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ABOUT GALLEY GAB...

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■ All unsigned articles are those of the editor. Signed articles do not necessarily represent the views of *Galley Gab*.

Letter A NEW ERA? press

AN INTERVIEW WITH GERALD LANGE

Gerald Lange is the proprietor and founder (1975) of The Bieler Press, a small printing and publishing firm specializing in studio letterpress, typographic book design, letterform and image restoration and reconstruction, as well as the production and publication of finely-printed limited edition books and other printed matter. He was the first recipient of the prestigious Carl Hertzog Award for Excellence in Book Design. Lange is the founder of PPLetterpress, the online forum on investigative, exploratory, and alternative printing and typographic techniques. His monograph on the digital-to-analog process, "Printing digital type on the hand-operated flatbed cylinder press," is currently in its third edition.



Q

What prompted you to switch from metal type to polymer?

A

My switchover did not exactly happen overnight. My first printed work with photopolymer plates dates back to 1991, though I had been experimenting with the process a bit previously. My last printed work with metal type was in 1998. I had amassed a considerable collection of metal type; both foundry and Monotype, so there was no real need to switchover. It became increasingly obvious though, that with most of my production tending toward photopolymer, housing the type collection was an ongoing economic burden, and selling it off was a logical step financially.

By the early 1990s, the demise of the type foundries and growing lack of sources for reliable Monotype composition was a considerable concern for anyone engaged in letterpress printing in a productive capacity. Photopolymer was an increasingly viable option. My involvement with photopolymer was never a purposeful strategy but more happenstance.

In trying to reconstruct the history of my involvement, I guess I would suggest that it began when I started receiving promotional materials from Adobe Systems regarding their new digital type program. I was quite impressed with their classical approach but I knew very little about the nature of digital type. When I went to a typesetting conference hosted by Harold Berliner, amazingly enough, there were several folks from Adobe in attendance. During a casual conversation I was offered the initial Adobe Originals collection with the closing question, “Which platform do you use, Mac or PC?” When the type arrived, I went out and bought a Mac and the software necessary to set up a small desktop publishing workstation! I then spent several months figuring out how to replicate my traditional practices on this very alien and elusive technology.

At that time, photopolymer was becoming an increasingly hot topic in the fine press community. [Julie Holcomb](#), the San Francisco printer, was getting some good press for her use of the process; James Trissel, of the Press at Colorado College, was actively promoting it; and Patrick Reagh, in Los Angeles, was not only processing plates for studio letterpress folks, he had developed an economical flatbase for printing with them. Experimenting with the process was a no brainer.

What surprised me about it was not only how well it could prove to serve as a substitute for metal type but that it provided compositional options that far surpassed the re-

strictive nature of metal type practices. When I received two broadside commissions that would have been very difficult to print in the traditional manner, I opted for photopolymer and became an immediate convert; absolutely convinced of the merits of the process.

Q Is digital type—out of the box so to speak—suited for good letterpress printing?

A My initial concern with digital type and the photopolymer plate process was how well it could replicate traditional tools and techniques. My experimentation was to that end. I would have to say though, generally no, unmodified digital type is not well suited for “good letterpress printing.” There are a number of reasons (and exceptions) for this which I have previously detailed in my article [“An Affinity by Design: Digital Type Foundries Respond to Letterpress.”](#)

The problem is that digital typefaces are not equipped nor designed for the peculiarities of letterpress—primarily accumulating ink gain and impression. Plate processing with film negatives also adds a slight gain. Thus, the rationale for modifying a font is to reduce the thickness of the letterforms to compensate for this added weight. This has to do with size

optimization as well. Most digital fonts are produced at a small text size; usually 10-pt—increasing the size of the typeface does not actually change the fact that it is, in actuality, a small text size. Even at 72-pt, it is still a 10-pt design though now enlarged to 720%, yet still with the characteristics of a 10-pt letterform. This is in fundamental opposition to metal type design production and an unfortunate carry over of practice initiated during the period of photo film composition.

Those first two broadside projects accidentally showed me the way. I had set one of them in a 4-pt size (to be printed in red on a long slim piece of Japanese handmade paper). It printed quite well as per the printing characteristics of the photopolymer plate, staying crisp and open and with uniform color, and actually quite legible, but the reason it worked well typographically was that I had reduced the typeface letterform weight by using it at an extremely small size. The other piece was a reverse on a solid. It was a heavier letterform and thus did not fill in when printed, even in a rather small format. From these I realized that controlling the sizing/weight of digital type was crucial but the only effective way to do that was to modify the font prior to use, in other words, to edit it in a font-editing program (at that time, Fontographer). When I discovered the programmers’ “underground manual” on the web, which included exacting strategies for font modification, this then became a routine practice for me. I will often create many dif-

ferent instances (sizing weights) of a font during this process, as it provides further refining options during the micro-typographic design stage of a piece. Essentially this provides me with as useful as possible the sizing ranges that would have been available with metal type, at least, metal type produced following the invention of the Benton pantograph.

