

# Printing & Publishing in Boston: An Historical Sketch

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Growing up in an industrial and agricultural community in California's San Joaquin Delta, I was an avid reader of books and of *The New Yorker* magazine, to which my father subscribed. I dreamed of eventually living in a big city with big libraries and thick newspapers. Thus, after college, I moved in 1964 to the Boston area, where I have remained ever since.

As I explored Boston and Cambridge in the 1960s, I became aware of a number of publishing and printing activities, often by walking or driving by their then-current locations. I also began to use the libraries and to frequent the bookstores. Compared with my small hometown in California, Boston was a literary mecca.

Last summer the users group for the typesetting system I use (L<sup>A</sup>T<sub>E</sub>X) held its annual conference in Boston (T<sub>E</sub>X Users Group 2012). For a presentation at that event, I looked in detail into the history of printing, publishing, libraries, bookstores, and so forth in Boston. I was asked to adapt and reprise that presentation for delivery to Boston By Foot. In this note, a written version on my BBF presentation, I sketch what I have learned.

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A lot of this printing and publishing history happened within a small part of downtown Boston because Boston was once essentially a small island (the neck of land to the mainland was sometimes under water at high tide [Krieger99, Whitehill68]).

There are several maps which a reader might look at while reading this note, to see where it mostly happened:

- 1772 Bonner map of Boston  
[http://affordablehousinginstitute.org/blogs/us/wp-content/uploads/boston\\_1722\\_bonner\\_map.jpg](http://affordablehousinginstitute.org/blogs/us/wp-content/uploads/boston_1722_bonner_map.jpg)
- Boston Freedom Trail map  
<http://www.bostonhomestayblog.com/freedomtrail.jpg>
- Literary Boston, 1794–1862 map and legend  
<http://bostonliteraryhistory.com/sites/default/files/bostonliteraryhistorymap.pdf>

Space and time do not allow a thorough presentation of the Boston-region history of printing, publishing, and the like. In particular, I have mostly omitted the author part of the literary world [Wilson00]. Also, this is not a particularly scholarly piece of research (my narrative is based on what I have read in secondary sources, been told by someone, or found in Wikipedia). It also glosses over many details, for example, calling the early college in Cambridge Harvard and ignoring its early name. I hope my fragmentary narrative is suggestive of the actual history of events.

## 1 Colonial period, 1630–1775

The Pilgrims, who previously had left England to go to Holland in the Netherlands, came to Plymouth, just south of Massachusetts Bay, in 1620. Another Massachusetts-based outpost was attempted at Cape Ann in 1624. In 1628–1630 a succession of largely Puritan settlers arrived in the Massachusetts Bay Colony settling in locations from Salem to Boston. (This section is substantially based on Thomas70 and Blumenthal89; see also Reese89.)

The Puritans came to the Massachusetts Bay Colony fleeing what they felt was the incorrect approach of the theology of the Church of England and the relationship of church and state (King James's and then King Charles's approach subordinated the church to the state). In particular, in 1630 Governor John Winthrop and other Puritan leaders arrived with a charter allowing the Massachusetts Bay Colony to be governed from the colonies rather than

from England. Both Boston and Cambridge (a few miles up the Charles River) were settled by the Puritans around 1630. These largely Puritan immigrations to the Massachusetts Bay Colony continued for the next 10 years.

The arriving Puritans were idealistic about their new home, and John Winthrop gave a sermon quoting the Sermon on the Mount and saying that they in the Bay Colony would be a “citty on a hill,” watched by people throughout the world for the purity of their religious practice (and the way it was supported, i.e., enforced, by the government).

For all their concern to be free to practice their own religious reformations, the Puritans were not supportive of reformations by others. Roger Williams, among many others, was banished from the Bay Colony. In 1630 to 1658, several Quakers who refused to remain banished were hung, including Mary Dyer whose statue is on the grounds of the Massachusetts State House.

The Puritans believed in education so that their citizens could study the Bible and read the laws and acts that governed them. By 1635 they had established the first public school in English North America, Boston Latin (there are signs on both sides of School Street noting early locations of the Boston Latin school). A couple of years later, Harvard College was established in Cambridge.

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In 1638 Rev. Joseph Glover contracted with Stephen Daye for the two of them and their families to travel from England to Cambridge (in the colonies) along with a printing press, type, and printing materials, where Daye would be responsible for setting up and running the printing press in Glover’s home. This printing press, the first in British North America (the church in colonial Mexico had a Spanish language printing press a hundred years earlier), was at least nominally operated under the auspices of Harvard. Glover died before their ship reached Massachusetts, and Daye carried out his contract for the widow Elizabeth Glover. Stephen’s son Matthew was also involved with the printing activity. Stephen was a locksmith and Matthew had apprenticed as a printer, so historians suspect Matthew did most of the actual printing. In any case, there was probably a lot of on-the-job learning about printing.

After printing a couple of other documents of which no copies remain, in 1640 Stephen Daye printed the so-called *Bay Psalm Book*, the first book written and printed in British America. In most of the churches in the Massachusetts Bay Colony, the *Bay Psalm Book* replaced the earlier Psalm books the Puritans had brought with them from England — hence the popular name “Bay Psalm Book.” Its actual title was *The Whole Booke of Psalmes Faithfully Translated into English Metre* [Eames03].

In 1649 Matthew Daye died and Samuel Green took over the printing activity. Green also did a lot of on-the-job learning. By 1656 Green had two presses. According to Lawrence Wroth in his contribution to Lehmann-Haupt52 (p. 8), for 40 years this activity was the “press of Harvard College,” although there was not really enough work over the years to keep Green working full time. Green stopped printing in 1692. After Green, printing in colonial Cambridge was finished.

Green had 19 children, 8 with his first wife and 11 with his second wife, and many of Green’s descendants became printers, forming a dynasty of printers extending up and down the east coast.

In addition to no liberalism in religious practice, there was no freedom for printing (at least within the Massachusetts Bay Colony). The goal of the print shop operated by the Dayes and then the Greens was to support the church and the commonwealth.

(As I understand it, the original purpose of copyrights — circa 16<sup>th</sup> century — was to control printing of books. The authorities only gave the “right to copy” to a chosen few who were allowed to print only what the authorities liked. There was somewhat of an English tradition of freedom of expression, but this was primarily about no prior restraint. Post-speech or post-publication, the authorities could punish expression they didn’t like.)

Some of the publications over the year of existence of the Cambridge press were [Wroth, *ibid*]: “a book of capital laws ...; small pieces relating to the scholastic activities of the college; annual almanacs; a second edition of the ‘Bay Psalm Book’; catechisms; a document relating to the troubles with the Narragansett Indians; a platform of the prevailing Congregational faith; and numerous sermons and doctrinal treatises.”

“The press reached the highest point of its activity with the publication in 1663 of John Eliot’s translation of the whole Bible into the Indian tongue ...” [Wroth, *ibid*]. This was a massive effort, producing over 1,000 copies and requiring a special shipment of paper from England. It was the first Bible printed in the western hemisphere. On the title page, Samuel Green is listed as the printer, and his apprentice Marmaduke Johnson is also listed.

To slightly paraphrase Wroth, this Cambridge press did its job of being, over half a century, an intellectual force in a new and rude environment. After use and storage in other locations, Daye’s press today purportedly resides in an historical museum in Vermont.

