

Coach House Press as a Digital Pioneer

JOHN MAXWELL, assistant professor at the Canadian Centre for Studies in Publishing at Simon Fraser University, spoke to the Alcuin Society on the occasion of Stan Bevington receiving the Robert R. Reid Award and Medal on March 30, 2012. This is an edited version of his talk.

AT SFU'S CANADIAN Centre for Studies in Publishing, I have for some time been engaged in documenting the history of the Coach House—the house that Stan built. My particular interest is a little-known part of the story. The Coach House is well known as a crucible for Canadian literature. It is also quite rightly known as an exemplary design and printing house. I am not so interested in telling either of those stories—there are people far better qualified to do so than myself. But above and beyond its merits as a literary establishment and fine printing house, the Coach House provides one of the most fascinating histories of technological innovation of any publisher anywhere. This has been the focus of my historical researches, and is the part of the Coach House story I have been pursuing.

The Coach House story is interesting because it offers a picture of technological innovation that's neither one of MIT-style research nor one of high-speed venture

capital-funded Silicon Valley start-ups. The Coach House story is a little more down-to-earth.

If I may coin a cliché: at the Coach House, we learn that innovation starts at home. At the Coach House, we see that technological innovation does not require massive capital; nor does it need teams of trained specialists with advanced degrees; nor great secrecy. The Coach House teaches us that technological innovation has more to do with a *disposition*—to learning, to tinkering,

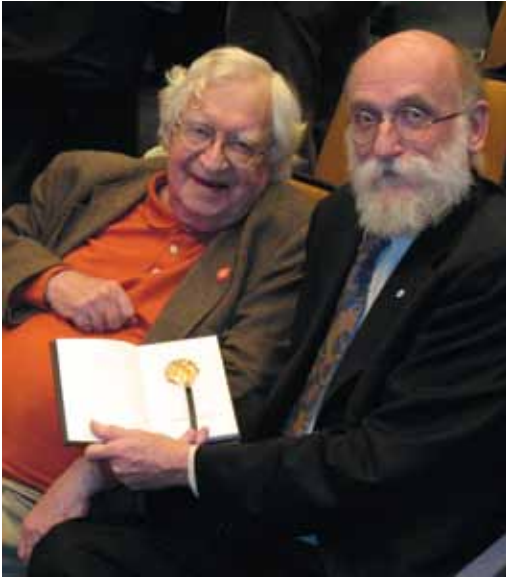
and to sharing and being open with ideas and problems and their solutions. This story is by no means about Stan Bevington alone. But it is, fundamentally, about Stan's ability to attract a circle of interesting—and *interested*—friends and colleagues, and to keep that moving along over the course of decades.

NOT A HIGH-TECH START-UP

Stan Bevington founded Coach House Press in 1965, on the success of his clever start-up venture selling Canadian flags on the streets of Toronto—all different possible Canadian



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Ralph Stanton (left) presents Stan Bevington with the Robert R. Reid medal. Peter Mitham photo.



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Robert Reid (left) and Stan Bevington admire Bevington's medal. Chester Gryski photo.

flags—during the summer of 1964 and the “great flag debate.” Stan earned enough money from the sale of silkscreened flags to buy a second-hand printing press and set up shop, which meant a press, a screen-printing setup, and a darkroom.

The darkroom quickly became the heart of the operation; by playing with a camera/enlarger—that is, a camera used as an enlarger and vice versa—Bevington found the graphic design possibilities were far greater than simply using each item for its original purpose. Stan and the artists and printers he attracted worked the darkroom in myriad ways, experimenting, testing and learning. They composited images, learned to do colour separations, and experimented with all manner of manipulations and creative deformations. They figured out a way to do a kind of stochastic printing (“Integrated Random Dot”) by pushing film grain to the point where it provided a random dot pattern, so you could print photos without a screen. As Stan and his colleagues learned, they wrote everything down in carefully organized three-ring binders. Stan proudly showed me these one day and pronounced them “Software.”

