

DEDICATED TO PRESERVING THE PAST OF PRINTING AND ALL OF ITS RELATED CRAFTS

Message from the President

The photo below says a lot about the Museum of Printing. Ted Leigh and Dan Abugov are under a Vandercook SP-25. The proofing press was a donation from the Wall Street Journal, which once had its major production site in Chicopee, MA. Somewhere along the line, the roller mechanism was mis-wired and would move in one direction but not in the other. The malfunction was traced to an ancient capacitor on an ancient printed circuit board.

A lot of help came from a visitor one day. As he entered, we asked if he was an electrical engineer. "Yes, how did you know?" he said and we promptly put him to work.

Ted first called other SP-25 sites and then found a supplier of ancient electrical parts. He replaced the capacitor and the press was back in business. Because of the large press bed, the Vandercook will be used to proof our growing wood type collection. Glenn LeDoux has been sorting and classifying wood type and will now be able to proof it.

This is what our volunteers do. They work tirelessly to preserve and protect the craft of printing. They bring ancient machines back to life.



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On-going Exhibits

Freedom of the Press and the Colonial Print Shop

Gary Gregory and the Museum staff have created an exhibition of a wooden common press (replica) and a wooden intaglio press (genuine).

Art of Anna Hogan Exhibit

A selection of Anna Hogan's wood engravings are on display.

Botanical Prints

Botanical prints from plates donated by the Arnold Arboretum of Harvard University have been printed in meticulous detail.

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HOURS

The Museum is open

Friday and Saturday (until Dec. 24)

10:00 am to 4:00 pm

General Admission: \$5.00

Students and Seniors: \$3.00

Children 6 and under: Free



They came to the fair

The 7th Annual Printing Arts Fair took place at the Museum of Printing on a sunny Father's Day. Many families were counted among the 400-plus attendees, who saw demonstrations of papermaking, stone lithography, intaglio printing, Ludlow and Linotype linecasting, and other book arts.

Over 30 exhibitors offered note books, cards, rare books, antique equipment, ephemera, and other articles. Children could print wood type and pictorial cuts as well as Father's Day cards.

The centerpiece of the event was the second year we printed with a steamroller. Sally Abugov and her band of 28 linoleum block carvers created a wonderful set of alphabetic designs with floral/fauna themes. The individual blocks were printed in different colors and sold at the Fair.



Letter art created by:

- | | |
|-------------------|----------------------|
| A Trina Abbott | P Karen Shaner, |
| B Leslie Evans | Katrina Swartz, |
| C Carolyn Muskat | Anjali Pala |
| D Joan Ellis | Q Laura Mauriello |
| E Fran McCormick | R Jennie Cline |
| F Emily Trespas | S Rebecca Saraceno |
| G Sarah Smith | T Sandy Fuhs |
| H Diane Bigda | U Jessie Marsolais |
| I Kelly Jarasitis | V Alex Abugov |
| J Deb Bastien | W Dan Abugov |
| K Katey Corrigan | X Bridget Fitzgerald |
| L John Wendler | Y Nancy Conlan |
| M Julia Talcott | Z Nancy Trottier |
| N Sarah Bardo | (center art too) |
| O Deb Putnoi | |



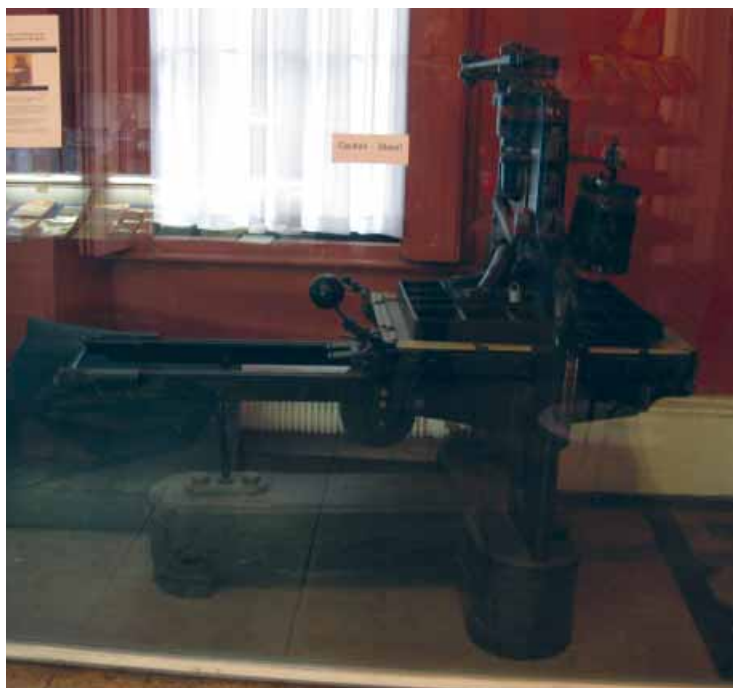
The first metal press

Charles Mahon, Third Earl Stanhope, found that wooden printing presses were not strong enough for newspaper long runs. He invented the first cast-iron press. His first design had straight sides but cracked. His second design had curved sides and was much stronger. A large number of these presses printed the London Times through half of the 1800s.



