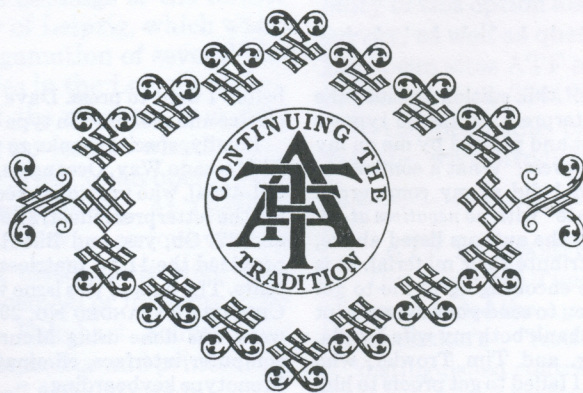


ATF Newsletter

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I am particularly proud of this edition because the bulk of the issue is done letterpress. Of the 43 typeset pages, 39 are Monotype-cast and printed by me on my 10x15 Heidelberg. *Viva letterpress!* What a contrast to the four offset pages, which I did at my commercial shop digitally, "direct to plate" with *no negatives at all!*

I especially wish to thank the authors listed above, who made the effort to contribute their material. It is both very helpful and quite encouraging to me to get such assistance and I urge you to send your manuscript to me for future editions. I thank both my wife Lynda, who provided proofreading, and Tim Trowler, who volunteered to do same, but I failed to get proofs to him

before I went to press. Dave Peat provided the original electro and mortised-in type on page 1.

Finally, special thanks go to Regis Graden at 1285-B El Mercado Way, Oceanside, Calif. 92057 [phone (818) 361-4004], who provided excellent photopolymer plates for the letterpress illustrations on pages 12, 26, 27, 36, and 37. Oh, yes, and Bill Reiss of Quaker City Type provided the 11 pt. matrices used for the table of contents. The bulk of this issue was set in 8, 9, and 10 point CENTURY EXPANDED NO. 20, and a lion's share of this work was done using Monroe Postman's Mac-Mono computer interface, eliminating the need for separate Monotype keyboarding.

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to the mailing list by sending \$20.00 U. S. to the editor. Cost per issue is stated at \$5.00 for U. S. and Canada, \$10.00 elsewhere. A recap of your "account" should be found somewhere within this issue's envelope. This edition was completed in December, 2003.



ATF Newsletter

Number 28

AMERICAN TYPECASTING FELLOWSHIP

December, 2003

Leipzig Conference Set for September, 2004

Our American Typecasting Fellowship will gather in Leipzig, Germany, for its biennial Conference Sept. 7-9, 2004. Eckehart Schumacher-Gebler is serving as host, with the meeting being staged at his Workshop of the Museum of the Printing Arts, housed in a building which was once home of the book printing firm Offizin Haag-Drugulin (with its origin going back to 1829). It is located in the Leipzig suburb of Plagwitz.

As the name indicates, it is both a *workshop* and a *museum*; many operational machines will be available for technical sessions and during the Conference.

A sampling of the typecasting equipment: 12 operational Linotype machines from the first (1901) to the last (1970) built by the German Linotype company in Berlin; a complete Monotype department including comp casters and a Supercaster, plus a tremendous inventory of English Monotype mats; a functional Typograph (this machine, after being "sold out" to Linotype in the U. S., continued to be made in Germany until the 1960s), an Intertype, three Russian Linotypes, and miscellaneous other linecasters. The facility houses numerous operational foundry casters including most of the holdings of the former Typoart typefoundry of Leipzig, which was a Communist-era amalgamation of several historic German foundries in the Leipzig region.

This description of the museum is grossly inadequate and does no justice whatever to the press and bindery areas, or an operational colotype printing department. At German unification in 1990, there were serious worries that historic printing institutions might not be saved, but sold piecemeal or for scrap. The buyer, in 1992, was Eckehart Schumacher Gebler, a "master compositor and printer and a real hunter-gatherer" from Munich.

In conjunction with the Conference, technical sessions on Linotype, Monotype, Supercaster, and perhaps other machines may be held either prior to or immediately following the Conference itself, depending on demand.



A survey will be sent to all on the mailing list of ATF early next year seeking their plans for attending the Conference.

At this time, hotel arrangements are incomplete. Eckehart suggests that because of better airport connections, we might gather in Berlin and travel by chartered bus to Leipzig; plausibility of this option also will be covered by the survey, as well as questions about what other European sites ATF associates might wish to include in their 2004 European holiday.

In the meantime, please visit the museum's website: www.druckkunst-museum.de/

ATF TO RECEIVE APHA AWARD

Our American Typecasting Fellowship has been awarded the American Printing History Association's "institutional laureate" for "distinguished contribution to the study, recording, preservation or dissemination of printing history." It will be presented Jan. 24, 2004, at APHA's annual meeting in New York City. *Ye ed* has been asked to be present to receive the award and give brief remarks.

Mats Discovered for Early Private Design

BY RICK VONHOLDT

The legacy of Ralph Fletcher Seymour is familiar to typophiles and bibliophiles in the Chicago area, and perhaps those who have studied the Arts & Crafts influence on American bookmaking. He was a major figure on the Chicago book arts scene in the early decades of the twentieth century, but he never achieved much national influence. He was a letterer, illustrator and book designer by occupation and he operated his own private press, The Alderbrink Press. He was a disciple of William Morris and much of his early Alderbrink Press creations were imitative of Morris' Kelmscott Press style.

Seymour had Robert Wiebking of Chicago cut mats for three fonts he had designed for "the exclusive use of his Alderbrink Press." The fonts are 10, 12 and 16 point in size. Seymour credits his friend Frederic Goudy with helping him with the design. These matrices were cut around 1902, shortly before Wiebking cut the matrices in 1903 for Goudy's VILLAGE typeface. Seymour referred to his types by their point size. The general opinion has been that he employed three sizes of the same design. This is not true.

Seymour's 10 and 12 point fonts are of the same design, but the 16 point is much more refined and careful examination will reveal distinct differences in many characters. The three fonts are compatible and work very well together, but in reality they comprise two different designs, which Seymour created for his private use.

One of the reasons the two design feature has escaped general detection is that Seymour never assigned a name (or names) to the typefaces(s). Seymour apparently quit using these faces as the Arts & Crafts style in printing fell out of vogue. Their use cannot be found in any Alderbrink Press books produced in the 1920s or thereafter. This may help explain why over time this unnamed type silently drifted into relative obscurity. They do not appear in any of the general reference works I have which show or list typefaces created for that handful of late 19th and early 20th century private presses which developed their own proprietary fonts.

ABCDEFGHIJKLMN
OPQRSTUVWXYZ&.,-:;?-
abcdefghijklmnopqrstu
vwxyz 1234567890

The 16 point SEYMOUR design.

ABCDEFGHIJKLMN
OPQRSTUVWXYZ...-~* 1234567890
abcdefghijklmnopqrstu
vwxyz

The ALDERBRINK design in 12 point.

It would seem that the 10 and 12 point fonts were designed and cut first, and that the "improved" design of the 16 point font followed, perhaps with some of the design changes having been suggested by Goudy. This is speculation on my part. They actually first appeared in the reverse order, but it is hard to imagine regressing to the design of the smaller type if the 16-point font was indeed the first to be designed and cut. The 16-point font first appeared in 1902 in a book about William Morris' lecture "The Art of the People." The 10 point font made its first appearance in 1906 in Blake's "Songs of Innocence" and the 12 point font debuted in 1907 in Shelley's "Seven Poems."

"In a review in *The Nation*, Oct. 26, 1911, of the book *The Frankfort Book Fair* which Seymour produced for the Caxton Club, this is said of the type: "The type, which was designed by Mr. Seymour, and is a bold roman on a 16-point body, produces a page of good color, holding its own, even when notes in smaller type of the same cut confine it at bottom and side." A closer examination by the reviewer would have shown that the "smaller type" was also Seymour's, but it was not of the same cut.

In a letter to the Publications Committee of the Caxton Club dated Jan. 6, 1911, Seymour reports his progress on his work on *The Frankfort Book Fair* and states he only has "enough of the 16 point type to set but 45 pages at once." He tells them "the reason we

could not continue to set type and so have all the book ready at once, is that the book is set in an unusually large face of type (16 point) and 500 pounds does not set nearly as many as it would in a smaller size." This would indicate he had approximately 500 pounds of his 16 point font to work with.

The Foolproof Press is in possession of the only surviving remnants of Seymour's three original fonts of type. They are fairly well worn. I obtained them from the late Cliff Helbert, retired former Dean of the Journalism Department at Marquette University. He had also operated his own private press and studio, The Abcadium, in Milwaukee up until his death.

Cliff had told me he also had the original matrices for these fonts at home, but he died before I ever received them. Over a year after his death his widow came across them where in her words "they had been sitting on a shelf for 17 years." The original mats for all three fonts are laid in a single drawer, felt lined, custom-made oak box. Also in the drawer of matrices was a torn piece of scrap paper on which had been typewritten the words "from the estate of Ralph Fletcher Seymour." This box and all the original matrices now reside at the Foolproof Press.

It is probably high time that these fonts be given a proper name. In deference to the designer and his press, I have decided to designate the 10 and 12 point fonts as ALDERBRINK and the 16-point font will be named SEYMOUR. A revival casting of the SEYMOUR font will be done to create a proprietary font for the use of The Foolproof Press. There are no plans at the moment for a revival casting of the ALDERBRINK fonts, but I am open to sharing a revival casting of those fonts if enough interest can be generated to warrant organizing such a casting.

The unearthing and resurrection of this "lost" private press type is a tremendous thrill and will undoubtedly be the highlight of my ongoing adventure in collecting and preserving type for my own use which is now in its 26th year.

The 16-point SEYMOUR font is akin to Morris's Golden type and some of the obvious significant differences between it and the smaller ALDERBRINK fonts are:

K has a different tail and the R appears condensed in the ALDERBRINK fonts. S is more normally proportioned in SEYMOUR and appears too condensed in ALDERBRINK. Y is normally proportioned in SEYMOUR but is oddly drawn in ALDERBRINK. N in SEYMOUR has a unique serif on top. M which is normally proportioned in SEYMOUR but appears too wide in ALDERBRINK. Q in SEYMOUR has a unique tail; e in SEYMOUR has a slanted crossbar. In SEYMOUR, r has an exaggerated foot serif, A, E, G, P, T, X, a, f, g, and k, are noticeably different. SEYMOUR has a uniquely designed ampersand. SEYMOUR's punctuation has a more Venetian flavor, taking on a diamond shape. SEYMOUR's ascenders and descenders are better proportioned than the squat ones in ALDERBRINK.

~~~~~

*"There are no plans at the moment for a revival casting, but I am open to sharing . . . if enough interest can be generated"*

~~~~~

Of special note is a unique little "blip" on the bottom line of the B and D in both faces. There also was a unique flower ornament cut for the 12 point font of ALDERBRINK.

The "Arts & Crafts" period was born and thrived for about a 20-year span roughly between 1890 and 1910. It was born as a reaction against the awful state that printing and typography had sunk to in the late 19th century. It represented a return to the beauty and strength of early printing. The most frequently used model for types created for this movement were the types of Nicholas Jenson, and Seymour's 16 point font falls into this category.

A new appreciation of the Arts & Crafts movement blossomed in the late 20th century and is now flourishing. A strong interest has developed in the furniture, pottery, textiles, architecture, etc. of the movement. Perhaps a renewed interest in the printing style can also be cultivated. It is indeed a beautiful thing.

11 Kustermann Casters Found in Storage

BY SKY SHIPLEY

The liquidation auction of American Type Founders in 1993 will forever stand as a day of infamy in the history of typecasting. And while ATF had a preeminent stature in the industry, there is, at this moment, another opportunity out there to preserve the assets of a major type foundry.

In September, 2003, I went to Chicago to pick up a Monotype Material Maker and some type metal. On a whim, I invited myself to visit to Typefounders of Chicago, *aka* Castcraft, ostensibly to sniff around for any Thompson spare parts. What I found was quite remarkable indeed.

Castcraft once was a significant foundry located on South Kostner Avenue. Several decades ago it moved to a large old yellow brick building in Skokie, where it has lingered as the typecasting business has dwindled to nothing. It is owned by the Kreiter brothers, two very congenial gentlemen well past retirement age. I was given a warm and friendly welcome as I introduced myself as a typecaster from downstate and explained I was interested in surplus casters and spare parts. Yes, they said, they had a whole lot of machinery, and would love to unload it and vacate this building. (Be still, my heart!)

I was escorted through a dim, cavernous empty first floor to a metal staircase which we climbed to the second floor. There, dust-covered and illuminated only by light from some grimy windows along one wall, was the whole foundry. Eleven casters stood in a row, ready to work again with the flip of a switch.

[For a photo and review of these Kustermann machines, see ATF NEWSLETTER 27, p. 18.]

Messrs. Kreiter explained that these were Kustermann casters. (I'd heard of them but never seen one.) They were German-made and the approximate equivalent of a Thompson. They use their own style of foundry matrix, a piece of half-inch square brass stock about two inches long. I was told at length of the superiority of these machines; the Kreiters asserted they were to casters what Heidelberg is to presses. A huge library of mats was stored nearby. The room also held some pa-

per cutters, stripecasters and other machinery, as well as a substantial accumulation of tools, parts, molds, cabinets, and heavy boxes.

One item of particular interest was a Rouse benchtop rig for finishing rule, consisting of a long iron bed in which the rule was clamped, and a heavy hand-held cutter something like a cross between an iron and a plane.

We spent about an hour poking through the foundry and then returned to the office to visit and talk. In due time the conversation came around to prices. It was immediately clear to me that I was not dealing with a "scrap" free-for-all here. Regardless of whatever case one might care to make about the fair market value of such machinery, the Kreiter brothers ascribe, shall I say, *substantial worth* to what they own. That is certainly their privilege. But many are the stories of hoarded machines that made a one-way trip to the dump after the owner's demise.

As I left, I mentally concluded "interesting adventure; end of story." Then after a few days of reflection I began to play "What If."

What if someone—me, for example—were to buy one or more of these Kustermanns? Naw, I don't need one. At least no more than I need any of the other machines I have!

Well, I'd kind-a be stuck for matrices. It would make sense to get the entire stock of mats. But if I got the mats, that would render all other casters useless. (I do, however, understand the machines had the potential of working with other styles of mats.)

So a better idea would be to get all the casters and all the mats as a package deal.

After four decades of owning heavy machines, I have refined my personal acquisition policy to just two rules. They are: (1) Never get anything because *it* needs *me*, but only because *I* need *it*; and (2) Pay no attention to Rule No. 1 if it gets in the way.

So there we are. One should buy all the casters and all the mats. But all that equipment needs to be owned by more than just one person.

Now for my proposal. Several of us would pool resources and buy this foundry intact.

Please turn to page 17

Monotype University Has Largest-Ever Class of Grads

It takes a decidedly inquisitive mind to be a typefounder these days. Aided by five informed yet still inquisitive instructors, seven new inquisitive minds became “Masters of Typefounding” as Monotype University 5 became history Aug. 17, 2003.

There was a younger “hint” to this year’s session, with students ranging in age from 23 to 48. But a throbbing question boiled forth: “How did you develop an interest in typefounding?” Not too surprisingly, nearly all students first became acquainted with “type” via personal computers. But their inquisitive minds pondered “where did these types come from?” and “what’s behind all this?” Those questions led them toward discovering the ancient and honorable craft of typefounding.

Though each had differing backgrounds, they all seemed to gain an excitement and pleasurable feeling when they first started handling “things” and learned to construct graphic elements using the tools of letterpress. One called it “tactile gratification.”

The diminishing availability of fresh new type and broadening scopes of their letterpress endeavors led them to want to make their own type!

The 2003 session set several records: the most students, the most faculty members, the most type produced, and the most machines actually utilized during the week.

At the Hill & Dale Typefoundry, there are six operational casters: a 15x17 Composition Caster, a 15x15 Composition Caster equipped with a Macintosh computer interface, a Sorts Caster, an American Thompson caster, an English Supercaster, and a Material Maker. During the week, all six were put to use.

Faculty this year, in addition to the Hill & Dale proprietor, included Paul Duensing of Watkinsville, Ga., who has been “with the program” from its inception in 1995; Dan Jones of Newmarket, Ontario, Canada, who is a graduate of MU and is now involved in his own casting efforts with a Supercaster and an English Comp caster; “Pat” Taylor of Lake Wylie, S. C., a long-established private typefounder who made an extremely important contribution with regard to the composition machine and the keyboard; Mike Anderson of

New Republic, Md., also a graduate of the program and one who now is extremely involved in matrix depositing, engraving, and casting via his Thompson and two composition machines; and Jim Walczak of Oxon Hill, Md., who has a reputation for being the most methodical and studied amongst our lot, with wide-ranging abilities with both the Sorts Caster and the Composition Caster.

Students (now graduates) included Bryce Knudson of Provo, Utah; Craig Malmrose of Ayden, S. C.; Ian Schaefer of Lititz, Pa.; Scott King of Northfield, Minn.; Rebecca Gilbert and Brian Bragonge of Portland, Ore.; and “Sky” Shipley of Kampsville, Ill.

In addition to hands-on instruction on the various machines, Paul Duensing conducted an ongoing seminar on matrix engraving and had with him his pantograph and other necessary tools. Mike Anderson brought simple implements and presented a session on matrix growing via the electrodepositing process.

Roy Rice of Atlanta, Ga., also was to have been an instructor, but hospitalization of his wife Hazle prevented his attendance. [I am sad to report Hazle’s death, Oct. 11, 2003.] Both Roy and Paul Duensing had said they would “retire” after this year’s session, so a formal salute and goodbye to them was scheduled midway through the session. Several Monotype University alumni were present for this occasion on Aug. 13; others saluted the two *in absentia*, sending letterpress-printed keepsakes. Randolph Bertin sent his message via a Monotype ribbon, to have been cast by students to reveal a message. Unfortunately, time and equipment constraints prevented that casting. Visitors included Greg Walters of Piqua, Ohio; Paul Brown of Bloomington, Ind.; Dave Peat of Indianapolis, Ind.; Stan Nelson of Ellicott City, Md.; Lisa Beth Robinson of Minneapolis; and Howard Bratter of Brooklyn, N. Y. Only Dave and Stan are not Mono U graduates.

Of those listed as students, Craig, Scott, Sky and Bryce now have equipment; Ian is close to acquiring his own, and all others have expressed a solid desire to have machines up and running in the near future. In eight years, 26 have completed the program.

A Student's View of Monotype U 5

BY SCHUYLER (SKY) SHIPLEY

It was a great privilege to be selected as a student at Monotype University 5, held in August, 2003. Although I've been affiliated with American Typecasting Fellowship since 1990, my actual experience with casting has been limited to Linotype. That is, until this year—I have recently acquired the assets of Perfection Type, Inc., a St. Paul, Minn., type-foundry which closed about 25 years ago. As I was just completing a new building to house the four Thompson casters and Material Maker, the timing was perfect for me to get some training and experience in their operation at Monotype University 5.