Q How did the Bieler Press come about; what did you produce at the beginning and what is your primary work now at the Press?

A In 1975, I took an elective course on typography/bookmaking from Walter Hamady while pursuing graduate work and got myself hooked on letterpress, so to speak. Walter required that students have a press name attached to their work and I choose the name “bieler.” I grew up in the upper Midwest and it was not an uncommon slang word for, as my father put it, “a little boy who has his own mind about how to do things.” I was the bieler of the family. The derivation of the word is archaic German and meant “boy child.” At any rate, I scrambled some money together and set up shop.

Initially the Press was nothing more than

a reflection of the times, that being the “fine press renaissance,” and I was intent on printing/publishing small format literary work—chapbooks and broadsides—as I could afford to produce them. Eventually I was able to expand into producing books. However, as the times and circumstances changed, so did I.

The Press is nothing more than the business entity for my activities and interests in studio letterpress, typography, and book arts. I have never been overtly commercial but since revenue generated by these is my only source of income, I keep a number of irons in the fire and watch them closely. In my three decades of work in the field I have learned, if nothing else, to pay attention to the ebb and flow. Over the years, the direction and focus of the Press has changed quite a bit compared to that of presses who do not deviate the course. I tend to avoid “mission statements” as I have no idea where this is all to lead and do not want to find myself locked into a “foolish consistency,” as Emerson put it. Although a twisting and turning road, it has been the learning experience of a lifetime and that for me is its primary value.

I have a couple of fine press book projects in the works (likely my last), and will be expanding the Monographs publishing in the next year or so, but most of my recent activity is in response to the explosion of interest in typography and studio letterpress. I am engaged in far more instructional venues (coursework, workshops) than in past years and find myself spending an inordinate amount of time in the

“I tend to avoid ‘mission statements’ as I have no idea where this is all to lead and do not want to find myself locked into a ‘foolish consistency,’ as Emerson put it.”



platemaking room processing work for clients in card and invitation printing. I am not sure how long this current phenomenon will last and how it will evolve out, but I am busy readying myself for the next phase, whatever that might turn out to be.

Q You mentioned that your Press has changed focus and direction over the years compared to others who haven’t. Could you explain these changes and why you took the various directions you did?

A When I started out my concern was not to publish collectable books, but merely to publish with a technology and materials that I had come to respect. I sought out thematic manuscripts to allow for variance in my design and formatting, to avoid the pitfalls of a repetitive

stylistic approach. As my understanding and interest in typography grew, I began to look for a different approach to the type of material I was publishing. With my move to the Twin Cities in 1980, I took on commissioned work, and a number of the projects had historical settings and I appreciated the research required to properly address them. In turn, the books I was publishing became conceptual in their orientation.

My move to Los Angeles, in 1986, was a turnabout. As the editor of a couple of journals during this period and the beginning of my writing about typography, printing, and the book arts, I began to question not only the validity of my previous work but the rationale of classical typography and the fine press book itself. This was a long period of self-examination and I was quite uncertain how to resolve the dilemma. I would eventually clarify this for myself, but I emerged from it with a different purpose in my publishing efforts. In retrospect, this was somewhat inspired by James Trissel, who suggested that fine press printer-publishers should take more of an artistic stance and develop books from their own vision rather than follow the traditional paths. A contemporary press who vividly followed this methodology (independently) was Logan Elm Press. Robin Price, who I was associated with while at the USC Fine Arts Press (and who was later influenced by Trissel), follows a similar inclination.

This is a very legitimate, yet dangerous ap-

proach, as it can verge on self-indulgence, and the fine press book collecting market is extremely conservative. Nevertheless, it has provided some form of full circle closure for me. I began this out of a love for the process and a need to be involved in presenting ideas to the world, and that is how I intend to end it. Those last few projects were developed several years ago, when I was still in my prime and thus I trust their integrity. I am hesitant to go beyond them as, frankly, I am getting older and do not trust the innate conservatism that accompanies that, especially when it comes to the artistic approach. I have come to understand that there is a time when one should start giving back what one can rather than foolishly forging ahead. I have witnessed the work of those who have unknowingly gone beyond their limitations and I would just as soon not follow that road. There are others ways to continue to contribute.

Q If you were 20 years younger and knowing what you now know, what direction do you think Bieler Press would be taking?

A I see you were successful in bringing me roundabout here. Okay. Though I will still side with Robert Burns on this, “The best

laid schemes o’ mice an’ men / Gang aft a-gley.” However, if I were to make that deal with the Devil at the crossroads on a hot summer’s night, I would probably ask for a very big bag of dough-re-me to go along with it. Having to “eat over the sink,” while pursuing one’s dreams, is a very tough act to follow—though I think the proper mixture of poverty and dream may do more to ensure keen survival than the false and lulling security of money.