The private press was a forerunner of the private presses started by

William Morris and others later in the 19th century. Chiswick Press was founded by Charles Whittingham (1767-1840) who had acquired a patent for extracting tar from old ropes. The hemp was pulped to produce a



paper with a strong and silky finish while the tar was used to produce printing ink. In 1810 Whittingham equipped a printing works with a paper mill next door. After Whittingham's death his nephew, Charles Whittingham (1797-1876) took over the business and



continued printing at Chiswick until 1852 when he moved the Chiswick Press to Tooks Court, Chancery Lane. The Whittinghams not only pioneered a movement towards

finely produced books at reasonable prices but also to smaller-sized books which were easy to fit in a pocket.

Chiswick Press specialized in the production of small volumes, noted for their woodcut engravings. The books were printed by hand on iron presses. One of the presses is now in Gunnersbury Park Museum, outside London.

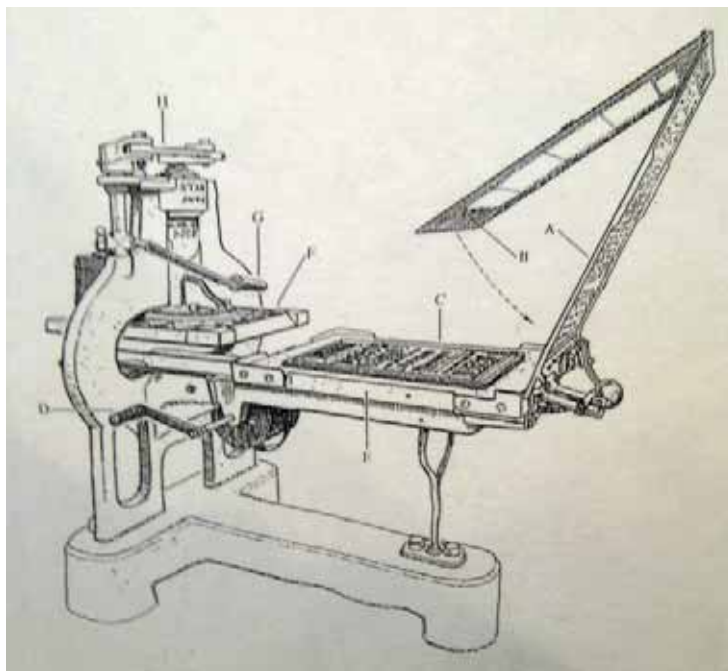


The Stanhope press is the oldest surviving metal printing press in the world, made by

Robert Walker in 1804 (No. 5), can be seen in the Gunnersbury Museum. In red lettering, it says "Stanhope,



Inventit, No. 5, and the date 1804." The press is near the front door, behind glass, and difficult to photograph. The Museum is rather eclectic. Take the Piccadilly Underground to Acton Town. Turn left and walk about 10 minutes and turn into the park after Circular Road.



The quirks in QWERTY

QWERTY describes the keyboard layout of English-language keyboards, based on the 1874 typewriter. It takes its name from the first six characters of the keyboard's top row of letters. The basic layout was designed by Christopher Latham Sholes for the Sholes-Glidden typewriter and sold to Remington. It was said to be designed to minimize typebar clashes and remains in use on computer keyboards. It is illogical, random, and based on what I think was a left-handed ex-publisher-cum-inventor who could not solve the jamming of keys. Because it was the first successful mechanical writing machine, its key layout has become the standard.

Sholes was the 52nd person to invent the typewriter but the only one to call it that. He struggled for six years to perfect his invention, making many trial-and-error re-arrangements of the original machine's alphabetical key arrangement to reduce typebar clashes. He used a study of letter-pair frequency by educator Amos Densmore, brother of his financial backer, James Densmore.

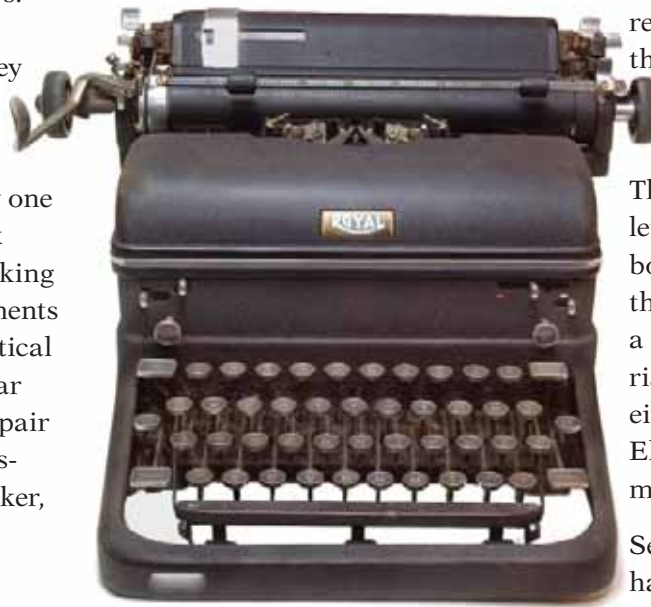
He arrived at a four-row, uppercase keyboard close to the modern QWERTY standard. In 1873 Sholes' backer, James Densmore, sold manufacturing rights for the Sholes-Glidden "Type Writer" to E. Remington and Sons, and the keyboard layout was finalized by Remington's mechanics. The keyboard presented to Remington was:

2 3 4 5 6 7 8 9 - ,
Q W E . T Y I U O P
Z S D F G H J K L M
A X & C V B N ? ; R

Remington's adjustments created a keyboard that is essentially the modern QWERTY layout.