My wife Johanna and I made the road trip to Terra Alta in our RV, an 18-foot trailer pulled by my pickup. From our farm on the west coast of Illinois this was a leisurely two-and-a-half day drive. We arrived early Sunday afternoon and were given a warm welcome by Rich and Lynda, as well as a few of the instructors and other students who had arrived. The Hopkins family was so kind as to allow us to set up our RV right in their back yard, behind a treeline and overlooking a spectacular meadow where the deer came out to graze in the evening. We even had electrical power from a line to Rich's shed—which, little did I suspect, was actually a treasure cave where he stored all his duplicate matrices! (*Not mattresses.*) In the course of the week, he flung open the doors to this vault and allowed us to plunder it at bargain prices. I drug home some 25 fonts.

We began the week with a meeting in the living room, where we all got acquainted and discussed our typecasting goals and aspirations for MU and beyond. I elected to major in Thompson studies, naturally, since that is the machine I have. Those keyboards and comp casters are too intimidating for me anyway, with all their mystical functions!

Bryce was my student partner and our assigned instructors were Mike Anderson and Jim Walczak. Though Mike has only been casting four years, he was very knowledgeable and an excellent teacher. Jim has great breadth of experience and I learned a lot by watching and listening intently to him. By

Monday afternoon, I shifted from watching to operating the machine. It seemed to come pretty easily. Compared to a Linotype, the Thompson is so small and simple—like a little mechanical paperweight!

We undertook to cast 24 point PLYMOUTH and produced enough to make up a font for everybody. A fair amount of time was spent tinkering with the machine, doing repairs, adjustments and cleaning the pot and piston (*the real reason Rich hosts MU*). By the time we finished the casting on Thursday, the Thompson was steadily spitting out excellent, solid type.

I then rotated over to the Sorts Caster and observed Bryan and Rebecca working on a font of BULMER ITALIC, and was able to get a little hands-on time at that machine. This one, I thought, would be the logical complement to the machines I already have, and someday I may get one.

Rich also has a Material Maker but has not operated it for several years. On Saturday he finally caved in to my importunity and fired it up. I spent the morning doing some needed disassembly, cleaning and reassembly but we didn't have time to really produce anything with it before we knocked off for the group photo and commencement ceremony. Rich did comment that this is the first MU session in which every machine in the shop was operated.

For me it was a very profitable and memorable week. As I told Rich when we left on Sunday morning, I'm now dangerously overconfident as a neophyte typecaster!

The story wouldn't be complete without relating one funny incident. Craig was busily casting a font on the Sorts Caster and he fumbled a mat. It went *right down the drain funnel* in the cooling water drain pipe system that runs the perimeter of Rich's shop! No reach or tool would retrieve it. Grumbling and rolling his eyes, Rich had to cut a hole in his carefully-built system to reach the errant bit of brass!

18 pt. Bulmer Italic Student Cast
24 pt. Plymouth

“I knew next to nothing about the mechanics and logic that stood in each piece of well-cast type”

BY SCOTT KING

Those who have held a piece of printing type have some sense that there is magic cast into it. Some, like myself, fall completely under that spell, and are led to such extremes as attending a class on the manufacture and sorcery of metal type.

I arrived in Terra Alta, W. Va., at the home of Rich Hopkins, with over 100 pounds of metal, what I considered a sound knowledge of type, and the dreamiest abstract expectations and notions of how exactly these machines operated. And since we dove right in, I'll dive right in.

The week began, for myself and two other students, on the Composition Caster. This machine, along with its companion keyboard, seemed to have as many moving parts as all the other casters combined. Running, it looked like a car engine turned inside out. In reality, more complicated, more intricate, and more intimidating than I imagined—no doubt a symptom of knowledge gained solely through still photographs and texts.

Surprisingly, however, this blur of complexity reduced to something resembling comprehension. There was the keyboard, but under it was the keybar translating through stopbars punching holes into a ribbon of paper later transferred and fed to the caster directing the placement of the matrix over the mold and directing the position of the wedges that set the body size to the letter being cast. Even the matrix grid's relation to set-width soon made perfect and admirable sense.

“Whoever engineered this machine . . .” was uttered many times during the week and this utterance took a near religious tone, somewhat on the order of “Whoever created this Universe.”

With an equal enjoyment, my remaining days were spent working with the charming and good-natured Sorts Caster. We methodically cranked out some larger sized fonts, enjoying the manual adjustment of wedges, the

handling of hot pieces of type marching out of the machine, and the simplicity of working letter by letter, mat by mat, growing familiar with its work-horse hoof-beat sounds.

Off and on throughout the week I would pause to look over the shoulder of the students and faculty running the somewhat noble and somewhat fiery Thompson Caster, or take time to listen and watch Paul Duensing at the workbench engraving new matrices.

A big surprise for me was how my understanding of type underwent “re-visioning” as a result of making type. My knowledge had been restricted to a printer's knowledge of type. I had simply and naively admired the geometric and precise body, a uniformity not unlike the mass-produced nails and bolts that fill the bins of hardware stores. And I marveled at the tiny, three-dimensional sculpture of a letter in reverse fixed to the top of the body's pedestal.

But I knew next to nothing about the mechanics and logic that stood in each piece of well-cast type. Characteristics once thought to be fixed (or simply taken for granted) were now *adjustable*: position of the type on the body, the alignment of the groove when the type is cast, the set-width of each letter. I'll never look at type in the same way again.

I need to give special thanks to the faculty of Monotype University: Mike Anderson, Dan Jones, Pat Taylor, Jim Walzak, Paul Duensing, and Rich Hopkins. We, the students, could not have been more fortunate than to have their guidance. Rich in particular deserves much gratitude for opening his house and foundry to complete strangers (the majority of whom had never used or perhaps even seen a caster), for his hope and effort to preserve the hot-metal tradition.

And finally, beyond the demands and focus of our intense efforts to learn to operate the type casters, there were a great many other pleasures. It will be hard to forget the rain coming down in great spiritual abundance as in the films of Tarkovsky, and the refreshing solitary swims in Alpine Lake; the late-into-the-night conversations between students; Paul Duensing's retirement dinner; and the moon which seemed to drown almost in the watery night skies.

“Everything that inspired me to study . . . graphic design . . . came flooding back . . . the first day.”

BY REBECCA GILBERT

It didn't seem real until we actually pulled into the driveway, and then some mix of excitement and fear propelled me out of the car. Here we were, at Monotype U, two years after Brian and I started talking about the idea. My feet were planted in front of Lynda and Rich's house, and a week of dedicated study was about to begin. I was suddenly shy, and apprehensive about the printing samples we had brought, and afraid I had not studied enough, and worried I would forget everyone's name, and conscious of being female—the things which don't really matter, but always have to flood to the front of my brain before I get down to the real work.

Though I had been pouring over books and went to visit Stern & Faye (Chris Stern of Sedro Woolley, Wash., is a Mono U 1 graduate) in preparation, I had little more than a vague concept of moving parts and Monotype terminology. I was there to continue my education, and to take an active part in perpetuating the legacy of letterpress printing.

Rich put us straight to work, assembling binder packets for the week, and as people trickled in, we were sidetracked by the “Mac Mono” set up. Rich had recently cast a page for the *ATF Newsletter*, and began to talk about his process right away.

Everything which initially inspired me to study the field of graphic design, type, and eventually printing, came flooding back as we looked over the Monotype machines the first day. Surroundings reawakened my creative thoughts, so tampered down by the day-to-day tasks of running a business. Stopbars, mats, wedges, set widths, spec books, justifying spaces, pump handles, keyboard tape, the clicking of the machines, entirely filled my waking and sleeping moments that week.

As we worked I tried to tune my ear to match Pat's, adjust my sense of accuracy to that of Dan's, see the whole of the machine like Jim, drink stronger coffee than Mike, and

live in the magic combination of both past and present with Rich and Paul.

It was a lesson in group dynamics—13 of us in one basement (seven students and six instructors). Monotype University offered a rare opportunity to work amongst peers, learning something so totally outdated and also so completely vital; to learn from typecasters who teach as much about the craft as they do about their love for the craft.

Our lessons on the machines were invaluable, supplemented by our morning planning sessions, quick workshops on mat engraving and electroplating, and late-night wind-down sessions back at the “student house.”

While I am entranced by the intricacies of the keyboard, and the beauty of the system that translates holes punched in a roll of paper into symbols of our language, I found myself most at ease in front of the Orphan Annie. Its simplicity appealed to me after staring at the Comp Caster for two days, trying to relate my reading to the reality of the machine.

I could actually imagine myself at home in our shop running an OA, tearing it apart only to put it back together, casting more type. I could see putting in the hours to cast a typeface once, and then going back to do it again, changing the kerning or set widths. I loved the heat and the solidity of each new piece of type as I quickly handled it.

Standing in front of that Sorts Caster made me feel like I could change the world—until I started it without the mat holder in. I guess everyone has to do that at least once. And though embarrassing, it provided me with my first opportunity to take the bridge off, clean all affected areas of lead splashes and reattach the bridge (under the guidance of Mike Anderson). It was a procedure I'd observed four or five times but never undertook myself. The feeling of accomplishment was like changing the oil and filter on your car the first time, or replacing the radiator.

I joined Jim in the garage for a few hours in the last days, where he was taking apart an old OA, trying to determine which parts were present or missing, cleaning it up and reassembling it. Jim had my hands full shortly, helping adjust gear shafts and find a multitude of screws for each application. He reaffirmed what we students had been discovering all

week—you *can* take it apart, and you *can* put it back together, and you *must do this* if you are going to run these machines. Just get your wrench and screwdrivers out. A pair of gloves is helpful, too.

We hope that with time we'll have our own little typesetting set-up here in Portland. I'm looking forward to getting in front of a caster again and feeling each letter as it emerges from the machine—a fresh piece of metal, ready to be inked and imprint its own complex cultural history.

*“Now is the time to feel,
smell, see and hear it.”*

BY IAN SCHAEFER

We are making type. *Metal printing type!* Guiding the operation of a system of machinery so powerful, complex, versatile and precise as the one and only “Monotype.” This is incredible. It might be a dream except that I have never been this sweaty, tired or dirty in any dream.

LESSON NUMBER 1: Making good type is hard work. I arrived at Monotype University with fairly solid book knowledge of the mechanism of the casting machine, but had never seen a machine in operation. Instead, I spent many hours trying to visualize the action of the jaw tongs, or trying to grasp how the machine renders its raw power into micrometric precision. Too much time *thinking* about it. Now I can feel, smell, see and hear it.

So here's the first heady evening in Rich's shop. The pot's hot, and the air thick with flux and oil smoke. A ladleful of dross passes under our noses; arcane fiddling gestures are made around the composition machine, then:

Sheruk-ta-tat-pah.
Sheruk-ta-tat-pah.
Sheruk-ta-tat-pah.

The machine is turned over for the first time. [I would love to hear others' onomatopoeic interpretations of this machine.]

Amidst the clatter I wonder what my neighbors will do if I install such a machine in my garage. It is not long before our attention turns to the galley, which now has received half a line of the youngest, most pristine low quads any of us have ever seen. I think I could

have been satisfied with this simple accomplishment for the day, but then Rich turned on the tape. There! How swift and beautiful.

LESSON NUMBER 2: The Monotype System *works* today, just as well as it ever did.

By the end of the next day, two of my new colleagues, Rebecca and Scott, and I will have changed the bridge, the mold, the wedges and made many other adjustments to this caster. Ouch! Those screws get hot. With the guidance of Monotype veterans Pat Taylor and Paul Duensing, we cast strangely shaped quads, type with the face kerning almost entirely off the body, completely unexpected pi characters, and lines so long they stop the machine—again. How else do you expect to learn this complex system? LESSON No. 3: Monotype U is about *hands-on experience*. By the end of the day we have cast a good galley of near-perfect type.

Before Monotype U, I had sweeping illusions of making type—cutting mats, fitting, casting, dressing, composing, printing . . . with my own hands. Afterwards, I have just enough of a taste of it all, I now believe I can do it. But not without great effort, and certainly not alone. Our pursuit of typesetting is difficult and peculiar. It requires a supportive community of great and varied talent. Monotype University brings together these diverse people—alike in their courage, patience, inspiration and enthusiasm for type—people who believe in its power and beauty both on the page and in the hand.

Dear Rich:

I want to thank you for Monotype University. I realize there is just no way I could get the same kind of experience and knowledge by reading the book. Sure, a book can provide raw knowledge and facts, but what Mono U really gave me was confidence in running the spit and fire machine.

There's no way book learning can give that kind of experience. For that I am really indebted to you and the other instructors and I thank you all. (Also, eats at the Corinth Service Center weren't bad at all! I think I ate there at least three or four times.)

BRYCE KNUDSON
Provo, Utah

Much Enthusiasm Generated by the Provo Conference

If enthusiasm and “headcount” at the 13th biennial conference of the American Typecasting Fellowship were good measures, then the organization definitely is “alive and well” 26 years after its founding. The 54 persons attending the Provo, Utah, meeting June 18-21, 2002, enjoyed a varied schedule of lectures and demonstrations, plus interesting hands-on technical sessions before the Conference.

Thom Hinckley, coordinator of the event, arranged an excellent program to include many aspects of the book arts, of type design and typecasting with the hand mold, and aspects of historic relevance, especially in light of recent assertions regarding precisely what Johann Gutenberg invented.

Provo, beautifully framed by mountains towering 11 to 15,000 feet above both sides of the Utah Valley, was an excellent base of operations, with events staged both at the Courtyard Marriott Motel, and the Crandall Museum of Printing History. Some technical sessions were held several miles away at Cove Fort, where Steve Pratt pursues wide-ranging projects with both presses and typefounding.

The passage of time makes a blow-by-blow report on the conference rather irrelevant and thus, only a mild afterglow impression will be reported. *Enthusiasm is that afterglow.* From Louis Crandall and his Crandall Printing History Museum to Thom Hinckley, our host, to Steve Pratt and his interests in typefounding and press restoration and replication—there was a very contagious enthusiasm for all aspects of printing history which infested the entire conference.

But there was a *practical* aspect to this enthusiasm which was gratifying to those of us who pursue typefounding with a decided hands-on basis. An example was Steve Pratt’s “back to reality” rebuff of recent academic hocus-pocus regarding Gutenberg’s theoretical invention of typefounding. Steve has methodically tested the practicality of concepts offered as “alternatives” to previously accepted opinion that Gutenberg most likely invented something similar to the hand mold for casting individual types. Sand molds have been suggested, so Steve replicated the process to prove its impracticality.

Rather than start with a solid knowledge of letterpress printing, modern researchers have taken ultra-sophisticated scientific instruments and tried to apply them to the all-too-inconsistent aspects of early printing and the results of this research are—to put it mildly—*absurd*. Steve Pratt has taken each of the new conjectures and put them to practical tests. His research decisively discredits the assertions, as was very convincingly put forth in the ATF Conference.

Thom Hinckley approached other aspects of the issue with regard to Gutenberg’s types and the so-called “many variants,” which, in truth, often were no more than anomalies of presswork, typesetting, and, perhaps, type wear. Again, Thom approached the subject scientifically, but his approach was underlaid with solid practical considerations.

Issues of light/heavy inking, light/heavy impression, type wear, and imperfect casting must be weighed, he said, before jumping to conclusions that there were massive numbers of variants for all letters of the alphabet.

Our group’s visit to the Crandall Museum once again opened the doors to discovery: discovery both of what Lou and his staff have assembled, and discovery of the extensive and varied knowledge of ATF members present at the museum. It is one thing for me to suggest added nuances to an historic fact. It’s altogether something else for me to be able to say so-and-so has studied the issue thoroughly and he’s the best resource on the subject—and then go across the room and pull him into the conversation!

These nuances of discovery came with presses, with Linotypes, Monotypes, with bookbinding, and even with historic reference material. Outstanding experts on all these varied fields were present and more than willing to give practical demonstrations of their acquired knowledge.

As previously stated, there was great enthusiasm at the conference. There were many new and welcomed “new and younger faces” at the meeting. And by all measures, the Conference was both memorable and successful.

Long live ATF!

100-Year-Old Century Design Still Thrives

The typographic “dress” of this edition of the *ATF Newsletter* is a familiar hot metal design, CENTURY EXPANDED, introduced 103 years ago by American Type Founders. Though now over 100 years old, the face still experiences good use and still fulfills its original design goals of being a “legible face” when printed on smooth-finished papers.

In the halcyon days of letterpress, scarcely any shop existed without a run of CENTURY EXPANDED or its younger cousin, CENTURY SCHOOLBOOK. Indeed, these faces experienced the near-universal appeal that today is reserved for TIMES NEW ROMAN, a face which now is the “default” for most computer and Internet activity. This is a shame, for I find the Century design even better fitted for most material because of its easy legibility.

Indeed CENTURY EXPANDED had nearly the universal availability of today’s TIMES NEW ROMAN, for it was offered virtually unaltered by ATF, by Linotype, Intertype, Monotype, and Ludlow, a universal acceptance which rarely was seen in hot metal.

First we must trace the name, for its origin has faded in history. The name has nothing to do with the fact that it was introduced at the turn of the (last) century—1900. Nor does it have anything to do with the idea of “100.” Instead, it relates directly to what then was a very popular magazine; the typeface is a direct derivation of one designed for the *Century Magazine*. Virtually every type design carrying the name Century evolved from the original face, which was called CENTURY ROMAN.

The *Century Magazine* was very popular and quite a “leader” in style and quality printing in those days, being printed by The DeVinne Press in New York. The magazine, which lasted from 1870 to 1930, was affected by changes in printing technology. Theodore L. DeVinne, a well-known printing practitioner and printing scholar, pioneered printing the magazine at his firm on smooth-surfaced paper with a hard-packed tympan.

Moving the publication to this “dry” printing on very smooth calendared paper, was an effort to improve reproduction of wood engravings and the newly introduced halftone engravings. But the change adversely affected

typography. Previously, the magazine had used a modernized oldstyle face which had been designed expressly to compensate for the heavy impression of older press equipment and dampened paper. The type didn’t do well on the newer equipment. There was a feeling that readers had “wearied of light types and gray impressions,” DeVinne explained. One near universal type characteristic of that era was the sharp hairline, an effect fostered by the Didot and Bodoni types introduced in Europe. DeVinne set out to find a way around this dilemma, and he sought the help of L. B. Benton of American Type Founders. The goal was to create a design which maintained the letter widths of the design being used by the magazine, but to create “new types of larger face and thicker hair-lines.” DeVinne (and Benton) actually did some readability research. “Experiment proved that a book-type moderately compressed and properly cut was as readable as a round or expanded type.” This was especially important to the magazine, which featured a two-column format on a 6¼x9¼ page size.

“The new face is as wide as the old; it has as much open space within as without each letter, and as many letters to the line; it has the greater clearness of a thickened hair-line. It seems to be compressed only because it is taller, but this increase of height is only 65 ten-thousandths of an inch,” he explained.

The design was introduced to magazine readers in 1894. A few months later, the editor noted “We . . . trust that our readers were pleasantly affected by the appearance of the November pages of *The Century*, when the new type was put in use for the first time.” He credited DeVinne for his “consultations and cogitations and changes and final adoption for *The Century* exclusively, of the present (letter) form.”

CENTURY ROMAN type was manufactured by American Type Founders exclusively for hand composition of the publication.

One significant “change” in typesetting style also was introduced by DeVinne with CENTURY ROMAN. He adopted new characters specifically for use as *quotation marks* in an effort to bringing to a close the age-old

village; an I thinks to mysel', (How long will it be before yo' poor fellers is layin' like my Jim?) Yer may be reet about the accidents, Mr. George; but I know, ef yer wor to go fro' house to house i' this village, it would be like 't is in the Bible, —I 've often thowt o' them words, — (Theer was not a house) —no, nary one! — (where there was not one dead.)»

