



Fundamental Sympathy: The Gothic, the Fin-de-Siècle Printing Revival and the Digital

Lorraine Janzen Kooistra

‘For divining the future, as for recalling the past, there is the same rare but open secret – of Sympathy.’¹

One hundred and thirty years ago, William Morris established what is undoubtedly the best known and most influential of all small presses. Alive to direct the Kelmscott Press (1891-98) for only five of its seven years, Morris left his impress on the fine printing revival it inspired. In the decade following its 1891 launch, numerous small presses with artisanal values and the aim of producing beautiful books emerged. Some of the most important of these include Esther and Lucien Pissarro’s Eragny Press (1894-1914); Charles Ricketts’s Vale Press (1896-1904); Charles Ashbee’s Essex House Press (1898-1904); James Guthrie’s Pear Tree Press (1899-1952); and T. Cobden-Sanderson and Emery Walker’s Doves Press (1900-17). Morris’s legacy, however, extends far beyond turn-of-the-century Great Britain. As William S. Peterson observes, ‘the forces set in motion at the Kelmscott Press eventually spread around the globe’ and ‘profoundly affected twentieth-century theories of book-design’.² Published in 1991, the same year that the World Wide Web became public, Peterson’s *History of the Kelmscott Press* coincided with the new age of digital culture and online publishing. ‘Morris’s curious

typographical experiment', Peterson observed, 'may force us to reflect on the meaning of that fascinating yet morally ambiguous technology which threatens today to envelop the world'.³

The first thing the Kelmscott Press should nudge us to recall in the digital age is that books, too, were once experimental new media. Although we have now naturalised these technologies, the late-medieval world viewed moveable type, the printing press and their dangerously portable and replicable product, the book, as both fascinating and morally ambiguous. Moreover, the anxiety that this new media would lead to widespread cultural change was well founded. As a new communication technology, the printed book altered the way people thought about and engaged with the natural world, social relationships and political conditions, just as internet technology is doing today. Among other perhaps more questionable changes, the digital revolution launched an entire self-publishing movement and a new academic field known as the digital humanities. In the wake of WWW, digital humanists began to design sites that combined 'born-digital' content with remediated images, texts and manuscripts, thereby preserving and making accessible cultural heritage objects. As early adapters and leaders in the field, both the *Rossetti Archive* and the *William Blake Archive* are very much in the Kelmscott Press tradition of publishing beautiful works in well-designed environments.⁴ More recently, Florence Boos's *William Morris Archive* at the University of Iowa Library has given users unprecedented access to remediations of Morris's Kelmscott Press editions, types, ornaments and woodblocks.⁵ At *Yellow Nineties 2.0* I have leveraged digital design to remediate the artisanal formats of eight fin-de-siècle little magazines that were shaped by, and helped to shape, the fine-printing revival.⁶

I want to take the opportunity of the one hundred and thirtieth anniversary of the Kelmscott Press and the thirtieth anniversary of the World Wide Web to reflect on how Victorian print culture's small press movement intersects with, and indeed participates in, the digital, at the same time that it challenges us to look anew at the historic technologies that produced it. In what follows I use media archeology, which aims to understand new media through a close examination of the past in a way that resists a progressivist narrative, to illuminate the ongoing relational history of our digital present. Drawing on architect Lars Spuybroek's concept of sympathy as 'what things feel when they shape each other', I explore the 'Gothic ontology' that interrelates medieval craft, the Kelmscott Press and the contemporary digital.⁷ Ultimately, I am arguing for fundamental sympathy in the design processes of Gothic architecture, the fin-de-siècle printing revival and the digital humanities.

I. (Gothic) Design

Edward Burne-Jones famously called the Kelmscott *Chaucer* 'a pocket cathedral',

adding in his letter to Charles Eliot Norton that it was ‘so full of design and I think Morris the greatest master of ornament in the world’.⁸ Burne-Jones’s architectural analogy is an apt one for Morris’s method at the Kelmscott Press. By making ornament integral to design, Morris aimed to build books that were total works of art, harmonious in all their parts.⁹ Trained as an architect, Morris understood books in architectural terms. Like the interiors of medieval cathedrals, page layouts should integrate the rigidity of structure (lines of type) with the variability of ornament (initial letters, borders). Peterson calls Kelmscott Press books ‘the final phase of the Gothic Revival’ and suggests that the story of their ‘attempt to revive a traditional craft [...] becomes a fascinating parable of the extent to which we can turn the clock backwards’.¹⁰ While this view of Morris’s project as anachronistic is widely accepted, it is also possible to view the Kelmscott Press as part of an ongoing design practice running from medieval Gothic to contemporary digital ways of making. In this sense, Kelmscott Press books were always already digital, and not only because they were the products of human hands and fingers. To establish the foundation for this theory, I turn to Spuybroek’s *The Sympathy of Things: Ruskin and the Ecology of Design*, which argues that digital technology is actually ‘taking us back in time [...] to the unique and the contingent, in a way, back to craft’.¹¹ For Spuybroek, the Internet heralds ‘a shift from craft to design, turning design into the new craft’; however, he admits that ‘the Web does not yet grasp its own Gothic heritage’.¹²