The QWERTY layout allows many more words to be keyed using only the left hand. In fact, thousands of English words can be keyed using only the left hand, while only a few hundred words can be typed using only the right hand. This is helpful for left-handed people. I contend that Sholes was left-handed and got even for every left-handed person who would ever live.

The QWERTY layout became popular with the success of the Remington No. 2 of 1878, the first typewriter to include both upper and lowercase letters, via a shift key. The original model was all caps.



The keys are not on a standard grid and each column slants diagonally due to the mechanical linkages. Each key being attached to a lever, and hence the offset prevents the levers from running into each other and this staggered arrangement has been retained by computer keyboards.

The QWERTY layout depicted in Sholes' 1878 patent includes a few differences from the modern layout, most notably in the absence of the numerals 0 and 1, with each of the remaining numerals shifted one position to the left of their modern

counterparts. Remember when we used the lowercase L as a one? The letter M is located at the end of the third row to the right of the letter L rather than on the fourth row to the right of the N, the letters C and X are reversed, and most punctuation marks are in different positions or are missing entirely. 0 and 1 were omitted to simplify the design and reduce the manufacturing and maintenance costs; they were chosen specifically because they were "redundant" and could be recreated using other keys.

When Sholes built his first model in 1868, the keys were arranged alphabetically in two rows, piano-like. The first typewriter did jam and Sholes rearranged the letters. Sholes took the most common letter pairs such as "TH" and made sure their typebars were at safe distances.

The first machines typed only capital letters. The Remington No. 2 offered both upper and lowercase by adding the familiar shift key. It is called a shift because it caused the carriage to shift in position for printing either of two letters on each typebar. Electronic keyboards no longer shift mechanically, but its name remains.

Several alternatives to QWERTY have been developed over the years, claimed to be more efficient, intuitive and ergonomic. Nevertheless, none has seen widespread adoption, due to the sheer dominance of available keyboards and training.

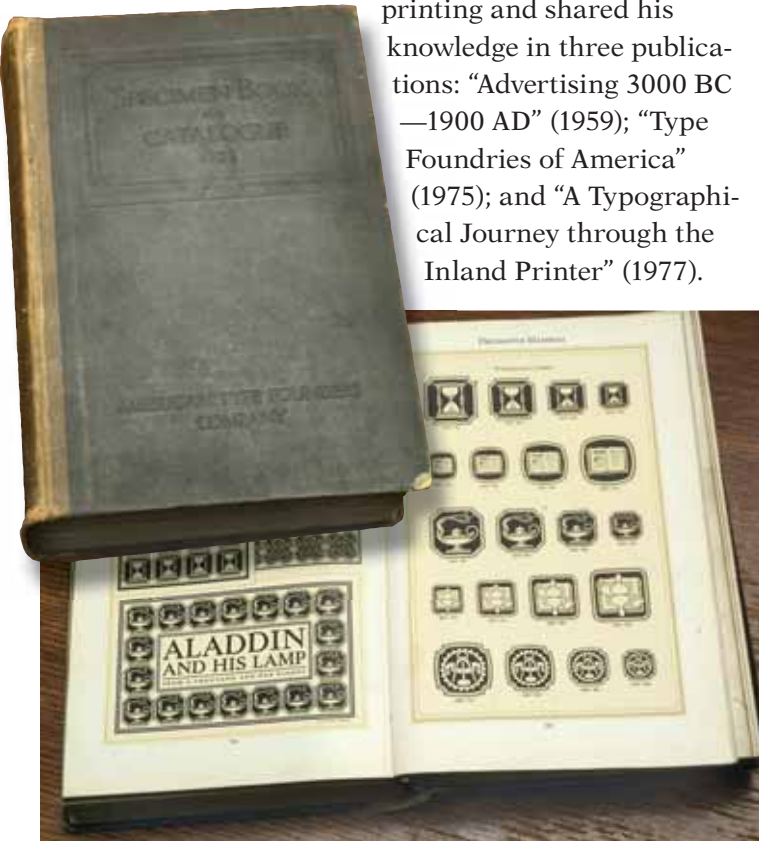
When Ottmar Mergenthaler was laying out the keys for the Linotype he counted the pieces of type in a printer's typecase. He had a separate set of keys for caps and lowercase arranged by letter frequency use in the English language. He was the first to find QWERTY as a problem.

Thus, in a computer age, we input our copy on an antiquated, illogical keyboard arrangement.

Type specimens

From Gutenberg's invention of moveable type, printers had cast type for their own use. The first printer to sell type to other printers was Claude Garamond (around 1511). He promoted his types with a single sheet showing type specimens. John Caslon was the first type founder to offer a bound volume with type specimens.

The first edition of "Type Foundries of America and Their Catalogs" was published in 1975 in an edition of 500 copies. It was compiled by Maurice Annenberg, the proprietor of a major printing company in Baltimore. Annenberg collected and read everything he could about printing and shared his knowledge in three publications: "Advertising 3000 BC—1900 AD" (1959); "Type Foundries of America" (1975); and "A Typographical Journey through the Inland Printer" (1977).



