Wood Engravings and the Periodicals of Victorian England:
The *Penny Magazine* and the *Illustrated London News*

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Introduction

During the eighteenth century, intaglio processes such as copper-engraving and etching had almost completely supplanted the woodcut, the earliest form of illustration. The relatively primitive looking woodcuts simply could not compete with the high degree of tonality and detail found in the various intaglio processes, thus they were abandoned by most of the Western printing community.\(^1\) Shortly before the nineteenth century, however, Thomas Bewick rescued the woodcut from obscurity through his skilled use of wood engraving, a refined woodcut process. Bewick’s charming vignettes, which rivaled the intaglio processes in delicacy and tone, were particularly appealing to the Victorian aesthetics of the English public as well as to the pocketbooks of publishers.

In response to increasing public demand for illustrations in books and periodicals, the wood engraving process was streamlined and fully incorporated into the world of mass publications resulting in the first heavily illustrated periodicals such as the *Penny Magazine* and the *London Illustrated News*. The cost effectiveness of wood engraving combined with its capacity for detail allowed Victorian periodicals to satisfy the public’s demand for realistic depictions of people, places, and objects, a demand which was perhaps augmented by the invention of the early photographic process. Even though the use of wood for illustrations soon fell into disuse again during the 1900s with the introduction of photomechanical processes,\(^2\) wood engraving served as an important transitional technology for mass publication that filled the gap between the crude early illustration processes and later photomechanical processes.

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Thomas Bewick and the Invention of Wood Engraving

Thomas Bewick (1753-1828)\(^3\) is often cited as the first artist to fully develop the wood engraving process, and he used it to create hundreds of small vignettes for the popular market in England, some no more than an inch wide.\(^4\) Despite their small size, Bewick’s vignettes achieved new height of realism that had previously only been possible with metal engraving or etching processes. He realized that in order to create the same delicate lines in wood as could be found in metal, the artist must use a burin instead of the conventional knife to create the desired scene.\(^5\)

The burin, illustrated in figures one and two of the appendix, is made of hard sharpened steel shaped roughly like a triangle and with an angled tip.\(^6\) Burins are normally used to engrave metal such as copper. When they are used on a typical wood block, in which the grain of the wood lies parallel to the line being cut, the wood frays and splinters. Bewick discovered, however, that if the end grain of hard boxwood is used, the lines will come out smooth and almost as fine as the lines found in copper engravings.\(^7\) An end-grain block is depicted in figure three.

Bewick became a prolific wood engraver specializing in animals and country scenery. His most famous published works were *A General History of Quadrupeds*, published in 1790, and *The History of British Birds*, published in two volumes in 1797.

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\(^7\) Kruiningen, *Techniques of Graphic Art* (1969)
and 1804. Both of these works were extremely popular among the general public and their popularity resulted in renewed interest in wood as an illustration material.⁸

**Wood Engraving and Commercial Printing**

During the early 1800s wood engraving became a reproductive enterprise (both in books and in periodicals) with engravers attempting to replicate an artist’s drawings in wood rather than creating original works of their own. Because of this, the lines in many post-Bewick wood engravings tend to resemble ink drawings rather than the artistic engravings of Bewick and his followers.⁹ Such engravings are called “facsimile wood engravings.”¹⁰ The difference between facsimile wood engravings and artistic wood engravings is illustrated in figures four through seven. Paintings or other famous works of art could also be converted into wood engravings, and an example of this is depicted in figures eight and nine.

After Bewick, wood engraving was no longer the responsibility of the artist, but was rather the business of the commercial wood engravers and illustration firms that rapidly multiplied over the course of the nineteenth century. Of the many professional engraving companies that sprang up during this period, the Daziels of London and their Camden press established in 1857 were the most famous, but other firms existed long before the Daziel firm.¹¹ Fourteen illustration firms were listed in the *London Guide* of 1817, twenty-four in the *Post Office Directory* of 1842, and forty seven in the *Post Office Directory* of 1882.

