Century magazine* 48, no. 6 (October), p. 842-853. Quote is from p. 850.

272. According to B. Smith, *Biographical Outline*, p. 3-4, Whitman exhibited her art work three times at the Museum of Fine Arts Boston (1880, 1886, and 1899), was included in the First Exhibition of the Society of Arts and Crafts (Boston, 1897), exhibited nine times with the Society of American Artists (New York, 1878, 1882, 1890, 1894, 1895, 1897, 1898, 1899, and 1902), exhibited once at the Grolier Club (New York, 1894), and at the 65th Annual Exhibition of the Pennsylvania Academy of Art, (Philadelphia, 1895-96). She also exhibited both stained glass and bookbindings at three worlds fairs including, the World's Columbian Exposition, Chicago, 1893; the Pan-American Exposition, Buffalo, New York, 1901; and the St. Louis World's Fair, 1904.

273. For background on the developments contributing to women's shifting roles in the work place, see, Thomson, Ellen Mazur. 1997. "Women in graphic design," in *The origins of graphic design in America, 1870-1920*, New Haven: Yale University Press, p. 105-132.
274. A. C. Morse, *Women Illustrators,* p. 68-79. See also C. B. Gullans, J. Espey, *American Trade Bindings,* p. 52-54; and B. Matthews, *Commercial Bookbindings,* p. 14-15.
275. C. B. Gullans, J. Espey, *Margaret Armstrong and American Trade Bindings, with a Checklist of Her Designed Bindings and Covers,* Los Angeles: Department of Special Collections, University Research Library, UCLA, 1991; C. B. Gullans, J. Espey, *A Checklist of Trade Bindings Designed by Margaret Armstrong,* UCLA Library Occasional Papers, number 16, Los Angeles: University of California Library, 1968; C. Bruns, *Margaret Armstrong Corner,* <<Trade Binding Research Newsletter>>, nos. 1-13 (Spring 1991-June 1994). See also C. B. Gullans, J. Espey, *American Trade Bindings,* p. 39-41; [B. Matthews], *Commercial Bookbindings,* p. 15; and A. C. Morse, *Women Illustrators,* p. 75.
276. Books written by M. Armstrong (1867-1944) include*: Field Book of Western Wild flowers*, New York: C. P. Putnam's Sons, 1915; *Five Generations, Life and Letters of an American Family, 1750-1900*, New York: Harper and Brothers, 1930; *Fanny Kemble, A Passionate Victorian*, New York: Macmillan, 1938; *Murder in Stained Glass*, New York, Random House, 1939; *Trelawny ; A Man's Life*, New York: Macmillan, 1940; *The Man With No Face*, Cleveland: World, 1940; *and The Blue Santo Murder Mystery*, New York: Random House, 1941.
277. C. B. Gullans, J. Espey, *The Decorative Designers.* See also C. B. Gullans, J. Espey, *American Trade Bindings,* p. 48-52.
278. A. C. Morse, *Women Illustrators,* p. 71.
279. See N. Finlay, *American Posters and Publishing in the 1890s in the Metropolitan Museum of Art,* New York: Harry N. Abrams, 1987; N. Finlay, *Artists of the Book in Boston 1890-1910,* Cambridge, MA: Department of Printing and Graphic Arts, The Houghton Library, 1985; F. Van der Linden, *In Linnen Gebonden: Nederlandse Uitgeversbanden van 1840 tot 1940,* Veenendaal: Gaade, 1987; Briggs Brothers, *Twentieth Century Cover Designs,* Plymouth, MA: V. H. and E. L. Briggs, 1902; and L. W. Crichton, *Book Decoration in America 1890-1910,* A Guide to an Exhibition, Williamstown, MA: 1979; Ruth M. MacMurdo, Blanche McManus Mansfield :a term paper (s.l., s.n., 1968).
280. C. B. Gullans, J. Espey, *American Trade Bindings,* p. 63.
281. C. B. Gullans, J. Espey, *American Trade Bindings,* p. 58.
282. C. B. Gullans, J. Espey, *American Trade Bindings,* p. 60.
283. C. B. Gullans, J. Espey, *American Trade Bindings,* p. 60.
284. G. T. Tanselle. 1971. "Book-Jackets, Blurbs, and Bibliographers," *The Library*, Fifth series, 26, no.2(June), 91-134. Examples of publishers' protective, decorative cartons which preceded book jackets are illustrated in R. McLean, *Paper,* p. 24-25.
285. Fisher, Son & Co. [Sarah Stickney Ellis], *The Juvenile Scrap-Book, 1845,* London: Fisher, 1844. This volume, as well as *The Juvenile Scrap-Books* for 1847-50, all in original jackets, are housed at in the University of California Library, Los Angeles. See G. T. Tanselle, *Book-Jackets,* p. 117-118, plates 2-3.

286. G. T. Tanselle, *Book-Jackets,* p. 95.
287. P. Gaskell, *New Introduction,* p. 250; C. Rosner, *The Growth of the Book Jacket,* Cambridge, MA: Harvard University Press, 1954; J. MILLER, *The Book Jacket—Its Later Development and Design,* <<Antiquarian Book Monthly Review>>, 15 (1988), p. 452-61; G. Bradshaw, *British Illustrated Book Jackets and Covers: A Report,* <<Devil's Artisan>>, 25 (1989), p. 21-24; S. Heller, S. Chwast, *Jackets Required,* San Francisco: Chronicle Books, 1995; C. B. Gullans, J. Espey, *The Decorative Designers*, p. 1.
288. The survey was conducted by Mr. Gardner M. Jones, Librarian, Salem (Massachusetts) Public Library, and was tabulated and reported by W.I. Fletcher, Librarian, Amherst (Massachusetts) Amherst College. See, Fletcher, W.I. 1893. "Durability of cloth bindings," *Library Journal* 18, no. 2(February), p. 40.
289. Bisco, Ellen D. 1899. "Bookbinding of our American publishers," *The library journal* 24 (October), p. 561-563. Quote is from p. 561.
290. Bisco, 1899, p. 561.
291. Stephen, George A. 1911. "Chapter II, machine bookbinding," in Coutts, Henry T. and Stephen, George A., *Manual of library bookbinding, practical and historical*, London: Libraco Limited, p. 24.
292. An exception to this statement and an advocate for more thoughtful librarianship is author Nicholson Baker. See for example, Baker, Nicholson. 1996. "The author vs. the library," *The New Yorker*, 72, no. 31(14 October), p. 50-62.
293. E. S. Phelps. 1895. *A Singular Life,* Boston: Houghton Mifflin.
294. Using OCLC and RLIN data bases, all 45 copies of E. S. Phelps, *A Singular Life,* Boston, 1895 available in libraries throughout the U.S. were requested and received through interlibrary. Twenty-three copies of this sample population (51%) were received in good condition; eight (18%) were unable to circulate due to damage; twelve (27%) had been rebound; and two (4%) were received having sustained defacing repairs. Of the total population sampled, twenty-two (49%) of the bindings were severely damaged or had been lost to rebinding. Unpublished survey conducted by Elizabeth Call and supervised under the aegis of the School of Library and Information Science, Brigham Young University, Provo, Utah, USA, in 1993.
295. A. C. Morse, *Women Illustrators,* p. 73.
296. H. Lehmann-Haupt, "On the Rebinding of Old Books," p. 280. Hellmut Lehmann-Haupt, born October 4, 1903, died March 11, 1992.