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From 1674 on, printing was also allowed in Boston, on a case-by-case basis. Marmaduke Johnson received permission to print in Boston, but died before he could do any printing. Some of the following Boston printers were [Thomas70]:

- John Foster, 1676–1680; licensed to do printing, he was the first person who actually did printing in Boston.
- Samuel Sewall, 1681–1684: he was a bookseller, licensed to do printing, who printed acts and laws and books for himself and others; Samuel Green Jr. was his printer.
- James Glen, who also printed for Sewall before going out on his own.
- Samuel Green Jr., who printed work both for himself and for booksellers and was allowed to continue printing after Sewall's death; Green died in 1690.
- Richard Pierce, 1684–1690, the fifth Boston printer, who printed for himself and booksellers.
- Bartholomew Green, who first worked for his father in Cambridge and then took over his brother's activity in 1690. In 1704 he started the *Boston News-Letter* for the postmaster, who somehow asserted a right to have a newspaper.

There were a number of other printers in colonial Boston, i.e., between 1700 and 1775 when the Revolutionary War started. All this is detailed in Thomas's book.

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Looking beyond printing, there were no strong lines between trades. Printers worked for booksellers, booksellers did some of their own printing, printers published newspapers, binding was often a separate trade but not always, and printers publishing newspapers did some of their own writing.

Isaiah Thomas lists about 90 booksellers between 1641 and 1771 [Thomas70]. Initially there was a bookseller or two in Cambridge. Next there were booksellers in Boston, particularly along the street and slope known as Cornhill. Hezekiah Ushel was the first in Boston, 1650–1771.

Booksellers sold (and sometimes printed) acts and laws, books on religion, school books, books on politics, imported books, and new printings of books pirated from Europe. The shops of booksellers were often also community meeting places.

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Colonial Boston also has a rich history of newspapers [Thomas70]:

- The *Boston News-Letter*, 1704–1776, was started by the Boston postmaster and printer John Campbell. This was the first newspaper in Colonies. It had lots of editors over the years, and was printed through the siege of the 1770s.
- The *Boston Gazette*, 1719–1798, was started by the next postmaster, William Brooker. (Apparently postmasters thought they had a right to have a newspaper.) Brooker hired James Franklin to do the printing. The *Gazette* had a long line of successor organizations.
- The *New-England Courant*, 1721–1727, was started by James Franklin, who had lost his job with the *Gazette* within a couple of years.

Isaiah Thomas lists another ten Boston newspapers prior to 1775, including his own *Massachusetts Spy*, published in Boston from 1770 through April 1775. I will touch more on this in the next section.

Before leaving the topic of Boston's colonial newspapers, I'll say a little about the most famous colonial Boston-trained printer, Ben Franklin, who was born on Milk Street and baptized at the Old South Meeting House, and attended Boston Latin on School Street for two years [Franklin40, Isaacson04].

Ben's much older brother James had gone to England to apprentice as a printer. He returned in 1717 with a press and a small amount of type. James's shop was at the corner of Court Street and Franklin Avenue (called Queen Street and Dorset Alley in pre-Revolutionary times [Drake70]). Ben was indentured at age 12 to his brother James to learn the printing trade. The indenture was to last until age 21.

James started the *New-England Courant* in 1721, and it was the first "truly independent newspaper in the colonies and the first with literary aspirations" [Isaacson04]. For disagreeing in print with the authorities, James was imprisoned

for a month in 1722. He was released on the condition that “James Franklin not publish the *Courant*,” so Ben became the publisher in name. However, Ben couldn’t be the publisher while still indentured to James, and so officially Ben’s indenture was ended — although a follow-on secret document of indenture was made.

Ben contributed a lot to the *Courant*, including 14 humorous letters over six months under the name of the widow Silence Dogood. However, Ben and James didn’t agree on things, and in 1723 Ben broke his secret indenture and went to Philadelphia, knowing that James could hardly admit that such a secret indenture existed.

By 1727, James, faced with continuing suppression of his press, had moved his printing business to Newport, RI.

## 2 Revolutionary War (1775–1783); transition

The stamp act of 1765 was an incendiary event which produced resistance to British rule in the colonies. This was a tax by the British Parliament on printed materials in the colonies — the printed materials had to be produced on paper carrying an embossed revenue stamp. It was repealed a year later, but Parliament continued to assert its power to regulate the colonies and other taxes and regulations were imposed.

As resistance to British control increased, the colonial press participated and got in trouble. One of the printers involved in the resistance was Isaiah Thomas [Blumenthal89], to whose book I have frequently referred [Thomas70].

Isaiah Thomas was born in 1749. His widowed mother could not support him, and at age 6 he was apprenticed to a printer with an indenture to age 21. He did both personal jobs for the childless printer and his wife and printing jobs. In particular, according to Thomas himself, he “set types, for which purpose he was mounted on a bench eighteen inches high, and the whole length of a double frame which contained cases of both roman and italic.”

The printer was not too skilled, but Thomas nevertheless quickly acquired the craft. A decade or so later, he escaped from his indenture and went elsewhere on the east coast to try to learn more about printing. By 1770 he was back in Boston, initially briefly in partnership with his former master. In 1771, Thomas started his own newspaper, the *Massachusetts Spy*.

As time went on and discontent with England grew in the colonies, Thomas used his *Massachusetts Spy* to support the causes of the Founding Fathers against England, and his print shop became known as the “Forge of Seditious.” as many resistance meetings were held there. Thomas himself refers to his press as the “seditious machine.” A 1774 edition of the paper shows the famous “join or die” slogan and segmented snake image (first published in a cartoon and essay by Ben Franklin in Philadelphia), meaning that the colonies must join together or they would die separately.

Shortly before April 19, 1775, the day of the British march on Lexington and Concord, Thomas transported a press out of Boston to Worcester, 40 miles to the west. He snuck out of Boston on April 18, 1775, and briefly joined the Lexington militia. Then two days later he traveled to Worcester where on May 3 he restarted publication of the *Massachusetts Spy*, including the first printed accounts of the Battle of Lexington and Concord.

After the war Thomas stayed in Worcester and, after some struggle, he began to develop a successful business. The business did well, and Thomas became the “country’s leading printer, publisher, editor, and bookseller” [AAS12]. In Worcester, he had a big printing plant, a bindery, and a paper mill; he had branch offices, including one in Boston, and partnerships with a number of other publishing-world companies throughout the new country.

“Thomas retired in 1802 and devoted the rest of his productive and long life to collecting, scholarship, and philanthropy” [AAS12]. He wrote the marvelous and comprehensive 1810 book, *The History of Printing in America*. “In 1812 he established the American Antiquarian Society to house his remarkable library of 8,000 volumes, with a mission to collect, preserve and make available the printed record of the United States for future generations. He served as president of AAS until his death in 1831” [AAS12].

Thomas’s Old No. 1 printing press resides at the American Antiquarian Society in Worcester.

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After the Revolutionary War, the press was no longer regulated, and the technologies of the industrial revolution were applied in the publishing and printing business. I have just mentioned the example of Isaiah Thomas and his success.

Also, according to the *News* of the Museum of Printing [MoP09], the first printing presses manufactured in America were made in Boston, and the newsletter has the following list of those in Boston (as well as in New Hampshire and Vermont):

- Belknap & Young, Boston, 1771-1796 (common press)
- Berry & McClench, Boston, 1792-? (common press)
- Erastus Bartholomew, Boston, 1826-? (Union hand press, Adams Power press)

- Phineas Dow, Boston, 1827-37 (common press?)
- Seth & Isaac Adams, Boston, 1830-59 (Adams hand press, Stansbury hand press, Tufts hand press)
- Otis Tufts, Boston, 1831-37 (Tufts hand press)
- Samuel Orcutt, Boston, 1840
- Stephen Ruggles, Boston, 1859-? (Ruggles hand press, Ruggles engine press)
- Tarbett & Fraser, 1905-? (Washington hand press)
- The Pearl Press originator was Boston printer William Hughson Golding who started the Golding & Co. in the Fort Hill area of Boston about 1869.