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¹⁰ Ibid. pg. 6c
Directory of 1852. This tremendous rise in the number of illustration firms can be partially attributed to the rise of the illustrated periodical.  

Wood engravings offered a few major advantages for periodical printers. First, the wood blocks were cheaper than copper plate engravings. Second, wood engravings could be made at type height and printed at the same time and with the same ink as metal type. Metal plate intaglio illustrations, on the other hand, had to be printed separately because of the greater amount of pressure required and because they required a more fluid (shorter) ink than was normally used in letter press printing.

The *Penny Magazine and the London Illustrated News*

The first of what was to be many regularly illustrated periodicals was the *Penny Magazine* of 1832. Several different periodicals prior to and concurrent with the *Penny Magazine* included occasional illustrations for major news stories or special features. Among these publications were the *Observer*, *Bell’s Life*, and the *Weekly Chronicle*. The *Penny Magazine*, however, included several small wood engravings in each regular issue and occasional full page or almost full page engravings. It was also the first periodical publication to successfully combine wood engraving with the use of stereotyping and the steam press in order to maximize circulation.

The *Penny Magazine* was founded and edited by Charles Knight, a member of the Society for the Diffusion of Useful Knowledge, which was part of a new educational movement started by the Reform Party. The publication was extremely popular and had

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14 Mason Jackson, *The Pictorial Press: Its origin and progress* (Detroit: Gale Research Company) 1968. This work was originally published by Hurst and Blackett of London in 1885.
15 Eric de Maré, *The Victorian Woodblock Illustrators* (London: Gordon Fraser) 1980
sold 200,000 copies by the end of 1832.  The first issue published on March 31, included articles on Charing Cross, the antiquity of beer, the Zoological Gardens in London, and Poland. Two of the wood engravings from this issue are reproduced in figures ten and eleven.

Many years later Charles Knight, in his work *Passages of a Working Life*, writes about his first encounter with the major work that followed the Penny magazine, the *Illustrated London News*:

> How, I thought, could artists and journalists so work concurrently that the news and the appropriate illustration should both be fresh? How could such things be managed with any approach to fidelity of representation unless all the essential characteristics of a newspaper were sacrificed in the attempt to render it pictorial?

The *Illustrated London News* was, indeed, able to overcome all these obstacles and its first issue was printed on May 14, 1842. Its founder was Herbert Ingram who was inspired to create the world’s first illustrated newspaper by constant requests from his customers for illustrated news from the city. The first issue sold 26,000 copies and consisted of sixteen pages and thirty engravings. By the end of the year, the *Illustrated London News* had become a smash success and circulation had reached 60,000. The newspaper was able to overcome the limitations noted by Knight through constant innovation and streamlining of the engraving process. The paper’s elaborate wood engraved title that was used for almost every issue is depicted in figure twelve.

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16 Jackson, *The Pictorial Press* (1968)
18 Jackson, *The Pictorial Press* (1968) pg. 281
The Modification the Wood Engraving Process

During the early 1800s illustration companies realized that a single illustration could be engraved by multiple people reducing the amount of time it took to create a single engraving. Often one engraver would specialize in a particular area such as faces, trees, clothing, or other features of the picture. Blocks could even be cut into pieces with each piece given to a different engraver. In order to make a complete picture, however, the pieces had to be clumsily glued or bolted together with a single bolt going through all the pieces. This was the method used to create the large illustrations in early issues of the *Penny Magazine.*

Around 1860 a man named Charles Wells invented a method of joining the blocks using nuts and bolts recessed into grooves cut into the backs and sides of the blocks. This allowed engravers to stop using glue which tended to melt in the steam presses. The reverse of a nineteenth century bolted together wood block is depicted in figure thirteen.

Before the block could be engraved, the scene had to be transferred in some way and a series of innovations occurred in this area as well. Occasionally the artist (who often merely sketched an incomplete picture) would draw directly on the wood, but in many cases another employee, called a draughtsman, adapted and refined the sketch to suit the process of engraving and then transferred it to a block by hand.

