NEWS

September 2007
SPECIAL EDITION
TREASURES OF THE MUSEUM

DEAR FRIENDS

This special edition of our newsletter attempts to provide a window into the scope of the Museum's collections. The Museum's artifacts are not a random collection; rather, they are a timeline for printing history. Many of the machines have been specifically targeted for collection. I personally hunted for years for one of ATF's phototypesetters, eventually finding one in Chicopee, Mass.

This timeline is supported by ongoing efforts to be almost the sole repository for manuals, technical data, and manufacturing specifications for machines that are long gone. The Museum welcomes old and new instruction manuals and parts books for bindery, mailing, typesetting, presses, current and ancient. Clean out your desks and files. Don't throw away these books, even if you have long discarded the equipment. Records with serial nos., installation dates, previous owner, etc. are also helpful. This supports scholarly research in this century to understand the last. The machines and papers are also important because they are linked to progress with language. Printing gives life and longevity to language and is the key advancing an often frustrated social agenda.

The ongoing success of the Museum is related to the growth of our membership and its support. Hundreds of students visit the Museum every year as a part of their curriculum. Please visit our website where you can contribute and join us.

One of the events to look forward to this Fall is our Annual Meeting on September 27th which will take place at the Museum. Carl Schlesinger, noted writer and historian, will be our speaker that evening.

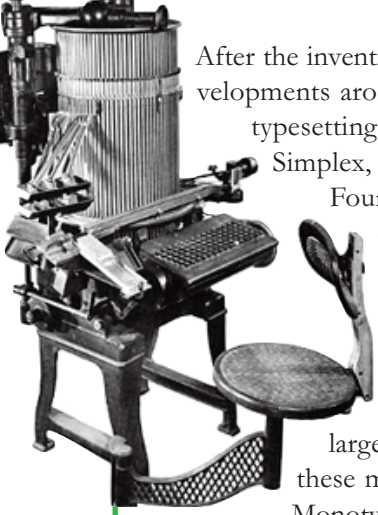
Gardner L. LePoer

When Clephane met Mergenthaler

James Clephane was a famous court reporter. In the 1870s, he was in demand to record trials and reproduce testimony for lawyers and the Court. He used many methods, including lithography. When he acquired one of the first of the Sholes' typewriters from Remington, he had a brainstorm.

Could the ribbon be impregnated with printer's ink and then typed on paper and later transferred to a litho stone? He said "I want to bridge the gap between the typewriter and the printed age." He found a machine shop in Baltimore and met Ottmar Mergenthaler. By 1876 they had a typing machine that printed characters with lithographic ink onto paper strips and the words transferred to a lithographic stone, but it did not work well. In 1878, Clephane proposed a stereotype process to impress characters into papier-maché strips for which Mergenthaler received his first patent.

Clephane backed the inventor's efforts. In 1879, Mergenthaler's first band machine used long, tapered metal bands with raised characters that made impressions of character lines in papier-maché strips. In 1884 he developed the second band machine; this device used bands of indented characters that were positioned in the machine so that actual lines of type could be cast from molten lead. This was Mergenthaler's first primitive Linotype. Clephane formed the National Typographic Company with a capitalization of $1 million and named Mergenthaler manager of its Baltimore factory. Both Band machines were not quite right for the typesetting task, but they led to the Blower Linotype of 1886 and the mechanization of typesetting. The Second Band Machine is at the MOP.



After the invention of the Linotype in 1886, other developments arose. In 1887, Joseph Thorne marketed typesetting machines under the names: Thorne, Simplex, and Unitype. The American Type Founders Company owned Unitype, undoubtedly to support their declining foundry type market from 1894 until its demise around 1906, The Thorne, Simplex, and Unitype were typesetting machines that actually set and distribute foundry type and they achieved a large measure of popularity. Around 1900 these machines competed with Linotype and Monotype with an estimated 2,000 machines in operation in the U.S and Canada.

Operation of the keyboard released individual foundry type contained in vertical channels of the cylindrical magazine. The type was assembled in a galley and justified by hand. Distribution was effected by key-notches cut or cast into the type. Although advertised as a "one-man typesetter," it was more efficiently operated by two operators—one operating the keyboard and the other justifying. Competition from the Linotype and Linotype Junior (created to compete with the Unitype) finally killed the Unitype. The machine is rare today because units taken in trade by competitors were destroyed. Only four machines remain and one of them is at the Museum of Printing.