Pearl presses, made by Golding & Co. in Boston until the early 1900s, are still in common use among artists and others doing letterpress printing [Packard11, pp. 31–33].

Perhaps using this new technology, the *Boston Advertiser* was founded in 1813, Boston's first daily newspaper.

However, in the years of the first third of the 1800s, Boston ceased to be the publishing center of what was now the new country. The big publishing centers were now New York and Philadelphia. Other cities such as Baltimore, Cincinnati and New Orleans also developed strong publishing activities.

### 3 Cultural push of the mid-19<sup>th</sup> century

Although Boston was no longer the country's center of publishing, in the 1800s Boston was the center of an important philosophical and literary movement [Barry12, Myerson80, Phillips06, Rose81, Wilson05]. (Look at Figure 1 in parallel with the following several paragraphs of description.)

The Puritans came here as Congregationalists, but individuals still needed to follow the doctrine and creed of their congregation (and to sign the Freeman's Oath to be a citizen of the Massachusetts Bay Colony). As mentioned earlier, if someone wanted to promote some other version of religion, the Puritans kicked that person out of the Colony with lethal punishment for not staying out.

As the Revolution drew near, the churches largely favored the revolution, and I suppose in some sense this was at least a partial departure from the conservatism inherent in the colonial Puritan churches.

In the early 1800s, the Unitarian approach became more popular: people could be religious using their own reason and not just reliance on doctrine and creed. Eventually Harvard appointed Unitarians as president and the divinity professor, and thus ministers coming out of Harvard were Unitarians. In time a majority of the First Parish churches around the Massachusetts Bay region switched from Congregational to Unitarian.

Kings Chapel is a special case. Before the Revolution it was Anglican. After the Revolution it became Unitarian, but they liked their Anglican Book of Common Prayer and rewrote it to be consistent with Unitarianism. (Today they state, "We are Unitarian in theology, Anglican in worship service, and Congregational in governance.")

All this thought about reason, individual goodness and personal relationship with God, etc., helped lead to the Transcendentalists and their idealism. (In national politics today, we sometimes hear about the Massachusetts, Cambridge, or Harvard liberal elites. It's a long tradition. There were liberal elites in Cambridge, Boston, and Concord over 150 years ago.)

In addition to their philosophy and idealism, the Transcendentalists sought to create a new American literature.

One of their important meeting places was Elizabeth Peabody's bookstore, which still exists today (as a restaurant) on West Street. The plaque on the wall of the building gives a good summary of the importance of Elizabeth Peabody and her bookstore:

Elizabeth Peabody, the first female publisher in Boston, maintained a home and business here in the 1840s. Her bookshop was the first in the city to offer books by foreign authors; and she published the periodical *The Dial* with Ralph Waldo Emerson. The shop was the meeting place for transcendentalists and intellectuals. Journalist Margaret Fuller [who lived on Winter Street, I believe, a couple of blocks away] gave lectures here called "Conversations," which were an important part of the early American feminist movement.

*The Dial: A Magazine for Literature, Philosophy, and Religion* was "an organ for the dissemination of Transcendental thought" [Wilson05]. The lectures were called "conversations" because women were not supposed to do public speaking in the 1840s [Matteson07, Matteson13].

Church of England under the reign of King Charles

- Church subordinate to state (Biblical justification); much hierarchy, ritual, and decoration between the individual and God; anti-Calvinism (predestination)

Puritans in the Massachusetts Bay Colony

- Congregational governance without ritual or decoration; theocratic state; Calvinist; Biblical literalism; exclusive

Unitarians

- Each individual could find Christian truth through intellectual freedom, reason and empirical evidence (e.g., from the Bible but without literalism); one God (not Trinity); no original sin or predestination; concern with moral and social harmony of a diverse population; anti-revivalist; use of writings, lectures, etc., to reach out

Transcendentalists (several thrusts)

- Religion: intuition and spirituality rather than reason; Eclecticism instead of Christianity; practically, more of a philosophy and idealism than a religion; deliberately no component of being an organized religion
- Social movement: arguing for (and practicing) the goodness and self-reliance of man (partly as a reaction to urbanization and capitalism); impractical
- Literature: believed literature was a contributor to the betterment of man; called for a new, American, literature
  - wrote some now-venerated works
  - attitudes evolved to acceptance of the progress of the Industrial Age and international trade (and acceptance of capitalism)
  - further development of literature and a cultural environment
- Broader world of social improvement; active in the abolition movement, women's rights, education reform, and improving conditions of people in unfortunate circumstances

Figure 1: The evolution of spiritual doctrine from the Puritans to the Transcendentalists (my superficial, perhaps inaccurate, approximation of the transitions).

Another meeting place was the Old Corner Bookstore, which in the mid-to-late 1800s was both a publishing location for and meeting place of the transcendentalists and other intellectuals. I'll return to the Old Corner Bookstore in the next section.

Founded in 1885, the Saturday Club at the Parker House hotel was another meeting place of intellectuals. (Not only did they do a lot of writing, they apparently liked to spend a lot of time in each other's company talking about their thinking.) Here Charles Dickens gave a preliminary reading of the Christmas Carol to the Saturday Club before he did the public reading next door at the Tremont Temple. Here they conceived and started the *Atlantic Monthly* magazine in 1887.

It was in volume 1, issue 6, of the *Atlantic Monthly* that Oliver Wendell Holmes wrote in his series "Autocrat at the Breakfast Table" that Boston (specifically the State House) was the "Hub of the Solar System," suggesting that Boston was the center of everything commercial and intellectual at that time. The Massachusetts elites were not modest. At various times, the Old Corner Book Store and other famous downtown Boston locations have been called "the hub of the hub."

## 4 Mid-1800s on — Boston is just another big American city

Despite Boston's claim as a intellectual and cultural center, by the mid-1800s, it was just another big American City, in general publishing terms. The history leading up to this brings me back to the Old Corner Book store [Hall10, Tebbel72, Tebbel75].

Going down the left column of Figure 2, we have the history of the Old Corner Bookstore building, which in time became a building housing booksellers and publishers, including eventually the important publisher known as Ticknor and Fields. A little while after the *Atlantic Monthly* was established, Ticknor and Fields acquired the Old Corner