The early Coach House printed posters, and then books, typeset by hand at first, and then Stan acquired his own Linotype machine in the

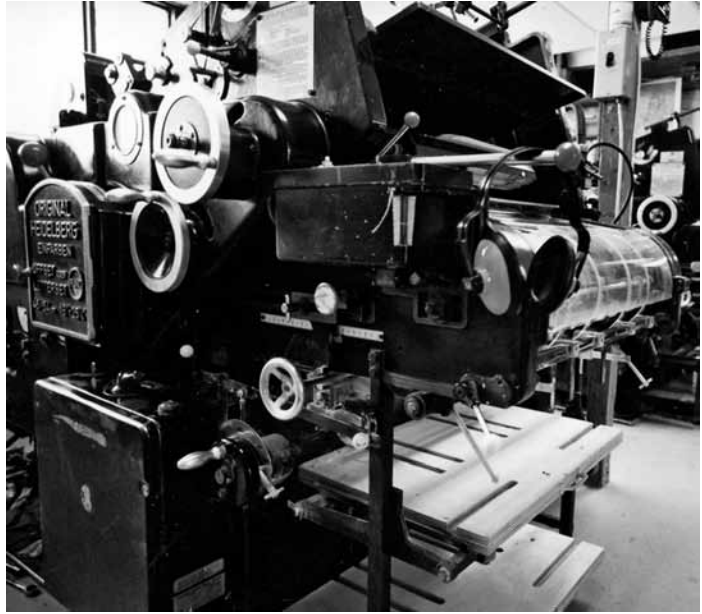
late 1960s. In printing works by young authors, the Coach House became a kind of cultural hub for writers and artists in the Toronto of that day.

That part of Coach House’s history is well enough known. But the technological story really takes off when phototypesetting became accessible in the early 1970s and Stan saw an opportunity. The Coach House folks knew they could work magic with film—they’d been doing that for years—and so a film-based method of typesetting opened up possibilities. Quickly, phototypesetters led to computers. But rather than seeing computers as something alien to the handcraft of the printing trade, Stan and his crew pursued an approach to digital technology that was in line with their approach to darkroom and printing technology: what could you get away with using your available tools?

The Coach House’s do-it-yourself approach to film-based production carried over to both computer hardware and software. Stan has called this “dime-store technology,” wringing the maximum functionality out of existing tools by being clever, first in the darkroom, but also with digital media. Printers, of course, have a long tradition of being tinkerers—or what we might call *hackers* today.

In 1974, Stan bought an early photo-mechanical typesetting unit, the Mergenthaler V-I-P (Variable Input Phototypesetter), second-hand. The V-I-P was a fairly well known device in the day (*The Seybold Report* from 1972 suggests Mergenthaler sold about 500 of them per year in the early ’70s). The V-I-P took punched paper tape as input, the punched tape providing everything to the machine: the text to be set, the formatting instructions, and even instructions to the machine about the finer points (kerning, H&J, and so forth)—the operating system, if you will. Within the Coach House circle of artisans, craftsmen and hackers, the paper tape system got analyzed, tested, manipulated and *hacked*. The V-I-P, not surprisingly, kept its fonts on sheets of film. Stan knew all about how to put type on a sheet of film, so making new fonts for the V-I-P wasn’t too much of a stretch; nor, apparently, was creating software instructions for the font metrics on paper tape.

In 1974 it was already clear that the way to really control the preparation of the paper tape was with a computer. A computer, especially



*Coach House Press from bp Nichol Lane (left) and the Heidelberg presses inside.
Photos courtesy of Stan Bevington.*

one with a video display terminal, could easily prepare text, handle typesetting commands, and talk to the phototypesetter in an efficient way. So Stan bought a Datapoint 2200, a fascinating little machine, one of the very earliest “microcomputers” (really a watershed machine, the direct ancestor to modern microprocessors, based on the Intel 8008 chip, which was designed for this little machine). Marketed as an “intelligent terminal,” the Datapoint was also quite useful as a stand-alone computer. It had a keyboard and a little green screen, 8-inch floppy disks, and, at the Coach House, a tape punch, which they used to generate paper tape for the v-i-p. Or they did for a little while.