In what way can the Internet be viewed as Gothic? How might we understand digital technology in terms of craft and design? Spuybroek’s monograph on the medieval Gothic, the Victorian revival and the contemporary digital is long and complicated, but he elaborates two crucial connections between John Ruskin’s ‘The Nature of Gothic’ and digital technology that are relevant to Morris’s efforts at the Kelmscott Press. First, Spuybroek makes the point that the Internet ‘is a deeply Gothic project [...] because it *interrelates work and aesthetics*’.¹³ Second, he contends that ‘in the Gothic, work, activity and craft were taking place at the design stage, rather than only appearing on the scene at the execution stage’.¹⁴ This process relied on ‘the most fundamental Gothic principle’: freedom of work within a collaborative ethos.¹⁵ When Morris published Ruskin’s *The Nature of Gothic: A Chapter of The Stones of Venice* at the Kelmscott Press in 1892, he stressed that ‘the lesson which Ruskin here teaches us is that art is the expression of man’s pleasure in labour’.¹⁶ Morris enhanced his understanding of Ruskin’s teaching through personal study of Gothic sources and applied artisanal practice. The Gothic method of iterative design as part of a cooperative building process was crucial to his Arts and Crafts principles. While he may have fallen short of ensuring all his employees at the Kelmscott Press experienced joy in their handiwork by expressing individual creativity, this remained an important goal

for Morris.

So, what do Gothic cathedrals, Kelmscott books and the digital have in common? Following Spuybroek, we might say that, in each case, design springs from ‘*a fundamental sympathy*’, which he defines as ‘simply a relatedness between us and things’.¹⁷ Spuybroek argues that digital projects, like Gothic buildings – and, I would add, books of the fin-de-siècle fine-printing revival – depend on the cooperative development of work, activity and craft in an ongoing design process that is inseparable from execution. Among digital humanists, book historians in particular have identified iterative design and prototyping as core to their collaborative, interdisciplinary work of online creation and publishing. As Alan Galey and Stan Ruecker argue, ‘like design, the field of book history offers a perspective on the ethos of *thinking through making* which informs much digital humanities research and pedagogy generally’.¹⁸ If ever anyone worked by thinking through making, William Morris was that man. In his iterative designs for typefaces and ornaments, page layouts and formats, Morris was working out for himself how each Kelmscott Press book would express its meaning and engage its reader. While it is common to point out his call for a return to the work practices and aesthetics of Gothic design, it is exciting to consider that Morris was also prototyping the iterative, experimental, cooperative practices used by many digital humanists today.

As anyone who has tried their hand at letterpress printing knows, setting moveable type is long and laborious. There is no room for artisans to express joy in their labour by adding individual creative flourishes to the compositor’s stick or printer’s galley. The creativity and aesthetics of typography lie principally in the design of letterforms, a point to which I will return. The choices of face and font, line length and margin are determined by the master-printer in consultation with the publisher-director, not by the individual compositor. After Morris established the ‘golden ratio’ principle of page layout at the Kelmscott Press, most fine presses adopted this simple and beautiful model. Morris insisted that the basic interface of the book – that shared boundary between device and human where information is exchanged – was not the single-page unit but the double-page opening. To support the functionality of this interface, Morris called for the largest margin to be at the bottom of the page, where the user’s thumbs are positioned (while the other four fingers support the outside cover). The smallest margins should flank either side of the gutter; the head should be larger than these and the fore edges slightly larger again, but still smaller than the bottom.¹⁹ Morris’s interface design is effectively digital in the sense that it is based on the digits of the human hand and the effectiveness of the user interface. Kelmscott book design depends on the fundamental sympathy between device and human user – the interrelatedness of objects and persons – and on the fundamental sympathy of all

the parts that make up the whole work – the interrelatedness of things (Figure 1).

Like Gothic cathedrals, books and digital interfaces depend on a rigid structural architecture integrated with infinitely variable ornament in order to interact with intended users, facilitate their knowledge acquisition and increase their visual pleasure. When designing an interface for a digital project, notions of the end user and functionality are as important considerations as they are for printed books. Morris's key to 'good architectural arrangement' of the page also guides the digital designer. Whether the medium is print or pixel, the interface needs to be clear and easy to read; the font must be well-designed for the purpose and in good contrast to the background; and the margins or white space should be in proportion to the lines of text and the placement of images and other graphics.²⁰ Digital design must be based on the interrelatedness between the computer screen and the human user. Because that relationship is not the same as the one between the printed book and the reader, the design choices will be different, but the principles remain the same.

Electronic creation for digital humanists and desk-top publishers alike departs from the established traditions of print culture. For creators of digital content, the activities of writing, printing and disseminating are more-or-less collapsed into one process. Artisanal practices are obviously implicated in this change: craft and design are remediated and transformed, resulting in the now-casual interchangeability of the terms 'type' and 'font' in common usage. Online publishing sidesteps the craft of typesetting by making it relatively simple to change typeface, point size, letter spacing and line leading. Production and consumption are also collapsed, as users participate at their end in the design's execution by adjusting size, contrast and so on. But the digital also introduces a time-consuming skill-based craft into the process of publishing. Digital humanists mark their texts through the application of a special version of Extensible Markup Language (XML) designed for humanistic projects by the Text Encoding Initiative (TEI). TEI allows encoders to markup print materials to remediate content (words, images) and structure (paragraphs, stanzas, chapters, pages) in ways that make them readable by both humans in front of the monitor and machines in the computer's backend. Ultimately, it is the metadata of markup that permits the transformation of print into pixels, activates screen readers and voice-recognition, powers keyword searches across texts within an aggregated system, and links data for discoverability on the semantic web.