Annenberg used Ralph Green's "Check List of American 19th Century Type Specimen Books" (1951) as a guide which he found to have many omissions and inconsistencies. He gleaned additional information from Lawrence Romaine's "A Guide to American Trade Catalogs, 1744-1900" (1960) and from Henry L. Bullen's 1934 and 1936 catalogues of type specimen duplicates for sale by the library of the American Type Founders Company. With these as his base, Annenberg set out to correct and augment Green's list by surveying various libraries and private collectors believed to have collections of type specimen books. The task took over three years and resulted in a tabulation of 650 specimen books from sixty-nine foundries which were held in thirty-seven institutional and private collections.

Annenberg's criteria for inclusion were: (a) case-bound books only—no pamphlets, except for early ones, and no showings of individual type families; (b) foundry types only—no wood type or Monotype;



and (c) books issued by foundries only—no agencies. The cut-off date was 1945, the year of American Type Founders Company's last case-bound specimen. Annenberg provided historical accounts of the foundries and illustrated the whole with reproductions from the specimen books themselves, the "Inland Printer," and other sources.

The Museum of Printing has an excellent collection of type specimen books. The 1923 ATF catalog and the 1940 Linotype Red Book are the two largest. There are many others from Intertype, Monotype, Linotype, ATF, as well as other foundries, foreign and domestic.



Boxcar Base System

Some letterpress printers convert design files to polymer printing plates. Then they must mount plates on a type-high surface and the Boxcar Base system is designed for cylinder or platen letterpresses.

The bases are engineered from cast aluminum, ground and gridded to provide a foundation for letterpress printing. All sizes are guaranteed to within 0.001-in. in thickness, parallel, and flatness. The system consists of:

- A precision ground and gridded Boxcar Base, which is reusable and locks up in your chase or bed
- Boxcar adhesive (double-sided)
- Plastic backed photopolymer plates, which are reusable

After you adhere the plastic-backed plates to your base, the plate moves only when you want it to: the adhesive and plates pulls up from the base easily when lifted vertically, but resist the horizontal shearing of the rollers and press cylinder.

An anodized grid of .25-in. black lines provide registration ease; because plastic-backed plates are transparent, you can see the grid through your plates for positioning on press. The base's anodizing protects the metal surface from scratches and wear with a permanent coating that's harder than a sapphire. If you have a need for a base with a different thickness or size, don't be shy, they can make custom bases at reasonable prices.

Founder Harold Kyle was trained in the book arts at Carleton College and at Campbell-Logan Bindery. While a printer-in-residence at the Minnesota Center for Book Arts (MCBA), he received a coveted Fine Press Minnesota Book Award. He says "When I saw an ad online for a Vandercook letterpress in Milwaukee for \$100—scrap metal price—I jumped."

He moved the press into a studio shared with a music label and a truck driver in the most decrepit building in the city. In the evenings and weekends, amid the boxcars and grain elevators, he printed for music events and for local weddings. He called the operation "Boxcar Press." During these adventures, he happened upon a better way to mount computer-generated plates into a letterpress press—a bridge between graphic design software and antique presses. With assistance from 3M and some Minneapolis machine shops, he took a prototype to a letterpress trade fair and started taking orders.

The poet, Debbie Urbanski, whose work he first printed at Carleton, persuaded him to follow her to Syracuse, New York. He moved Boxcar Press into the basement of their new house. Debbie opted to join the business as a partner. She started their Bella Figura letterpress wedding invitation line, available only online, which was an odd concept in 2001.

They hired Syracuse University interns to work in their basement. Their wedding invitations were taking off, thanks to Google. Desperate for space, they moved the business into an artist warehouse in downtown Syracuse.

Everything they do is a byproduct of their love for the craft. Their mission is to ensure letterpress remains relevant for future generations.



Boxcar Bases

For Vandercooks, Heidelberg cylinders, and Heidelberg windmills: they recommend the standard Boxcar Base, which pairs with the 94FL plates. The standard bases will also work on other platen presses (such as the C&P) if the ink form rollers are set precisely. These standard bases are ideal for presses that have adjustable roller height. BASES (in inches) include:

4.5 x 7.5	13 x 19
6 x 9	17 x 22
9 x 12	24 x 24
12 x 16	

Boxcar Press
501 W. Fayette St. #222 Syracuse,
NY 13204 (315) 473-0930
www.boxcarpress.com

The Museum of Printing thanks Boxcar Press for their support. As users of the system, we can, and often do, recommend it to letterpress printers.

Fall programs

Lectures

Thursday, October 21, 6pm

Postage Stamps by Type Designers: A Primer

Eric Gill, Adrian Frutiger, Gerard Unger, Sem Hartz, Julian Waters, Jan Van Krimpen, Wim Crowwel, Lance Hidy, Hermann Zapf—stamp designers? Yes! Michael Russem of Kat Ran Press will bring together a colorful selection of stamps designed by some of the great (and not-so-great) designers of metal and digital typefaces. Join us for a joyous romp through 85 years of postage stamps by European and American type designers.