A rare Washington hand press and a rarer Unitype typesetting machine

Treasures of the Museum of Printing

In 1803, Charles Earl of Stanhope of England was the first to modify hand printing press design, augmenting the power of the screw with a system of levers. An iron frame was required to withstand the improved force. The first American iron hand press was the Columbian of 1813. Its inventor, George Clymer, later moved his press and business to England. In 1819, John Wells of Connecticut replaced the screw and a compound lever/toggle mechanism that delivered the pressure to print up to four newspaper pages with one pull of the handle with less effort. During the mid-1800s, there were dozens of iron press manufacturers in the U.S.

The Washington press differs from the Columbian and Albion in that a very simple toggle joint provides pressure to the platen and on each side of the platen are coil springs which raise it to open position. The Washington hand press was the invention of American Samuel Rust in 1821. It was the last style of hand press made in the U.S

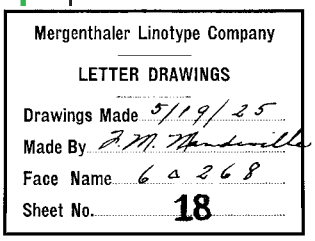
It was also the most popular iron hand press, a position it held from the 1820s until the end of the hand press era. Rust's patent of 1821 (now lost) probably covered the toggle mechanism, an arrangement which provided greater leverage than the simple elbow toggle of the Wells and the Smith presses. Rust's second patent of 1829 covered a new frame. Its hollow columns made the press much lighter and easier to transport, a major factor in its success as America moved west. The earliest Washington presses, which had acorn frames, were manufactured by Rust and his partner Turney. Later, presses with the patent vertical frames were made by Rust alone.

In 1834 Rust's rival, R. Hoe & Company, succeeded by a ruse in getting Rust to sell out to John Colby, a Hoe employee. Colby passed the business and patent rights back to Hoe, which manufactured the press alongside its own Smith press, building the toggles of the latter into the upright frame of the Washington. By 1870, serial number 5,400 was produced. At the expiration of the patents, other American companies began producing their own versions of the Washington—F.Wesel Mfg.Co., Cincinnati Type Foundry, A.B. Taylor Mfg. Co., Franklin Type Foundry, Palmer & Rey type foundry, and the Marder, Luse type foundry.

The MOP press has a nameplate, not on any known Washington press—"RUST'S PATENT Manufactured at 33 ELDRIDGE ST New York."

A 1740 history of printing and the entire Linotype typeface library

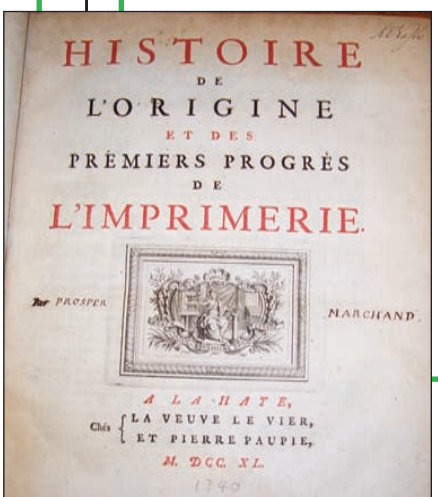
One of the world's most unique graphic arts collections is the Mergenthaler Font Library. About 300,000 drawings arrived in North Andover in one and a half trailer truck loads, 37 skids, 7 feet high. This collection came to the Museum from Heidelberg through the good efforts of The Smithsonian Institution. The collection contains all of the intricate letter drawings made by The Mergenthaler Linotype Company in Brooklyn, NY. These drawings were the starting point for manufacturing Linotype matrices, enabling users to set type on linecasting machines in 800 languages and dialects. There is a sheet for every Linotype letter or symbol in every point size of every font in most of the languages of the world. The letter R in Cloister Bold was modified on 5/19/1925 "as per Mr. Gage." Linotype executive Harry Gage's library is also in the MOP's collection.