She hung her head again, muttering to herself. George made out with difficulty that she was going through one phantom scene after another—of burning, wounds, and sudden death. One or two of the phrases—of the fragmentary details that dropped out without name or place—made his flesh creep. He was afraid lest Letty should hear them, and was just putting out his hand for his hat when Mrs. Batchelor gripped his arm again.

Shown above at actual size is a small section of a page from THE CENTURY magazine illustrating the original CENTURY ROMAN typeface along with DeVinne's italicized quotation marks.

practice of using apostrophes and inverted commas for quotation marks. "There are serious mechanical objections to these make-shift devices. The apostrophes and commas are not mates . . . the round bodies of these marks are not in line—low at the beginning and high at the end—putting them askew in an unsightly manner," DeVinne argued.

The new characters introduced were a derivation of the French *guillemets*, single ‹ › and double « », which are widely used today as quotation marks with Latin, Cyrillic, and Greek alphabets in Europe, Asia and Africa. Robert Bringhurst's *The Elements of Typographic Style* says the marks also are known as *chevrons*, *duck feet* and *angle quotes*, and therein he laments the fact that they have not taken hold in North America. Though he tried to force this "new" concept on the American reading public, obviously DeVinne failed. But the Century type design was anything but a failure.

I am the proud owner of one bound volume of the *Century Magazine*, extending from 1895-1896; it is the volume which contains the DeVinne article and note from the editor, previously quoted in this article. The entire volume of 960 pages is set in the CENTURY ROMAN face. McGrew says it was done only

in 8 and 10 point, but the volume reveals sizes ranging from 6 through 30 point. Finding a specimen of the original CENTURY ROMAN face is difficult, for it is not shown even in *Types of the DeVinne Press*, the firm's specimen book published in New York in 1930. For that reason, with this text is reproduced a section of a page from the *Century Magazine* showing the original typeface with the innovative quotation marks.

Mac McGrew's excellent volume, *American Metal Typefaces of the Twentieth Century*, says the original design did appear in the ATF specimen books but "did not receive much use by other printers because it was considered a little too narrow."

At issue was *alphabet length*. It had little to do with aesthetics. Instead, it was something hotly argued, contested, and negotiated with union printers who argued against narrower letters as exploitative of compositors, for they were paid by the number of ems set during a day, not the number of letters (which would be increased without added compensation if narrow designs were utilized). To avoid the problem, Benton and his son, Morris F. Benton, set out to slightly change the proportions of CENTURY ROMAN, making the letters a trifle wider and with a slightly taller x-height. One might note these same modifications were acclaimed as attributes of the original design. The modified version was introduced in 1900 as CENTURY EXPANDED.

It is most obvious now that the political and aesthetic objections were overcome with this modified design; it became extremely popular and, indeed, was installed at the DeVinne Press soon after. The *Inland Printer* noted in 1903: "The latest type specimen issued, in exceedingly attractive and tasteful style, by American Type Founders Company—the CENTURY EXPANDED roman and italic—shows a dignity and strength that will cause them to be welcomed by the discerning printer, who will readily perceive in these faces the widest range of adaptability."

There is confusion regarding who, actually, designed CENTURY EXPANDED. Mac McGrew attempts to clear this up. DeVinne himself credits L. B. Benton. But McGrew takes pains to note that the son, M. F. Benton, most likely did the lion's share of the work with his

12-point Century Expanded (Monotype Number 20)
 ABCDEFGHIJKLMNOPQRSTUVWXYZ & ÆŒæœ \$1234567890
 abcdefghijklmnopqrstuvwxyz fi fl ff ffi ffl [(.,-;“!?”—)]
 ABCDEFGHIJKLMNOPQRSTUVWXYZ & ÆŒ

12-point Century Expanded Italic (Monotype Number 201)
 ABCDEFGHIJKLMNOPQRSTUVWXYZ & ÆŒæœ \$1234567890
 abcdefghijklmnopqrstuvwxyz fi fl ff ffi ffl fi .,-;“!?”

12-point Century Bold (Monotype Number 118)
 ABCDEFGHIJKLMNOPQRSTUVWXYZ & ÆŒæœ \$1234567890
 abcdefghijklmnopqrstuvwxyz fi fl ff ffi ffl (.,-;“!?”)

12-point Century Oldstyle (Monotype Number 157)
 ABCDEFGHIJKLMNOPQRSTUVWXYZ & ÆŒæœ \$1234567890
 abcdefghijklmnopqrstuvwxyz fi fl ff ffi ffl [(.,-;“!?”—)]
 ABCDEFGHIJKLMNOPQRSTUVWXYZ & ÆŒ

12-point Century Oldstyle Italic (Monotype Number 1571)
 ABCDEFGHIJKLMNOPQRSTUVWXYZ & ÆŒæœ \$1234567890
 abcdefghijklmnopqrstuvwxyz fi fl ff ffi ffl fi .,-;“!?”

12-point Century Schoolbook (Monotype Number 420)
 ABCDEFGHIJKLMNOPQRSTUVWXYZ & æœ \$1234567890
 abcdefghijklmnopqrstuvwxyz fi fl ff ffi ffl [(.,-;“!?”—)]
 ABCDEFGHIJKLMNOPQRSTUVWXYZ &

12-point Century Schoolbook Italic (Monotype Number 4201)
 ABCDEFGHIJKLMNOPQRSTUVWXYZ & æœ \$1234567890
 abcdefghijklmnopqrstuvwxyz fi fl ff ffi ffl fi .,-;“!?”

12-point Century Schoolbook Bold (Monotype Number 620)
 ABCDEFGHIJKLMNOPQRSTUVWXYZ & \$1234567890
 abcdefghijklmnopqrstuvwxyz fi fl ff ffi ffl (.,-;“!?”)%

father probably doing little more than sketching out the basic concepts for the adaptation. The son was just becoming involved in type design at ATF. Eventually he would be responsible for over 200 designs including most of the marvelous new designs ATF introduced in its triumphal years preceding the great depression which began in 1929. Why the name “Expanded”? Because the face was “a trifle wider and with a slightly taller x-height.”

There were two Century designs shown in the DeVinne Press’s 1930 specimen book: CENTURY EXPANDED and also CENTURY BROADFACE. The unknowing reader would

assume BROADFACE was the original design, but that is not the case. Though the design was used by the DeVinne Press, it is not known how much it was used elsewhere. As explained in ATF literature: “(L. B.) Benton subsequently cut a second type, a less compressed version of the original, for the DeVinne Press. This variation, called CENTURY BROADFACE by DeVinne, was described by him as being designed for “service on books to be set in a broad measure, which do not require a compression of measure for the saving of space.” You will recall the *Century Magazine* had a two-column format and required a

very tight set and thus, demanded the narrowness of the original design.

How popular was CENTURY EXPANDED? Those old-time workers at American Type Founders, according to Theo Rehak, alluded to the days when at least four casting machines were dedicated to producing nothing but CENTURY EXPANDED—continuously. Indeed, when ATF was closed in 1993, there still remained two machines featuring special nicking and dedicated totally to 10 and 12 point CENTURY EXPANDED. “ATF cast CENTURY EXPANDED right up to the very last two years or so, everything from 4 point to 12 or 14 point as well. There was quite a bit in stock at the time of the auction debacle, even in the larger sizes,” Theo reports.

In keeping with the “type family” concept introduced by R. W. Nelson, general manager at ATF, CENTURY EXPANDED evolved into a full series of typefaces. First came CENTURY BOLD and BOLD ITALIC, designed by M. F. Benton in 1904. As McGrew explains, “although the name doesn’t include ‘Expanded,’ they are obviously the companion boldfaces.” Then came CENTURY BOLD CONDENSED and EXTENDED, and CENTURY OLDSTYLE (which truly is not a part of the Century family). Next the face was beefed up a bit more when Ginn & Company, publishers of schoolbooks, asked ATF to develop a face for maximum legibility. CENTURY SCHOOLBOOK was introduced between 1918 and 1921. There were others too, as noted in Mac McGrew’s book. Monotype specimens of eight of these designs are shown herewith. McGrew comments (and I concur) that the Monotype version of

CENTURY OLDSTYLE is inferior to the original ATF design. CENTURY CATALOGUE was an effort by ATF to clean up the OLDSTYLE face; it was picked up by English Monotype.

Interestingly, J. L. Frazier, who reviewed typefaces for *Inland Printer* in the 1920s (he eventually became the publication’s editor and wrote several books on typography) commented in July, 1924, “The ‘Modern’ Century, designated as ‘Expanded,’ is not so pleasing a letter as the Old Style.” To spite Frazier’s personal opinion, the CENTURY EXPANDED design far outsold the OLDSTYLE version, as well as its “cleaned up version,” CENTURY CATALOGUE.

In 1965, 70 years after being introduced, CENTURY was still going strong, as noted by Alexander Lawson in *Inland Printer/American Lithographer* in its January, 1965, edition. “During the past few months, we have seen the acquisition of CENTURY SCHOOLBOOK by Mergenthaler Linotype from American Type Founders, the introduction of CENTURY MODERN by Ludlow, and finally, announcement by ATF of its new member of the Century family, CENTURY NOVA.”

CENTURY NOVA was introduced in 1964 by ATF, designed by Charles E. Hughes, to be a face “in the style of ATF CENTURY EXPANDED. One that would retain its delicateness, yet be hefty enough for reversing, screening, for printing in color, and for offset printing; condensed enough for high character count. One that could look familiar, and, of course, be very legible.” Unknowingly, as McGrew notes, Hughes moved the design back closely to the original 1894 CENTURY ROMAN.

18-point Century Expanded Italic

ABCDEFGHIJKLMNOPQRSTUVWXYZ &
 abcdefghijklmnopqrstuvwxyz \$1234567890 .,-:;’!?
 Ligatures fiffiffiff You Are Cordially Invited

I must admit an abiding admiration for the rhythm and symmetry of CENTURY EXPANDED ITALIC. Had the design been introduced independently, rather than as a “companion italic” to CENTURY EXPANDED, I wonder whether it would have enjoyed more extensive use as a more readable alternative to formal scripts in social invitations, etc.

Certainly CENTURY EXPANDED is available in several more desirable digital forms. The Adobe rendering comes to mind. Others are very inferior to the original hot-metal version. In the opinion of this writer, CENTURY EXPANDED is far better equipped to handle the

heavy load of basic communication cranked out on laser printers and it is, indeed, lamentable that TIMES NEW ROMAN was selected as the "default" computer typeface instead of CENTURY EXPANDED—a face proven now with over a century of continued popularity.

REFERENCES

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- "The Century's New Type," an editorial. *Century Magazine*, December, 1895, page 314.
- "The Century's Printer on The Century's Type," by Theodore L. DeVinne. *Century Magazine*, March, 1896, pages 795-797.
- "A Morning with Theodore L. DeVinne," *Theodore Low DeVinne*, a two-volume book published by The Typophiles in 1968. This article appears in volume 1, pages 77-83. The volume also includes a reprint of the entire piece, "The Century's Printer," referenced above.
- "DeVinne As I Knew Him," by Charles H. Cochrane, *Inland Printer*, July, 1924. Page 560.
- Original promotional literature on Century Nova, published by American Type Founders, was consulted. Additionally, the yellow-green binder section, "Century Family 9," produced as a component of a 1960s-era specimen book by ATF carries some references to the three individuals largely associated with the design at ATF.
- "After 70 Years, Century Typefaces Hold Their Own," by Alexander Lawson, *Inland Printer/American Lithographer*, January, 1965. Page 46.
- "The Story of an Historic Typeface—Century and the Bentons," by Dr. James Eckman, published by the magazine *Industrial Arts Methods*, December, 1964.
- An untitled type specimen review which included commentary on Century Expanded, published in *Inland Printer*, November, 1903. Page 269.
- An e-mail response to my questions regarding Century Expanded at ATF, from Theo Rehak of the Dale Guild Typefoundry, Howell, N. J., dated June 5, 2003.
- "Popular Types—Their Origin and Use. No. X—Century." By J. L. Frazier, *Inland Printer*, July, 1924. Page 577-578.
- Finally, a clipping of specimens and discussion of the ITC Century face from *u&lc* magazine, published by the International Typeface Corporation. There is no date on the clipping, but therein it indicates the Century design "will be available to the public on or after Oct. 14, 1980."

NA Graphics Fosters Support for Typefounding

Here's an update from Fritz Klinke of NA Graphics, Silverton, Colo. 81433 (nagraph@frontier.net), regarding his company's efforts to provide foundry type to its customers.

"Theo (Rehak of Dale Guild Typefoundry) has recast ATF BULLFINCH 41 for us in 12, 18, and 24 (caps only), and I am about to start fonting it. It is a beautiful casting. Being cast now, is 12 pt. RONALDSON OLD STYLE ITALIC, and a bit later we will do the roman.

"We also are working on another casting of 18 pt. CIVILITE and also 14 pt. BULMER (to accompany the 18 point we have on hand).

"One project of interest is the refinishing of Weibking's 18 pt. mats for MUNDER VENEZIAN so they can be used on Theo's ATF/Barth equipment.

"Another project is to rescue 18 pt. NEWS GOTHIC mats which were in zinc service at ATF. The zinc batters the face of the mat and

makes it unfit for regular Barth casting, so in this case, Theo will mill down the face of each mat for a new depth of drive compatible with a special mold he has.

"Why bother with this face? We have a steady call for this face and size primarily from foil stampers and rubber stamp makers. They prefer the hardness of the ATF type, and the fit. One of my goals is to help keep Theo's operation economically viable, and that means casting type for the crass commercial trade, as not everything is for the "fine" printer. One face that we have had several castings in sizeable quantities from Theo is the MICR type face, E-13B. Theo also completed an order of the B-42 Gutenberg type for the Crandall Museum in Provo wherein he added a number of additional characters, some of which had some exciting kerns."

The Amazing Speed of Linotype 'Swifts'

BY PAT LEARY

Just how swift were the "keyboard swifts" when both the 20th century and Ottmar Mergenthaler's Linotype were new?

A hundred-year-old pocket manual which recently surfaced provides some rare documentation. *Stubb's Manual* is a diminutive 3" x 4½" 40-page hardbound booklet copyrighted in 1902 by none other than William Henry Stubbs of Baltimore, self-proclaimed "holder of the world's competitive speed record—12,021 ems corrected matter per hour for 5 hours, 33 minutes."

Opposite a reproduction of his "world champion medal," apparently furnished by his fellow *Sun* chapel members of the ITU, is a recitation of Stubbs' feat. On Oct. 3, 1899, in the composing room of the *Philadelphia Times*, Stubbs squared off with an un-named opponent in a contest scheduled for seven hours. They were both setting nonpareil, (6-pt.) matter at 13½ picas. After only five hours and 33 minutes, Stubbs' opponent threw in the towel. In that time Stubbs had set 66,717 ems of corrected matter, an average of 12,021 ems an hour.

The report elaborates that Stubbs had cast nearly 2,600 lines—2,471 corrected. If one converts time to decimals, I calculate 427 corrected lines per hour, or 7.1 lines per minute.

Approaching on the basis of ems per line, dividing his total by 27 ems (13½ picas in 6-pt.) yielded 2,471 lines for the contest. Again using the 5.55 hours, this time divided into his "gross" total of 2,600 lines, a total of 468.4 lines per hour is reached—7.8 lines per minute (uncorrected).

Since overhead drive shafts propelling several machines via belts were common around the turn of the last century, it is possible both linecasters in the Philadelphia competition were driven off the same shaft, at the same speed, conceivably faster than 6½ lines per minute. Larger (than the customary 6½ lines per minute) pinion gears may have been available early in the 1900s, and one can wonder if the automatic pig feeder had been invented in time for the 1899 contest.

One needs to assume that Stubbs (a) was on a well-maintained linecaster. After all, even the *old ones* were only 13 years old at the time of the match; (b) grabbed some bulky sheaves of copy and settled into his operator's chair (c) with a freshly emptied bladder.

Another small volume, *Suggestions to Machinists*, published by the new Mergenthaler company lists some other composition records in addition to Stubbs':

D. S. Swinehart, *Chicago Chronicle*, 14,000 ems an hour for one hour. Gus Bilger, *Chicago Journal*, 10,000 ems an hour for one week. Ed Shaw of the *Chicago Chronicle*, over 9,000 ems an hour for one week.

J. F. Sullivan, lower magazine, Model 2, working at the St. Louis Fair, 6,468 ems in one hour, 12-pt. DEVINNE with ANTIQUE No. 3, 21-pica measure.

C. A. Nichols of the *Salt Lake City Herald*, in eight hours, 106,300 ems of 6-pt. corrected. F. A. Koelle, Jr., hailing from the *Philadelphia Inquirer*, setting agate (5½-pt.), 156,800 ems at 28 ems measure, in 12 hours.

A couple observations: Most of these records seem to have been set by operators while working in smaller sizes of type—with good reason. Smaller sizes set on 13½ or 14 picas would nearly always have five or six or seven spacebands in each line, *minimizing hand-spacing and maximizing justification*.

It is likely most of these records were set on single-magazine linecasters, which featured a more straightforward flow of mats. Also, two human elements can not be overlooked: All these men were likely extremely accurate, possessing a capacity for intense concentration.

[Rich injects an effort to compare these speeds to more common term today: "words per minute." Assuming 3 characters to an em, and assuming the average word contains 5 characters, the figures for Stubbs' work of 7.8 27-em lines a minute translates to about 110 words a minute. By any measure, that's fast keyboarding and definitely is testament to the fact that a good Linotype keyboard operated as well as any modern computer keyboard, even though it was totally mechanical!]

Early Sanspareil Mat Font Cast by Nelson

Aa Bb Cc Dd E

These letters are printed direct from Stan's hand casting. And are the letters ever solid!

The specimen letters shown above were cast in the hand mold by Stan Nelson, who until very recently was a museum specialist at the Smithsonian Institution, Washington, D. C.; Stan served for nearly 30 years in the hall of graphic arts and as most ATF associates know, Stan has been instrumental in building and utilizing the Institution's large collection of typefounding mats and other letterpress paraphernalia.

Stan opted to accept a "buy-out" offer made by the Institution and took early retirement in October, 2003. He now is devoting much more of his time toward building hand molds for clients across the globe.

The reason Stan selected this particular font to cast was because of its construction. The matrices are a very early representation of the *sanspareil* method of making mats of larger sizes. Rather than using punches or engraving the large cavities of these matrices, the letters were cut out of one sheet of brass, which subsequently was laminated to a second sheet of brass which served as the "floor" of the mats—providing the face of the letters when they were cast. Inner portions of letters such as B and O were cut separately and riveted into place to make the mats complete.

Driving a punch to make a matrix becomes next to impossible once a letter's size exceeds 72 points. Prior to invention of the sanspareil matrix, larger letters were cast in sand molds. In *Stephenson Blake: The Last of the Old English Typefounders*, John Garnett, rather than William Caslon Jr., is credited with inventing the sanspareil matrix about 1810 in Sheffield, England. (See pages 16-18.) The sanspareil matrix greatly improved the quality of larger type and was quickly copied by other English founders, though it did not make it to the U. S. for several decades. Letters up to four inches tall have been cast using this method.