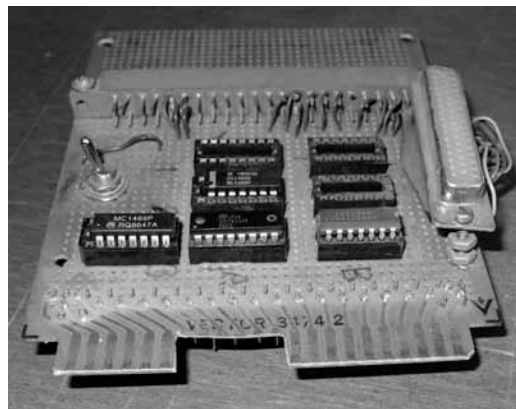
Inspired by what they had seen at a GCA [Graphic Communications Association] show, with a computer wired directly into a Mergenthaler v-i-p, Stan’s team set about making this happen at Coach House. That same year, Stan’s friends David Slocombe and Ed Hale reverse-engineered the punch tape system, and Ed Hale built a little circuit board—an interface device between the Datapoint 2200 and the v-i-p typesetter. That made the paper tape obsolete; the computer could now talk

directly to the v-i-p. This was no mean feat. You could buy a system that was designed to work this way; but it would mean the better part of a hundred thousand dollars, not to mention making one reliant on other companies. By doing it themselves, Stan and his colleagues took charge of the technology and made it work for them.

Visitors to the Coach House in the mid-1970s were invited to try out the system. At least one contemporary publisher reported working in the middle of the night at Coach House to typeset a book he’d brought with him on a business trip to Toronto.

THE DIGITAL LEAP

Once the computer and the phototypesetter were directly connected, the Coach House was really doing electronic publishing, and the software then became the important thing. David Slocombe, who had been a computer programmer at the *Globe and Mail*, immersed himself in this world, working tirelessly to create better and better typesetting routines for the v-i-p, and developing a whole software architecture for doing so. A voracious reader and polymath, Slocombe inhaled the computer



Coach House used a variety of technologies through the years, including a camera that also served as an enlarger for images (top left and top right), output tapes (above) from phototypesetters, and a circuit board (right) rigged to enable the phototypesetters to receive commands from the forerunners of the earliest desktop computers. Photos courtesy of Stan Bevington.

science journals from the University of Toronto Library, and so his evolving software was inspired and informed by the latest thinking. Slocombe scaffolded the editing and compositing systems to the point where short, generalized codes could be inserted into an electronic manuscript by an editor—routines that hid considerable complexity in the programming of the typesetter.

Stan and David Slocombe—and the rest of the Coach House crew—were inspired by a then-brand new software system called Unix (which has grown into a ubiquitous piece of computing infrastructure today). Part of the Coach House community included people from the University of Toronto’s computer science department. In particular, prof Ron Baecker’s Dynamic Graphics Project at the University of Toronto was one of the first places in the world to have a Unix system installed. (The history

of this is its own interesting story, for Unix is critical to the development of the Internet.)

Not only did Stan work with Baecker’s team of researchers, consulting on how to do onscreen typography (Stan drew outlines of Carl Dair’s Cartier with a “light pen” in a 1973 research project at Baecker’s lab), but at some point, a direct line was installed, allowing the computer at Coach House to become a remote terminal to the U of T’s Unix machine—a relationship that lasted for many, many years.

By the start of the 1980s, Stan and his team knew enough to invest in Unix-based workstations, which was an exploding field at the time. A remarkable 1983 proposal to the Department of Communications laid out a comprehensive



Linotype machine at Coach House Press. Photo courtesy of Stan Bevington.

plan for computerizing a publisher's operations, ranging from typesetting to title management to accounting and inventory control—the plan still reads very well today. (Interestingly, a big part of the proposal was to network three Ontario publishers—Coach House, Porcupine's Quill in Erin Village, and Penumbra Press, then in northern Ontario—all running Unix hosts in a peer-to-peer arrangement, with a work-sharing scheme. To a historian, there is a fascinating parallel, for in that same year, computer scientists at the University of California at Berkeley were doing something very similar with Unix that gave birth to what we recognize as the modern Internet.)