Michael Russem is a book designer and letterpress printer with offices in Cambridge and Florence, Massachusetts. Since 1994, his Kat Ran Press has designed and printed books, catalogues, and ephemera. He has taught letterpress printing and typography at Harvard and Smith College, and has lectured on stamps by type designers at the Society of Printers, The Typophiles, Guild of Book Workers, The Baxter Society, Smith College, and the Caxton Club.

Free for members; \$30 others

Thursday, November 4, 6pm

Heavyweight Bout: Linotype vs. Monotype. Two Dominant Technologies of Hot-Metal Typesetting Square Off

John Kristensen, referee

As proprietor of Firefly Press, John uses both machines and can therefore objectively compare the two seminal hot metal typesetters.

Free for members; \$30 others

Thursday, November 18, 6pm

Beyond Hobby Printing

Discussing the evolution of a modern letterpress business: juggling a nationally carried wholesale catalog, running a custom design and print shop and hosting the occasional typesetting workshop.

Shelley Barandes, owner of Albertine Press

Free for members; \$30 others

Workshops

Saturday, October 2

Linoleum Block Printing for Greeting Cards Workshop

Rebecca Saraceno

Time: 10:00 a.m. - 3:30 p.m.

½ hour lunch break in museum. Pack a sack lunch to eat in the museum. Beverages will be provided.

Students will be introduced to the materials, tools, and techniques for transferring an image to a linoleum block and carving in preparation for printing a collection of greeting cards. Students will receive instruction on how to use the tools for making specific cuts through lecture and demonstration, and print their designs on a Vandercook proof press. A package of 10 sheets of paper and 10 envelopes is included in the materials fee.

Prerequisites: None—this is for the beginner.

Cost: \$30 members; \$50 non-members

Materials Fee: Included

Limited to 10 participants. Advance registration required.

Students should bring their own carving tools. (most craft stores have these: <http://www.dickblick.com/products/speedball-linoleum-cutters/>). Students should come prepared with potential images that could be transferred to the blocks via tracing paper (to be supplied). We will follow-up with once you register.

Saturday, October 9

Printing on a Wooden Common Press Workshop

Instructor: Gary Gregory

Time: 10:00 a.m. - 3:30 p.m.

½ hour lunch break in museum. Pack a sack lunch to eat in the museum. Beverages will be provided.

Here is your chance to channel your Colonial heritage.

Workshop participants will set type and print on a detailed replica of an english common press using, among other things, wooden quoins and ink balls.

Cost: \$30 members; \$50 non-members

Limited to 8 participants



Special Events

Type Sale

Saturday, October 16th, 10:00 a.m. to 4:00 p.m.

A Night at the Museum with Print Buyers International

Wednesday, October 13, 6:00pm to 8:00pm

Join Margie Dana for a reception and short talk on how print buying has changed. Museum members welcome at no charge.

Hot Metal Daze

Saturday, November 13, 10:00 a.m. to 4:00 p.m.

Typeset Design Competition

Come in any day and pick up an old typeset. Then take until Spring to decorate it in any way you please. In April we will judge and show the entrants. Special prizes and lots of recognition. \$10 entry fee includes typeset.

Watch our schedule

The Museum is open on Fridays and Saturdays through December 18th. We will be closed on December 24 and 25 and December 31 and January 1. From January 8 through March 26 we are only open on Saturdays. We would love to open more often but we need more volunteers (hint, hint).



Saturday, October 23

Workshop: Printing Broadsides with Wood Type

Instructor: Glenn LeDoux

Time: 10:00 a.m. - 4:00 p.m.

½ hour lunch break in museum. Pack a sack lunch to eat in the museum. Beverages will be provided.

Learn how broadsides and posters are printed using wood type, borders, and ornaments from the Museum's collection. Attendees will operate a Vandercook Proof Press and learn typesetting, ink mixing, and color registration fundamentals.

Prerequisites: None—this is for the beginner.

Cost: \$30 members, \$50 Non-members

Glenn LeDoux

Saturday, October 30

Broadsheet Calendar Workshop

Instructor: Katelynn Corrigan

Time: 10:00 a.m. - 3:30 p.m.

½ hour lunch break in museum. Pack a sack lunch to eat in the museum. Beverages will be provided.

2011 is right around the corner! Students will design and print a broadsheet style calendar suitable for framing. Skills explored will include lockup and makeready for mixed forms on the Vandercook proof press. Paper will be provided.

Prerequisites: None—this is for the beginner.

Cost: \$30 members,
\$50 Non-members



From ampersands to interrobangs

In the 3rd century B.C. Aristophanes of Byzantium invented a system of single dots that separated verses and indicated the amount of breath needed to read each fragment of text aloud. The different lengths were signified by a dot at the bottom, middle, or top of the line. For a short passage (a komma), a dot was placed mid-level. The name came to be used for the mark itself instead of the clause it separated. The mark used today is descended from a diagonal slash, or *virgula suspensiva* (the slash), used from the 13th to 17th centuries to represent a pause, mainly by Aldus Manutius. In the 16th century, the virgule dropped to the bottom of the line and curved, turning into the shape we know.

Aldus Manutius used the semicolon to indicate interdependent statements. General use of the semicolon in English began in 1591; Ben Jonson was the first English writer to use it systematically.