After studying these early American sanspareil mats in the Smithsonian's extensive matrix collection, Stan felt compelled to try his hand at casting them.

"As is obvious," he said, "casting these mats with a hand mold consumed a large quantity of metal, and because of this volume, the tools became very hot and it took a minute or more for each letter to solidify adequately to allow removal from the mold after cast."

He printed a handsome two-color broadside showing the entire alphabet, which he says was made on three separate occasions (as evidenced by materials, workmanship, depth of drive, and alignment.) The caps were first made, later followed by the figures and then the lowercase letters were added.

A review of the *Stephenson Blake* book referred to herein is found on page 22.

KUSTERMANN *Continued from page four*

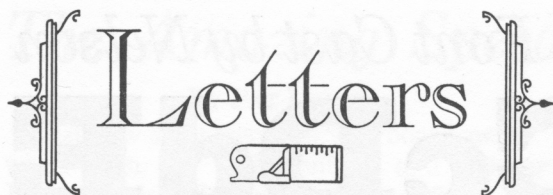
There would be major logistics involved. We would set up a formal cooperative where the casters would become the property of individuals, and with the ownership of each machine would go an undivided share of the mat collection. The mats would be kept in a single location and serve as a lending library to the eleven machine owners. The co-op would have an elected board of, say, three members to make management decisions.

Could it work? Would any of you want a Kustermann? Can we strike a deal with the Kreiters? Will this window of opportunity close forever without us doing anything to save the equipment? You tell me.

If you have any interest in pursuing this, contact me at P. O. Box 5, Kampsville, Ill. 62053, or email skyship@618connect.com. Let's see where we stand.

"Do me one favor," as the Cowardly Lion said, "talk me out of it—talk me out of it!"

Letters



Alan Waring of Fairfield, Conn., in a letter May 9, 2002, provides a glimpse into the monumental effort he and Theo Rehak of the Dale Guild Typefoundry expended in recreating in its entirety the so-called "Gutenberg B-42 font." (See the 26th edition of the ATF NEWSLETTER.)

"Few people have the breadth of knowledge—let alone experience—to appreciate what we accomplished . . . Now, two years later, we both consider the project a blessing and a curse. The extremely narrow time frame in which we were forced to work, drained the life-force from us. I used to write quite a few letters. It took me 18 months to gather the strength to begin again. Even now we still struggle to find a big enough head of steam to complete Arrighi. If Theo and I were independently wealthy (ha!), and we could approach the work at our leisure, it certainly would be different.

"One of these days, we shall arise from the ashes and again put our shoulders to the wheel. The Arrighi mats are cut and wait to be fitted. This 'fitting'—which is the drive depth, side bearing and alignment of the matrices, is an 'around the clock' effort that must be completed once started in order to maintain consistency in our work. It is not something that can be on again/off again, and maintain ATF tolerances. The same can be said for the artwork, matrix engraving and casting. It would be nice to have a workforce of 20 or 30 strong, but alas, those days are no more. I can't imagine the *army* it took to produce what is shown in the 1906 and 1926 ATF specimen books. . . ."

Bruce Washbish of Petaluma, Calif., gives a trifle more insight into the CALIFORNIAN typeface, as discussed in ATF NEWSLETTER 27, explains that in 1958 or 1959 he was employed as an estimator at the University of California Printing Department. At that time, the department shared a building with the then separated University of California Press and Bruce worked in the same room with the legendary A. R. Tomassini, superintendent of the UC Printing Department.

"After hours I was on my way out and noticed a letter in ART's secretary's outbox. It was a reply to an official of the Lanston Monotype Corporation who had apparently written ART for his advice on the recutting of a type which was to be

called CALIFORNIAN. ART replied in an indifferent sort of way (I thought) and suggested the modification of four letters. He thought the bowl of the lowercase e ought to be enlarged, some change in the descender of the lowercase g, and two others which I can't remember. As far as I know, none of his suggestions were adopted. . . .

"I differ with you on (your praise of) ITC's BERKELEY. I think they used some pattern for maybe 14 point and then it is enlarged or reduced by computer. The 'set' on the smaller sizes is cramped and the letters look distorted to me. Richard Beatty of Hendersonville, N. C., has digitized many Goudy types. His GOUDY CALIFORNIA OLDSTYLE is a good translation and incidentally Beatty's favorite Goudy type (mine is DEEPEDENE)."

"I feel and always will feel printing is a sacred art that has been profaned to a shameful degree to accommodate gibberish."

—FRED PETERSON, *Meadow Vista, Calif.*

James A. Parrish, our world-traveling serviceman for Ludlow machines, reports that he still is on the road and still is more than willing to visit your plant to tune up your Ludlow caster. He says "I'm slowing down in my travels, but I'll go until I drop." He reports Dave Seat, his best friend and a highly recommended professional on Ludlow service, will inherit all his tools, parts, books, etc., "when I drop." But in the meantime, Jim is still willing and able. Try first by calling (580) 678-3887, or writing to PMB 160, 1316 Sheridan Road, Lawton, Okla. 73505. Expect some delays in contacting Jim, for he's usually on the road.

"I am now back full-time at my shop having seen Arion/M&H through both The Bible and 'The Move.' In June I brought in a Model 14 Linotype. It may be a while before I have power to it and a bit longer before I have all the mats, parts, etc."

—ERIC HOLUB, *San Francisco, Calif.*

METAL FLUXING FORMULA

Various "home remedies" have been put forth from time to time for fluxing type metal. The following formula was found in the MONOTYPE RECORDER, Vol. 35, No. 3 (1936), published by the English Monotype Corporation, Ltd.

The most suitable flux is:

One-eighth by weight sal ammoniac; one-quarter by weight tallow or lard oil; one-half by weight charcoal. Use one tablespoon full for every 1,000 pounds of metal.

Ill-Fated APL Linecaster Celebrates 70th Birthday

About 70 years ago, the Mergenthaler Linotype Company introduced to the typesetting industry a new device called the "All-Purpose Linotype," designed to cast type from 5 to 144 point from hand-assembled matrices, much in the fashion of the Ludlow machine.

Ye ed was put on the trail of this fascinating story by Jim Dags of Ackley, Iowa, a long-time letterpress fanatic and practitioner, who admits that in his near 35 years in the business, he's never seen an operational APL.

Those of us who attended the ATF Conference at Buena Park, Calif., in 1994 had opportunity to see the International Printing Museum's recently restored machine in operation—we even got to cast slugs ourselves if we were so inclined.

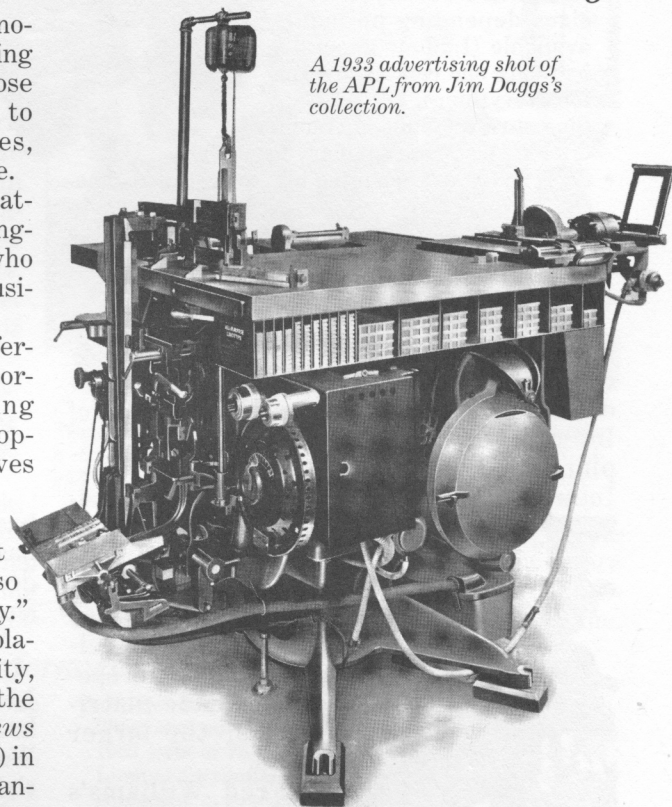
Reference to APL matrices in the bound Linotype Specimen Books is about all most of us know about the machine, so it's time now to hear "the rest of the story."

First, the phrase "about 1933" needs explanation. Mergenthaler's push with publicity, etc., started in 1933 with a big article in the *Inland Printer* in May, and in *L&M News* (Linotype and Machinery Limited, London) in November. Surely there were many other announcements. But Jim says a few machines were sold in 1932.

The description of the machine thus-far provided would cause one to wonder whether it preceded the Ludlow Typograph, for the Ludlow also cast type from hand-assembled matrices in size ranges roughly the same.

In truth, the machine was introduced to do battle with Ludlow, which had caught on well. The first Ludlow of the basic concept was installed in 1913 at the *Chicago Evening Post*. The late Fred Williams reported in his popular *Type & Press* that by 1919, Ludlow machines were operating in over 350 printing offices. By 1925, according to information Jim Dags has, Ludlow boasted over \$5 million worth of its equipment in use throughout the world. Ironically, marketing of the Ludlow was handled by Mergenthaler Linotype for two years, beginning in 1916.

Advantages of the APL were that the machine was equipped with a mold disk and up to four different molds, allowing the one ma-



A 1933 advertising shot of the APL from Jim Dags's collection.

chine to handle a variety of matrices from regular Linotype mats for smaller sizes, to specially made APL mats up to 144 point, as well as Ludlow matrices!

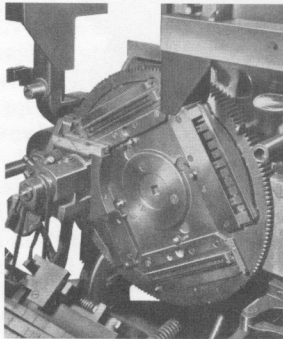
(An un-documented story I have heard was that Ludlow mats were less expensive, causing the company to insist that potential matrix buyers document that they actually owned Ludlow equipment before matrices would be sold to them—Ludlow's effort to prevent use Ludlow mats in APL shops!)

Other so-called advantages:

- A slug length of 42 picas, compared with Ludlow's defacto standard of 22½ picas (other Ludlow molds were available).
- Matrix assembly was face-up in the stick (Ludlow was face down). The company claimed this made for better spacing and protection of the vulnerable casting side of the matrices.
- Controlled alignment, which allowed for the mixing of different sizes within the same line without further justification.

- Overhanging top, bottom, or center on a variety of body sizes depending on molds available (Ludlow generally had only one center-face slug for everything).
- Slug surfer built in (Ludlow offered this as an auxiliary machine).
- APL had a saw, mounted on the rear of the machine, which could miter and cut slugs into individual types by using a special guide (making the APL a typefounding device—a nebulous advantage for sure).

Jim Daggs surmises “Linotype and Intertype most likely felt the need to add more display capabilities to their equipment lines to slow down the Ludlow infiltration.” His inclusion of Intertype in this argument comes with his explanation that in the same year—1933—Intertype introduced a “stick attachment,” allowing any model of the Intertype to be used as a large display caster up to 60 point, utilizing either standard of specially made matrices for the larger sizes.

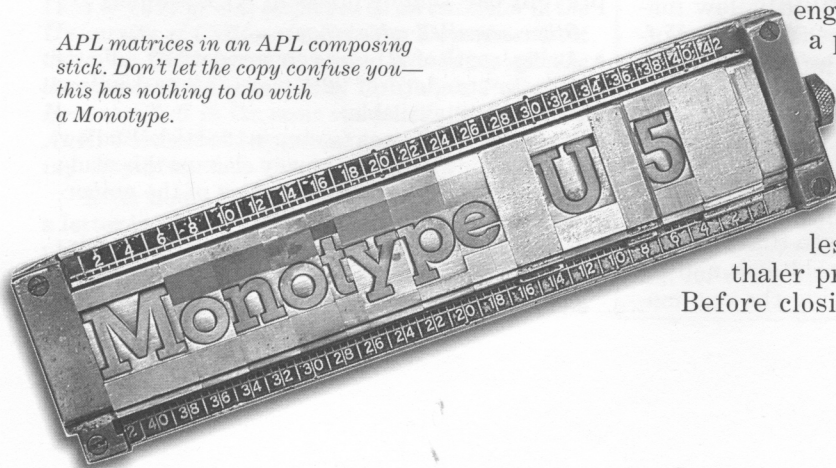


APL mold disk with slug face milling component covering the left mold.

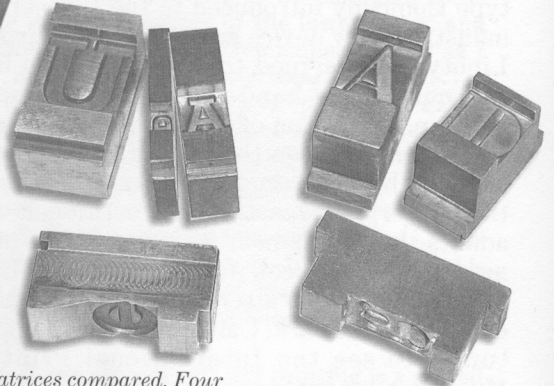
Therein Fred says it’s likely the machine was introduced by Linotype to try to boost sales, which had been hit very hard by the depression following the stock market collapse in 1929. “Linotype directors were probably enthused when their Engineering Department concluded it would be feasible to take the casting mechanism and

Fred Williams’s Summer, 1989, issue of *Type & Press* contained a lengthy story on the APL. Therein Fred says

APL matrices in an APL composing stick. Don’t let the copy confuse you—this has nothing to do with a Monotype.



Slugs cast on an APL. Left is a slug cast from Ludlow mats, right is from Mergenthaler-issued APL mats.



Matrices compared. Four above all are APL mats.

Three mats above all are Ludlow mats.

base from a regular 42-pica Linotype as a basis for the new machine, giving their slug a decided advantage over the 22½-pica Ludlow slug.”

So was the APL successful?

No. Only 181 machines were ever sold; then Linotype stopped its production; Daggs speculates the APL didn’t survive re-tooling after World War II. By comparison, in 1984 Ludlow claimed 16,000 machines had been sold.

Why unsuccessful?

“The APL was a more complex machine—developed from the basic Linotype minus the keyboard, magazines, and distributor. Ludlow was simple to operate and maintain, where the APL would require a machinist on a regular basis. Also, the operator had many changes in settings to control size of slugs cast and baseline alignment,” according to Daggs.

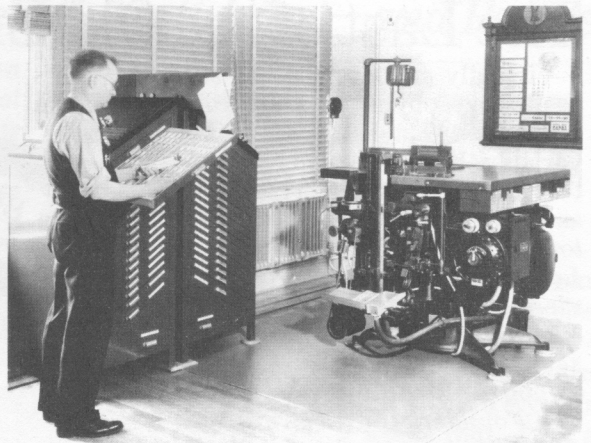
Fred Williams’s article says “printers complained they could never be assured of a first-class face on the APL. It was too much an engineer’s machine rather than a printer’s tool.” And finally—and perhaps most importantly—“The APL and its mats cost more than the competing Ludlow. Also, the Ludlow was a lighter machine and occupied less space than the Mergenthaler product.”

Before closing, it should be noted the

Ludlow had other competitors. First was the Nebitype, a Italian version of the Ludlow, larger, heavier, and more complicated. It also had a standard 42-pica slug. Models were introduced in the 1950s and 1960s. The machines would work with Nebitype matrices as well as Ludlow mats. Second was the SAM Slug Casting Machine, introduced in 1966 in England. Sam stood for “suits all matrices,” suggesting the machine would use mats from all other slug-casting machines. It had four different molds, and would cast “smooth slugs” up to 48 point. Little else is known about the machine.

Though only 181 were ever produced, several APL machines have survived. I have already mentioned the machine at the International Printing Museum.

ATF associates Paul Aken of Beach Park, Ill., and Ed Regan of Rensselaer, Ind., both own machines. Paul’s machine is operational and I thank him for providing a stick, casting the slugs, and providing other information rel-



This is an actual Mergenthaler promotional photo showing a stand of matrices and the APL caster, taken in 1934 (calendar on wall so indicates). From Jim Daggs' collection.

evant to the machine for this article. Especially, I thank Jim Daggs for making me aware of the inauspicious 70th anniversary of the introduction of this largely forgotten machine.

References

- Chayt, Steven & Meryl, *A Ludlow Anthology*, Anachronic Editions, Winter Haven, Fla., pages 63-77.
- Daggs, Jim, “APL Thoughts,” personal letter, April, 2003.
- Williams, Fred, “The Great Merenthaler Lino APL Fiasco,” *Type & Press*, Summer, 1989.
- Williams, Fred, “The Ludlow Typograph,” *Type & Press*, Fall, 1984.

“A-P-L produces 5 to 144-point types,” a lengthy and well-illustrated advertisement published in the November, 1933, issue of *The L&M News*. Linotype and Machinery Limited distributed (and later manufactured) Linotype equipment in England.

“The All-Purpose Linotype,” a two-page introductory advertisement in the May, 1933, issue of *The Inland Printer*, pages 71-72.

More Evidence That Linecasters Were a Major Investment

Our ongoing discussion of what things *used to cost* produced two genuine historic estimates from the Mergenthaler Linotype Company for the purchase of new machines. If nothing else, these estimates reveal clearly why not everybody was in the typesetting business back then, as it appears everyone is now.

In 1962, John Horn of Little Rock, Ark., received a quote for a Model 31 Lino with four 90-channel magazines, four molds, electric pot, spacebands, motor, hydraquadder, mold cooler, and metal feeder. Total investment: \$17,259.00. F. O. B. Plainview, N. Y. Erection by an “expert Linotype service engineer” was included.

In March, 1970, Lee Schrunk of Salem, Ore., received a quote from Mergenthaler for an Elektron Mixer with four magazines, four molds

with liners, electric pot, two motors, and a variable speed drive. Total cost: \$28,516.00. Add-ons included a thermo-blo mold cooler, electric hydraquadder, metal feeder and hydraulic justification for an additional \$3,237. And if he wanted it to be tape operated, a Shaffstall mat detector and a Linomatic operating unit would add another \$3,450.00. Total quote: \$32,716.00.

Oh, we forgot about inflation. *How Much Is That In Real Money* provides some tables for calculations which, if I’m reading them correctly, would make John’s quote \$100,620 and Lee’s at \$148,844, calculated to year 2000 rates. And to think that today, a computer with minimal software, costing less than \$1,000, can do it all—and much better, too!

The Last of the Old English Typefounders

Virtually anyone who has studied American typography is quickly become aware of a very close “English” connection and invariably that connection has led to reading books such as T. B. Reed’s *A History of The Old English Letter Foundries* (revised edition by A. F. Johnson in 1952), or *A Dissertation Upon English Typographical Founders and Foundries*, by Edward Rowe Mores, an edited and annotated edition done by Harry Carter and Christopher Ricks, published in 1961 by the Oxford Bibliographical Society.