Rebecca Martin, a letterpress printer who is also a digital humanist, provides insight into the fundamental sympathy between these two practices by reflecting on her experience encoding the pages of *The Evergreen: A Northern Seasonal* (1895-96/7) for publication on *Yellow Nineties 2.0* (Figure 2). As editor and director of this site dedicated to publishing digital editions of little magazines associated with the fine-



Figure 1: William Morris, Double-page opening of *The Story of the Glittering Plain* (Hammersmith: Kelmscott Press, 1894). (Public domain: Wikimedia Commons).

printing revival, my position is not unlike that of Morris at the Kelmscott Press. Although Morris and I are individual products of our own print and digital cultures, we nevertheless share the aim of bringing well-designed reading material to the public by remediating other objects in a collaborative process of thinking through making. As Martin observes, '[m]oveable type remediates writing, just as XML remediates print'.²¹ While both Kelmscott print and Y90s digital editions are aimed at bringing functionally readable, aesthetically pleasing, historically important material to a wider audience, neither typesetters nor encoders experience much creative pleasure in their labour, other than gaining satisfaction from contributing to a project they consider worthwhile. It is also important to remember that manuscript, print and digital media co-exist within an intermedial ecology; one does not replace the other. Martin concludes: '[w]hile digital editions cannot replicate or replace the medium-specific qualities of print, remediation can draw on the strengths of online publication to attract attention to print editions and create opportunities for scholarship and wider avenues of accessibility and engagement'.²²

II. Remediation

In addition to the concept of intermediality – the point of intersection between and among media – media archeology draws on the concept of remediation – the process



Figure 2: Screenshot of Patrick Geddes, 'The Megalithic Builders', *The Evergreen: A Northern Seasonal*, vol. 4 (1896/7), 150. (Public domain: *Yellow Nineties 2.0*).

by which new media always present themselves as improved versions of other media. According to Jay Bolter and Richard Grusin, we need to understand new media by recognising two things. First, we need to see how new media 'honour, rival, and revise' former media; and second, to understand that no medium does its work 'in isolation from other media [...] [or] from other social and economic forces'.²³ Harkening back as they do to medieval models, Kelmscott Press books are obviously not new media. Instead, Morris designed them to look like books did when they *were* new media, in the century of revolutionary changes in communication and culture triggered by Gutenberg's invention of printing with moveable metal type around 1450. Notably, Kelmscott Press books also emerged in a moment of intense media shift, when photographic technologies sidelined wood engraving as the principal form of image reproduction, linotyping began to replace typesetting, and steam-powered rotary presses supplanted hand presses. While the artisanal values of the Kelmscott Press and other small presses of the fin de siècle dictated that wood engraving, typesetting and hand printing would be their preferred modes of mediation, these media were nevertheless informed by new nineteenth-century technologies that relied on mechanical, rather than manual, methods.

The original types Morris laboured to create for the Kelmscott Press were principally modelled on fifteenth-century incunabular typefaces.²⁴ The types for these

early printed books imitated the various ‘hands’ or scripts used by scribes in reproducing manuscripts. Thus, the first moveable types remediated handwriting in an obvious instance of new media presenting themselves as improved versions of other media. In some cases, the mechanical rivalled the manual medium so closely that it can be difficult to detect the difference between early printed pages and calligraphic manuscripts.²⁵ By the late-sixteenth century, however, typefaces and fonts had become standardised, pages were numbered and books began to look very much like the ones we use today: modern, portable objects designed for readers.

As is well known, Morris was inspired to launch the Kelmscott Press after hearing Emery Walker’s lecture on historical typefaces at the first Arts and Crafts Exhibition in London in 1888. Walker illustrated his talk with magic lantern slides. Prepared photographically at his firm, Walker and Boutall Automatic and Photographic Engravers, these slides exhibited enlarged versions of single letterforms, isolated and blown up to monumental scale.²⁶ Morris adapted Walker’s method of photographic expansion when he designed his Kelmscott types, effectively remediating hand-written letterforms through a combination of mechanical duplication, copying and adaptation. By placing tracing paper over an enlarged photograph of incunabular type and ‘drawing over it many times before I began designing my own letter’, he explained, he ‘mastered the essence of it, I did not copy it servilely’.²⁷ Morris then had his letterforms photographed again and reduced in size, so that he could make his final refinements. When he was satisfied, he sent the designs to master punch-cutter Edward Philip Prince. Typecasting from Prince’s matrixes was executed mechanically on a Benton-Waldo pantographic punch-cutting machine at the Fann Street Foundry.²⁸ Making a Kelmscott type required layers and layers of mediation and remediation, a mixture of mechanical and manual technologies, and many hands and things working cooperatively.

It is also worth noting that, although Morris designed his types based on the belief that ‘good printed letterforms were contingent upon good handwriting’, his method was far removed from actual penmanship.²⁹ In contrast, both Charles Ricketts of the Vale Press and Lucien Pissarro of the Eragny Press believed printed letterforms should not depend on the aesthetics of hand-written scripts, but on design. While they credited Morris (in ‘Of Typography and the Harmony of the Printed Page’) with the renewal ‘of interest in the intrinsic beauties of the book’, they proposed that beauty and harmony in printed books could best be achieved when typography, like ornament, returned to the craft of engraving.³⁰ After he had designed his own Vale types, Ricketts elaborated on his approach.