Given such an opportunity though, I suspect I would be aggressive on a number of fronts. A primary concern would be something I actually did raise up about fifteen years ago (in a published essay), that being encouraging the manufacture of a state-of-the-art precision flatbed cylinder press. With twenty years to go, I would definitely be concerned with ensuring that my equipment and materials and the supplies of production were viable for the long haul.

I doubt my letterpress concerns and approach would change much as I am very comfortable with, and have great respect for, hand operations in production, but I think I would focus more on research, both as a writer and as a practitioner. My printing/publishing program would be more purposeful to that end, to explore historical technique and experiment with alternative print technologies. I would probably be less singular in my approach and would likely try to associate in some collaborative manner with institutional facilities that support such ideas.

In addition, I would hope to be making a corpus of phenomenal, well-crafted, typographic books—to the best of my ever-growing abilities. There are so many stories left to tell and ways to tell them, and so many ideas yet to explore.

However, the reality of it all is that at the end of that illicitly purchased twenty years, one is still faced with the same specter. I am not unsatisfied with the way it all turned out and can't imagine, given my resources and the circumstance of my evolvment, that I would have done anything differently, though I do wish I could have, and admit that I should have, done far more.

Q You've mentioned your workshops. Can you give a synopsis of what you teach and also when your students finish the workshop, what is the one thing you hope that they take with them from the experience?

A The courses that I currently teach are Introduction to Letterpress, Finer Points in Letterpress Typography, and Digital Letterpress. They are ten to fourteen weeks in duration and are community based, thus the students are there to learn. This has allowed me

to develop a teaching method that combines practices that are, in education speak, known as “project-based learning” and “unschooling.” This relies on practical explanation, hands on experience, and, especially, “teachable moments.” It is far more unstructured than traditional practices but also far more flexible and intense and risky.

Generally I will begin with a discussion of the early printers and the origins of typography, basically, the why and how of it. There is an emphasis on the development of movable type and typography as it is my feeling that an understanding of its function is crucial to well developed printing. The discussion/s intends to not only overwhelm but also elicit direction from the students. A small introductory project is the basis for several practical demonstrations of composition, lockup, and presswork, as well as typographic exercises shown on the computer. After the students have “successfully” completed their projects, they “graduate” and are required to come up with their own learning projects or area of learning. As much as possible my teaching assistants and I service them on a one-to-one basis throughout the rest of the semester. They are not required to complete their chosen project/s as I see learning as a process that can be erred with the demands of time

constraint.

My concern in the demonstrations is that the students gain an understanding of the most efficient and appropriate way to compose and print and thereby to develop their pieces so they are more successful in their execution. From this I expect that, if nothing more, they gain respect and appreciation for the process.

What I hope for is that occasional gleam of lust and passion, the student who you cannot give enough to, who demands more, and who is going to take it further. I am not a letterpress evangelist, as I do not think its survival depends upon broadening the field (in fact, I suspect the opposite), but I am a believer in the merits of the process, and for that continuance we need for it to be carried forward by those equipped with knowledge and understanding as well as heart and soul.



Gerald Lange at Mable Lee's Clearwater Studio workshop with students.

Q What are the future prospects for newcomers to letterpress finding that “knowledge and understanding” of which you speak?


A Anyone serious about letterpress will find the way. As the Zen adage states, “when the student is ready, the teacher will arrive.” Largely because of Internet communication, there has never been a time before when information sources and references are so plentiful, or a time when admittance to the craft is so accessible. For anyone willing to sacrifice the time and effort there are workshops, community based courses, internships, and apprenticeships. There is no bereft of opportunity for learning.

The real problem facing us is not lack of instructional resources per se but rather dwindling material resources. Traditional presses, equipment, and tools are not only scarce they are wearing out. To some extent the wholesale adoption of the photopolymer plate process by newcomers to the field has resolved and yet exacerbated the problem. The letterpress community has been so typically self-focused and unconcerned about the material needs required to ensure the future of the craft that it is almost certain to winnow out and literally grind down. I can easily envision a fu-

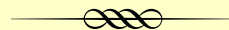
ture where a couple of dozen folks with iron hand presses and hoarded collections of metal foundry type are all that remain of letterpress practice. A scenario not unlike what the private press was in the 1950s.

Though some might suggest the lack of technical training in the field is the culprit for the “dummying down of letterpress,” to a large extent studio letterpress as it has been practiced in the last forty or so years was largely uninfluenced by the industry. Most of the prominent teachers of the 1960s and 1970s had themselves entered the field only for the love of it and were completely lacking in technical training. However, when today’s newcomer takes an introductory feel-good letterpress workshop, goes out and buys a worn out C&P “letterpress” and a Boxcar base and sets up a commercial invitation card studio, without actually having any other experience in printing, yes, that does indicate that there has been a break in the pipeline. When the common perception of letterpress is that it is

“...when the student is ready, the teacher will arrive”



merely deep impression of letters into paper; that is all it will be, because that is all that is wanted or expected from it. The responsibility for this falls not just on the educators, but also the practitioners.