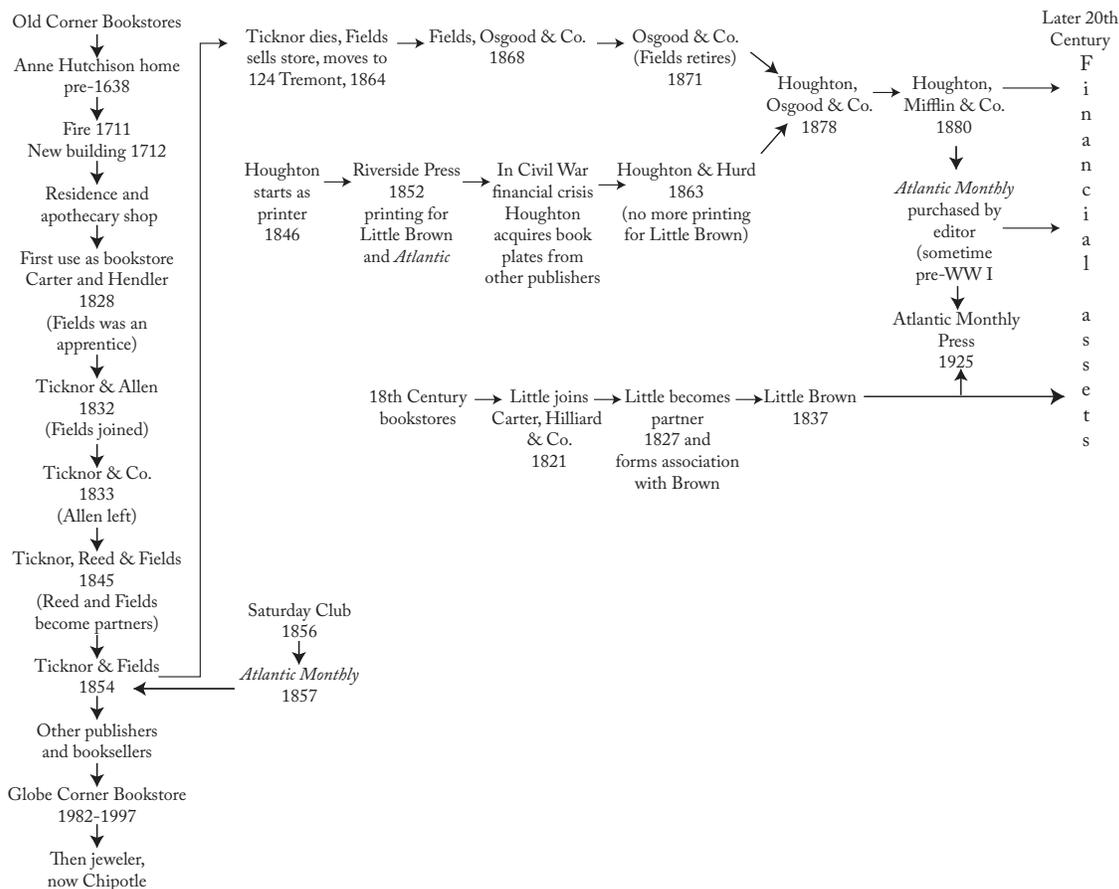


Figure 2: Some transitions in Boston publishing, from the middle years of the 19<sup>th</sup> century.

Bookstore. Then, after Ticknor’s death, Fields moved the publishing business and the *Atlantic Monthly* to Tremont Street.

Also shown in the figure, coming out of the 1700s, were the predecessor organizations to Little Brown.

Finally (also on the figure), Henry Houghton, just out of college, started work as a printer, eventually acquired his own business; and he established the Riverside Press in 1852 in Cambridge where he also did printing for Little Brown and later for the *Atlantic Monthly*. During the economic downturn resulting from the Civil War, Houghton acquired book plates from various failing publishers, and eventually went into publishing himself (with Melancthon Hurd as a New York partner), which caused Little Brown to drop Riverside Press as a printer.

In time the successor partners to Ticknor and Fields merged with Houghton’s company, George Mifflin joined, and later, with Houghton growing old and Mifflin by that time a partner, the company became Houghton Mifflin.

In the early 1900s, the editors of the *Atlantic Monthly* bought the magazine from Houghton Mifflin.

From then until circa 1970, Houghton Mifflin and Little Brown were the “big two” Boston publishers, and the *Atlantic Monthly* was a Boston institution. At that point, these historic institutions increasingly were important as financial assets to be bought and sold.

Various of the succession of companies mentioned above also published *The American Architect and Building News* in the 1800s. According to the website of the “Serial Archive Listing for the *American Architect*”

*The American Architect* began publication in 1876 as *The American Architect and Building News*. It changed name simply to *The American Architect* in 1909. Starting in 1921 it was known as *The American Architect and the Architectural Review*, for a serial it absorbed. It reverted to *The American Architect* in 1925. It ceased publication in 1938, when it was absorbed into the *Architectural Record*.

<http://onlinebooks.library.upenn.edu/webbin/serial?id=amarch>

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Of course there were other publishers in Boston besides the Big Two, including specialty publishers. Two examples are the Beacon Press (1854–present) and Daniel Berkeley Updike’s Merrymount Press (1893–1941).

The Beacon press was and is the publisher for the Unitarian, now UU, church. Its first location was on Bromfield Street. It later moved to Washington Street, and then to Beacon Hill. Its current building is on Joy Street, a block from the Beacon Street headquarters of the UUs. In the 19<sup>th</sup> century it primarily printed sermons and other books related to Unitarian theology. Since the 20<sup>th</sup> century it has printed many non-religious books, consistent with its mission [Beacon12] to publish works that

affirm and promote ... the inherent worth and dignity of every person; justice, equity and compassion in human relations; acceptance of one another; a free and responsible search for truth and meaning; the right of conscience and the use of the democratic process in society; the goal of the world community with peace, liberty, and justice for all; respect for the interdependent web of all existence; and the importance of literature and the arts in democratic life.

Daniel Berkeley Updike was a fine book publisher [Blumenthal89], who had previously gained experience for over a decade at Houghton Mifflin and its Riverside Press [Kelly11]. Updike also was greatly interested in the history of printing types, and in 1922 published his classic book, *Printing Types, Their History, Forms and Use: A Study in Survivals*. (Barbara Beeton has told me [2012-06-21 email] that “Updike’s archives from the Merrymount Press are now in the special collections of the Providence Public Library; they include an incredible variety of specimen sheets and other material of interest to typographers and book designers.”)

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There were lots of Boston papers in the 1800s and 1900s, for example: *Boston Daily Advertiser*, 1813; *Boston Journal*, 1833; *Boston Evening Traveler*, 1845; *Boston Herald*, 1846; *Boston Globe*, 1872; *Boston American*, 1904; plus smaller town papers. There were also lots of mergers and acquisitions, i.e., industry consolidation as the mid-1900s neared.

Boston’s newspaper row was on Washington Street, in the blocks extending both ways from the intersection of Washington with School Street. In the days before radio and TV were common, crowds stood in Washington Street to hear the latest news, e.g., of an election or prize fight.

An alley off Washington Street, a short way from the School Street intersection, is named Pi Alley. Purportedly it is named Pi Alley because of all the newspapers in the area and the fact that a box of type dropped and scrambled on the floor was known as “pied type.”

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In the colonial days, the printers typically had very little type — maybe one or two sizes, maybe not italic, maybe not two different typefaces. What type they did have came from Europe.

By 1800, Williams Caslon’s types had made it to the new country in many variations. Isaiah Thomas’s specimen book of types featured Caslon on its cover: “Being as large and complete an assortment as is to be met with in any one printing-office in America. Chiefly manufactured by that great artist William Caslon, Esq., of London” [Blumenthal89]. (As an homage to the popularity of Caslon type in the eras under discussion (for instance, it was also used for the Declaration of Independence), I used Adobe Caslon Pro for the text of my presentation slides and also have used it for this article.)