Rather than imitating handwriting, a medium created by pen and ink on paper or parchment, types should respect the conditions of their own medium, metal. ‘[A] cut

and stamped letter is no longer a written letter', Ricketts explained in his introduction to *A Bibliography of Books Issued by Hacon and Ricketts*, so 'it must show a comprehension of the arts employed in making it, and the revision by the punch-cutter who cuts it'.³¹ Like Morris, Ricketts worked with punch-cutter Edward Prince. Highlighting the relationship between aesthetic book design and digital humanities practice, Ricketts designed with the end user in mind, insisting that '[i]n the shaping of its detail [a letter] must even be designed in anticipation of its effect as type, with a view to the avoidance of gaps, and the power of conveying to the eye when printed the impression of distinctness plus an indwelling element of rhythm'.³² While not every digital humanist is a designer, every good digital project anticipates the effects on the reader of its interface, including the crucial relationships between fonts and background, image and text. Moreover, a good digital project aims to express its meaning and purpose through its visual design and this, too, follows the practice set by Morris at the Kelmscott Press and other small press publishers like Ricketts at the Vale.

Like Morris, Ricketts attended Walker's 1888 lecture and was inspired by him to revitalise the art of book making along Arts and Crafts lines.³³ Together with his partner, Charles Shannon, and a small coterie of artists and authors in the London district of Chelsea, Ricketts initiated this endeavour by publishing *The Dial* (1889-97), a little magazine at the forefront of the printing revival. In bringing out *The Dial*, Ricketts was able to use his skills as a wood-engraver and a designer. He learned the arts of typesetting and hand printing, and gained an appreciation for 'the intelligent sympathy' of printers by working closely with master printer Charles McCall at the Ballantyne Press.³⁴ When barrister Llewellyn Hacon became his financial partner, Ricketts was able to achieve his goal and launch the Vale Press. Specimen pages of type and ornament, set by his friend Lucien Pissarro, were published in the fourth issue of *The Dial* in 1896 (Figure 3). After Morris died that year, Ricketts and Pissarro co-wrote (in French) 'William Morris and His Influence on the Arts and Crafts' to pay tribute to their admired predecessor. The tribute was intended to be printed by Pissarro at the Eragny Press, but when his health prevented this, Ricketts took over the printing at the Ballantyne Press and sold the pamphlet at The Vale in London, while the Floury publishing house brought it out in Paris.³⁵ Ricketts and Pissarro wrote that 'Morris recast the art of book-making on such a logical basis that no original effort can in the future be made without conditions of care and technique of at least equal importance'.³⁶

Pissarro and Ricketts rightly acknowledge that Morris modelled design practices at Kelmscott that were later adopted by artist-printers of the small press movement, including the Eragny Press and the Vale Press. In some cases, the Kelmscott legacy was material and social as well as inspirational. On Morris's death, Charles Ashbee

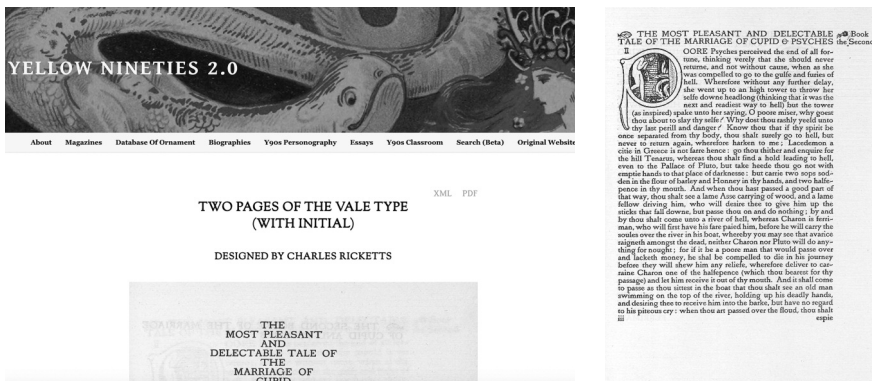


Figure 3: Charles Ricketts, Page of Specimen Type from The Vale Press, *The Dial*, vol. 4 (1896), np, and screenshot. (Public domain: *Yellow Nineties 2.0*).

purchased Morris's two Albion presses and hired his compositors, pressmen and engravers for his Essex Press.³⁷ He also used the same ink, paper and vellum as Morris and aimed to emulate Kelmscott Press types and wood-engraved initials in his own designs.³⁸ In 1920, James Guthrie acquired one of the Kelmscott Albion presses for his Pear Tree Press.³⁹ The Doves Press, co-founded by Emery Walker and Thomas James Cobden-Sanderson, is also an evident inheritor of Kelmscott principles and practices. Combining his historical knowledge of types with his craft understanding of engraving as a medium, Walker designed the elegant Doves Press font. Punch-cutter Edward Prince cut the initial punches, and Miller and Richards in Edinburgh (who also provided the type for *The Evergreen*) produced the single-sized, 16-point type at their foundry (1899-1901). When the partners fell out and dissolved their business relationship, ownership and use of the type became contentious. Cobden-Sanderson feared Walker might use the type on a mechanical, rather than a hand press, something Morris would certainly have deplored. In order to prevent any such calamitous eventuality, Cobden-Sanderson infamously dumped all 2,600 pounds of the metal type, including the punches and matrices, into the River Thames, making multiple midnight trips to Hammersmith Bridge to do so.