Digital workflow at the Coach House by then included several terminals, used by editors as well as typesetters, as well as a pioneering relational database produced by friends at Rhodnius Corp. (originally called the "Mistress" system, it was later renamed "Empress" after NASA began using it to catalogue moon rocks). The Coach House was a node on the early UUCP (Unix-to-Unix Copy) network of newsgroups, a tiny literary press among universities and big tech companies.

In the early 1980s, the Coach House had become comfortable enough with computerized typesetting to consider branching out into this line of business. David Slocombe, now working with the native Unix-based typesetting software originally from AT&T Bell Labs (called Troff), saw a way of enhancing it so that it could be taken seriously as a professional typesetting engine—that is, in the eyes of typesetters rather than just computer programmers. In 1984, Stan, Slocombe, Patrick Dempster and Yuri Rubinsky founded a company called SoftQuad that would develop and sell a professional computer typesetting package for Unix, called SQtroff.

SQtroff struggled to find a market, but the company soon found its feet with the *next* generation of computer-driven publishing technologies. Slocombe's work to evolve clusters of typesetting commands into simple, understandable editing codes was in line with an emerging standard in the early 1980s: *generalized markup*, which you may recognize as the direct precursor of today's HTML (hyper-text markup language) and XML (extensible markup language). Generalized

markup had emerged out of IBM and the GCA back in the '70s, but became an international standard in 1986 (gaining the s that made it standard generalized markup language, or SGML). The new standard was mandated by the U.S. Department of Defense as a documentation requirement for defense contractors. An industry was born overnight, and SoftQuad was well positioned to take advantage of it.

SoftQuad hit its stride in the late 1980s and early 1990s, developing the first serious SGML-based editing software, Peter Sharpe's Author/Editor tool. For many years, SoftQuad was a world-leading SGML tool vendor, with its software in use at various Fortune 500 companies, plus one Toronto-based poetry publisher.

When the Macintosh was introduced in 1984, Stan bought one right away, then brought several into the Coach House environment. Originally, they found a use as terminals connected to their main Unix machine. But with the Apple Laserwriter a year or two later, it became clear that Postscript—as a holistic page-make-up system incorporating text and graphics—was the future. Coach House moved into QuarkXPress

on the Mac, but retained the SGML-based text preparation for several years; Nelson Adams (who had been at Coach House from the early '70s) and Kate Hamilton created software to bring SGML-marked text directly into Quark (ironically prefiguring things we're doing now by roughly 20 years). Eventually, the larger tide of Mac and WYSIWYG-based approaches took over, and the markup-based approach faded.

COACH HOUSE 2.0

The 1990s were tough for Coach House. After having split the printing and publishing parts of the company, the publishing arm of the Coach House failed in 1996. Stan resurrected the company out of the ashes in 1997 with a bold new idea; under the editorship of Darren Wershler-Henry, the newly launched Coach House Books put their entire frontlist on the Web, for free. Coach House would then sell beautifully produced collectable print versions of the books—"fetish objects"—while making the text itself available online to anyone who was interested. There was, somewhat famously, a considerable hue



Coach House Press's original coach house, May 1968. Photo courtesy of Stan Bevington.

and cry from other literary publishers, who were clearly not ready to go there quite yet. Perhaps in 2012 this idea has more currency.

The Coach House tradition continues. In 2007, when Facebook was first rising to prominence, Coach House Books was the first Canadian publisher (and possibly the first publisher anywhere) to have a Facebook “group,” with over 1,000 members, thanks to the efforts of publicist Evan Munday. And today Coach House also has one of the better direct sales platforms of any Canadian publisher.

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ONE OF MY FAVOURITE things about the Coach House is how one can walk in the door and see all of this technology, the new and the old, right before one’s eyes. The Linotype machine and platen press confront you, right on entry. The beloved Heidelberg presses are a little further in, around the corner, as are the film and plate-making machines. Upstairs, the old Datapoint 2200 sits on display in the coffee room; and the original Pixel-80 Unix workstation holds up Alana Wilcox’s desk. Circuit boards and old Unix magazines share space on the shelves with Canadian literary milestones and prize-winning typographic masterpieces. The scene very much reflects Beatrice Warde’s famous lines,

This is a printing office
Crossroads of civilization
Refuge of all the arts
Against the ravages of time . . .