Reed’s book was first done in 1887, and Mores’s book in 1778. Both are heavy reading with lengthy footnotes, rendering evidence of exhaustive research.

I make no attempt to dismiss these volumes, but for my money, there’s absolutely no better way to “get a handle” on English typefounding than the new volume, *Stephenson Blake: The Last of the Old English Typefounders*, written by Roy Millington, jointly published in 2002 by The British Library and Oak Knoll Press (www.oakknoll.com).

Though many of us have Stephenson Blake types still in our cases, the company no longer makes type and most of its historic holdings are now with the London Type Museum. (A far better fate than befell our own historic American Type Founders Company, dispersed in an ugly auction in 1993!)

Perhaps you know Stephenson Blake had and still utilized William Caslon’s original punches from the 1730s? In its matrix vaults were held virtually the entire history of English typefounding. In its heyday, Stephenson Blake employed nearly 600 persons in its massive 19th century building in Sheffield.

The dust jacket says “Roy Millington has had a lifetime involvement with Stephenson, Blake & Company, Ltd. For over 30 years he was the company’s honorary archivist and librarian.” I never have met Roy Millington,

but most assuredly, “he’s one of us.” Who else would spend 30 years milling about the 19th century premises of the company gathering and maintaining the punches, matrices, type specimen books and other material haphazardly dispersed throughout the big old building? And if “honorary” is defined as it is in the U. S., there’s strong implication Dr. Millington received little if any compensation for the great effort he made in researching, preserving and writing this history. Thus, as it is with most great books, it was a consuming work of love which he simply couldn’t avoid completing.

We’re all the better off; it is a delightful, easy, and coherent “read” about a subject dear to all our hearts. He sets the stage masterfully at the turn of the 18th century describing his hometown of Sheffield, England, beautifully explaining how the foundry was established in 1818, and breathing life into all the principals involved.

His writing style is so absorbing I found I nearly finished book in one sitting, though I’d intended only to scan it. His research is exhaustive, yet he presents his subject so well the research is transparent. The firm’s relationship with (and absorption of) virtually every other significant English foundry is well documented. But daily life in the factory also is told so well. I found especially interesting the saga of how the firm’s monumental 1924 specimen book came to be, and of the deep involvement of both H. K. Stephenson and R. G. Blake in its production.

The book is illustrated with many specimens showing the punchcutting innovation and skill of Stephenson Blake craftsmen over the years. And there are many photos of the five generations which managed the firm, along with photos of the facilities through the years.

This book should be in your library. You know the publishers, so contact them and get your copy ordered. You won’t be disappointed.



Electro Mat Making Article Put to the Test—and Passes

There's no greater pleasure than to hear that a reader has actually read and digested a technical piece contained in this publication. Here is testimony about matrix making which should also please Mike Anderson, author of the piece in the last NEWSLETTER.

BY GREGORY J. WALTERS

I am pleased to report Mike Anderson's article on electroplating mats (*ATF Newsletter* No. 27) inspired me to try my hand at mat-making. I followed Mike's instructions and they worked! But I must confess, it took more than the article to send me into action.

Shortly after I read the article, I acquired a tiny font of a very rare face (PARIS FLASH) from the FTF typefoundry in Paris, France. This font is too tiny to be called a pony font; it is a chihuahua font. So I had the need to make more of this type, and I had Anderson's instructions fresh in my mind.

The materials were easily rounded up on a Saturday afternoon, and after an extra day to allow the chemicals to stabilize, I was ready. For a test, I pulled a character out of the hell box, wired it up and submerged the face in the blue stew. I left it for a week and pulled it out when it had a thick layer of copper. I pried off the copper and was amazed at how it had picked up the minutest scratches in the face.

I plunged ahead, drilling out old mats from a font of CASLON BOLD, changing them into mats for PARIS FLASH. (This drilling process allows one to re-use the chamfered Lanston matrix as a "frame" to hold the newly deposited letter.) I've been growing two mats of every character in case I have an accident when finishing the mats. It turns out that the finishing is the tricky part.

I have a drill press which I've fitted with an X-Y table and am using it as a milling machine. It isn't nearly as accurate as I'd like, but I can get it to within a few thousands of the final justification. This initial milling takes about half an hour per mat. Then I rub the mat on a file, and finish it on fine sandpaper. While I'm nearly finished growing the mats for the font, I've only finished justifying about a quarter of them. And I'm only justifying the depth of drive; the X-Y positioning will be adjusted when casting.

**FRIED BEDIH
HIBDERF**

There is a special thrill to casting type from a mat you've grown . . . a mat that nobody else has. I'm becoming addicted and have a growing list of fonts that I intend to transform into matrices. I urge everybody to give it a try. It's not necessary to grow a whole font. Pick a couple of your favorite ornaments and see if you can make mats for them. Shown above are test casts from the PARIS FLASH mats. We'll see how well they print in the *Newsletter*.

Dear Rich:

A while ago, we had contact about [a computer interface to my Mono Comp Caster]. Hardware building is something I don't do myself. And the guys building the interface were quite bogged down with other work. That's now changed.

As it turns out, I will demonstrate my prototype here in January, and in London at the Type Museum soon after. Only minor practical problems are to be solved: making a cover around the interface, and the power supply for the electronic valves.

I had given up all hope it would be finished at all. There was no way I could test my computer programs without the actual device. And untested, I can't and don't want to share the software.

After my interface is operational, I can test and perfect my programs for the Monotype to do composition at last. The programs are made in a very elementary "C" using a very old compiler. Thus, portability of the programs (from one computer operating system to another) is maximized.

I myself do not like the idea of a very new computer near a Comp Caster. So I have a scrap computer with the good old DOS on it. Hopefully, a set of little programs I have written will help me to do the actual casting without the help of a keyboard—at last!

JOHN CORNELISSE
The Netherlands

Reinventing the Types of the 1457 Psalter

BY MIKE ANDERSON

BACKGROUND

Considered by many as one of the most beautiful books ever printed, the *Psalter of 1457* by Johannes Fust and Peter Schœffer, with its two-color initials, black text and red gloss, has held fascination for me since I first viewed a reproduction of its opening page. The *Psalter* was issued in two major editions (1457 and 1459) and the type and initials were used in the *Canon Missæ* (the Canon of the Mass) in 1458.

Fust was the financial partner of Johann Gutenberg during his years, while he developed the type and perfected the printing methods to be used in producing the *42-line Bible of 1456 (B42)*. Schœffer was Gutenberg's assistant and perhaps type designer and later Fust's son-in-law.

As all students of incunabula (early printing) the two examples I most often studied were the *B42* and the *Psalter* with its large, two-color opening initial B in blue and the fine-lined red fligree. The type of the *B42* is approximately 20 points, while the three types of the *Psalter* are approximately 36, 42 and 48 point. Both books used types patterned after the textura calligraphy used in Germany during that period.

Whether Peter Schœffer was responsible for designing the final type used in the *B42* or followed the instructions of Gutenberg is not known. It is known that he was the type designer for books issued from his press in the following decades.

Early type founders cut their punches by hand, then drove the punch into copper or brass plates. The strike (as a punched plate is called) was then finished with hand files to "justify" the matrix to establish set (width) and. In the late 1800s, nearly 500 years after Gutenberg, Linn Boyd Benton developed an engraving machine to engrave both a matrix and/or a punch in the production of mats.

THE URGE

The desire to engrave a set of matrices to reproduce a piece of incunabula has always been high on my wish list. But I was well aware that

Theo Rehak and Alan Waring had completed their excellent reproduction of the *B42* type (see *ATF Newsletter* No. 26).

Previous to the completion of their work, I had already started making patterns to be used for a set of *B42* type. Not wishing to duplicate their efforts, I began studying the *Psalter* to see if my patterns could be used there instead. In many cases I found they could, simply by changing the ratio of cutting to the pattern. A good measure of visual comparison lead me to conclude the designs were very similar. This conclusion was reinforced by two facts: (a) the types in both volumes were patterned after the same hand "drawn" manuscripts (MSS) done by scribes, and (b) Schœffer was involved in production of both volumes.

B42 has 296 different pieces of type (Kapar, 1996). The *Psalter* consists of about 253 pieces. There are 92 lowercase characters in both the 36 point and the 42 point fonts. Uppercase characters vary between the fonts, with duplicate characters for some letters, i.e., two capital A characters in the 42 point size. The 36 point uppercase has about the same number as the 42 point. Most often, my patterns for lowercase could be used for both the 36 and 42 point.

Also, when comparing the type of the *B42* with the *Psalter*, their likeness gave me the impression that, as we would say today, they were different sizes of the "same" face.

WHY SO MANY CHARACTERS?

In the 1400s, manuscript (MS) Bibles were penned by scribes in Latin, based upon the translation from Greek by St. Jerome in the fourth century. In an effort to save time and writing material, early scribes, developed an elaborate method of tachygraphy (shorthand) to aid in the copying of a MS. Since it took one scribe over of a year to make a copy of a single MS (and perhaps much longer for to copy the Bible), any and all methods were used to speed the process. Paper and vellum (parchment) were expensive; to conserve these materials, they abbreviated and contracted to shorten words. This shorthand system often was complex, requiring the

reader to be very familiar with the language as it was written. We still use some of these today, *i.e.*, etc. for *et cetera*, *ib.* or *ibid.* for *ibidem*, *et al.* for *et alibi*, *e.g.* for *exempli gratia*, and *A.D.* for *Anno Domini*. The list goes on. Even today, a reader must understand the language!

Another reason for additional characters was the method used in setting type to produce an excellent fit—to duplicate, as near as possible, the look of a handwritten MS. One method of doing this was to make ligatures of certain letter combinations, as we still do

with *fi*, *ff*, *fl*, *ffi*, and *ffi*, or the *ct* and *st* in some fonts. Their long list of additional ligatures included *do*, *da*, *de*, *ha*, *he*, plus the *f* and *long s* (looks like an *f* without the crossbar) ligatures. In addition, they abutted letters against one another. They would remove projecting serifs on the left so the preceding and abutting characters could touch as if they were ligatures. Some examples of this are the *r* and *c*.

Next are "accented" characters. They used bars, tildes, dots, diamonds and chevrons over certain characters to form abbreviations. Examples of this would be the *bar a* (*ā*) which



A work in progress—shown are specimens of the letters already cut by Mike Anderson in his quest to re-create the types of Peter Schæffer's PSALTER. As can be seen, very few capitals have been cut; while this form was standing in anticipation of this article, Mike re-cut several of the letters shown, substituting new for old prior to going to press.

indicates the character represented *an* or *am*. Thus, "ād" would be read as "and."

In addition to the accented characters, they also used special letters (not normally part of a font) which substituted for part of a word. An example is a character which looks like a 9 but represents the ending "us." Thus, *Dominus* could be written as *Domin9*. Also, there are monograms (two letters merged to form one character), which may represent one or two words.

Some researchers have suggested that abutted letters were filed on the left to remove the projections, and no doubt, some were. However, a close study of my exemplar indicates that in almost all cases these were specially cast rather than being filed. This is also true of accented letters. Single cast letters would save time and effort for compositors. To stop and rub a letter, or employ another person to do this, would cost money and delay the process of production.

There are those who suggest that the bars were added to existing "normal" letters, *i.e.*, an "a" would have the white space over the letter filed away to allow the insertion of an accent above the letter. Others believe the original letter punch was affixed with a second accent punch—and that both punches were driven into a new matrix. Still others claim the single letter punch was driven in first and then the accent was driven in.

My brief study reveals the two-punch system or filing might have been utilized in a few instances, where a very seldom-used ac-

cented letter was needed. Otherwise, all the punches appear to have been cut with the accent and letter as a single piece, and the single punch then driven to make a matrix. This is my conclusion based on the discovery that the accented *letters* invariably are slightly different when compared with non-accented counterparts, suggesting both the letter and the accent were cut together. Of course, there is room for additional study here.

The exemplar used as a model for the patterns of my type is a full-color copy of the *Canon Missæ* printed in 1940 by the Stempel Type Foundry of Germany to commemorate the 500th anniversary of Gutenberg's *B42*.

PATTERN MAKING

Having used computer graphics programs to produce negative and positive images for use in making photopolymer plates, I chose to scan in a page of the *Canon Missæ*, save the digitized image, "cut" the individual letters from the master sheet, and then carefully "re-work" the new image.

The re-working required that I compare many of the same letters, looking for ink slurs, spread, deformed type, and many other fine details the eye ignores when looking at a page. In some places I found type had been under-inked or over-inked, causing dropouts or heavy spreading at the edges. (The lightly inked letters provided the best images of what I think the letter was truly intended.) I would then do a pixel-by-pixel repair, removing as many "blemishes" as possible, cleaning up the

num qđ oculis tue maiestatis indignus
 obtulī· tibi sit placēs· michiq; et omnibus
 pro quibz illud obtulī sit te miserate ppi=
 riabile, Dec xpm dñm nostrū,

This is an actual specimen taken from Schæffer's original printing, photographically reduced, which shows how the typeface appeared in its first use. Mike Anderson took specimens from several pages of the original edition to find what he considered the best specimens of each letter—and then he cut his matrices.

slurs and doing other repairs considered necessary. This mostly was judgmental work, requiring hours of study, trying to figure the intent of the punchcutter. My efforts were not always successful, for I often had to go back to the "drawing board" and correct problems.

During this study of the type, it was noted that the weight (thickness of stroke) varied greatly. In addition, the x-heights of some letters were greater than most other characters within the font. Some of the weight variance is my fault and will be corrected in revised cuttings, but the original work was not perfectly consistent at all.

PHOTOPOLYMER PATTERNS

All of my patterns are 1.5 inches high, whether for 42 point or 36 point. A positive mirror image is printed on inkjet transparency film for direct, right-reading contact with the photopolymer plate (PP). The PP is exposed to ultraviolet light (UV), washed out, dried, and hardened. The black ink blocks the UV and allows the *letter* to wash out. Where UV strikes the PP, it becomes hardened and cannot be washed away, thus creating an incised pattern which I am able to use with my engraving machine.

ENGRAVER PROBLEMS

My first engravings were done on a modified New Hermes engraver designed to be used as a "scratch" engraver—meaning it didn't even have a motor. I modified it with a Dremel engraver motor with a flexshaft, allowed me to attach a cutter and begin en-

graving mats. The tool was adjustable for ratio from 1:1 down to 7:1. Therefore I had to figure out a pattern size which would allow me to be somewhere in the 4:1 ratio, *i.e.*, a 4-inch pattern would be reduced to a 1-inch engraving. I used calipers to set my engraver's arms to the correct ratio for my pattern to produce mats of the correct size.

To achieve the correct cutting depth in stages, I attached a vertical micrometer to the cutting arm. This allowed me to lower the arm by increments of .020 inch as I completed the cuts until I had reached a depth of approximately .053 inch.

I found that due to the construction on the cutting arm (it being on a permanent angle of approximately 2 degrees), my cutting depth varied on the face. This did not seriously affect the finished product, but was enough to drive me crazy knowing that it was there. I have been unable to correct this deficiency in this engraver.

SECOND ENGRAVER

During a visit to Theo Rehak, proprietor of the Dale Guild Foundry in New Jersey, I showed Theo my mats and explained what I was doing. His comment was, "I'm amazed you have accomplished what you have with the tools you have. You need a better engraver!" I could only agree. He drug me over to a corner of his shop where a beautiful Deckel engraver (pantograph) stood. "Got room in your car to haul this away?" Theo asked. No, we didn't have room in the car, but I was back a few weeks later with

num qđ oculis tue maiestatis indignus
 obtuli. tibi sit placē. michiq; et omibus
 pro quib; illud obtuli sit te miserate pi-
 riabile, peacp̄m dñm nostrū,

This specimen is a photo reduction of a trial setting of the same four lines of type, but this time the lines are from type cast by Mike Anderson. If they appear a bit ragged, it is because Mike insists on pulling his proofs on hand-made paper to emanate conditions of the first printing. You will note the cap P in the bottom line has not been cut.

room in the back of my pickup for it. It now sits in my shop doing business as it had done in the ATF plant for so many years before the plant closed in 1993 (when Theo bought it). This is similar to the Deckel used by Frederick Goudy in cutting his patterns, and no doubt, some mats for casting.

THE CUTTERS

Theo's book, *Practical Typesetting* provides excellent information and advice on casting type, and also in cutting matrices. Most information deals with foundry mats and equipment used at ATF—equipment no longer available—so I had to improvise. My cutters were made initially by using a lathe and a jury-rigged indexing head. Later, I purchased a very accurate tool grinder to do the work. It is necessary to have an accurate cutter (bit) which you can replicate precisely, time and again. Else, the size and weight of your engraved matrices will be inconsistent.

Some engravers use a three-sided cutter while others use a four-sided tool. I use the four-sided cutter. The tip is brought to within .001 inch of forming a point, then it is carefully stoned on all four sides to remove any burrs, then the tip is brought to exactly .001 inch. The finishing is done by putting a 15-degree angle on one side of the tip so that the tip, when viewed under a microscope (essential to accomplish this), looks like a chisel tip. This "rake" angle allows it to cut clean and not bind up with chips. The whole cutter is made from carbon hardened 3-inch drill rod, which must be ground slowly to keep from over-heating the carbon and softening the tool.

ENGRAVING

Using double-sided carpet-laying tape, the pattern is attached to the engraving base, the blank mat is located under the cutter in the proper position left/right and up/down so that the mat can be cast without undue problems of alignment at the caster. Once all adjustments are made to the two ratio arms, the proper follower is fitted to the tracing unit. The followers range in size from .010" to .070": (in my cutting). The size of the follower is calculated on the ratio between the cutting tip, the pattern size, and the desired width of the

engraved line. Although there are several references to this ratio [Goudy (1940) and Rehak (1993)], I found my ratios by trial-and-error. With the *Psalter* patterns I used a .040" follower and the .001" cutter.

I engrave the mat to .053" depth in .020" increments for two cuts and then .013" on the last. The Deckel is designed so all adjustments can be made in .001" increments (up/down, left/right) and all adjustments affect the cutting table, bringing the mat up to the cutter on an even plane. A depth micrometer enables me to check the cut to assure it is within tolerance.

Then the matrix is returned to the cutting table, locked in the holder and the face is polished to a fine matte finish using the engraving tool. I took several pointers on this technique from Theo Rehak and Paul Duensing, who has cut thousands of mats, including Hermann Zapf's ZAPF CIVILITE.

FINISHED MATS

Cutting to the .053" depth requires that the mat surface be reduced by .003" to produce the proper height to paper height of .918". To bring the depth of the engraving to .050", a fine file first is used. After a few strokes, the mat is placed under the depth gauge and checked for progress. The procedure is repeated until achieving the depth of .051". At this time the mat is taken to the caster and several casts are made. Resulting type is measured with a micrometer. Fine-tuning is done using a dry stone of fine grit, with a cast made after every few strokes to assure the accomplishment of the exact, consistent depth.

Once the correct depth is reached, the mat is cleaned and added to the font and work begins on the next one. This process is repeated an average of 83 times for a normal font of upper and lowercase, numbers, ligatures and punctuation. When working on fonts such as the *Psalter*, there are an untold number of accented characters, logos, ligatures and monograms—enough to keep one busy for a long, long time. After seven months I have finished all but one of the lowercase letters and the punctuations, but I have completed only a few of the uppercase letters.

The 36 point is in the far future.