Type foundries took a while to get going in the United States. The first successful one in Boston was the Dickinson type foundry, founded in 1839. There were a few other foundries by the time of the great Boston fire of 1872, in which all the type foundries were destroyed. There were five type foundries again in Boston by the time of the American Type Founders (ATF) consolidation of 1892 [Devroye02]:

the Dickinson Type Founders, Boston Type Foundry, New England Type Foundry, Curtis & Mitchell Type Foundry, and the H.C. Hansen Type Foundry. The H.C. Hansen Type Foundry was started in late 1872 after the fire (Hansen had been an employee of Dickinson). The New England and Curtis & Mitchell foundries soon disappeared. The Dickinson and Boston foundries were absorbed by ATF. H. C. Hansen, later with his sons, remained in existence until 1922 as an independent type foundry.

A good bit of type design also went on in Boston. Two individuals well-known for their type designs were Bertram Grosvenor Goodhue and Bruce Rogers [Blumenthal89].

Goodhue (1869–1924) was a celebrated architect who also did book and type design, in particular the Merrymount type for the Merrymount Press and Cheltenham type (originally known as Boston Old Style). Cheltenham was widely

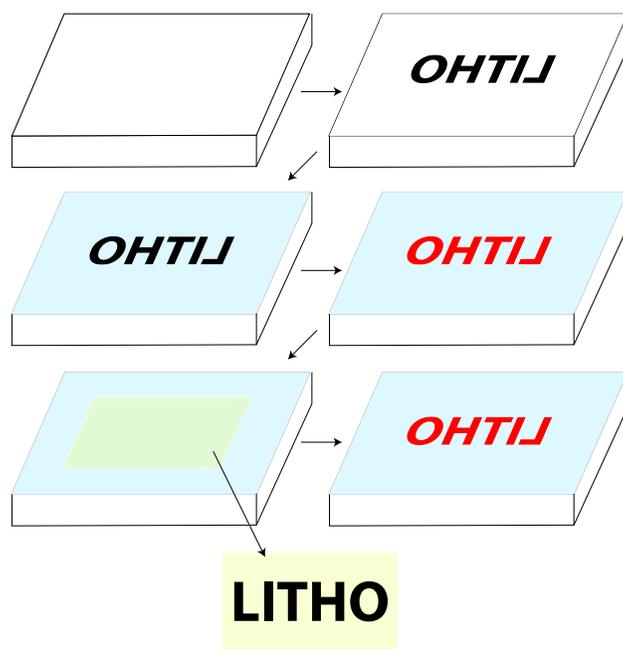


Figure 3: Sketch of the lithography process.

popular in the early decades of the twentieth century. Digital versions have been created in recent decades including a version for the New York Times designed by Matthew Carter (I'll come back to him shortly).

Rogers (1870–1957) is viewed by some as the greatest book designer of the 20<sup>th</sup> century. He worked at Riverside Press from 1895 to 1911 (he took over Updike's position [Kelly11]) where he created many fine editions. Two of the types he designed are Montaigne (at Riverside Press) and Centaur (for New York's Metropolitan Museum of Art). Centaur remains widely available (for example, it comes with Microsoft and Adobe products). I particularly like the slanted hyphen of Rogers's original Centaur, which apparently and unfortunately is no longer slanted in the digital recreation. Rogers practiced so-called "allusive typography" where the type and ornamentation were matched to the content of the book.

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Boston was a major center for chromolithography in the second half of the 1800s [Slautterback12]. William Sharp (Boston), John Bufford (Boston), Charles Crosby (New Hampshire), and Louis Prang (Boston) were early contributors to the field.

Chromolithography is multi-colored lithography (today simply called color lithography).

Here's how lithography works:

- A slab of Bravarian limestone (typically) is ground perfectly smooth (top left of Figure'3).
- An image is drawn on the stone using a greasy substance (top right).
- The stone is treated chemically in a way that causes the image to "become one" with the part of the stone containing the image.
- With the stone thus prepared for printing, the stone is dampened (middle left).
- Then a greasy ink is applied to the stone (middle right). The ink adheres to where the greasy image is but not to the wet non-image places on the stone (oil and water don't mix).
- A sheet of paper is placed on the stone and pressed against it (bottom left), and thus the image is printed on the sheet of paper.
- The prior three steps are repeated for the number of copies of the print that are desired.

In chromolithography, each of a number of stones (perhaps 10 or 20 or more) is used to print one color of an overall picture. The different stones are successively inked with different colors and all of the copies of a print run are printed with each color, creating full color prints.

Chromolithographs were used for all manner of printing, for instance maps, book illustrations, greeting cards, to

highlight historical and current events, natural history figures, sheet music covers, city and town views, locomotive prints (a distinct form of lithographic advertising), and company advertising more generally [Slautterback12].

For a significant period of time, chromolithography was particularly popular for reproductions of fine art. Everyday people liked having such reprints in their homes.

Eventually however, such reproductions sometimes were done with less quality, and some critics had all along disparaged reproductions for not being originals. Then offset lithography came on the scene at the beginning of the 1900s, and the time was past for chromolithography.

Today artists still do chromolithography but they don't call it that as the poor quality reproductions of many chromolithographs in the end branded the name as synonymous with something fraudulent. Today the artist call what they do color lithography.

Louis Prang was perhaps the best businessman/entrepreneur and created perhaps the most successful chromolithography company [Arce69, Freeman71].

Prang was a leader in doing superb reproductions of fine art. He survived the Civil War where various other companies had trouble by printing maps relating to the battles in the war and images of scenes from the war; these were very popular. He did advertising pieces for companies like Walter Baker chocolate (near the Neponset River in Dorchester). For his lithographed Christmas cards, Prang is known by some as the Father of the American Christmas card (prior to his popularizing of such cards, Christmas cards used here were imported from England). Prang did all manner or other high quality chromolithography.

Louis Prang's factory was at the intersection of Gardner and Roxbury Streets, just off Columbus Avenue—just past Malcolm X Avenue—near Roxbury Community College. It contained 40 presses and an art gallery for exhibiting finished prints. According to Arce69, sightseers to Boston in the 1880s took the street car on Tremont Street out to Roxbury to watch the making of Prang's famous cards. Boston residents took out of town visitors there to show them “the most interesting place in Boston.”

All his life Prang was interested in art education and he viewed his color reproductions of fine art as bringing art to the masses. Later in life he explicitly worked in art education publishing text books on various aspects of drawing, a color wheel showing the relationship among the primary and other colors (and still called the Prang color wheel by some), and child-safe water colors and crayons. Go on Amazon and search for “Prang crayons” and you will find many drawing products still having today the name Prang.

According to the website of the Boston Public Library, its collection of chromolithographs from Prang & Company numbers approximately 15,000 pieces.

## 5 Big economic and technology change, 1950–present

This last era of this account was a time of enormous economic and technological change, and is a time I mostly observed first hand, having arrived in Boston in 1964. Thus, this section has a more personal slant. I'll touch on four topics:

- a. an innovation in typesetting
- b. impact on publishing
- c. revolution in type design
- d. libraries (evolution without discarding the past)

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### a. An innovation in typesetting

First, I'll briefly recount how type was traditionally made and set (to see this in action, you should view Stan Nelson's YouTube videos [Nelson09]).

Before the 1880s, type was created and set in a way not much different than was done by Gutenberg in the 1400s. A typeface was designed. Then the design for each letter was carved onto the end of a steel punch, a process called punchcutting. This was very precise and time-consuming work. The punches were then tempered and used to stamp each letter into a copper bar of metal (copper is softer than steel), with the result called a matrix. The matrix for a particular letter was then placed in the bottom of a mold and the mold sides were slid together to make the right size piece of type for that letter [Mosley13]. Thousands of copies of one letter in one size from one font could be cast in a day.