The ampersand is a corruption of “and (& per se and,” which literally means “(the character) & by itself (is the word) and.” The symbol (or glyph) & is derived from the ligature of ET or et, which is the Latin (and French) word for “and.” One

of the first examples of an ampersand appears on a piece of papyrus from about 45 A.D. Written in an early Roman capital cursive (the handwriting of the time), it shows the ligature ET. A sample of Pompeian graffiti from 79 A.D. also shows a combination of the capitals E and T, and is again written in early Roman script. The ampersand is generally interchangeable with and. This is why ‘etc.’ can sometimes be seen written as ‘&c.’ To see a different ampersand a day, visit <http://ampersandampersand.tumblr.com/>

The Poetica typeface family, designed by Robert Slimbach of Adobe and based on Cancelleresca, the commercial writing hand of the Italian Renaissance, has 58 ampersands (one more than Heinz catsup). Some typefaces have especially beautiful ampersands—the italic ampersands for Garamond, Minion, Janson, Meridien, Baskerville, and Caslon are gorgeous. With the appearance of slab serif and sans serif typefaces in the 19th century, typefounders preferred the roman version of the ampersand in italic as well as roman styles. Ampersand usage varies from language to language. In English and French text, the ampersand may be substituted for the words ‘and’ and “et,” and both versions may be used in the same text.

The German rule is to use the ampersand within formal or corporate titles made up of two separate names; under German composition rules, the ampersand should not be used in running text.

An exclamation mark (or point) is a punctuation mark or a tone mark. It is a full stop, like a period, but used in exclamatory or emphatic sentences. In typesetting, the exclamation mark is called a screamer or bang. Some brands use it, like “Yahoo!” The town of “Westward Ho!” in England, from the novel by Charles Kingsley, is the only place name in the world that officially contains an exclamation mark. The symbol is said to originate from the Latin word *io*, an exclamation of joy. It was formed either as a digraph of the letters *i* and *o*, or as the letter *i* (for *io*) above a period.

A question mark is also a punctuation mark or a tone mark. It is a full stop used in interrogatory sentences. It is also called a query. The symbol is said to originate from the Latin *quæstio*, meaning question. Over time, ‘Qo’ was simplified into the curlicue and underdot which is the question mark.

The interrobang combines the function and look of both question mark and exclamation point. The concept of the interrobang was introduced by Martin K. Speckter in 1962 in an article in *TYPEtalks* magazine. It was created to allow the punctuation of rhetorical statements, where neither the question nor exclamation marks alone served the purpose, and together looked weird. Mr. Speckter called his mark an interrobang from the Latin for query and the proofreader’s term for exclamation. In an April, 1962 editorial, *The Wall Street Journal* endorsed its use with an example: “Who forgot to put gas in the car!?” In 1966, Richard Isbell of ATF designed *Americana*, the first typeface that included the interrobang as one of its glyphs. In 1968, an interrobang key was available on some Remington typewriters. The word interrobang started to appear in dictionaries, and the new punctuation mark was the subject of several news articles in magazines, newspapers, and even a subject on talk shows. You can find an interrobang in Microsoft Word’s *Wingdings 2*. It is also present in *Lucida Sans Unicode* and *Arial Unicode*



MS. Although the interrobang was in vogue for much of the 1960s, it never caught on. It has not faded away completely; some typefaces still feature an interrobang, and it is included in the Unicode character set. In German it is an *Einander überlagerndes Ausrufungs- und Fragezeichen*.

Why is it still around? Who knows?

The tormented history of Garamond

Claude Garamond begot a typeface that has survived eponymous imposters, a fanatical Cardinal, a forensic female typographer, hot and cold typesetting, and competitive digital fonts. There are more versions of the Garamond typeface than any other font ever created.



Our story begins in France when he is born around 1480 in Paris, but does not end when he died in 1561 in the same city. In 1510 he began his training as a punch-cutter with Simon de Colines. In 1520 he was a student with Geoffroy Tory and in 1530 Garamond's first type is used in an edition of a book by Erasmus. It is based on Aldus Manutius' 1455 type De Aetna. In 1520 Robert Estienne, celebrated Parisian editor-printer, approached Garamond to order a roman font. King Francis I commissioned Garamond to cut a Greek type and the ensuing Grec du Roi was also used by Estienne. Garamond went on to sell the typeface to other printers, making him the first typefounder.

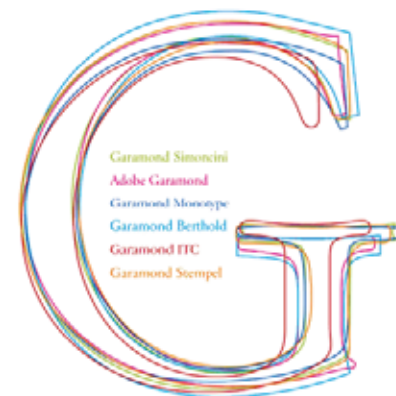
From 1545 onwards he also worked as a publisher. After Garamond's death, Christoph Plantin from Antwerp, the Le Bé type foundry, and the Frankfurt foundry Egenolff-Bermer acquire a large proportion of Garamond's original punches and matrices. The latter were used to print the famous specimen sheet of the Egenolff-Bermer foundry of Frankfurt in 1592, a specimen which associated for the first time the roman of Garamond with the italic of Granjon. The typefaces Garamond produced are considered

typographical landmarks in the history of the serif typeface.