Happenings

Send in your letterpress related announcements or other interesting items. [Email the editor](#).

Briar Press in 12th year

No doubt one of the best online web sites for letterpress printers has been, and is, the [Briar Press](#). This year they are marking their 12-year in existence. Recent word from Elizabeth Nevin was that on August 22, 2007 the 10,000th person registered as a member of Briar Press.

Those who frequent the site (and we can’t imagine anyone interested in letterpress who doesn’t) know that they are undergoing a major redesign of the site. Those familiar with the site know that it is a mom and son operation (Elizabeth and Eric) but Elizabeth said recently that they had to hire a programmer to help code the current upgrade. The site take a huge amount of time and as it upgrades, the expenses have increased.

In a few months *Galley Gab* hopes to have a rather in-depth article on the Briar Press and its online operation (and how it all started).

If you care to express your thanks to the Nevin crew and help them financially with their web site work, you can go to [this site](#) and send your donation via credit card or PayPal.

Vandercook workshop

Paul Moxon will be doing a two-day Vandercook Maintenance workshop at the Columbia College in Chicago on October 13-14. [Contact the college](#) for more information.

NORTHERN ILLINOIS UNIVERSITY

Common Press restored

By BARRY SCHRADER

A full size replica of a 17th Century Common Press was built by Industry and Technology senior students in 1976 at Northern Illinois University in DeKalb, Ill. under the direction of then-rare books curator Anthony Bliss, a wooden press enthusiast.

When completed, the 700-pound oak press was moved to the front display area of the university library's fourth floor Rare Books and



This 700-pound oak Common Press replica stood idle on display at the NIU library in DeKalb, Illinois for more than 20 years until it was restored to use this Spring.

Special Collections. Several keepsakes were printed on the press over time until 1983 when Bliss left the university. After that it stood unused for some 24 years until this Spring. The current Rare Books curator Lynne Thomas contacted APA member Barry Schrader, who had recently moved back to DeKalb from California in retirement, and asked for his help in restoring the press. He gladly accepted the challenge and spent several days replacing the rotted leather straps, gluing some parts back together that had warped and replacing the frisket and tympan coverings.

In preparation for the July 18th annual meeting of the Friends of the NIU Library he and Lynne designed and set type for a specimen to be pulled at the meeting. Using dampened paper, and with helpful tips long distance from APA member Mike Anderson, also a Common Press owner, the first proofs were pulled and attendees were invited to pull the big lever to print their own keepsakes. So the press is now back in operation and

future plans are to design some broadsides and demonstrate printing on it for university classes and groups visiting the library.

Documents in the NIU library archives indicate that the press was modeled after plans published in an 1825 London book *Tytopographia*, written by Thomas Hansard. He had apparently copied the plans from an 1808 printer's manual published by Caleb Stower, which had been copied from a 1770-71 manual written by Philip Luckombe. This in turn had been taken from Moxon's original design.

Some 15 students were involved in the actual construction of the NIU press over a three month period. All the oak came from a local farmer's sawmill. The only oversight in building it was that the wood was not allowed to season for a year to avoid warping. This has presented some problems in its restoration, but it still produces fine printing with proper makeready, packing and inking.



Barry Schrader holds the brayer as he and NIU Rare Books curator Lynn Thomas prepare to ink the type on the University's Common Press.

For your next letterpress project, make your own paper!

By MIKE ANDERSON

I love paper. I have had this thing for it since before I could print the alphabet. This love continues to this day. However, I now find a closer relationship in making it. My time spent in the “paper mill,” located under our deck behind the house, is some of the best quality time I have to myself. When I’m casting paper, the only sounds I hear are those made by the forming of the sheets and nature. I live in the woods, with several acres separating our home from neighbors. I even have a whitetail doe that comes and grazes in our back yard, bringing along her two fawns. This is the fourth year that this particular doe has come. Before him, it was probably her mother.

Because of this setting and my love affair with paper, the methods I use are not those of someone who is trying to make a living at papermaking. I’m in no rush. It takes me over an hour to cast 26 19 ½ x 15 inches sheets. It could probably be done in half the time, but without any of the enjoyment.

Beating up the Stuff

There are several methods that can be used to get the stuff—the pulp needed in the forming of the sheets. I have a Hollander that al-



lows me to beat up to one and a half pounds at a time. However, a Hollander isn’t necessary if you want to use recycled paper products or buy Half-Stuff from papermaking supply stores. You can use a kitchen blender to get small quantities of pulp, beating several blenders full until you have enough to form the number of sheets you want. Or, you can invest in a large, plastic tub, a power drill, and a paint stirrer—and do a pound or more at a time.