The cast characters were put in separate compartments for each different letter and punctuation symbol in a large flat box called a case. Historically a font was a complete alphabet in one style, such as Caslon or Helvetica, in one size.

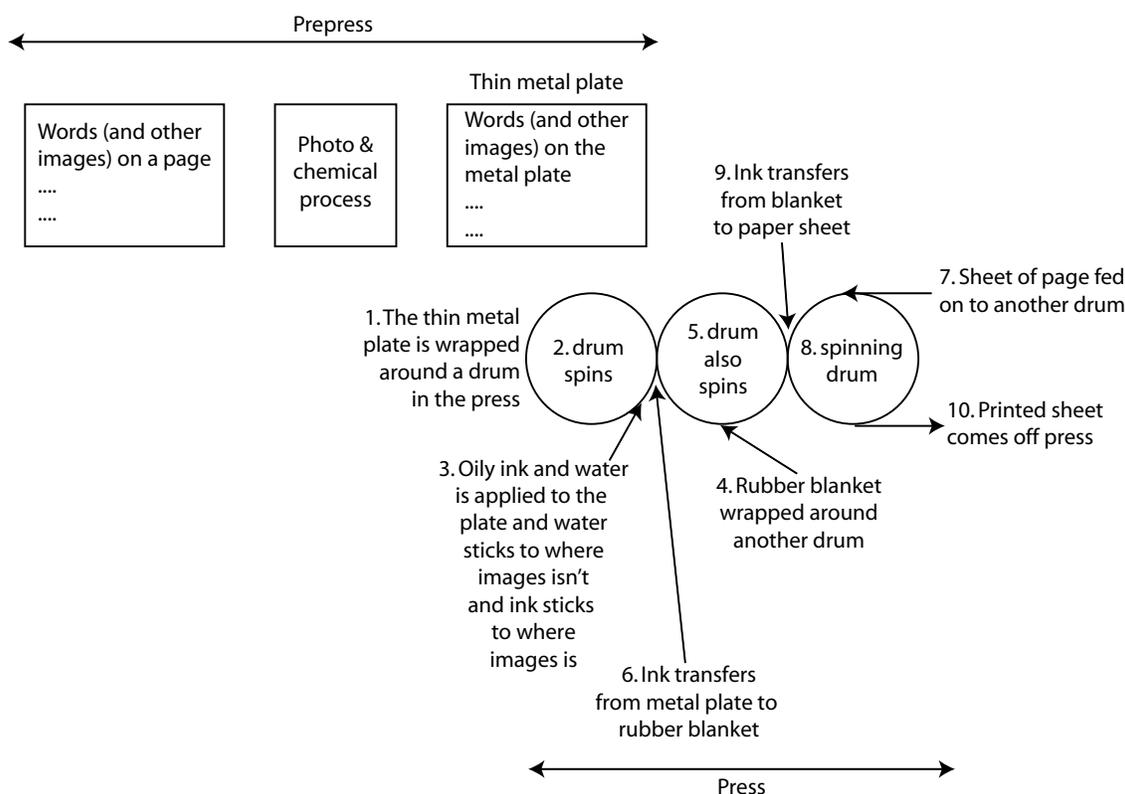


Figure 4: Sketch of the offset lithography process.

Each font typically shipped from the type foundry to a print shop in two cases, one for capital letters and one for small letters, called upper and lower case because one was above the other at the typesetter's workbench. Thus, historically, a font is one size type in a typeface. (Today this distinction between a font and a typeface is often ignored and the words are used more or less interchangeably.)

Type setting pre-1880s was done manually by putting the separate characters from the compartments in the cases into lines a column wide using a composing stick. The lines from a column of type were then clamped together in a big metal frame, known as a chase, for a page of printing.

Then in the 1880s, the linotype and monotype machines were invented which allowed characters to be typed on a key board and the machine cast the letters and created the lines in columns of type as the operator typed. Columns might still be manually composed into pages of type clamped into metal frames with some lines such as headlines still composed manually from cases of large size type. While the linotype and monotype technologies were invented elsewhere, the economics of these labor-saving machines meant they were used everywhere including in Boston area printing operations.

In parallel with the spread of linotype and monotype technology, the technology of offset lithography also spread. As illustrated Figure 4, offset lithography starts with a chemically sensitized thin metal plate (replacing stones which were described earlier in this note) which is developed from words on a page using a photographic and chemical process.

1. This metal plate is wrapped around a metal drum in a lithographic printing press.
2. The drum spins
3. Water and oily ink are applied to the spinning drum. The ink sticks where the image is and the water is where the image isn't rejecting the ink.
4. A rubber blanket is wrapped around another drum ...
5. ... and that drum also spins.
6. At the point of contact between the two drums, the ink image on the metal drum is transferred to the rubber blanket.

7. A sheet of paper is fed onto ...
8. ... another spinning drum.
9. At the point of contact between the second and third drums, the ink image on the rubber blanket is transferred to the sheet of paper ...
10. ... and the printed sheet comes out of the press.

The big technology typesetting innovation that did happen substantially in the Boston area was phototypesetting. Based on the work of the French inventors, phototypesetting was pioneered by Photon, Inc. in Cambridge and by Compugraphics (started by people from Photon) in Brookline and later located near Route 128. Compugraphics was a major industry player from the 1960s and for the next couple of decades.

With this technology, the type was on a photo negative which spun around with a light being projected through the negative such that the image of the desired character was shown through an appropriate lens for the type size desired and thus onto photographic paper. The photographic paper was developed and pasted up into pages which became the starting point for making the lithographic plates.

Phototypesetting had advantages over metal type: (a) it could run in a regular office; (b) the optical process could expand and contract character size without requiring a different font for each size character, and characters could be overlapped; (c) it was much faster (e.g., setting 600 characters per second); and (d) paper tapes from different keyboardists could be fed into the same phototypesetter. Thus, economics was very much on the side of phototypesetting versus linotype and monotype.

Unfortunately simply expanding or contracting characters to get different font sizes can result in bad looking characters — good looking characters may be slightly different in different sizes to look good in the various sizes. The economics of the phototypesetting era also tended to replace highly skilled typesetters with the authors themselves, amateur typesetters sitting at the computer keyboards in newspapers. Thus typesetting quality took a turn for the worse.

The era of phototypesetting only lasted a few decades. The creation of more powerful computers and high resolution displays and printers and research (from the later 1970s) into the mathematics of type design led to high quality digital typefaces and high quality digital printing.

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#### **b. Impact of economics and technology on publishing**

As I mentioned at the start of this note, Boston seemed a literary mecca when I first arrived here. In Harvard Square, near where I originally lived, the Harvard Coop and the Paperback Booksmith were my primary bookstores, but there were a variety of other stores selling new books in the Harvard Square neighborhood. Also, there seemed to be dozens of used bookstores. Boston had loads more of shops selling new or used books. The Out of Town News in the middle of Harvard Square and Nini's Corner across the street had lots of magazines and newspapers from around the world for sale. At the time Out of Town News had perhaps a hundred different foreign newspapers shipped in by air and would sell up to 600 London papers on Sundays and 1,500 Irish papers a week [I have lost the citation].

Then, at some point (circa 1980 perhaps), the big chains of bookstores began displacing the small chains and independent bookstore: Barnes and Noble, Borders, and eventually Waterstones (from the UK) came to Boston. Rizzoli's bookstore, Lauriat's, and the like were lost.