During the 1860s it became possible to project a photograph of a drawing onto a sensitized wood block, though this process left few clear lines for the engraver to follow. Often the engraver had to invent a way to interpret the various tones present in the photograph. Wood engravings of this kind are often called “interpretive” wood

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20 Jackson, *The Pictorial Press* (1968)
22 Jackson, *The Pictorial Press* (1968)
engravings. An example and a detail of the example are shown in figures fourteen and fifteen.

After the drawing or image was transferred to the block by one method or another, the small pieces of the block could then be separated and distributed among various engravers. After the work was finished the master craftsman overseeing the engraving would perform the final touchups to hide the joints and smooth out the lines.

In the case of periodicals, it was sometimes necessary to take the block apart as it was drawn in order to meet a printing deadline. An example of this, demonstrating the kinds of methods employed by the Illustrated London News, can be found in Mason Jackson’s 1885 work The Pictorial Press. In the following excerpt, Jackson describes how a double page engraving was accomplished. It is probable that the engraving Jackson is referring to is the one shown in figure 16. There were, however, two more double page engravings included in the March 21, 1863 supplement:

The double-page engraving of the marriage of the Prince of Wales in the Illustrated London News, March 21 1863, was drawn on the wood by Sir John Gilbert at 198 Strand, and as fast as each part of the drawing was done it was separated from the rest and given to the engraver. Considering that the artist never saw his drawing entire, it is wonderful to find the engraving so harmonious and effective.

It was this process of using bolted blocks and dividing the engraving work between several different engravers who were at hand as the sketch was being made that

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23 Gascoigne, How to Identify Prints (2004) pg. 6c
24 de Maré, The Victorian Woodblock Illustrators (1980)
separated the *Illustrated London News* from its slower predecessors and brought it one step closer to modern mass media.

Interestingly, the relatively easy and rapid production of wood engravings also allowed readers to submit illustrations to accompany their letters to the paper. For example, the March 18, 1843 issue of the London Illustrated News includes a wood engraving of a diagram submitted by a reader who wanted to prove that the position of a horse and rider in a work of art at the British Gallery was anatomically possible. Critics had apparently claimed that the work was not anatomically correct. The reader writes, “This, I hope will clearly explain to your readers than an illustrative reply to the errors of the critic is the best of all replies.”

A minor news item such as this would never have had a chance of being included in a periodical using expensive and time consuming metal plate methods. This article with its drawings is shown in figure seventeen.

**Stereotyping**

Many times the engraved blocks with their accompanying type were made into stereotyped plates. This enabled publishers to print more copies without wearing out the blocks, and it also allowed publishers to ship the plates overseas where they could be used to publish additional copies. For example, the *Penny Magazine* sent stereotyped plates to France, Germany, Russia, and weekly to New York.

There were three methods of stereotyping employed from about 1830. In one method a plaster of Paris cast was taken of the block and type and the cast was then used as a mould for the metal stereotyped plate. The other, less reliable method was clichage. In clichage, the matter being stereotyped was allowed to fall face down onto slightly

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26 B. R. Haydon “Haydon’s Curtius” *The Illustrated London News* (March 18, 1843)  
molten metal in order to create a mould. A third method using paper maché as the material to make the mould was used from the mid 1800s.

Electrotyping was an additional reproductive method invented in 1839 by Thomas Spencer. Between stereotyping and electrotyping, commercial illustrators seem to have preferred electrotyping for illustrations, which required more sharpness and delicacy than type. This method was much more complicated than stereotyping. It involved first making a wax cast which was then covered with a thin coat of black-lead. The mould was suspended in a bath of copper sulfate and sulfuric acid with a sheet of copper placed nearby. A strong electric current was run through both the mould and the copper plate resulting in the gradual formation of a thin copper layer on the mould. The copper reproduction from the mould was then filled in with metal and mounted on wood.