I have a large, plastic tub, drill and stirrer, which I use at times. I use Half-Stuff for almost all of my paper forming, usually 100-percent cotton and/or a combination of cotton

and Spanish Flax. Half-Stuff is partially broken or beaten fibers that that must be further beaten before it is ready to be used for sheet forming. Half-Stuff comes in sheets weighing approximately one pound.

The tub method is very useful in producing a moderately beaten pulp. I fill the tub with several gallons of water (the amount depending upon the amount of stuff I’m beating). For a pound of pulp I will use around five gallons. Tear the half-stuff into smaller pieces and soak in the water for several minutes. Then feed the paint stirrer through a hole cut in the top of the lid, fix the lid on the tub, the drill to the stirrer and proceed to “beat” the pulp. You have to be careful when doing this with a large drill as it can cause the stuff to slop over and push the lid right off. Continue beating the pulp until it reaches the consistency wanted. The finer the stuff is broken down the smother the paper. If you want a really smooth finish, you will need to resort using the blender to get the finish you want.

If you want to add coloring to the pulp, you should do it when it has reached the state you want for casting. It takes very little color to go a long way, so experiment with it. I would recommend that once you have decided how



The Hollander with roller down and splash guard cover in place.



The author above uses the electric drill and paint stirrer to beat a batch of Half-Stuff for casting heavy sheets to be used for Greeting Cards.



Paint stirrer lying cross on the top of the tub.

much color is needed that you make a large quantity of it. This way your paper color will be consistent throughout your batches (or close enough) over time.

I use internal sizing that I buy from a supplier. The sizing is another thing you need to experiment with. The un-sized stuff is very absorbent and will need to be sized if it is to be used for letterpress printing, water coloring, or just plain writing with liquid inks. Not enough sizing in the paper and it will fall apart when dampened. Too much and it is hard to dampen evenly. Also, sizing adds “body” to the sheets, making them firmer and “crinkly.” Add the sizing after the color has been added and after the pulp has rested for a bit to let the color set.

There is one more method of getting pulp for paper casting—you can buy it pre-beaten. I have used this, and find that it is wonderful to work with. You can buy it in different fineness, i.e., medium-course, medium and medium-fine beating.



Half-Stuff waiting for water and stirring.

The Vat

My vat is a slightly damaged bathtub that I bought from a bathroom fixture supply house at a very reasonable price. I divided it into two sections. The largest section and deepest is the drain end. I cut a piece of marine plywood into the shape of the sides of the tub, used water resistant caulking (for around bathtubs, and set



The partially beaten Half-Stuff in the tub is the results of around ten minutes of beating with the paint stirrer and electric drill. To reduce the pulp to a useable fineness another 20 minutes or so of beating will be needed.



Torn pieces of Half-Stuff have been added to the clean water. The darker color pieces are Spanish Flax and the white are 100 percent cotton. The roller has been raised, showing the bed over which the roller grinds the material into pulp.



Half-Stuff being beaten in the Hollander.



The color has been added to the pulp and is being allowed to rest before the internal sizing is added.

the form in place. I used marine shellac and covered both sides of the separator and have ended up with a very reliable dam. I did this so that I would not need as much water and stuff in the initial filling of the tub, and to give me a place for the excess water to drain into. I use a submersible pump to remove the excess water from the one side of the tub. However, any large plastic tub will work as long as you can comfortably get the mould and deckle in.

Mould and deckle

Initially I made my own moulds and deckles. My first attempts were very crude – but they worked! You can use picture frames for both mould and deckle, and the plastic screen wire you can buy from hardware stores. Or, you can buy simple moulds and deckles from paper making supply stores—which I have done and have been very satisfied with them.

Currently I am using moulds made by Rob

Buchert of Provo, Utah. Rob has made me four moulds to date, all of which are of excellent workmanship and beautifully done—and cast excellent sheets.

There are two basic forms of mould coverings—laid and wove. Laid mould coverings have the chain and wire pattern. The chain is a wire spaced approximately 1-inch apart across the mould. The wire is wove over-and-under the chain wires, forming the screen. The Laid mould also has two styles, antique or modern. Antique have no support screen under the covering which causes dark lines to form on each side of the chain; this was used in Europe from about the 12th century until the late 18th. Modern Laid moulds have a second screen between the chain and wire covering and the ribs, eliminating the dark lines.

The wove mould coverings are similar to screen door screening. Of course, the weave is tighter and often there is a backing screen. The Wove moulds are in use today in the major paper making companies – where the paper is

made on continuous wire frames, transferred to continuous felts and onto the hot drying and pressing units.