This has been a seven-month learning experience. Techniques and pattern-making procedures were developed over the course of cutting the matrices. This font in no way

should be considered an "exact" reproduction of that font cut over 550 years ago. It is only *my attempt* at recreating something to resemble the work of Peter Schaeffer—and perhaps Johann Gutenberg.

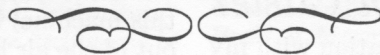
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Installing a Metal Feeder on a Thompson Caster

Sky Shipley, a new graduate of Monotype University and proud owner of what once was the Perfection Type, Inc., of St. Paul, Minn., has been busy recently getting the foundry set up once again at his home near Kampsville, Ill., and getting ingot (pig) feeders established on his several Thompson machines has been his consuming passion. Here are the details on how he engineered the project.

1. Remove the entire Mold Stand assembly from the machine. This involves pulling out the cam lever rod and all the cam levers, unbolting the Mold Stand and lifting it off. *Don't drop on foot.* Lift the entire pot and yoke assembly off the stud. Unscrew and remove the cooling water drain riser. Now separate the top from the base. (The bolts in front are easy, but the two on the back corners will require an impact driver.) I performed this modification on all four of my Thompsons at once.

2. Invert the top and remove the Pot Yoke Stud by removing the nut from the bottom of the Stud and driving it out. (Note: bald spot is an optical illusion.)

3. Drill about 1½ to 2 inches deep straight down from the top center of the Pot Yoke Stud and then tap the hole with a 5/8-11 bottoming tap. Get a 5/8-11 bolt several inches long and cut the head off. Reinstall the Stud in the top and then re-position the top on the machine. The sawed-off bolt goes into the tapped hole to serve as a secondary stud.

4. Reinstall other parts. The feeder mounting rod, made of 5/8 (inside diameter) iron pipe

cut to required length, drops right on top of the new stud extending straight up from the Pot Yoke Stud.

This is a very advantageous method of installation, in that the feeder can pivot with (or without) the Pot Yoke. Also it can be easily lifted off and moved to another caster. As you can see, most of the work is getting the Pot Yoke Stud out of the machine so it can be drilled and tapped.

Dear Rich:

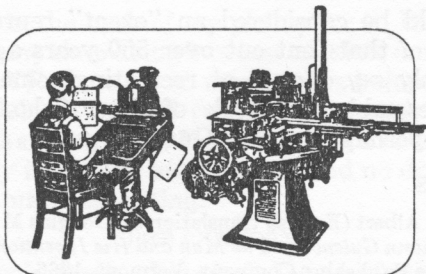
Thank you very much for the *ATF Newsletter*, which I've read with fascination from beginning to end. What a marvelous thing it is, not only to know so many people are involved in typesetting, but that they tell their stories in such a neat way.

I had some idea there had to be a forum for people with this interest but didn't know it was so alive. As I told you, I am trying to get seriously into Monotype, but have to overcome so many things I thought were very uncommon. Now I read about it and they are not so unusual; that gives me even more lust to go on with it.

Meanwhile, I am getting organized with the little equipment I could find here and there, and an experienced operator is helping me to start up the machine, but every bit of help is welcome.

I send you my warmest regards.

PATRICK GOOSSENS
Antwerpen, Belgium



A Conversation With My Mono Composition Caster

I had a very serious conversation with my Monotype Composition Caster in July. It was getting temperamental and refusing to crank out *well-cast*, properly justified lines. I have been accustomed to literally turning it on and casting what I needed with little coaxing of the machine.

"You shouldn't do this to me," I said.

"*But you don't love me,*" the caster replied.

I exhaled loudly in exasperation.

"You should be nice to me. After all, I am more than 50 years old," it continued.

"Well, so am I," I replied. We were getting nowhere fast.

"It's not that I am worn out or even tired. But you'll have to agree you haven't given me very much maintenance and adjustment lately." The caster was right.

"*Think of my age,*" it continued. "Didn't I see an old computer, an inkjet printer, and an old laser printer all in your trash last week? Think about it!"

Quickly, I got over my frustration with the Monotype. It had me dead to rights. Considering its age, should I even ask it to perform? The answer was a resounding yes, so I got out my tools and went to work.

First was the paper tower. It seemed to be reading the ribbon incorrectly, so I did something I've never had to do before. I took it apart, and attempted to replace the leather gasket which seats on the paper to make a seal when the air goes to the ribbon. I was not successful, but then realized I had a paper tower on my Combination (Sorts) Caster which I never have used. So I stole parts from this American machine and installed them on my English Comp Caster. Everything was fully interchangeable and soon the paper tower

was back to reading the ribbon correctly, and not tearing the ribbon "tractors" in the process (which it had been doing for some time before the crisis).

But still it seemed the air pins were slow to come up. Especially the "C" pin. So I took Bill Riess's advice and removed all the necessary parts so I could actually disassemble the air pin portion of my machine. After complete removal, he advises blowing compressed air back through the air channels to get the crud out of the system. This I did (the first-ever for this machine) but I did not get lots of crud out of the air lines as Bill suggested I would.

Perhaps mine was not that dirty, for when I re-assembled the machine, I still had a slow "C" pin. Then I started fiddling with a portable air compressor hose, blowing here and there. I finally realized there was a pneumatic box at the back of the machine which was part of special add-ons for things like centering lines and all that—things I don't utilize. I found this box diverted air from the "C" pin (and others). I opened, cleaned, reassembled, to no avail. And then on a hunch, I opened again and reassembled the spring and two air pistons in a different order (I have no schematics on the air system of the machine). Bang. It started working like a charm.

So I end this story by providing to you this page of composed type right off that 50-plus-year-old *Monotype Composition Caster*. It's working perfectly once again, making type and justifying lines as well as it did when it was new. All it *required* was a bit of good old maintenance and adjustment.

Can you say this for your aging computer?


CLOSING OUT MONOTYPE HOLDINGS

Don Black Linecasting Service, Ltd., of 120 Midwest Road, Unit 5, Scarborough, Ontario, Canada, has announced a decision to close out all remaining Monotype equipment holdings.

Don indicates he has already sold all display mats to John Hern of Cour D'Alene, Idaho, and his remaining holdings (at presstime) are:

Approximately 2,200 die cases of American cellular matrices, a good selection of American constant-height molds, a cabinet full of new and used parts, including heaters, and one complete Monotype Keyboard.

You may e-mail don@donblack.ca, or call the company at (416) 751-5944.



Four Typecasting Projects of Note

There is nothing more disgusting to a typecasting enthusiast than to see an historic type form in a museum setting or elsewhere, utilizing photoengravings or a less valid "substitute" (photopolymer?) where *metal type itself would be the only truly legitimate tool for the exhibit*. That's why it's most gratifying to come across situations where the principals involved have made an effort to acquire the legitimate implements.

I have been involved in three such projects in 2003, and know of projects completed by Jim Walczak, Stan Nelson, and Mike Anderson. It's fitting that these efforts be documented in a publication that's devoted to letterpress preservation. If you have done similar projects, you need to send to me details of your endeavors.

My three efforts: (1) re-setting in a facsimile form as close to the original as possible the first 16 pages of the original *Book of Mormon*, published in 1830; (2) a literal re-creation of the only existing early front page from the *Carolina Observer*, direct predecessor of the daily *Fayetteville Observer*, of Fayetteville, N. C., which has converted its reception area into a museum to include early implements utilized by the newspaper—including the paper's first press and my type form locked up in that press. Finally, (3) Mike Anderson and I jointly worked on a project for the Freedom Forum, which is soon to open a new and better Museum of News ("Newseum") near the Smithsonian in Washington, D. C. We cast and composed a replica of the *Declaration of Independence* to be placed in a common press and the center of attention for all persons entering the Newseum.

Each project now will be discussed.

THE BOOK OF MORMON PROJECT

If nothing else, those visiting the Crandall Museum of Printing History at Provo, Utah, during the 2002 ATF Conference were definitely impressed with the effort being put forth there to be as authentic and accurate as possible in the portrayal of printing equipment and its historic relevance.

It is not surprising to discover a close tie with the Mormon religion also is carried forth by the

Museum; I had heard (when Rob Buchert was a student at Monotype U in 1999) that the Museum fostered a hope to be able to do a very close facsimile of the first printed version of the *Book of Mormon in metal type* and to have it locked up in the Museum's Peter Smith Acorn Press replica (a project completed with beauty and precision by The Pratts of Cove Fort, Utah, as mentioned in earlier *ATF Newsletters*).

I had not been involved in the matter and I had never seen the original setting. But soon after the Conference, Louis Crandall sent to me Xerox copies of the original document with a plea for help in coming up with an accurate typographic facsimile. He emphasized that he would stand for nothing less than movable type! No photoengravings would be tolerated.

Several persons had studied it previously, and they had concluded that Lanston Monotype's SCOTCH ROMAN NO. 36 would be a close match to the original font. Rob indicated to me this wasn't working because the "set" of the Lanston face was wider and thus, he was finding it impossible to match the original document in a line-for-line fashion.

I told him that Lanston advertised that all its faces could be "closed up" in width up to a quarter point per character. To prove this was possible, I went to my Monotype keyboard and began composing a page selected at random, using SCOTCH ROMAN at 9¾ set (it is stipulated at 10-set). I found the original setting was very "tight." The original type was narrower in set and the document also was composed with very tight word spacing. Nearly a third of the lines still were too tight to meet the line-for-line match. I turned to my Monotype keyboard manual to re-learn the process of reducing word spacing below the four-unit minimum generally built into S-5 arrangements. With this manipulation, I was able to complete the page with *no variation* in the content of any line on the page.

Anxiously, I carried my page to the proof press for printed evidence of my accomplishment. But the proof revealed 10 pt. SCOTCH ROMAN was a trifle larger on the body, and that it had a far more pronounced thick-and-thin

THE
BOOK OF MORMON:

AN ACCOUNT WRITTEN BY THE HAND OF MOR-
MON, UPON PLATES TAKEN FROM
THE PLATES OF NEPHI.

Wherefore it is an abridgment of the Record of the People of Nephi; and also of the Lamanites; written to the Lamanites, which are a remnant of the House of Israel; and also to Jew and Gentile; written by way of commandment, and also by the spirit of Prophecy and of Revelation. Written, and sealed up, and hid up unto the LORD, that they might not be destroyed; to come forth by the gift and power of GOD unto the interpretation thereof; sealed by the hand of Moroni, and hid up unto the LORD, to come forth in due time by the way of Gentile; the interpretation thereof by the gift of GOD; an abridgment taken from the Book of Ether.

Also, which is a Record of the People of Jared, which were scattered at the time the LORD confounded the language of the people when they were building a tower to get to Heaven; which is to shew unto the remnant of the House of Israel how great things the LORD hath done for their fathers; and that they may know the covenants of the LORD, that they are not cast off forever; and also to the convincing of the Jew and Gentile that JESUS is the CHRIST, the ETERNAL GOD, manifesting Himself unto all nations. And now if there be fault, it be the mistake of men; wherefore condemn not the things of GOD, that ye may be found spotless at the judgment seat of CHRIST.

BY JOSEPH SMITH, JUNIOR,
AUTHOR AND PROPRIETOR.

PALMYRA:

PRINTED BY E. B. GRANDIN, FOR THE AUTHOR.

1830.

The goal was not to improve on the original setting. Rather, it was to duplicate the setting inasmuch as possible with the relatively more modern hot metal fonts still available. This work is surprisingly close to the original fonts used. All line endings and vertical spacing very closely match the original printing.

variation when compared with the original. I wondered if there might be a better match somewhere else with Monotype faces?

I studied both English Monotype and Lanston Monotype specimen books closely; there was nothing in the green vinyl English book which seemed any better, though I know this book did not depict many of the earlier "discontinued" English faces which may have been better matches. I was more fortunate with Lanston's specimen for my copy included samples of most of the very early Lanston designs. Lanston did many "Modern Roman" designs between 1900 and 1930. The firm was trying to lure to its equipment numerous magazines which were most reluctant to change their "typographic dress." Thus, Lanston did many closely similar faces in an effort to mimic *perfectly* the specific hand-set faces utilized by these magazines. I spotted 10 pt. MODERN SERIES 34; it seemed promising. Its set was narrower than SCOTCH by a full half point and it was a trifle smaller.

One problem: I didn't have these mats, nor did I know of anyone else having them. But the beauty of our American Typesetting Fellowship came to my rescue. E-mail inquiries revealed that Jim Walczak of Oxon Hills, Md., had not only the MODERN SERIES 34 mats, but also 12 pt. MASTERMAN mats, which I had determined to be a close match to the chapter headings in the original document. I also determined I needed 10 pt. LAW ITALIC to assist in matching an italic used at the beginning of each chapter. Greg Walters of Piqua, Ohio, came up with this font of mats. Thus, I located mats for everything I needed—a surprising feat considering all the matrix fonts I had needed were likely to be nearly 80 years old!

When Jim's mats arrived, I went back to my equipment and re-keyed the page in MODERN SERIES 34, "squeezing" the face to 9¼ set. To my surprise, every line fit with no special effort at the keyboard, making it far more manageable.

I show the two sample pages. What you cannot see is the uncanny closeness to the original demonstrated by MODERN SERIES 34. Lewis Crandall had provided me with an acetate transparency of the page in question, and upon laying it over my proof, everything was "right on." The only variation was that my word spacing across each line was uniform, where it was erratic in the original (as always is the case with hand composition). The original page was about five points deeper (less than half a point per line) giving clear evidence that the original font was not cast to the American Point System (which didn't come into play until about 1880).

Greg's font of LAW ITALIC provided swash caps M, N, A and punctuation (which had more pronounced tails and slopes, especially comma, apostrophe, and semi-colon). The face's odd-ball ampersand also was a very good match. However, LAW ITALIC did not match the original italic at all with regard to most other lowercase characters, especially the g, f and its ligatures. So I hit upon the idea of dropping a few LAW ITALIC matrices into the 10 pt. SCOTCH ROMAN ITALIC font. I chose SCOTCH over the MODERN SERIES 34 Italic, for the italic in the original text appeared more closely matched to the SCOTCH ITALIC. I took the chance of dropping in a few LAW ITALIC mats knowing that all *early* Lanston faces were manufactured to the same alignment. To my delight, the trick worked and worked well. The slope of the SCOTCH Italic isn't as great as the LAW ITALIC, but few would recognize this variance. Again, I was able to match the first setting precisely, line-for-line. Indeed, the italic material was set with what I consider excessive word spacing in many instances, but my goal was to *match the original* in every way.

I demonstrate the first page of the First book of Nephi to show this italic composition. My MASTERMAN font (also shown) matches the shape and feel of the caps used in the original, though it has a wider set and is a trifle bolder.

Matching text in metal (which was composed far before the Monotype was invented) is a very difficult task. This document proves that with a little luck, help from friends, and a bunch of study, matching still is possible. It is to the Crandall Museum's credit that there was insistence upon using movable type in its exhibit press. Even the Gutenberg Museum in Germany uses type-high electros and does not seem very embarrassed about it.

Finally, there was a problem with *one line* of type for the heading "Preface." It was a distant relative to ULTRA BODONI ITALIC, but I determined that it was what they called a "fat face roman italic," which was quite popular in type specimen books dating back to the early 1800s. Such a design never was cut into matrices for Monotype. I e-mailed a proof of that word to Stan Nelson at the Smithsonian Institution in Washington, D. C., asking him if he might have a match for the font in his historic holdings. To my delight, he replied that he had a virtual perfect match and he volunteered to cast the necessary letters utilizing his 16 point hand mold. Later he confessed that the extreme thin lines of the face were very difficult to get to fill properly in the process of hand pouring into the hand mold. But with numerous rejects tossed aside,

THE FIRST BOOK OF NEPHI

HIS REIGN AND MINISTRY.

CHAPTER I.

An account of Lehi and his wife Sariah, and his four Sons' being called, (beginning at the eldest,) Laman, Lemuel, Sam' and Nephi. The Lord warns Lehi to depart out of the land of Jerusalem, because he prophesieth unto the people concerning their iniquity; and they seek to destroy his life. He taketh three days' journey into the wilderness with his family. Nephi taketh his brethren and returns to the land of Jerusalem after the record of the Jews. The account of their sufferings. They take the daughters of Ishmael to wife. They take their families and depart into the wilderness. Their sufferings and afflictions in the wilderness. The course of their travels. They come to the large waters. Nephi's brethren rebelleth against him. He confoundeth them, and buildeth a Ship. They call the place Bountiful. They cross the large waters into the promised land, &c. This is according to the account of Nephi; or, in other words, I Nephi wrote this record.

I, NEPHI, having been born of goodly parents, therefore I was taught somewhat in all the learning of my father; and having seen many afflictions in the course of my days—nevertheless, having been highly favored of the Lord in all my days; yea, having had a great knowledge of the goodness and the mysteries of God, therefore I make a record of my proceedings in my days; yea, I make a record in the language of my father, which consists of the learning of the Jews and the language of the Egyptians. And I know that the record which I make, be to true; and I make it with mine own hand; and I make it according to my knowledge.

For it came to pass, in the commencement of the first year of the reign of Zedekiah, king of Judah, (my father Lehi having dwelt at Jerusalem in all his days;) and in that same year there came many prophets, prophesying unto the people, that they must repent, or the great city Jerusalem must be destroyed.

This is a fine showing of the SCOTCH ROMAN ITALIC with various LAW ITALIC characters inserted to match the original setup. Again, the erratic and excessive spacing MATCH the original setting. This page also shows text as it was set in 10 point MODERN SERIES 34 and a heading in 12 point MASTERMAN.

he did succeed. In turn, I had to utilize my handy Rouse Type Mortiser to better fit Stan's casts, and I utilized my modified Ludlow Super-surfacer (a project undertaken and completed by Dan Jones of Newmarket, Ontario) to mill Stan's over-type-high casting to .918" and match all my other Monotype work.

There was a lengthy legal notice on the title page and its verso side which utilized a tiny 6-point letter, which I found to closely match another Monotype "Modern Roman," the very popular MODERN No. 8. Therein was a single 14-point initial letter B. I cast from four separate fonts before concluding that CENTURY SCHOOLBOOK BOLD was the closest match to the original. So, with all these machinations, I matched in hot metal the faces and typography of every letter included in the original document—170 years after the original was hand composed utilizing early foundry type. None of the succeeding chapters vary typographically from the First Book of Nephi.

No, my type is not a perfect match. However, such is not possible in these days when there's merely a light afterglow remaining of the once robust hot-metal typefounding business. Over the years, literally thousands of matrix fonts were created, utilized, and then destroyed as foundries died off; their holdings often were merged into the holdings at American Type Founders. Many historic designs were preserved and now are housed at the Smithsonian. But for every one font of matrices preserved, there probably were a hundred discarded by ATF as matrix inventories from the various foundries were consolidated. Only a few fonts of early typefounding mats are preserved in the U. S. outside of the Smithsonian holdings.

For the record, much is known about the original printed document, thanks to a diary kept by the original compositor, John Gilbert. He began hand composition on the *Book of Mormon* Aug. 26, 1829, in the small shop of E. B. Brandin at Palmyra, N. Y. Seven months later, on March 26, 1830, Gilbert completed composition, having hand-set all 590 pages—excepting four.

He explains these four pages were composed by the scribe who had taken all the dictation from John Smith himself. The two had worked together very closely throughout production of the volume. Of the original pressrun of 5,000 copies, about 500 are known to still exist and command extremely high prices if and when they come available.