It is worth pausing to consider the notion of technological innovation. Whatever combination of qualities or capabilities Stan and his team may have possessed, the record over the years is truly remarkable. Between the Datapoint 2200 (the very fount of modern microprocessors), the involvement at the very dawn of Unix, of SGML and the Mac, their impulse to put literature on the Web and their leadership with social media, the Coach House has managed to pick the winners—sometimes 5 and 10 years ahead of their time—pretty consistently for over 40 years. One sometimes wonders if a time

From the citation for the Robert R. Reid Award to Stan Bevington

The book has been with us for more than 2,000 years and the typographic book for more than 500 years. Until the digital computer arrived, it was the main public memory device of settled society. It is still the best device for the long-term preservation of cultural memory, since it is made of ink on paper, which has an unknown lifespan; but we can be certain its lifetime is greater than 2,000 years. The same cannot be said for electronic data. It follows that people who design and produce these splendid devices for retaining our collective memories are important people even though they often toil in relative obscurity. Authors are given prizes of all sorts—up to and including Nobel Prizes for Literature. But what would authors be without typographers? Who would Shakespeare, Milton, Tolstoy or Proust have been if not for type? They would be scribblers of manuscripts—people of temporary fame at best.

So it is important to acknowledge those who create the physical book, and that our Society gives an award for lifetime achievement in the book arts in Canada that consists of a certificate inscribed in manuscript by the noted B.C. calligrapher Martin Jackson and a medal designed by Robert Chaplin.

Tonight we give the award to Stan Bevington for his lifetime work with the Coach House Press of Toronto. As you have heard from John Maxwell, this award is well and truly deserved. Stan Bevington is clearly one of the *immortels* of Canadian books—this award merely confirms what we have all known for a long time. It is with great pleasure that we make this award tonight.

—Ralph Stanton

machine isn't lurking there, hidden among a half-century's worth of printing equipment.

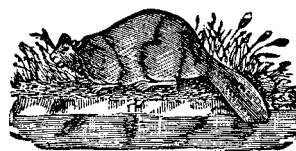
More seriously, the combination of keen research, insightful decision-making, a love for tinkering, and a genuine gift for personal chemistry have kept Stan and his Coach House in the zone. Decades ahead of its time, Coach House backed the right horses again and again—at least in historical 20/20 vision. They haven't gotten rich from the technological insight; but conversely, they haven't seemed particularly bothered by a lack of riches, either.

I talk to Canadian publishers all the time about digital media and innovation; it's a significant part of my work at SFU. And while the industry in general often seems to have a fear-and-loathing approach to the new, I often find that individual publishers—and especially the smaller operations—demonstrate the confidence and wherewithal to do amazing things. That spirit has animated independent Canadian presses from the very beginnings. And here the Coach House

really stands out, as a leader certainly, and as a long-running affirmation of the deep humanity possible in our dealings with machines.

Whatever else Stan and the Coach House may represent—as a literary producer, as a fine printer and master of the book arts—I hope you'll also recognize the path they've led through four decades of digital media. And in recognizing that, appreciate even further the wealth of their contribution to culture in this country.

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~ John Maxwell is assistant professor at the Canadian Centre for Studies in Publishing at Simon Fraser University.



NEW MEMBERS

Welcome!

The Alcuin Society wishes to welcome the following new members:

Dorthea Atwater, Summerland, BC

Neville Avison, Pender Island, BC

David Carruthers, Montreal, QC

Joe Hayward, Dundas, ON

Lisa Hemingway, Vancouver, BC

Thaddeus Holownia, Jolicure, NB

Michael Howland, Middleburg, VA

Wendy Massing, Vancouver, BC

Tina Simpson, Powell River, BC

Barbara Teatero, Kingston, ON

David Jon Weir, West Vancouver, BC



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