The deckle is used to form a dam around the screen covering, trapping the amount of stuff wanted for the thickness of the sheet. A tight fitting deckle will leave a sharp edge around the sheet, without a deckled edge. A poorly fitted one will let stuff leak under and the deckled edge will be formed. You can cause a deckle edge to be formed by placing something under the deckle to keep it from fitting the top of the



Modern laid mould.



A finished sheet from an Antique Laid mould is shown above. The heavier gathering of stuff along the sides of the lines is visible in the photo.

mould properly.

Dipping the mould

When casting, the mould and deckle are clasped tightly together with the hands positioned in the center of the short sides, this allows for better control of the mould when pulling it through the vat. There are several methods used to lower the mould into the vat and is something that must be learned through practice. I reach out, stretching my arms across the vat, dip the mould about three-quarters in, then turn it towards me until it is horizontal beneath the stuff. The mould is then raised straight up in a slow, smooth, unbroken movement.

A gentle rocking forward and backward, and then quick shakes to the right and left, then front and back, follows quickly once the mould is clear of the vat. This rocking pushes excess stuff over the top of the deckle and causes a



The clear chain and laid lines of a modern laid mould can be seen in this photo of a finished sheet.

wave to ripple across the surface of the mould covering, leveling out the stuff on the mould, giving a smooth surface to the sheet. Too hard of a rock, or if the rock is too jerky, ripples will form on the surface of the coverage, like the ripples in the sand at the beach. The quick, but gentle shakes are done by quickly moving the hand a very short distance left, right, forward



The tub has been stirred by hand to get the stuff mixed with the water. The mould is extended across the tub and submerged about 2/3rds of the way into the vat, then slowly lowered completely into the tub while being moved back toward the caster.



The wave can be clearly seen in this photo. As the wave reaches the top of the mould the slight shaking left, right, forward and back will begin.

and back. This shaking interweaves the fibers, making for a stronger paper. There is no grain direction in handmade papers as there is in commercial made paper.

After the leveling, the water is allowed to drain from the stuff. As the water drains the surface changes from a very wet glistening look to a dryer, plastic sheen. Once this occurs, I slowly tilt the mould to my right and pull the top up towards me until the frame is slightly tilted to the right and in a 40-degree upright position. I move the form over the drain tank to my right and allow as much water as possible to drain from the form. I rest the form on the vat edge with the top back of the frame resting on the Asp (a piece of wood attached to the vat at a 40 degree angle), then slowly remove the deckle and place it to the side. I then lean the form back against the Asp and let drain a bit more.

The more water allowed to drain from the



The ribs of the mould can be seen through this newly cast 15 x 19-inch sheet resting against the asp while it drains.

form, which at first is about 90 percent water, the less water you'll be carrying once all the felts are couched. However, if too much water is allowed to drain, it becomes hard to transfer the newly formed sheet from the mould to the felt. The sheet wants to adhere to the mould and will tear and pick up chunks. A little practice will let you know when you have waited too long.

Keeping the sheet thickness

There are several methods used to keep the percentage of stuff to water in the vat to give constant thickness of sheets. One is to use a screen to remove only stuff from your storage vat (Hollander) or the container that from a supplier the beaten pulp is shipped in. Another method is to use a measuring container and take the freshly beaten stuff from the Hollander tub directly to the vat; this is the method I use.

Fill the vat with clear water to just below the depth you want to dip from. Fill the measuring container with stuff and add it to the water, continue to repeat this step until there is the right amount of stuff in the vat to form the desired sheet thickness. This is usually around 2 to 10 percent stuff to water. However, the best way to measure this is to put three or four measures of stuff in the vat, then pull a sheet. Remove the deckle and look at the edge of the formed sheet while it is still on the mould. For thin sheets this edge should be approximately 1/8" high or less (depending on how thin of a sheet you want). An edge 3/8" will give you a firm sheet with plenty of body. Again, this is something that one needs to experiment with until you find what it takes to form the sheet you want. Once you settle on the thickness of the stuff on the frame, you will be surprised how the eye will be able to let you know when you are too thin or too thick.

However, keep in mind that you are hand making paper – not manufacturing paper, so



The thin layer of pulp (approximately 1/8-inch) can be seen in this close up of the mould with the deckle removed.

expect a variance in thickness. With experience, you will be able to keep the variance to a minimum. Also, you can do a quality control on your paper afterwards and place all the sheets that are close to the desired thickness in one pile, and others in another pile or several other piles, depending on your casting and needs.

To keep the percentage of stuff in the vat once you have determined the thickness of the sheet, you have to remove some water. Remember that a measure of stuff from the beater will have around 75 percent or more water in it, so you need to remove some water from your vat. Draining the excess water from the new sheet into the waste tank will remove more water, but not as much as you have added in the measure. The stuff in the tank will settle to the bottom if left setting, so it is necessary to stir the stuff with your hand after adding new stuff and prior to forming a new sheet.