However, more recently most of the big chain bookstores have succumbed to the competition of on-line bookstores such as Amazon and to the popularity of the e-book. First they wiped out most of the independent bookstores, and then they were wiped out themselves. Barnes and Noble is the only big chain still in Boston, with a store at the Prudential Center in Back Bay and operating some of the university and college bookstores. It is a little hard to find a general-purpose independent store focusing on new books in Boston. Commonwealth Books and Brattle Book Shop, located near the old time location of bookstores on Cornhill, primarily sell used books.

In Cambridge, the MIT Press bookstore and the MIT Coop bookstore, selling new books, are across the street from each other. Moving on to Cambridge's Central Square and then Harvard Square, there are still a few used bookstores (e.g., Rodney's). Selling new books, in Harvard Square there are still the Harvard Book Store (founded in 1932 and never a part of Harvard), Grolier Poetry Bookshop (1927), and Schoenhof's Foreign Books (1856). Harvard Book Store and Grolier are still independently owned, in each case by a relatively new owner concerned that an institution not go out of business — “gentlemen farmers” of the book business. Schoenhof's is no longer independently owned.

A few years ago, the Out of Town News stopped carrying most of its foreign newspapers. Today, it is not all that different from an airport newsstand. Other big newsstands went out of business; for instance, the big newspaper and magazine shop I used to frequent in the Copley Place Mall is long gone.

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Arriving in Boston, I also liked the major newspaper options: *Globe* (more liberal), *Herald* (more conservative), and *Christian Science Monitor* (a wonderful 6-day-a-week paper providing unbiased world news). Over time some interesting weekly newspapers were founded as well as the African-American *Bay State Banner*.

However, the *Globe*, *Herald*, and *Monitor* have changed dramatically. They have reduced the number of editions they publish, and the *Monitor* is no longer a print publication (it became an on-line newspaper). The *Globe* cut back its international scope, and the *Globe* and *Herald* both sold out to non-Boston companies. Today, the *Herald* is independent again and trying to find its proper place in the world (I believe it no longer does its own printing), and the *New York Times* is trying to get rid of the *Globe* after forcing a number of cutbacks upon it over the years. All three of these newspapers are struggling as a result of the move into the Internet era.

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As I got to know Boston, I also got to know the locations of such publishing institutions as the Riverside Press in Cambridge, Little Brown at the corner of Joy and Beacon Streets on Beacon Hill facing the Boston Common, the *Atlantic Monthly* on Arlington Street facing the Boston Public Garden, and Houghton Mifflin at No. 2 Park Street. None of these publishers remains at their old locations.

As mentioned above, the big two publishers (Little Brown and Houghton Mifflin) have become substantially financial assets rather than institutions dedicated to the mission of publishing. The Riverside Press is gone from Cambridge, and the *Atlantic Monthly* is now part of a non-Boston publishing empire.

Two other Boston publishers when I arrived in 1964 were Allyn & Bacon, an important textbook publisher, and Addison Wesley, an important publisher of professional books. Both of these have gone through multiple acquisitions by other companies and are now an imprint of the giant Pearson Education organization. (Pearson's Boston office is now approximately where MIT's original Roger's building was in Back Bay, in the block surrounded by Berkeley, Clarendon, Newbury, and Boylston Streets).

A notable exception to the decline of publishing in Boston is "David R. Godine, Publisher." Godine started his publishing business printing his own books in nearby Brookline. Dedicated to publishing quality books, the business has slowly grown. When I first became aware of it, it was based in the beautiful Victorian Ames-Webster mansion at the corner of Dartmouth Street and Commonwealth Avenue in Boston.

Another exception is International Data Corporation, now part of the International Data Group. This company publishes business data and 300 magazines in 85 countries. It founded the "Dummies" series of books (later sold to Wiley). Its headquarters is across the street from the Boston Public Library in a high rise building (known locally as the Darth Vader building — not a compliment).

Of course, Godine and IDC are not the only positive notes, but they are an exception to the apparent general decline of publishing and printing in Boston.

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### c. Revolution in type design and distribution

The impact of digital technology and the Internet also led to innovation in the Boston area with regard to type.

Over the last four decades, phototypesetting was replaced by digital type design and typesetting. These were not invented in Boston; however, Boston played and still plays an important role [Dennison12] in the contemporary world of type [Bringinghurst05, Felici03]. There are several key type design and distribution activities in the Boston area.

Bitstream was founded in Cambridge 1981 by people leaving Mergenthaler Linotype in New York City to exploit the digital type revolution they foresaw. Bitstream was among the earliest and perhaps the first digital font "forge." In 2000 it started its web-based MyFonts service which sells a vast number of fonts from a vast number of designers.

The history of Monotype Imaging (Woburn) goes back to 1887 when shortly after the invention of the linotype, the monotype was invented and the Lanston Monotype Machine Company was founded in Philadelphia. Today Monotype is a collection of type-related companies, including Bitstream since 2012. Owned since 2004 by a private equity firm, Monotype is perhaps the world's biggest type-related company.

The Font Bureau (Boston) was founded in 1989 by people leaving Bitstream with a vision for the future that differed from the financial dreams of Bitstream's investors [Hoffman99]. Today its office is on South Street in the Leather District — between Chinatown and South Station, where leather-related businesses have largely been replaced and buildings repurposed for residential use and businesses such as design firms.

Companies like the Font Bureau do custom type designs for companies wanting their own design styles and do font designs on speculation hoping someone likes them and pays to use them. Additionally, today's world particularly

needs fonts that are readable and look good for vastly different media and sizes. Matthew Carter of Carter and Cone has been a leader in designing readable fonts.

Matthew Carter is British type designer. Originally from the United Kingdom, he trained as a punchcutter at the Enschedé Font Foundry in the Netherlands, was responsible for Crosfield's (London) typographic program in the early 1960s, and was Mergenthaler Linotype's house designer from 1965 to 1981, an era when Crosfield and Linotype were deeply into phototypesetting. Carter co-founded Bitstream in 1981 to focus on digital fonts. In 1991 he left Bitstream to form Carter & Cone with Cherie Cone, and from there today he works with many companies including collaborating with The Font Bureau [Hoffman99, Re03]. Thus, Carter is one of the few working type designers who has dealt with type design for metal casting, type design for phototypesetting, and type design for the digital world.

I'm not sure how responsible Matthew Carter is for Boston being such a center of font design activity today, but I speculate that no other single person had had more to do with it than he has.

Carter is known by some as "the most widely read man in the world." He has designed in the vicinity of 100 typefaces. For instance, Snell Roundhand was done by Carter early in the mid-1960s for phototypesetting as what Carter has said was "a kind of celebration of emancipation from the constraints of metal type" (ne use was for the graphics for WGBH Middlemarch TV series). Carter's Miller typeface is widely used by newspapers including the *Washington Post* and a version of it by the *Boston Globe*. His fonts for Microsoft such as Georgia and Verdana are pervasive in the personal computer world. His Bell Centennial was used by AT&T for its phone books and was explicitly designed to be readable in small size type. Bitstream Charter is a whole family of typefaces designed by Carter in 1987 to look good both on computer displays and with 300 dots per inch printers. (My co-author and I used it for a book we compiled and published through the T<sub>E</sub>X Users Group because we intended the book to be available both in hardcopy format and on the web. T<sub>E</sub>X is the typesetting system I use which was created by Professor Donald Knuth at Stanford and which was the first high quality digital font design and typesetting system and which led to the demise of phototypesetting and such commercial systems as Adobe Indesign.)