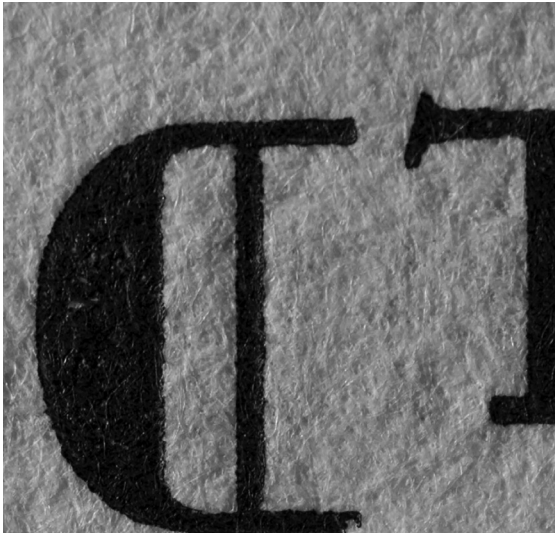
While Cobden-Sanderson may have avoided any imminent use of the type for mechanical reproduction, he could not prevent its physical resurrection and digital dissemination in the twenty-first century. Thanks to designer Robert Green, who managed to salvage 150 original metal types from the Thames in 2014, the Doves Type has been remediated and is now available to users around the world ('The Doves Type®') (Figure 4). Using thousands of scans of letters from Doves printed books as well as the salvaged physical types as models, Green employed computer technologies,

from design software to zoom enlargements, to create a digital replica of the Doves type.⁴⁰ Although the digital technologies he used to remediate these turn-of-the-century metal types differed from the photographic technology and tracing paper Morris used to remediate fifteenth-century incunabular types, the principles and processes each designer used have much in common.

III. Fundamental Sympathy

Doves Press books differ in one important respect from those Morris produced at his Kelmscott Press: their aesthetic relies principally on the beauty of the typography, exclusive of decoration. Critics generally agree that Cobden-Sanderson's simple interface became a model for modern commercial printing in the twentieth century.⁴¹ We are not, however, compelled to take a progressivist view of design that positions Morris's decorated pages as backward-looking because they did not lead directly to twentieth-century design preferences. Indeed, we might even see twentieth-century design as anomalous in the long human history of decorative art. Following the publication of the architect Alfred Loos's influential 'Ornament and Crime' in 1908, designers viewed ornamentation as a dangerous impediment to cultural expression in the modern industrial world.⁴² Rather than visualising a chronological timeline of development, however, I want to invoke the Victorian relational graphic, the Venn diagram, to suggest that Morris and his Kelmscott Press occupy the intersecting set between Gothic and digital design.⁴³ Because Morris's approach to book design was fundamentally ornamental, it was also, in Spuybroek's terms, both Gothic and digital. 'As with the Gothic', Spuybroek explains, 'what needs to be established in ornament is simply a relatedness between us and things, a *fundamental sympathy*, which all design starts from. Such sympathy is *only* possible because of ornament. Ornament is an absolute condition for all things to be felt with the same immediacy as they are seen.'⁴⁴ Morris put it this way: '[t]he ornament must form as much a part of the page, as the type itself, or it will miss its mark; in order to succeed, and be ornament, it must submit to certain constraints, and be architectural'.⁴⁵

Praising what he called Morris's 'ornamental tendency' in 'A Defense of the Revival of Printing', Charles Ricketts acknowledged the 'great debt' book lovers owed to Morris for showing how decorative design should be based on architectural principles.⁴⁶ Morris insisted that the page present an aesthetic balance of black and white, harmonising type with ornament. 'The essential point to be remembered', he cautioned, 'is that the ornament, whatever it is, whether picture or pattern-work, should form part of the page, should be part of the whole scheme of the book.'⁴⁷ Such harmony could only be achieved if images, ornaments and types could be printed on the same press, and this meant reviving the artisanal craft of wood



¶ THE DOVES TYPE® is Robert Green's digital recreation of the Doves Press Fount of Type.

Original type conceived, commissioned & directed by T. J. Cobden-Sanderson, London, 1899.

Developed by Emery Walker, assisted by Percy Tiffin, at Walker & Bourall, London, 1899 – 1900.

Punches cut by Edward Prince, London, 1899 – 1901.

Produced in a single size, 2 Line Brevier (16 pt), by Miller & Richard, Edinburgh, 1899 – 1905.

First sorts delivered October 1899, full fount of characters completed July 1901.

Punches & matrices thrown into the River Thames by T. J. Cobden-Sanderson, March 1913.

Entire type dropped into the River Thames by T. J. Cobden-Sanderson, August 1916 – January 1917.

Digital facsimile Doves Type® developed 2010 – 2015.

OpenType Version 1.0 released December 2013.

Version 2.0 released January 2015.

Created using sources from original Doves Press publications & 150 metal sorts recovered from the River Thames by Robert Green & the Port of London Authority salvage team, October & November 2014.

The Doves Type® – www.dovestype.com

Distributed by Turnstone Ltd – www.turnstone.co.uk

Figure 4: Robert Green, Specimen Page of The Doves Type®. (Public domain: <www.dovestype.com>).

engraving. Like moveable type, wood engravings are cut in reverse for printing in relief. To enable printing on the same press, blocks of boxwood must be cut ‘type-high’: that is, 7/8th of an inch, precisely the same height as the type. Wood-engraved images and ornaments allowed printer-designers of the small press movement to build their pages architecturally, out of blocks of metal type and blocks of wood-engraved images, printed with the same ink on the same paper. In this way, letterpress and ornament could share a harmonious aesthetic of black lines stamped on a textured white surface.