Couching

Couching is simply transferring the newly cast sheet from the mould to the felt. Felt is nothing more than a rough wool blanket that will hold the newly formed sheet and help remove it from the mould. Felts can be bought from paper supply companies, or you can use surplus Army/Navy wool blankets.

After the new sheet is carried to the couching table the mould is turned over so that the sheet is facing the felt and held upright at 90 degrees. The bottom of the mould rests on the



A newly cast sheet has been transferred to the felt. Another felt will be carefully laid over the sheet and a new sheet will be couched on it.

edge of the felt; the left hand grasps the center of the bottom of the mold at the felt while the right hand moves to the center of the top frame. Then, with a slow, but steady rolling motion, the mould is turned over and rolled from the bottom to the top—away from the coucher. Very little pressure is needed to accomplish the transfer. As the top of the mold makes contact with the felt, the left hand continues rolling the mould until it is again at 90 degrees. If all went well, the new sheet has been left behind on the felt. Remove the frame away from the newly laid sheet, careful not to drip water onto the sheet. The water drops will form round depressions and are called “coucher’s tears.” A new felt is carefully laid over the newly couched sheet.

The couching table should have a smooth convex surface large enough to accommodate the largest felts used. This rounded surface can be made from towels or other material.

This surface, no more than $\frac{3}{4}$ -inch high in the middle, allows the mould to be rolled over as described above.

Pressing the paper

Once the paper has been couched, the pile is now called a post. This post is about 50 percent water and needs to be pressed out. Most commercial handmade paper companies use at least 100-ton hydraulic presses to remove the water. This is a little rich for a hobbyist to buy. I now use a 20-ton shop press, which does well, removing 90 percent of the remaining water. When I started making paper, I would place the post under the pickup truck, put a hydraulic jack between the post and the bumper and lift the truck a fraction of an inch—probably around 1000 pounds of pressure—it worked—but you have to exercise caution. A book press can also be used with smaller sheets, or a simple hydraulic press can be built using a car jack.

I leave the post, which is sandwiched between two smooth sheets of plywood before pressing, under pressure overnight. I gather what has dried from the previous post and lay the new sheets on the drying table. Laying the sheets one upon the other, the sheets can be returned to the press. The number of times you press the sheets depends on how smooth you want the finish of your paper. I use a 12-ton shop press when I do this and leave the post under pressure for several hours.

As I rule, I only press once, dry the sheets,



The water from a freshly cast post of paper and felts is being pressed out with this 20-ton shop press.

and then use a medium hot iron and a sheet covering to smooth out the paper. This provides the type of sheets I’m looking for in most cases.

The rewards of papermaking are many, but for me, the real joy is seeing the bite of type in the surface of paper I have made with my own hands.



You can contact the author, Mike Anderson, via his [email](#).

ReadersWrite

Email your thoughts

Plaster? Try beeswax

Your article on setting the type in plaster [August issue] reminds me of a way I have done it in the past. I melt beeswax. The advantage is that it hardens pretty quickly, and when done with the form, you can just re-melt the wax to use again. I also kind of like the smell of the wax on the double boiler. Plaster is neat stuff, but it can be pain to use. It is a mess to clean up. One thing that is an issue when using the wax method is that the type tends to want to float in the wax. A plate with a little weight carefully set over the type will hold it down and keep it from moving. You do have to leave a little area to pour the wax in. When pouring it in, and you don't have to do it all at once. You can melt a little - pour it in, check it when it hardens...then melt more, pour that and so on as it builds up gradually. Another tip is to make a wooden chase that can then be locked into a larger iron chase.

It keeps the wax off the iron chase, and you can actually put the wood chase, wax and all, on a galley for later reuse. I've even band-sawed beat-up used press furniture into wavy

or curving designs, poured in the wax, and then locked that into the chase. A potential disadvantage to the wax might be if you were working in a very hot room. I've only done this in a cold, Michigan basement.

Jim Horton
Ann Arbor, MI

Thoughts on the last issue

Another well-produced and very interesting issue. Thank you. I particularly enjoyed the article about the most innovative use of a semi-trailer box. Now that's thinking "inside the box"!

Saving ink was informative as well, however, a perhaps simpler method—and one that will delight a re-cycler's heart—is the use of discarded toothpaste tubes. Simply cut open the bottom end, clean well, load with ink, fold the end twice, then seal with electrical tape. Lasts forever, easy to use, and is reminiscent of the Kelsey product—only the tubes are more colourful.

Your changing of the paper's format is in keeping with the position espoused by the once-popular, *Linotype News*. It, too, saw change as progress, not as change for change sake. I took their advice (some say too far) and

for one year used alliteration in all news heads. Quite a challenge to keep the head relevant to the story at times! But it did increase circulation of my modest rag as readers eagerly awaited the sometimes convoluted wording therein.

Anyway, it's a great pleasure reading your publication, and you are to be commended for the doing.