The original printing was done in 16-page signatures on the Peter Smith "Acorn" hand press

now preserved at Salt Lake City. A precise duplicate of this press (they took the original press apart and made molds directly from the original) was manufactured by Steve Pratt and his associates at Cove Fort, Utah. That reproduction now resides at the Crandall Museum.

It is their intent to have a 16-page signature locked up in that press and available for printing at the Museum, to mimic all aspects of the original printing done 170 years ago. Lew Crandall has invested 12 years of study in pursuing getting the best possible replica of the original press and type for this Museum setting and it is toward this end that the work discussed here has been done.

A word of advice to Monotype collectors: No matter how insignificant your matrices may seem, you still should save them and thoroughly make records of your holdings. You just might be preserving matrices essential to historic replication similar to this *Book of Mormon* project in the future.

THE CAROLINA OBSERVER

The problem here was that no complete copy of the original newspaper now exists. The only one near being complete, dated Thursday morning, Aug. 22, 1816, is at the American Antiquarian Society in Wooster, Mass., but that copy has become brittle and fallen apart at the folds. Thus, photo reproductions of that sheet have areas which are simply black voids. When this project was undertaken, the newspaper suggested I fill the blank spots with jibberish, but I thought an effort for accuracy should be made. I contacted Marie Lamoureux, head of readers' services at the Antiquarian Society; I asked if she would either make a close check of the original document or possibly find source newspapers quoted in the *Observer*, as an effort to fill the blanks where the original could not be read. To my great surprise, with tweezers she was able to piece together broken parts of the document and decipher all questionable areas.

I sought a Monotype face to closely match the original, which was a modern roman with some "oldstyle" quirks such as swash italic capitals. I had just completed the Mormon project and was surprised to find the same MODERN NUMBER 34 again a great choice, and I matched the quirky italics by slipping in italic capitals from 10 pt. LAW ITALIC. To my delight, these selections gave me, a "count" and an x-height which precisely matched the original document. With no difficulty, I was able to match *line-for-line* with no exceptions. I set my type with no leading as was the original. But

WARREN'S GAZETTE.

VOL. I.

THURSDAY MORNING, AUGUST 23, 1816

NUMBER 10.

FAYETTEVILLE, (N. C.)
PUBLISHED WEEKLY, BY
FRANCIS W. WALDO.

This paper will be published every Thursday, and delivered to Subscribers at Three Dollars per annum, payable in advance.
No subscriptions will be received for a shorter term than six months, and no paper will be discontinued until arrearages be paid up.
Advertisements will be inserted at the rate of Seventy-five cents per square, for the first insertion, and Fifty cents for each continuation.
All letters addressed to the Editor, must be post paid, or they will not receive attention.

FROM THE PEOPLE'S MOUTH.

GEN. WASHINGTON CALLED A DEMOCRAT.
To try to find out which act of the demagogue is most flagitious, is like looking for the largest pea in a bushel.—After abusing Gen. Washington by means of their Presses, their hiring political writers, and their great men whom they delight to honor, the *Dem's* claim *Gen. Washington as one of their party*.—Now we will give one hundred dollars to any man who will show us any authentic, satisfactory evidence, that General Washington was a Democrat of any measure of the democratic party in opposition to the federal party; or for any instance where any act of General Washington, or any word that he uttered, or any syllable that he ever wrote, could give an idea that he was a friend to the democratic party in this country.

APPEAL TO FACTS.

At an election in Virginia for Congressmen, after General Washington retired to Mount Vernon from the Presidency: Colonel Powell, of London county, was the federal candidate in opposition to Mr. West, of Fairfax county, the democratic candidate, who was General Washington's near neighbor, and whom he was on much better and more friendly terms with than Colonel Powell.—General Washington told the election and voted, his son, as all the freemen of Virginia do, for Colonel Powell, the federal candidate, and bowing to Mr. West with great dignity and politeness said, I vote for measures not for individuals.—Mr. West understood him, and deeply lamented that his political sentiments should deprive him of the honor of the vote of his neighbor and friend General Washington.

At another election for delegates to the Virginia State Legislature in Fairfax county—General Washington mounted his old white charger and trotted up to Fairfax Court House to vote for John C. Herbert, our present federal member of Congress from Prince George and Anne Arundel County, in opposition to his democratic opponent; and did vote for Mr. Herbert.—Now good people of Prince George and Anne Arundel, you need not turn your backs upon a man that General Washington loved for just a year or so before his death, and I think if it is fairly understood, that Mr. Herbert is now exactly of the same political sentiments that he was when the old General, the father of his country, did him the honor to vote for him, that you will vote for him also.

General Washington invariably voted every year after he ceased to be President—and he uniformly voted for the federal candidates both for Congress and the Virginia Legislature—and there is no instance when he ever once voted for a democrat after he ceased to be President—and this is known, because in Virginia they always vote his name and never by ballot.
MURDER AND ADULTERY FACTS.
General Washington put down the democratic societies when he was President, which the demagogue had formed upon the model of the French Jacobin Clubs, to aid their party.
General Washington in a letter to his old friend and fellow-laborer, Charles Carroll, of Carrollton in Maryland, pronounced the democratic party of this country a pest to the nation, and calculated to destroy its liberties.

General Washington in a letter of complaint to Mr. Jefferson, whom he regarded as the head of the democratic party, said, that the abuse heaped upon him was a poor requital for his sincere services in the cause of his country, and that such terms of reproach were better adapted to a Nero or a Caligula.
In *Fremas's* paper (Philadelphia) set up by Mr. Jefferson, the first attacks were made against General Washington and his administration.—This was a democratic paper that led the way, and was conducted under the eye and direction of Thomas Jefferson.

In *Bach's* paper (Philadelphia) called the *Aurora*, now edited by Colonel Duane, and which was the democratic Oracle and has always been celebrated, and adorned by demagogues, General Washington was accused of murder for putting to death a flag of truce.—And that Prince of scoundrels, Peter Porcupine, took pains to unravel the whole affair, and to prove from the history of that time, that it was all, as we might expect, a base falsehood.—Sound as Peter is we thank him for this much, as well as for his other tricks and falsehoods of the demagogue that he used to expose.

In the same democratic paper, the *Aurora*, General Washington was repeatedly abused and vilified, with a view of diminishing his influence in the country which they knew was always exerted against the democratic party, and they never could get ahead without

he was at the head of affairs, nor during his life. In this *Aurora*, General Washington was said "to have no claim to the gratitude or confidence of his country"—"He was a harmless General and a dangerous politician; that the French in their Revolutionary wars displayed a thousand commanders by the side of whom Washington would not be discoverable." He is accused of Aristocracy for being a member of the Cincinnati—of seeking personal increase because the people payed him respect where ever he went—of ostentation, because he was regular in religious duties—of injustice, because he agreed to the funding system, which the demagogue have augmented from a mole hill to a mountain, and now consider the best part of the federal administration. He is accused of being a trifler, for crushing the western Whiskey insurrection, or as it is better known, by "Gallatin's Insurrection in Pennsylvania" with the militia—of submission to British intrigues—of cowardice in not enforcing certain articles of the English and Spanish Treaties, & in yielding to British maritime oppression and impressions of opinion. And then he was accused of corruption and disgracing the nation by signing the British treaty made by Mr. Jay, in 1794.

General Washington in this same democratic paper, the leading paper in the United States, is called "Mr. Washington" a "Virginia politician" in contradiction to what the federalists call him viz: General Washington the father of his country.
He is called a militia officer, ignorant of war both in theory and practice. He was paid in advance when made Commander in Chief, a post which he poorly filled and which he did not credit—Equally inefficient and ignorant what more mischievous a politician, Mr. Washington enjoyed the presidency for eight years—all this is certainly an ample return for none or led service. The charge of ingratitude rests not with the public but with Mr. Washington: for by his motives what they may, led under the mark of merit has any man attempted greater mischiefs? History will tell the people which she has devoted to his praise.

THE PROSPECT BEFORE US.

Written Haring, at the instigation of Mr. Jefferson and the leading men of the democratic party, "abused General Washington in the most cruel and abusive manner," accusing him of "corruption, venality, cowardice, hypocrisy, British partialities, toils, weakness, devotion to party rather than to his country, of being led by factious men and joining in book societies." For writing this book Mr. Jefferson gave Callender as his part, *One Hundred and Sixty Dollars*, what others gave as much, and all the leading demagogues according to their means.

MR. OLDS.

One of the most leading and important demagogues in the nation said, when General Washington retired from the Presidency, that he was glad of it, he did not wish to believe that this country at all depended upon an individual, he believed there were hundreds of men in the United States who could make as good Presidents as Mr. Washington, and the democratic *Aurora*.

Said, when General Washington retired from the Presidential Chair, that the day of Washington's retirement from office ought to be a jubilee, for from "that time the name of Washington would cease to give currency to political fraud and to legalise corruption."

Mr. Jefferson in his letter to Marcell an Italian Gentleman, speaking of Washington said, that he who had been a Sampson in combat and a Solomon in council, had suffered his hair to be shorn by the whorls of England.
Now honest reader, say after this, in the integrity of your heart, do you believe that General Washington was the democratic party? Or do you believe that the democratic party considered him a democrat and treated him as such? If Jefferson is a federalist or the Devil's saint, then was Washington a democrat, but not otherwise.

Merciful Heaven! Will our people never suffer their passions to cool and themselves to deliberate: Who is there that can lay claim to common sense; if he is never looking up for office or contract or favour, or led by party passion that can hesitate for a moment to pronounce, as General Washington pronounced, the democratic party and their councils and policy, the scourge, the pest, the cruellest curse of this country?

Democratic Press and Aurora.—The editor of the *Democratic Press* roundly denies, that Duane is a demagogue. Duane on the other hand, undertakes to prove that he is a democrat of the first grade; and in order to establish this fact, he has given a column and an half to the "abuse of democracy." The effort is well enough: but we were not a little amused by his allusion to scripture. "Do the millions (says Duane) bow the knee to him that men, but a more expressive testimony and memorial of that sentiment will be provided; for, after all, the feelings of a nation will less be sought for in its public acts, which are ordained by authority, than in its popular literature, which lives on opinion and taste.
Would it then be impertinent to express a hope that this omission in the work before us

FROM THE BALTIMORE GAZETTE.
Specie Payments...The prospect of a general and voluntary resumption of specie payments, within a short period, is becoming every day more certain. The price of specie in Baltimore is now down to twelve and an half per cent, a few weeks ago it was above twenty—in New-York it is down to about three per cent, above the par of their Bank Notes; and, as large quantities are expected to arrive from abroad in our several ports, we may hope the time is not far distant, when it will be paid as current as Bank Notes.

We do not, however, believe, that the plan recommended by the Secretary of the Treasury will tend to hasten the resumption of specie payments; on the contrary, if adopted by the Banks, it may considerably retard it. Every thing like coercion that may be attempted on this subject will operate injuriously; while the natural tendency of a free and uninterrupted course of trade and exchange, is, to produce an equality in the current value of the Notes of Banks in which the public have confidence, and the specie which they purport to represent.

FROM THE NEW-YORK COLUMBIAN.

of *Noble Enterprise*.—It is reported and believed that a distinguished character of this city, together with Capt. Bunker of the steam packet *Pulton*, have resolved to cross the Atlantic to England and proceed thence to Russia in the new Steam Boat in the Russian Empire for 25 years. As the vessel is built as substantial and strong as a sloop of war, little or no doubt is entertained by naval men of the practicability of the attempt. We are delighted with the prospect of a Steam-Boat propelled across the Atlantic ocean, by Americans "the first." There is no doubt of the expedition: it is determined, and, since rumor is busy on the subject, we make free to mention that Mr. Colden is the gentleman alluded to.

The following plow and elegant remarks conclude a Review of Scott's *Field of Waterloo*, in the *Christian Observer* for November, 1815:

"How far the general estimate which we will venture to offer one critic upon it, which we should hope, cannot but have occurred to many of its readers. In recording by far the most signal triumph which this country has achieved on three sides the battle of *Waterloo*, it is surprising that the poet should not have intermingled his celebration of heroes with some devotional reference to the "Giver of all victories." The Divine authority, which renders his "rightful Heaven" has always crowned *Wellington* with success, evidently affords no exception worth mentioning. The victory of *Waterloo* was one of those singular events which force the idea of over-ruling Deity on the most insensate mind. Reflect for how many hours the destinies of Europe hung in the most trying point—when every single life became invaluable—when the day seemed balanced with such dreadful misgivings, that a sabre blow might have turned our single life into a way—think on the gloomy suspense of the last hour before the welcome flashes of Prussian artillery were descried in the distance—observe the hurrying of a unit—and the fast-marching ranks of our insatiable troops, and the personal danger of their great commander—when only a narrow square of men protected him from the whole fury of France—when at most every individual of his gallant staff fell bleeding by his stirrup—consider the immense circumstances, any one of which might have rendered abortive all that constancy of conduct and prodigality of valor—a random shot—an adverse storm—the mistake of an order—the hurrying of a unit—and the thousand other casualties of battle—mute on all this, and surely it must be a heart of uncommon mould which is not filled with trembling thankfulness. On such a field, it would scarcely have required the purified vision of a prophet, or the creative eye of a poet, to desary other than human constraints—to see, what was once beheld in a like treatise (it cries, a super-sensate orb of "chariots and horses of fire." And, if it be important that instances thus extraordinary of Providential favor should be popularly felt and acknowledged—if it be desirable that national sentiments should be made the subjects of national commemoration and doxology,—it must be highly proper and expedient that the triumphal poetry (if it may be so called) in which those successes gave birth, should contain a recognition of the source from which they have proceeded, and the boon which may be said to harmonize with the more sacred voice of religious offices. By these means, not only will the sentiment of national gratitude be brought more intimately home to the bosoms of the men, but a more expressive testimony and memorial of that sentiment will be provided; for, after all, the feelings of a nation will less be sought for in its public acts, which are ordained by authority, than in its popular literature, which lives on opinion and taste.

Would it then be impertinent to express a hope that this omission in the work before us may yet be supplied, and that, in a future edition, the author may interweave with the deserved praises of his countrymen a tribute of acknowledgment to Heaven? This, at least, is certain, that the charitable objects for which Mr. Scott generally writes will not be the worse promoted for the consecration of his lyre. The work of mercy will not be less blessed, by being also made a work of piety; nor will "the animating oil" that heats the sick, be deprived of its efficacy, by being mingled with the incense of religious gratitude.

THE CHRISTIAN TRATY.

At the late Meeting of the British and Foreign Bible Society, the Chancellor of the Exchequer thus spoke of this Treaty—

"If then, as I trust, we have the happiness to witness one of the great eras of the establishment of Christianity, we have abundant reason for additional gratitude, in one circumstance, in which it has differed widely from all which have preceded it. In the former great period of the first promulgation of the Gospel, and the restoration of pure religion at the Reformation, the progress of truth was retarded by every effort of human policy and power. Amidst savage wars, and unrelenting persecutions, religion obtained her painful triumph. But now behold a different scene opposed, (except by the harmless weapons of mistaken controversy,) and wherever public authority has interferred, it has not been to check, but to encourage and support, by every effort of human policy and power. The Kings of the earth have indeed stood up, and the Rulers have taken counsel together, but it has not been against the Lord and against his Anointed—it has not been to extinguish the light of the Gospel in the blood of its professors—but to acknowledge its authority, and extend its influence.

"You will perceive, my Lord, that I am particularly alluding to a very remarkable transaction, which has distinguished the past and which differs widely from all the diplomatic forms, and from the principles of ordinary policy, that it is not surprising that at first it should have excited some degree of jealousy and suspicion—I mean, the Secret Treaty, concluded and signed at Paris, by the Emperors of Austria and Russia, and the King of Prussia. The confused and imperfect notions which prevailed in the minds of the people, naturally occasioned curiosity, even alarm, rather than confidence; but to those, who had the opportunity of being acquainted with the real and genuine history of this arrangement, and of knowing the sincerity and integrity of the principles, from which it originated, it afforded the gratifying and historically unprecedented spectacle of a union of Christian Sovereigns, differing in their respective modes of religious persuasion, but agreeing in a public recognition of the Divine authority, which renders his "rightful Heaven," by a solemn compact, to accept its precepts as the rules of their policy and conduct. I feel it my duty to add, that though legal and constitutional difficulties prevented the Sovereign of this country from acceding in form to this Treaty, yet this Government was confidentially acquainted with every step of the proceedings, and the difficulties prevailing in its principles and spirit.—It was not, however, till the return of the Emperor of Russia to St. Petersburg that it received its official elucidation. It is less than two years since we have heard, the zeal, with which that great Sovereign entered into the concerns of the Bible Society; it became impossible longer to hesitate as to the real sentiments and intention of his heart, in the transaction we have been considering. In giving the Bible to every nation of his vast dominions in its own language, he fixed the real and most appropriate ratification to the Christian Treaty."

THE DUKE OF KENT.

Schools for all.—At the Anniversary Meeting of this Grand British Institution, which was held on the 18th ult. at the London Tavern, his Royal Highness the Duke of Kent (upon a vote of Thanks being carried, moved by the American Minister) delivered the following affecting Speech, which may be considered his farewell Address, and we have no doubt, will be read with sympathetic regret by all who estimated the worth of this distinguished Personage.—

"The attendance to-day surpasses my most sanguine expectations. I have at former meetings looked forward to be present at the next return. Not so now. I am about to leave my beloved country. Perhaps you may perhaps before I meet you again. Let me hear while I am abroad that this cause prospers, and I please myself, that when the purposes of my absence are accomplished, that if I return, I will place One Thousand Guineas, at the disposal and use of this Institution. If I have not done it before, it is because I had not in my power. I am desirous that this last act—this pledge of my love to it, should be upon record. I feel gratified that this motion came from the Minister of the United States. I have lived long in the neighbourhood of the Bible Society, and it was ever a grief to me that the two countries should be at variance. The language and the interest is the same, and the friendship should be inviolable. I return my love to this assembly."

IN CONGRESS, JULY 4, 1776.
A DECLARATION
 BY THE REPRESENTATIVES OF THE
UNITED STATES OF AMERICA,
 IN GENERAL CONGRESS ASSEMBLED.

WHEN in the Course of human Events, it becomes necessary for one People to dissolve the Political Bands which have connected them with another, and to assume among the Powers of the Earth, the separate and equal Station to which the Laws of Nature and of Nature's God entitle them, a decent Respect to the Opinions of Mankind require that they should declare the causes which impel them to the Separation.

We hold these truths to be self-evident: that all Men are created equal; that they are endowed by their Creator with certain unalienable Rights; that among these are Life, Liberty, and the Pursuit of Happiness—That to secure these Rights, Governments are instituted among Men, deriving their just Powers from the Consent of the Governed, that whenever any Form of Government becomes destructive of these Ends, it is the Right of the People to alter or to abolish it, and to institute new Government, laying its Foundation on such Principles, and organizing its Powers in such Form, as to them shall seem most likely to effect their Safety and Happiness. Prudence, indeed, will dictate that Government long established should not be changed for light and transient Causes; and accordingly all Experience hath shewn, that Mankind are more disposed to suffer, while Evils are sufferable, than to right themselves by abolishing the Forms to which they are accustomed. But when a long Train of Abuses and Usurpations pursuing invariably the same Object, evinces a Design to reduce them under absolute Despotism, it is their Right, it is their Duty, to throw off such Government, and to provide new Guards for their future Security. Such has been the patient Sufferances of these Colonies; and such is now the Necessity which constrains them to alter their former System of Government. The History of the present King of Great-Britain is a History of repeated Injuries and Usurpations, all having in direct Object the Establishment of an absolute Tyranny over these States. To prove this, let Facts be submitted to a candid World.