Enter Cardinal Richelieu and Jean Jannon (1580-1658), two supporting players in our drama. Jannon, a French printer working in Sedan and the ruthless Cardinal met when Richelieu attacked the Protestant stronghold in 1640 and seized, among other things, Jannon's types and equipment. These were confiscated to the royal printing works and the Jannon types were used to print the memoirs of the Cardinal before being lost. Jean Jannon ranks among the leaders of French typography of the first half of the 17th century. He trained as a punch-cutter in Paris and worked in the printing office of the Calvinist Academy in Sedan. He began working on his own alphabet in 1615, so that he would not have to order type from others. In 1621 Jannon published a roman type face and italics, derived from the shapes of Garamond's typefaces. They differed in contrast and other features.

Planning for the 1890 centennial of the French Revolution began in the early part of the 1800s. The Jannon types were discovered in 1825 in the national printing works, and ascribed to Garamond in a history of the printing works by Anatole Claudin. The types had come from Richelieu. Claudin listed the types under the name "Caractères de l'Université." The early hot metal foundries—ATF, Linotype, and Monotype—saw these typefaces and created their own versions of Garamond (but really Jannon).

We now meet Beatrice Warde. She became interested in the letterform at



Barnard College and a letter of recommendation by Bruce Rogers got her a job as an assistant in the American Type Founders (ATF) library. Typography became her true vocation. Married to Frederic Warde, designer of Arrighi, the italic for Bruce Rogers' Centaur, both travelled to London in 1925 by invitation of Stanley Morison (who designed Times). Morison published articles on typography in the magazine "The Fleuron" and Beatrice researched the derivation of Garamond, and under the pseudonym of Paul Beaujon to avoid the discrimination against women, revealed the true source of the Caractères de l'Université in 1926.

The foundries that had their pseudo-Garamonds were aghast. They all then developed fonts based on Garamond, but because, their existing fonts were already out there, called the new versions something else. As the phototypesetting companies started up they "borrowed" their versions of Garamond from the hot metal versions, sometimes choosing a Jannon version and sometimes choosing a Garamond version. When PostScript fonts entered the scene in 1985 every company that had typefaces.



The architecture of printing



The rapid growth of RR Donnelley's business required erection of a new building at Plymouth Court and Polk Street, south of the Loop in an area that would soon be called Printing House Row (known today as Printer's Row). The architect of the new plant was Howard Van Doren Shaw, who had attended Yale with T. E. Donnelley.



When the first phase was completed in May 1897, it was immediately touted by the press as the largest and most modern plant in one of the most important printing districts in the country.

Inside were a composing room, electrotype foundry, press rooms with twenty-two cylinder presses, eight high-speed rotary perfecting presses, twenty job presses, one rotary offset press, folding machines, gathering machines, and patent binders, with annual capacity of 2.5 million books and 75 million booklets. A second phase of the building was completed in 1901, nearly



doubling the manufacturing space. Business expanded so quickly that within a decade, the Plymouth Court building was cramped. RR Donnelley executives planned a new plant on Calumet Avenue, between 21st and 22nd Streets. Again, Shaw was asked to design the building, an eight-story Gothic structure with a tower that was completed in several phases over the next seventeen years.



The R.R Donnelley Printing Plant, sometimes known as the Lakeside Press Building or more simply The Calumet Plant and now known as the Lakeside Technology Center, was built between 1912 and 1929 to house the operations of the RR Donnelley printing company. The building supported printing operations for the company and was the Donnelley headquarters until 1991 when they moved the headquarters to 77 West Wacker. In 1993, the plant was closed after the discontinuation by Sears, Roebuck and Co. of its mail-order catalog, which had been the last major account printed there.

The building was designed by Howard Van Doren Shaw to be a fireproof design of poured reinforced concrete columns and an open-shell concrete floor. Although considered to be expensive by the standards of that time, T.E. Donnelley agreed that the support would be needed for the many tons



of paper they used and large presses they operated. Supported by 4,675 steel-reinforced concrete columns, this type of construction not only served the Donnelley well, it also provided the perfect infrastructure for future tenants. To further the building's support structure, reinforcing bars, normally laid perpendicular, were laid at various angles enabling the floors to bear loads of at least 250 pounds per square foot.



Once completed in 1929, the Calumet Plant was the largest building in the United States devoted to printing. It contained over 1.1 million square feet of floor space. The daily capacity of the case bindery was 25,000 books; the mail-order bindery could deliver several hundred thousand catalogues and telephone books.



The building's exterior featured terracotta shields with fanciful designs evoking English heraldry and the marks of history's great printers. Some of them are reproduced here.



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Louis Moyroud, Inventor

The death of hot metal

Louis Moyroud just died. Doesn't ring a bell? He and Rene Higonnet invented photographic typesetting. Oh, phototypesetting does not ring a bell either? From the 1950s to the 1990s, the printing industry set type using photographic techniques, exposing miles of photo-sensitive paper and film. The printing industry moved to CTP in the 1990s and digital printing in the 2000s, but the era of pre-press automation began with Louis and Rene. Rene died in 1983. Louis died on June 30 at the age of 96.