The revival of fine printing emerged at the precise moment that mass print culture was demanding ever faster methods, with more and more pages of illustrated text, and less and less of what Ricketts and Pissarro called the ‘conditions of care and technique’ that characterised the artisanal methods of the Kelmscott Press and its followers.⁴⁸ After dominating the production of illustrated print for over fifty years, wood engraving as a technology of reproduction was replaced at the fin de siècle by photomechanical processes. In his record of *Life and Labour of the People in London* (1902-3), Charles Booth wrote: ‘[n]o other occupation has suffered more than engraving from the competition of new inventions and the change from ancient to modern methods’.⁴⁹ Hundreds of wood engravers lost their means of livelihood as a result of this media shift.

Deeply opposed to the imperatives of speed in the mass-oriented industrial world,

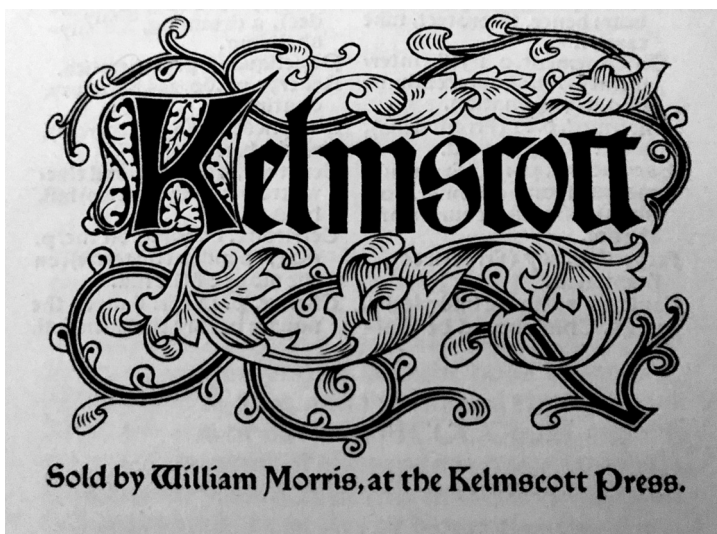


Figure 5: new caption to come

Morris and his followers embraced the radical practice of what Elizabeth Carolyn Miller aptly names ‘slow print’.⁵⁰ In this politicised aspect of late-Victorian print culture there is a fundamental awareness of the relationship between people and things. Through its commitment to artisanal processes, the small press movement provided opportunities for some of the best wood engravers to continue their craft as a means of livelihood and aesthetic expression. These included Clemence Housman, a highly skilled engraver for both James Guthrie’s Pear Tree Press and Charles Ashbee’s Essex House Press. Guthrie maintained that ‘in technical range, no engraver has carried the art further’ than Clemence Housman, a view shared by twentieth-century print-maker Leonard Baskin.⁵¹ ‘[T]he special and entrancing qualities of the Pear Tree Press illustrations’, he claims, ‘are in large measure due to Clemence’s sensitive and capable hand transferring Guthrie’s designs into compelling works of fine art.’⁵² Although she and her work are largely forgotten today, Housman studied wood engraving from master engraver Charles Roberts at Lambeth School of Art at the same time (though not in the same room) as Charles Ricketts and Charles Shannon, each of whom contributed wood engravings to *The Dial* and the Vale Press. Lucien Pissarro, who was trained in France, published his original wood-engraved prints in *The Dial* as well as in his Eragny Press editions. Both the Vale Press and Eragny Press sought to revive wood-engraving as an original art form, in which prints were designed and cut by the same hand. Others, including Morris’s Kelmscott Press,

Ashbee's Essex House Press and Guthrie's Pear Tree Press, drew on the more recent Victorian practice of facsimile engraving to reproduce images. This required the artisan to cut two lines into the woodblock for each line drawn by the artist, as it was only by excavating the surrounding white space that a raised ridge could be created to take the ink. In these presses, the value of wood engraving as a medium for producing pattern work that could harmonise with type superseded the core Arts and Crafts principle of integrating design and execution. Another modern technology used at Kelmscott and some other fine presses was the electroplating of woodblocks. This process allowed multiple prints to be made from the same electroplate without damage to the woodblock, which could be retained as a matrix for future use. One might see these preserved woodblocks as (literally) digital backups.

One of the reasons Spuybroek connects the Gothic with the digital is that both occupy 'the realm of self-generating' form.⁵³ 'Let us not forget', he cautions, 'that code specifically demands an art of configurational variation – that is, a *digital Gothic*.'⁵⁴ Like digital Gothic, wood engraving and ornament are generative technologies, both code-dependent and capable of endless variations. Wood-engraved initials and borders are produced out of a binary system of black and white. The extraordinary beauty produced by this linear art is the result of a seemingly infinite number of infinitesimal cuts, of various depths and widths, incised into a small block of wood. Wood engravers work from black to white, cutting away negative space to bring form out of the void. Like digital code (*if this, do that; if that, do this*), wood engraving generates a virtually infinite number of renderings from a binary based on variations of something or nothing: *if black, leave this ridge; if white, cut that out*.