He has refused his Assent to Laws, the most wholesome and necessary for the public Good.

He has forbidden his Governors to pass Laws of immediate and pressing Importance, unless suspended in their Operation till his Assent should be obtained; and when so suspended, he has utterly neglected to attend to them.

He has refused to pass other Laws for the Accommodation of large Districts of people, unless those People would relinquish the Right of Representation in the Legislature, a Right inestimable to them, and formidable to Tyrants only.

He has called together Legislative Bodies at Places unusual, uncomfortable, and distant from the Depository of their public Records, for the sole Purpose of fatiguing them into Complicity with his Measures.

He has dissolved Representative Houses repeatedly, for opposing with manly Firmness his Invasions on the Rights of the People.

He has refused for a long Time, after such Dissolutions, to cause others to be elected; whereby the Legislative Powers, incapable of Annihilation, have returned to the People at large for their exercise; the State remaining in the mean time exposed to all the Dangers of Invasion from without, and Convulsions within.

He has endeavoured to prevent the Population of these States; for that Purpose obstructing the Laws for Naturalization for Foreigners; refusing to pass others to encourage their Migrations hither, and raising the Conditions of new Appropriations of Lands.

He has obstructed the Administration of Justice, by refusing his Assent to laws for establishing Judiciary Powers.

He has made Judges dependent on his Will alone, for the Tenure of their Offices, and the Amount and Payment of their Salaries.

He has erected a Multitude of new Offices, and sent hither Swarms of Officers to harass our People, and eat out their Substance.

He has kept among us, in Times of Peace, Standing Armies without the consent of our Legislatures.

He has affected to render the Military independent of and superior to the Civil Power.

He has combined with others to subject us to a Jurisdiction foreign to our Constitution, and unacknowledged by our Laws; giving his Assent to their Acts of pretended Legislation:

For quartering large Bodies of Armed Troops among us:

For protecting them, by a mock Trial, from Punishment for any Murders which they should commit on the Inhabitants of these States:

For cutting off our Trade with all Parts of the World:

For imposing Taxes on us without our Consent;

For depriving us, in many Cases, of the Benefits of Trial by Jury:

For transporting us beyond Seas to be tried for pretended Offences:

For abolishing the free System of English Laws in a neighbouring Province, establishing therein an arbitrary Government, and enlarging its Boundaries, so as to render it at once an Example and fit Instrument for introducing the same absolute Rule into these Colonies:

For taking away our Charters, abolishing our most valuable Laws, and altering fundamentally the Forms of our Governments:

For suspending our own Legislatures, and declaring themselves invested with Power to legislate for us in all Cases whatsoever.

He has abdicated Government here, by declaring us out of his Protection and waging War against us.

He has plundered our Seas, ravaged our Coasts, burnt our Towns, and destroyed the Lives of our People.

He is, at this Time, transporting large Armies of foreign Mercenaries to complete the Works of Death, Desolation, and Tyranny, already begun with circumstances of Cruelty and Perfidy, scarcely paralleled in the most barbarous Ages, and totally unworthy the Head of a civilized Nation.

He has constrained our fellow Citizens taken Captive on the high Seas to bear Arms against their Country, to become the Executioners of their Friends and Brethren, or to fall themselves by their Hands.

He has excited domestic Insurrections amongst us, and has endeavoured to bring on the Inhabitants of our Frontiers, the merciless Indian Savages, whose known Rule of Warfare, is an undistinguished Destruction, of all Ages, Sexes and Conditions.

In every stage of these Oppressions we have Petitioned for Redress in the most humble Terms: Our repeated Petitions have been answered only by repeated Injury. A Prince, whose Character is thus marked by every act which may define a Tyrant, is unfit to be the Ruler of a free People.

Nor have we been wanting in Attention to our British Brethren. We have warned them from Time to Time of Attempts by their Legislatures to extend an unwarranted Jurisdiction over us. We have reminded them of the Circumstances of our Emigration and Settlement here. We have appealed to their native Justice and Magnanimity, and we have conjured them by the Ties of our common Kindred to disavow these Usurpations, which, would inevitably interrupt our Connections and Correspondence. They too have been deaf to the Voice of Justice and of Confanguinity. We must, therefore, acquiesce in the Necessity, which denounces our Separation, and hold them, as we hold the rest of Mankind, Enemies in War, in Peace, Friends.

We, therefore, the Representatives of the UNITED STATES OF AMERICA, in GENERAL CONGRESS, Assembled, appealing to the Supreme Judge of the World for the Rectitude of our Intentions, do in the Name, and by Authority of the good People of these Colonies, solemnly Publish and Declare, That these United Colonies are, and of Right ought to be, FREE AND INDEPENDENT STATES; that they are absolved from all Allegiances to the British Crown and that all political Connection between them and the State of Great-Britain, is and ought to be totally dissolved; and that as FREE AND INDEPENDENT STATES, they have full Power to levy War, conclude Peace, contract Alliances, establish Commerce, and to do all other Acts and Things which INDEPENDENT STATES may of right do. And for the support of this Declaration, with a firm Reliance on the Protection of divine Providence, we mutually pledge to each other our Lives, our Fortunes, and our sacred Honor.

Signed by ORDER and in BEHALF of the CONGRESS.

JOHN HANCOCK, PRESIDENT.

ATTEST.

CHARLES THOMSON, SECRETARY.

PHILADELPHIA: PRINTED BY JOHN DUNLAP.

This historically correct replication was printed from single metal types just as John Dunlap printed the original the evening of July 4, 1776. Printed July 4, 2003, at Terra Alta, WV, by Rich Hopkins & crew.

my form ended up being about 18 points deeper than the original. Two reasons for this variance are suggested. First, the paper may well have shrunk. Secondly, the type used was made before the point system was introduced and thus the type size first used probably was slightly smaller than modern 10-point type. Keep in mind that the Point System was not in general use until the 1880s.

The paper's nameplate was a problem I could not overcome with type. I scanned the original and re-created the type digitally, having a copier engraving made to be inserted at the top of the page—not too far astray from electrotyped nameplates which were quite common to a later letterpress newspaper production.

Of course a fresh Vandercook proof of my form is perfect and sharp, where the original, being printed on a primitive press and utilizing worn type appears more ragged. But otherwise, the similarity is very close indeed.

Also, I must comment on the type composition of the original. It was very clean. I detected only one inverted letter and two run-ons (same word at end of one line and again at the start of the next line). Otherwise, it was clean! Sorry, we can't say that about modern newspapers which have the benefit of spell check, computers, etc.

My thanks go out to Steve Pratt for referring the *Observer* folks to me. He was doing restoration work on their press when the issue of an accurate, valid form for the press first came up. He suggested they call me! *Thanks, Steve!*

THE DECLARATION OF INDEPENDENCE

Mike Anderson called one day asking "do you have everything necessary to cast the Declaration of Independence." To his surprise, I said yes with no hesitation. Mike may not have realized I had already made a study of the document and had cast it in 1976 for my own bicentennial celebration. At that time I didn't have the right size of the long s characters used in the original (about 12 point). And at the time I had used hand-set foundry type for my major headings, not having necessary mats and molds for 48 and 60 point CASLON 437 at the time. But I knew I now had everything necessary.

On the previous pages, two of my typesetting projects are demonstrated at approximately 50 per cent of their original sizes. In both instances, the new typesetting was done to precisely duplicate the original hand-composed documents, first published in 1776 and 1816 respectively. Each matches its original throughout. The documents also provide an excellent view of the dramatic changes which took place in our alphabet and in typography in just 40 years.

Mike and I worked together to fulfill the needs of the Freedom Forum, which is building a *Newseum* (museum of news) near the Smithsonian in Washington. Their desire was to have the *Declaration* prominently displayed, locked up in a common press near the entrance. Mike took care of the press issues and played the role in helping them do a documentary concerning the exhibit, and he also came to the Hill & Dale to assist me in setting up the document.

It required that I compose CASLON 337 with all long-s characters at a line length of 70 picas, again working line-for-line throughout the document. Those who know the Monotype know the keyboard will handle such a length, but the caster cannot get near that line length. Further, the original was set "loose" and thus, I often came to a line ending before my keyboard unit wheel began to register. I overcame that rather easily doing math in my head at each line ending.

At the caster, I had to "trip the galley" half-way through each line, handing the type to Mike, who pieced the lines back together in a large galley. Surprisingly, the justification was fairly close, so a lot of re-justification by hand was not necessary.

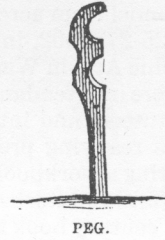
The big problem with display was the issue of small capitals in sizes up to 48 point. We studied and matched, finding 30 point caps a good small cap for 48, and 22 point caps for 30 point. We cheated by casting the display to uncommonly wide sets to match letterspacing in the original document, avoiding the need for thin spaces.

Interestingly, there are several documented copies of John Dunlap's original printing of the *Declaration*, completed and distributed the afternoon of July 4, 1776. All copies don't match precisely! Apparently they were proofreading as the presswork continued. We chose to use the copy which is attached to the *Journal of the Congress* for July 4, 1776, as displayed in *The Formation of the Union*, published in 1970 by the National Archives of the United States.

Mike and I both now have copies of that form as well as the Museum, meaning I have run the ribbon three times. Proofreading has been a real "bear," because of now-strange capitalization and the injection of the long s and its ligatures. In keyboarding the new version, I found five errors in my 1976 work!

So once again you see that collaboration between ATF members has resulted in worthwhile projects with adequate financial compensation too. By the way, I've got some dandy three-color Vandercook prints of my form, definitely "suitable for framing," Size 14¾"x20". If you want one, send \$8.00 for postage & handling.

he can back and fill, shoot straight ahead, or flirt suddenly around a corner, and make the oar stay in those insignificant notches, is a problem to me and a never diminishing matter of interest. I am afraid I study the gondolier's marvelous skill more than I do the sculptured palaces we glide among. He cuts a corner so closely, now and then, or misses another gondola by such an imperceptible hair-breath that I feel myself "scrooching," as the children say, just as one does when a buggy wheel grazes his elbow. But he makes all his calculations with the nicest precision, and goes darting in and out among a Broadway confusion of busy craft with the easy confidence of the educated hackman. He never makes a mistake.



Sometimes we go flying down the great canals at such a gait that we can get only the merest glimpses into front doors, and again, in obscure alleys in the suburbs, we put on a solemnity suited to the silence, the mildew, the stagnant waters, the clinging weeds, the deserted houses and the general lifelessness of the place, and move to the spirit of grave meditation.

The gondolier *is* a picturesque rascal for all he wears no satin harness, no plumed bonnet, no silken tights. His attitude is stately; he is lithe and supple; all his movements are full of grace. When his long canoe, and his fine figure, towering from its high perch on the stern, are cut against the evening sky, they make a picture that is very novel and striking to a foreign eye.

We sit in the cushioned carriage-body of a cabin, with the curtains drawn, and smoke, or read, or look out upon the passing boats, the houses, the bridges, the people, and enjoy ourselves much more than we could in a buggy jolting over our cobble-stone pavements at home. This is the gentlest, pleasantest locomotion we have ever known.

But it seems queer—ever so queer—to see a boat doing duty as a private carriage. We see business men come to the

Walczak Casts Font for Smithsonian Printing Seminar

BY JIM WALCZAK

One of the advantages to doing volunteer work at the Smithsonian's National Museum of American History (NMAH) is the infrequent opportunity to provide some creative typesetting.

Museum Specialist Stan Nelson was hosting a printing workshop, "Making a Good Impression," with a goal of enlightenment of museum and academic personnel from across the country. It was held April 25-27, 2002, in NMAH's Hall of Printing & Graphic Arts in Washington, D. C. Over 36 enrollees were in attendance.

In advance, volunteers and interns were kept busy over a month reading presses, gathering material and preparing a workbook.

One of our more ambitious tasks was to handset four pages of a 19th century book to be printed on the museum's A. B. Taylor 1860 Washington handpress in demonstrations conducted by Richard-Gabriel Rummonds. Also, the forms would be used to print a keepsake using the museum's Vandercook press.

Mr. Rummonds provided the copy for our task. He made selections from an 1887 edition of Mark Twain's *Innocents Abroad*, his account of a steamship trip to Europe and the Holy Land. Selected pages, edited slightly, were from a chapter covering his observations of the Venetian gondola. Page 230 is shown here.

To replicate the 1887 pages, Stan suggested use of one of Monotype's "Modern" faces, but a good supply of the roman with matching italics and small caps was not available.

The services of my English Composition Caster were offered and accepted with sighs of relief. A review of my American Monotype specimen book showed MODERN NO. 34 was as close a match as one could get. Ten point seemed acceptable for the job, but in hindsight I now wonder if 11 point might have been better.

Reasoning that the foundry type used in 1887 most likely was tightly cast on the body, I used a 9-set normal wedge rather than the specified 9½ set. Casting went very well. To avoid using my keyboard, I manually punched each character in the control tape on the air tower. In a couple of days, a case was full "to the brim" and in a couple more sessions at the caster, small fonts of italics and small caps also were made.

As reward for my efforts, I was invited to join in handsetting the type which I had just cast! In reality, most of the setting was accomplished by NMAH volunteer, Ellen McKee. She also provided the type needed to set a close facsimile of a title page needed for the pamphlet and she did a

lion's share of the Vandercook work. Afterwards, she did the sewn binding of the booklet, finishing all this after the workshop ended. The souvenir keepsakes were mailed to each attendee.

As Stan pointed out in the keepsake colophon, "you will see 19th century word spacing was more generous than is now considered artistic, but such composition was the norm. It made composition a bit faster, and as the typesetters were paid by the volume of type set, there was no incentive to set the matter tight."

My final rewards were (1) the good feeling gained in seeing the type "come to life" as Richard-Gabriel Rummonds demonstrated his skills with the iron handpress; and (2) the knowledge that all conference attendees gained a better understanding of the realities of working with metal type.

24-point Mademoiselle
 ABCDEFGHIJKLMNOP
 OPQRSTUVWXYZ&
 \$1234567890(.,-:;'"!)*
 ☞ abcdefghijklmnop ☞
 qrstuvwxyz
 ☞ 1234567890 ☞

This is a fresh new casting of a rare font designed by Tommy Thompson in 1953 as a display face for *Mademoiselle* magazine. It was cut by Herman Schnoor at Baltotype in 24, 36, 42 and 48 point sizes. Jim Walczak of Oxon Hill, Md., did this casting from original mats now at the Hill & Dale Typefoundry.

Mac McGrew in his *American Metal Typefaces*, comments, "It is a delicate, narrow modern roman with long ascenders and short descenders, rather loosely fitted . . ." Note the fists, the alternate lowercase *i*, and ranging figures 1234790 which appear odd composed with lining 568, as demonstrated above. In this casting, Jim removed some of the "looseness," but more "squeezing" could be done, especially on the lowercase.

Departures for That Big Composing Room in the Sky

Ye ed does a lousy job with recording the passing of brothers and sisters in our craft, because these remind me so forcefully of my own mortality. I'm aware of six individuals who have departed our letterpress realm; if I have failed to record others, I apologize.

ALEX LAWSON was the legendary professor of typography at Rochester Institute of Technology and source of countless articles and books on our craft. He inspired many generations of budding typographers and more importantly, continued to prod and encourage us in his retirement. I received many emails and letters from him at his Sun City Center, Fla., home right up to weeks before his death in May, 2002, at the age of 89. I always looked up to him; a compliment from him always inspired me to work harder on producing this *Newsletter*.

I have known DWIGHT AGNER since meeting him in Pittsburgh many years ago. At his Press of the Nightowl he produced exemplary work, always meticulously executed. Within the past couple of years, I was honored to be able to cast type for one of the last editions he did, *Conway on Wolfe*. He had lived in Athens, Ga., for many years. Though Dwight didn't cast type, he did much to encourage those of us who did. He was with our group in Germany, and attended several Conferences. He passed away earlier this year at the age of 63, I believe.

BILL JACKSON had a long history as a private pressman at his Four Ducks Press, Wichita, Kansas. He attended several of our Conferences, was always enthusiastic, humorous and encouraging, and was very talented both as a typographer and as an artist. Only recently he was sharing with me his experiences with Will Ransom. He illustrated his work well with excellent caricatures, and had a love-hate relationship with Linotype machines. I heard of his death only as I was closing pages for this issue.

JOHN HERN of Coeur d'Alene, Idaho, is another person whose passing was just revealed. It's a shock to me, for John was an enthusiastic, energetic, and *younger* member of our group. He and his wife Amy have attended several of our meetings. The disposal of his massive collection of Monotype matrices and Thompson equipment is surely in question.

EDMUND CUTLER of Christchurch, New Zealand—at his death, he was progressing nicely as a punchcutter and engraver. He had been associated with our ATF for many years. The abbreviated report here is provided by Jim Walzak and Stan Nelson:

"Edmund Cutler, soil scientist turned printer, wood engraver, punch cutter, mold maker, book binder and lover of plants died June 13, 2002, age 79. Our friendship with this illustrious proprietor of The Cock and Bull Press started 11 years ago when he and his wife, Anne, visited Washington.

"We liked Edmund even before we met him. He wrote to Stan introducing himself and requesting a visit to the Smithsonian Institution National Museum of American History's Division of Graphic Arts. In his letter we learned he was doing wood engraving on a fine-grained, hard New Zealand wood using tools made of old files. But most impressive to us was his disclosure that he'd salvaged four boxes of Lutetia composition matrices and that he was interested casting them by making his own hand mold, and that he also wanted to cut his own punches. His goals were clear. He wanted to cast type as well as cast ornaments of a 'New Zealand natural history motif.'

"During his visit the groundwork was laid for his building a mold as well as getting a good start in accomplishing his goals. Stan provided advice and drawings on mold construction, and a visit to Jim's Sycamore Press & Typefoundry sent Edmund on the way with a package of ornaments and that undefinable feeling of seeing typesetting machines in operation.

"We learned from the 1993 issue that Edmund had cut missing letters in NZ Rata wood to fill out missing sorts in his metal fonts of Saphir and Mistral. In 1994 he reported his completion of his hand mold and printed 'A Lead Letter Day' in his hand-cast 18 point Lutetia italic caps. In 1996 he told of the trials and tribulations of making his first six punches and matrices for a botanical style ornament. Finally, in 1999, his last entry in the annual *It's a Small World*, he printed a three-color ornament of his own design, punch-cutting and hand-casting a New Zealand native shrub, *Dac-dium laxifolium* (Pygmy Pine). Edmund Cutler not only met his goals, he exceeded them. Perhaps his greatest success in life was the combination of his love of plants with his hobby of typesetting.

"We were happy to learn from Anne Cutler that their son, Andrew, hopes to take over The Cock and Bull Press. We are looking forward to this and offer him our words of encouragement."

LILLIAN WORLEY of Haddonfield, N. J., was one of my greatest supporters and letterpress enthusiasts from the time we first met in 1964. She was a devoted Amalgamated Printers Association member and that group's first "tramp printer." She passed away in August. Her encouragement and marvelous humor will be greatly missed.