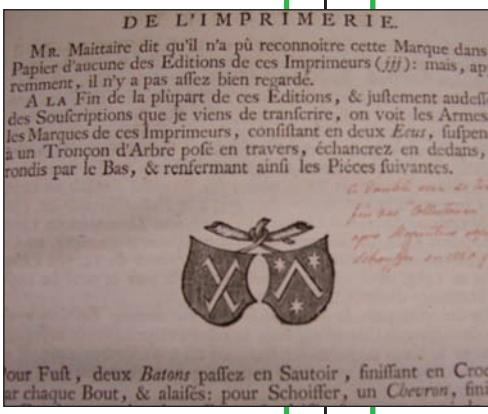


Much smaller than the Mergenthaler Library and yet a very large body of work is the Harris-Intertype phototypesetter font library represent a different typesetting medium. The Intertype Fotosetter was developed during the 1940s by the Intertype Corporation in Brooklyn, NY in response to the steadfast march of printing technology as it changed from letterpress printing to offset lithography. When it became obvious to Intertype that offset lithography would eventually displace most letterpress printing and accordingly displace the necessity to set lead type, the company redesigned its linecaster to output phototypesetting. They did this by mounting film alphabets into traditional linecaster matrices. The machine was 10 years in development, introduced in 1950. The alphabets for this machine were film positive masters, strikingly different from the pencil drawings used for earlier systems. This alphabet collection was given to the Museum by the Rochester Institute of Technology.

The Museum of Printing also owns the remains of the Photon Library. The Cambridge, Mass. company was the first manufacturer of true phototypesetting. These machines used film masters and light, creating typographic images on photosensitive paper. Much of this collection was destroyed, but the Museum has an extensive set of examples. Phototype and offset together were the keys to ending the dominance of relief printing.

The oldest book in the Museum's extensive library is the 1740 *Histoire de l'Origine et des Premiers Progres de l'Imprimerie* by Prosper Marchand, with two parts in one volume. He was a bookseller and editor, to whom the printing world is greatly indebted. He was probably a native of Paris and died in 1765, leaving his library and manuscripts to the University of Leyden. His extensive footnotes supply a mine of information. Plus, our copy has many handwritten notes. On pp. 54-90 of the first part there is a list of 187 incunables (1465-1500) which represent prototypography in the respective places in Europe. The second part of the book contains ten testimonies (by Thrithemius, Chevillier and Mattaire) quoted in full detail. They serve to support Marchand's conviction that Johann Gutenberg was the inventor of printing. The engraved frontispiece by Schley is dated 1739 and represents printing descending from heaven. Female figures hold medaillons of Caxton, Aldus Manutius, Robert Stephens, and Laurent Koster represent respectively the countries of England, Italy, France, and Holland, that are stated to be the four first countries in which the art was practiced. Interspersed throughout the treatises are wood-cut representations of the devices of some of the earliest printers.





At The Fair

Over 500 visitors attended our 4th Printing Arts Fair sponsored by the Letterpress Guild, on Father's Day, Sunday, June 17, 2007, featuring paper artists, printing hardware vendors, and printing demonstrations.

We are indebted to the many volunteers who made the event a success. Doreen Morse took the photos you see, all showing young and old learning about print.

Visitors were able to have type set for personalized stationery on a Linotype (Dick Pattison is at the Linotype above left. He used to run Foley Composition, and was joined by Messers Pytlak and Dufrane who also helped). Each person then carried the type to James Shanley running a Heidelberg Windmill who printed their letterhead. Howard Hansen, MOP president is in the orange apron at left, below. His Kelly B press came from Cape Ann Ticket and Label in Gloucester. One of the most popular exhibitors was Carolyn Muskat (at the bottom of this column) who was printing from stones on a circa 1860 lithographic press. She produced a lithographic print of a *lithographic press*. The print is available from The Muskat Studio in Sommerville, Mass.

The Apollo 11 mission was the first manned mission to land on the Moon. It was the fifth human spaceflight of the Apollo programs, and the third human voyage to the moon. Launched on July 16, 1969, it carried Commander Neil Armstrong, Command Module Pilot Michael Collins, and Lunar Module Pilot Edwin 'Buzz' Aldrin. On July 20, 1969 Armstrong and Aldrin became the first humans to land on the Moon, while Collins orbited above. The metal forms that printed the *New York Times* edition of that day—"MEN WALK ON MOON"— are at the Museum, both the flat and curved castings used by the Times' presses. Hot metal is gone, as are the old NYT presses.

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