Pattern designers like Morris and Ricketts worked with the binary code of the wood-engraving medium to create interlacing knotwork around letterforms entangled with ribbons, flowers, leaves and stems from the repeating effects of black on white and white on black. Their ornaments were based on illuminated manuscripts and early printed books but formed to harmonise with the types used at their respective presses. Morris designed 384 different initial letters, thirty-three initial words, fifty-seven borders, 108 marginal ornaments, twenty-seven frames, twenty-eight title pages, four line endings and three printer's marks for the Kelmscott Press: a total of 644 designs, by Sydney Cockerell's reckoning, although he must be including others not listed here to reach that total.⁵⁵ The fertility of invention, based on the basics of letterform and decoration, seems endless: Morris created at least thirty-four variations on the letter 'T' alone.⁵⁶ Like Morris, Ricketts also created variant designs for the same initial letter, experimenting with the effect of white letters on black grounds, black letters on white grounds, boxed letters, open letters, foliated letters, interlaced letters and variations of the same. As he did his own wood engraving, however,

Ricketts had to devote time to execution as well as design. By his reckoning, ‘the initials alone which have been used in the Vale books represent the labour of a year, exclusive of their design’, while engraving a border represented as much as a month’s work.⁵⁷

Crucially, textual ornaments designed by fine-printing revivalists like Morris and Ricketts were not superfluous decoration. Their purpose was not only to enhance the beauty of the typography and honour the text they were preserving; it was also functional. ‘Ornament’, as Spuybroek reminds us, ‘has to work’ in the realm of the always-already-digital Gothic.⁵⁸ In Gothic cathedrals, ornament is weight-bearing. In fin-de-siècle books of the small press movement, ornament organises edges and corners, illuminates chapter openings and paragraphs, defines beginnings and endings, and arranges, unifies and harmonises the entire volume. While the twentieth century eschewed ornament for technological and economic reasons, the digital age ‘allows us to return to ornament’.⁵⁹ In this new ‘ecology of design’, according to Spuybroek, ‘things take on pattern and shape by conditioning each other’.⁶⁰ From this perspective, wood-engraved pattern work expresses the fundamental sympathy of all things living in relation to each other. This is why, for Morris, the design of ornament had moral weight and carried transformative political power.⁶¹

In the painstakingly slow artisanal method modelled at the Kelmscott Press, Miller suggests, ‘the process of production is as politically significant as the product’.⁶² In this insight we might see a final sympathy between Gothic building, the fin-de-siècle fine-printing revival and the digital humanities. Makers in each medium recognise that the iterative, collaborative process is as important, and potentially as transformative, as the final product. The resources that matter most are time, craft and relationships, not technologies. 130 years after the founding of William Morris’s Kelmscott Press, this ongoing commitment to the sympathy of things seems very worthy of celebration.

NOTES

1. Patrick Geddes, ‘The Megalithic Builders’, *The Evergreen: A Northern Seasonal*, 4 (Winter 1896-97), 142-51. *Evergreen Digital Edition*, ed. by Lorraine Janzen Kooistra, 2016-2018. Yellow Nineties 2.0 [website], Ryerson University Centre for Digital Humanities, 2019, available online: <https://1890s.ca/egv4_geddes_megalithic/> accessed 4 February 2021]. This citation sets the keystone for the article, while also acknowledging my foundational debt to Reg Beatty, Emma Fraschetti and Rebecca Martin, who worked with me at Ryerson’s Centre for Digital Humanities throughout the summer of 2019 to build *A Riot of Type*, a digital book inspired by *The Evergreen* and the fine-printing revival. See Reg Beatty, Emma Fraschetti, Lorraine Janzen Kooistra and Rebecca Martin, *A Riot of Type* (Toronto: Catchpenny Press, 2019), available online: <<https://archive.org/details/riotoftype/mode/2up>> [accessed 4 February 2021]. I am also grateful to Leslie Howsam and David Latham for the insightful critique and helpful feedback each provided on earlier versions of this essay. Finally, I would like to thank the Social Sciences and Humanities Research Council of Canada (SSHRC),

- which generously supports *Yellow Nineties 2.0* and the research outcomes of its collaborative team.
2. William S. Peterson, *The Kelmscott Press: A History of William Morris's Typographical Adventure* (Oxford: Clarendon Press, 1991), p. 4. (Afterwards Peterson).
 3. *Ibid.*, p. 8.
 4. *The Rossetti Archive* [website], ed. by Jerome J. McGann, 1993-2008, available online: <<http://www.rossettiarchive.org/>> [accessed 4 February 2021]; *The William Blake Archive* [website], ed. by Robert N. Essick and Joseph Viscomi, 1996-present, available online: <<http://www.blakearchive.org/>> [accessed 4 February 2021].
 5. *The William Morris Archive* [website], ed. by Florence Boos, University of Iowa Library, available online: <<http://morrisedition.lib.uiowa.edu/index.html>> [accessed 4 February 2021].
 6. *Yellow Nineties 2.0* [website], ed. by Lorraine Janzen Kooistra, Ryerson University Centre for Digital Humanities, 2016-present (1st edn, 2010-15), available online: <<https://beta.1890s.ca>> [accessed 4 February 2021].
 7. Lars Spuybroek, *The Sympathy of Things: Ruskin and the Ecology of Design* (Rotterdam: V2 Publishing, 2011), p. 9. (Afterwards Spuybroek).
 8. Edward Burne-Jones, qtd. in William Waters, *An Illustrated Life of Sir Edward Burne-Jones, 1833-1898* (London: Shire, 1997), p. 44.
 9. William Morris, *The Ideal Book: Three Essays on Books and Printing by William Morris*, ed. by Richard Mathews (Tampa, FL: University of Tampa, 2007), p. 38. (Afterwards Morris, *The Ideal Book*).
 10. Peterson, pp. 5, 7.
 11. Spuybroek, p. 142.
 12. *Ibid.*, p. 333.
 13. *Ibid.*, p. 332.
 14. *Ibid.*, p. 38.
 15. *Ibid.*, p. 41.
 16. William Morris, Preface to *The Nature of Gothic: A Chapter of the Stones of Venice, by John Ruskin* (Hammersmith: Kelmscott Press; London and Orpington: George Allen, [1892]), p. i.
 17. Spuybroek, p. 128.
 18. Alan Galey and Stan Ruecker, 'How a Prototype Argues', *Literary and Linguistic Computing*, 25: 4 (2010), 405-24 (407).
 19. Morris, *The Ideal Book*, pp. 11, 13.
 20. *Ibid.*, p. 5.
 21. Rebecca Martin, 'Tracing the Printed Page Online: Letterpress, Digital Markup and the Process of Remediating *The Evergreen* for the *Yellow Nineties Online*', *Yellow Nineties 2.0*, ed. by Lorraine Janzen Kooistra, Ryerson University Centre for Digital Humanities, 2019, available online: <https://beta.1890s.ca/essay_martin_evergreen_tracing/> [accessed 5 February 2021].
 22. *Ibid.*
 23. Jay Bolter and Richard Grusin, *Remediation: Understanding New Media* (Boston, MA: MIT Press, 1992), p. 15.
 24. Anna Wager, 'Photographs, Pens, and Print: William Morris and the Technologies of Typography', *Book History*, 21 (2018), 245-77 (254). (Afterwards Wager).
 25. Lucien Febvre and Henri-Jean Martin, *The Coming of the Book: The Impact of Printing 1450-1800*, trans. by David Gerard, Foundations of History Library (London: New Left Books, 1976), p. 77.
 26. Wager, p. 250.
 27. Morris, qtd. in *ibid.*, p. 253.
 28. *Ibid.*, p. 248.
 29. *Ibid.*, p. 258.
 30. Charles Ricketts, *Everything for Art: Selected Writings*, ed. by Nicholas Frankel (High Wycombe: Rivendale Press, 2014), pp. 77-81 (78). (Afterwards Ricketts, *Everything for Art*).