Laurence H. Pion
Fort St. James, B.C.

QUICK TIP

About packing

If you want to wear out type (or plastic plates) in the shortest possible time, slip a sheet of thin rubber (called "dental dam") in between the hard packing (mylar or old X-Ray film) and the draw sheet (tympan). Saves time on makeready and will give you an "emboss" whether you want it or not!

Physical therapists also use rubber sheeting to make various bungee-like resistant exercise lashups. Varies in thickness by colors—the darker the color, the more resistance (I never got past yellow!). These came in rolls and were no doubt purchased at some medical supply house or a drug store (chemist).

The softer the packing, the faster the face wears—and NEVER use soft packing with unsupported kerns (e.g. Typo Script, etc.).

Would not recommend mylar (or X-Ray film) as a draw sheet. Extremely difficult to bend accurately and gauge pin insertion might be a bit hectic. Lastly, leave the impression screws alone—always!

Dave Churchman

■ Readers are invited to send their comments on *Galley Gab* or any related letterpress item.

■ If you wish to print out your copy of *GG*, write the editor for one with white background.

Contact the editor: editor@galleygab.net

THOUGHTS ON CREATING & PRINTING THE POSTER

BY JAMES HORTON

HAVING BEEN INVOLVED in a past BookFest Poster, I was honored to have been asked again, to create something for the now annual event.

When faced with the question of how to approach such a challenge, I want something to be informative, but eye-catching and expressive. For such an event, there is no reason a graphic design shouldn't be in the realm of finer art. There are times one creates for just information. There are times one uses humor, a retro feel, or a stunning impact! This was a time; I wanted to make something that I hoped would be beautiful. Information, illustration, color and design on a poster that one can also see, as fine art was my goal.

One has to also take into account the many differing tastes of a committee when working for such. There may have to be flexibility. In this case, there were actually good suggestions from the BookFest committee. They visited me in my studio, and I had a great working relationship with the people that make this event so successful.

My approach was to connect Ann Arbor as its reputation as a "Tree Town" to the world of books and book arts. Paper comes from trees... books come from paper...now how to put that into visual terms? The solution was a pattern

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www.kerrytownbookfest.org

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Poster design inspired by one of our previous posters by the same designer. Printing by the same printer. All other text by the same person.



This is the plate of the central image. Both it and the image of the Ginkgo branches were printed together on each sheet first, before the text. The branches were in fact one image that letterpress printer and wood engraver Jim Horton actually cut in half. The leaves he etched himself in wood, and then sent to a printer who made the metal plate.

that is created by a leaf. In this case, every fall I admire the leaves of the ginkgo tree as they lay on my steps. The many colors of fall give richness and character to the leaves. The event is in the fall...so not a time for blacks, browns or grays. I wanted color and pattern to be the focal point of the poster.

I proceeded to make a drawing of a tree trunk. I cut into Shima plywood. I also cut a design using ginkgo leaves, and then engraved on end-grain wood, another leaf. I ran galley proofs of these designs. And prepared them for the making of magnesium plates. The plywood cuts would not have held up for the kind (and quantity) of letterpress printing the poster would involve. The mags can be used for many impressions. If one were to look at the back of the poster, you will see what I mean by

impression. That embossed look is what sets letterpress printing apart.

Many hours are spent at the press for such a project. I made seven color runs on the press. The hand-setting of the type is another story. One has so much involvement with the letterforms—the spacing, the leading. It is a visual symphony when it all works.

The equipment and materials that I used, spans the nineteenth century to the present. I use old presses, engraving tools and in fact, my studio is like a working museum. It is almost a sacred place to me. I rarely feel the need to be entertained. I rarely feel the need for electronics or digital toys. Tools of any kind are valued for sure. But my heart is having these materials and processes in my hand.

In art, sometimes things work, and sometimes they don't. If success were guaranteed, we wouldn't strive so for perfection. It is the



Jim is now rolling the sheet over the form. The rollers are not inking at this point.



Here is the type in the form, set up after the Ginkgo branch and leaf images have already been printed.

process that I value more than anything. There is also the time to finally set a finished piece of artwork up, and evaluate it. To a printmaker, signing a stack of hundreds of the same, gives one a feeling of productivity as well as a massaging of the soul. Sweat, problem solving, learning, experimenting, and even having accidents that become useful are all a part of this process.

Jim Horton has been an art teacher for 38 years and claims to be semi-retired but still does some part-time teaching. About 13 years ago he was involved in the formation of the Wood Engravers Network. He is an accomplished wood engraver to say the least. He is also an elected member of the British Society of Wood Engravers and the Amalgamated Printers' Association. His work has been published a number of times. One of his claims to fame is that in 1994, he was one of Newsweek's "Teacher of the Year," and actually had dinner with Katherine Graham. He gives numerous workshops on engraving around the country. Contact him by [e-mail](#).