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#### d. Libraries (evolution without discarding the past)

When I arrived in Boston, I also had not previously been where I could easily use the libraries of multiple communities. Most of the time since I arrived in Boston I have had library cards for three different library systems, e.g., originally Cambridge, Boston, and Belmont (today from the CLAMS network, Old Colony network, and the BPL). Also, because I originally worked for MIT, I became accustomed to using its libraries, and occasionally I've found a reason and way to access Harvard libraries.

There have been changes in libraries. With our present American culture of "no new taxes," the city and town libraries have cut their hours. However, the libraries have also been adapting to the contemporary era without discarding their traditional role of archiving books and documents. Indeed, they have increasingly been digitizing their collection, or at least their catalogs, and making things available to users from their computer terminals. Small town libraries have formed into library networks with combined on-line catalogs and easy exchange of books among libraries within a network; and the state funded Massachusetts Virtual Catalog now covers a dozen library networks. (There is so much inter-library exchange going on that there is a company, Optima Shipping, which as part of its business has vans driving among the various libraries and networks of libraries doing deliveries and returns of exchanged books.) Various libraries, especially some with exceptional collections, are allowing their books to be digitized for massive digital book archives such as Google Books ([books.google.com](http://books.google.com) or the Internet Archive ([www.archive.org](http://www.archive.org))). Some libraries and archives now allow (or even encourage) photographing their documents which reduces book wear from copying on flatbed copiers or scanners.

Other states and cities may have their own important libraries, but I am particularly fond of the concentration of libraries I find in close proximity in Boston and Cambridge (and I am ignoring many other libraries, particularly college and university libraries, each with their own areas of concentration). Some notable libraries are the Harvard (founded 1636) libraries (with 80 libraries and 15 million books); the Massachusetts Historical Society (founding 1791); the Boston Athenæum (founded 1807); the New England Historical and Genealogical Society (founded 1845); Boston Public Library (founded 1848 — the first large city public library in the country including having a circulating library [Whitehill56], now with many branches and 15 million books); the Congregational House and Library (founded 1853 — located next door to the Athenæum), the Congregation House for many years housed the Pilgrim Press); and MIT (founded 1865) libraries (divided into several sub-libraries with 3 million books).

In addition to being notable, these libraries are close enough together to require minimal travel time among them — so close together it is probably faster to take public transportation than to find parking. A walk passing each of them

would only take about 90 minutes: one mile from the Athenæum and Congregation Library to the NEHGS (the original MIT building was across the street from the current location of the NEHGS); two blocks from the NEHGS to the BPL (the BPL was previously on Tremont Street); .75 miles to the Massachusetts Historical Society; .8 miles from the Massachusetts Historical Society to MIT; and 1.7 miles from MIT to Harvard.

The youngest of these libraries is almost 150 years old. So obviously it is possible for a literary institution to withstand and adapt to the evolution of culture and economics—I suspect because they have never viewed profit as a key aspect of their missions.

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### Full circle

Across the street from Harvard, is a particular favorite bookstore for me—the Harvard Book Store. It has no relationship to Harvard University except to have Harvard buildings on three sides of it. They have a large selection of new books and used books, and they offer bicycle delivery in Cambridge and nearby. They also have an Espresso Book Machine (EBM), which they have named Paige M. Gutenberg, for in-store on-demand printing of a customer's self-published book or millions of legally printable books from Google Books, publishers, and other on-line books archives. (The EBM is another publishing activity where Jason Epstein has been a prime mover. Epstein was previously editorial director at Random House for 40 years and personally edited many famous authors; he co-founded the *New York Review of Books*, founded the Library of America line of books, and published the *Reader's Catalog* in the mid-1980s to make 40,000 books available through a phone-call purchase.)

A visit to the Harvard Book Store and their in-store book-printing machine brings us geographically full circle. The Harvard Book Store is a three minute walk from the location of Stephen Daye's original 1639 print shop. And by doing in-house printing, the bookstore has in some sense come full circle in the history of American printing and bookselling—back to its roots in colonial times when booksellers often printed and published books and where printers sometimes had retail sales of books they printed.

I took the opportunity of visiting the Harvard Book Store and Paige M. Gutenberg to have a facsimile copy of the *Bay Psalms* printed for me.

## Acknowledgments

Steve Peter gave me pointers to useful books. Jeff Mayersohn of Harvard Book Store pointed me to people and places, loaned me books, and gave me a print-on-demand copy of the *Bay Psalms*. The librarians at the Boston Athenæum and Boston Public Library helped me find books. Karl Berry caught many typographical errors and made other editorial suggestions to the earlier version of this article. Barbara Beeton suggested some content additions and editorial changes. Gary Gregory of The Printing Office of Edes & Gill talked to me about his replica of an English wooden common press and his cases of Caslon type. Jeffrey Stanett and Ryan Shea Paré of First Printer restaurant answered questions and allowed me to take photographs of their printing-history artifacts. Cary Hewitt of the Congregational Library provided me with images of the bas reliefs on the front of Congregational House. Frank Romano, Kim Pickard, and Ted Leigh of the Museum of Printing in North Andover provided information and photos, and they allowed me to take photos in their Museum. Jason Kaldis directed me to the *American Architect and Building News*. Nancy Heywood, Francis Folsom, Samantha Nelson, and Polly Flansburgh of Boston By Foot encouraged and supported my June 2013 presentation on this material.

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## Author background

David Walden grew up in California at the western edge of the San Joaquin Delta, about 40 miles east of San Francisco. In the Bay Area, he saw and admired the the architecture of Bernard Maybeck, Green and Green, and Julia Morgan, and of the more modern architects William Wuster, Joseph Esherick, and Vernon DeMars, and the mass produced modern homes from Joseph Eichler; and he has maintained a lifelong interest in architecture.

Before each of his four years of college, Mr. Walden worked in a large Fibreboard Corporation plant that made cardboard which was printed and turned into cardboard packaging. Here he was particularly fascinated by the operation of the large, sheet-fed letter presses and four-color Miehle lithography machine (his worry about failing out of college was relieved by the idea that working his way up the paper mill’s seniority ladder to become a lead pressman could be a satisfying career).

After college, where Walden was first introduced to computers in 1963, he spent his business career developing high tech computer systems at MIT’s Lincoln Laboratory and at Bolt Beranek and Newman Inc. in Cambridge.

Having admired the old and new architecture of Boston, in 1986 Mr. Walden completed Boston By Foot’s guide training course.

In the mid-1990s, Mr. Walden retired from business and (independently) rejected Microsoft Word as a suitable tool for composing major documents, and since then he has used the  $\LaTeX$  typesetting system as his primary writing and layout tool. With an appropriately tool in hand for creating good looking documents, he has spent considerable time over nearly 20 years learning about the techniques and history of typesetting, type design, printing, and so forth (including designing and completely typesetting several books).

Over the past couple of years, Mr. Walden has done library research, talked to printing experts, and taken numerous photos relating to the history of printing and publishing in Boston.

## Colophon

This paper was typeset using the  $\LaTeX$ , originally developed by Leslie Lamport and based on the revolutionary  $\TeX$  system developed by Donald Knuth.  $\LaTeX$  was compiled using the  $X\epsilon\TeX$  engine developed by Jonathan Kew running as part of the  $Mik\TeX$  distribution from Christian Schenk that is part of the  $\TeX$  Live DVD produced each year by a collection of regional  $\TeX$  users groups. The font for this paper is Adobe Caslon Pro. Caslon was developed by William Caslon between 1734 and 1770, and the digital Adobe version was created by Carol Twombly and released in 1990.