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31. *Ibid.*, p. 123.
 32. *Ibid.*
 33. *Ibid.*, p. 77.
 34. *Ibid.*, p. 125.
 35. *Ibid.*, p. 133, fn. 8.
 36. *Ibid.*, pp. 136-37.
 37. Jennifer B. Lee, 'Essex House Press', in *Dictionary of Literary Biography*, Vol. 112: *British Literary Publishing Houses, 1881-1965*, ed. by Jonathan Rose and Patricia Anderson (Detroit, MI: Gale Publishing, 1991), pp. 112-14. (Afterwards *DLB*, vol. 112).
 38. Peterson, p. 276.
 39. Alistair McCleery, 'Pear Tree Press', in *DLB*, vol. 112, pp. 248-50.
 40. Tom Beal, *One Man's Obsession with Rediscovering the Lost Doves Type* [video log], February 2015, available online: <<https://www.youtube.com/watch?v=WGv7h8VWIQc>> [accessed 5 February 2021].
 41. Jennifer B. Lee, 'Doves Press', in *DLB*, vol. 112, pp. 99-102.
 42. Alfred Loos, 'Ornament and Crime', in *Programs and Manifestoes on Twentieth-Century Architecture*, ed. by Ulrich Conrads (Boston, MA: MIT Press, 1970), pp. 19-24 (21).
 43. John Venn, 'On the Diagrammatic and Mechanical Representation of Propositions and Reasonings', *The London, Edinburgh, and Dublin Philosophical Magazine and Journal of Science*, 5: 10 (July 1880), 1-18 (6).
 44. Spuybroek, p. 128.
 45. Morris, *The Ideal Book*, pp. 17-18.
 46. Ricketts, *Everything for Art*, p. 98.
 47. Morris, *The Ideal Book*, p. 37.
 48. Ricketts, *Everything for Art*, pp. 136-37.
 49. Charles Booth, *Life and Labour of the People in London*, 2nd series, 17 vols (New York: AMS Press, 1970), vol. 4, p. 112.
 50. Elizabeth Carolyn Miller, *Slow Print: Literary Radicalism and Late Victorian Print Culture* (Stanford: Stanford University Press, 2013), p. 2. (Afterwards Miller).
 51. James J. Guthrie, 'The Wood Engravings of Clemence Housman', *Print Collectors' Quarterly*, 11: 2 (April 1924), 190-204 (196).
 52. Leonard Baskin, 'Portrait of Clemence Housman', in *Icones Liborum Artifices: Being Actual Putative Fugative & Fantastical Portraits of Engravers, Illustrators & Binders* (Leeds, MA: The Gehenna Press, 1988), copy 36/40, n.p. Graphic Arts Collection, Department of Rare Books and Special Collections, Princeton University Library.
 53. Spuybroek, p. 17.
 54. *Ibid.*, p. 61.
 55. *A Note by William Morris on His Aims in Founding the Kelmscott Press Together with a Short Description of the Press by S.C. Cockerell, & An Annotated List of the Books Printed Thereat* ([Hammersmith]: [Kelmscott Press, 1898], pp. 15-16.
 56. *Ibid.*, p. 15.
 57. Ricketts, *Everything for Art*, p. 118.
 58. Spuybroek, p. 140.
 59. *Ibid.*, p. 141.
 60. *Ibid.*, p. 143.
 61. Nicholas Frankel, 'William Morris and the "Moral" Qualities of Ornament', *Socialist Studies/Études socialistes*, 13: 1 (2018), 23-35 (24).
 62. Miller, p. 57.