He was a prolific inventor and was inducted into the National Inventors Hall of Fame. He and Higonnet began their experiments in France just after WW II. In 1946 Higonnet came to the US and looked up Vannevar Bush, president of MIT and President Roosevelt's advisor on technology. Bush put Higonnet in contact with Bill Garth, who had a company in Cambridge, MA called Lithomat.



They made paper masters for offset duplicator presses.

After WW II they were assigned a project to reproduce a collection of rules and procedures. The printing was to be by offset lithography and they had to have type set in hot metal, shot in a camera to film, and then plated. Like many engineers, they sought a better way.

They were fortunate that at this time the xenon flash lamp had come into use. It could ignite a burst of light that could be directed through a moving negative master and a lens and then positioned on photographic paper or film as though everything was stationary. Yet, the negative master of the character set was on a rotating glass disk.

Garth formed a foundation to support the development of photographic typesetting. The first machine, Petunia, set the first book photographically "The Wonderful World of Insects" in 1949. It had two fonts and two sizes and could be sold for what a Linotype sold for. But the Graphic Arts Research Foundation (GARF), which had been formed to sponsor the machine's development, was

composed of representatives from large newspapers, typographers, etc. They wanted more. The foundation wanted a bigger machine that could do more—because the Foundation's members were big newspapers, book printers, and typesetting services. After a few more years the Photon Model 200B came out and it started a revolution in printing pre-press. It took almost a decade to provide a machine with sixteen fonts, eight sizes, and more capability. By then, the Photon machine, as it was called, was priced very high and its market limited to larger companies. Later, Compugraphic would introduce the CompuWriter with two fonts and two sizes and see amazing success.

The inventions of Moyroud were so original that almost every competitor paid damages in legal actions during the 1960s. The growth of phototypesetting was such that within 20 years, the hot metal industry began to decline. The last Linotype was built in the U.S. in 1972. Phototypesetting made offset litho viable.

Garth left and started Compugraphic Corp. with Ellis Hansen to produce the small machine he really wanted. Louis went on to develop a line of phototypesetters—the 570s, 713s, Zips, and Pacesetters. He worked from his lab in Florida with Grant Morgan and Higonnet's nephew Trevor. When Photon was absorbed into Dymo in 1971, Louis retired.

He had a wonderful sense of humor and an unassuming demeanor. He had collected most of the early phototypesetters and donated them to the Museum of Printing. His first model is on display. Louis is now gone and revolution he began is now ended. But other revolutions continue.

Phototypesetting was only a flash in the pan. It existed for about 50 years and was itself replaced by laser image-setting and computer-to-plate.



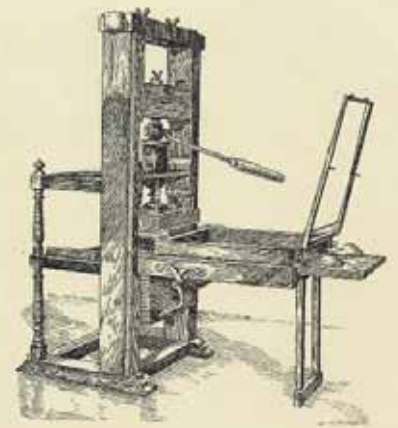
Vannevar Bush with first phototypesetter

The Daye Press

The first printing press in America was brought from England in 1638 by Reverend Jose Glover. He died during the arduous voyage and his assistant Stephen Daye set the press up in Cambridge at Harvard College. In

1639, Daye printed the Freeman's Oath and in 1640 the Bay Psalm Book. Later, the press passed to Samuel Green and his decedents who moved it to New London, Connecticut where it remained until 1773. It then moved to Norwich, Connecticut and then to what is now Hanover,

New Hampshire. It was in Westminster, Vermont in 1781 where it printed "The Vermont Gazette." In 1783, it was moved to Windsor, where it printed "The Vermont Journal." It is now at the Vermont Historical Society Museum



pavillion near the State Capitol in Montpelier, VT.

It is a Common Press that is mostly wood with some metal parts. The Museum of Printing continues to display an exact replica of the Williamsburg, Virginia Common Press which is very similar to the Daye press, courtesy of Gary Gregory.





The Museum of Printing brings together letterpress aficionados, speakers, booksellers, students, teachers, kids, parents, and many others. They come for our annual fair to sell book arts materials; they come to hear Ken Gloss from the Brattle Book Store; they visit as school groups; they volunteer to work on equipment or print special projects; they take our tours; they buy type and letterpress items—they visit for many different reasons but they visit and we are truly appreciative.



The Museum of Printing

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The Friends of The Museum of Printing is a non-profit organization dedicated to preserving the past of printing and all of its related crafts. Established in 1978, the Museum occupies the former Textile Museum building in North Andover, Massachusetts, facing the North Andover Town Common. The Museum's collection is one of the most extensive in the world, from presses of all types and sizes, to typesetting from handset wood and metal, to mechanized character and line casting, to photographic composition. The Museum of Printing is an all-volunteer organization and is supported by membership dues, donations, and the sale of redundant equipment, as well as book arts materials. Your support helps to preserve the rich history of printing for the future. Thank you.

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