**Victorian Opinions on Wood Engravings**

How did the Victorians view the new power of the wood engraving to efficiently depict something approaching reality to the public? The address included in the first issue of the Illustrated London News conveys an excitement over the new possibilities for conveying information provided by the wood engraving. “To the wonderful march of periodical literature [the wood engraving] has given an impetus and rapidity almost coequal with the gigantic power of steam. It has converted blocks into wisdom, and given wings and spirit to ponderous and senseless wood…”

Not only did the wood engraving provide another means with which to convey information, it was also perceived as a means to provide *truthful* information and thereby

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28 Wakeman, *Victorian Book Illustration* (1973)
29 Jackson, *The Pictorial Press* (1968)
30 de Maré, *The Victorian Woodblock Illustrators* (1980) pg. 81
uphold the journalistic ideals that had already been established. In the quote from Knight above the author mentions his concern for “fidelity of representation.”

Jackson also revealingly writes about this topic when he praises the draughtsman’s ability to rework the artist’s original sketch without damaging the “truth” of the picture. The sketch and engraving he refers to are depicted in figures eighteen and nineteen:

This sketch…came to hand a few hours before the engravings for the current week were to be ready for the printer. The cream or heart of the sketch, representing an officer waving a white flag over the gate of Sedan attended by a trumpeter, was taken for the subject, while the comparatively unimportant part of the sketch was left out. The drawing was rapidly executed and as rapidly engraved, and was ready for press at the usual time. [The reproductions provided] will show the reader the way in which hurried sketches are sometimes adapted to the purposes of a newspaper without at all impairing their original truth.

This selection reveals more than just the methods employed to create an engraving. It reveals an expectation that the illustrated periodicals were presenting the truth to readers through their wood engravings.

This expectation for the truth in illustrations was perhaps further reinforced by the invention of the photograph. Daguerreotypes first became available in 1839 followed by the less popular collotypes in 1841. Books with pasted in collotypes as illustrations became available during the 1840s and 1850s and innovations combining books with photography continued from that point onward.

31 Jackson, *The Pictorial Press* (1968) pg. 281
32 Ibid. pg. 320
33 Wakeman, *Victorian Book Illustration* (1973)
Wood engravings, for the first time, allowed news-worthy subjects to approach the realism of photography by means of a method that was quick enough to be included in a weekly periodical. There was no longer any excuse for conveying less than the truth in pictures, or what was perceived as the truth. Non-realistic images would only pale in comparison to the photographs Victorians had come to admire and would do nothing to increase the reputation or circulation of a periodical.

**Conclusion**

The wood engraving process that Bewick invented would not be reclaimed by artists until after the turn of the twentieth century when wood engravings were replaced with photomechanical reproduction methods. Until methods these methods of photomechanical reproduction were invented and perfected for use in periodicals, wood engravings seem to have acted as an intermediary between older less realistic images and the photorealism that was yet to come. The progress in wood engraving techniques made in the decade between the beginning of the *Penny Magazine* and the beginning of the *London Illustrated News* demonstrates how technology can be molded to meet ideals. In this case, the ideal was one that is still familiar today- illustrations in periodicals should, as far as technology allows, maintain “fidelity of representation” without straying from “their original truth.” Wood engravings, for a time, provide a means to this end.
Appendix

Figures 1-19
Figure 1 (left) - A selection of burins. The different tips are used to create different kinds of lines in the wood.  

Figure 2 (right) - The correct position for using a burin on wood. The block is engraved while sitting on a leather pad filled with sand.  

Figure 3- Diagram of how wood is cut to make an end grain block.  

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35 Mueller, *How I Make Woodcuts and Wood Engravings*  
Figure 4 (left) - A Bewick vignette from 1804 reproduced at approximately actual size.  

Figure 5 (right) - A detail of the vignette in figure four. Bewick’s pictures are clearly created by removing white areas to create details instead of attempting to imitate pen strokes.  

Figure 6 (left) - A wood engraving from around 1880 made to look like a drawing by George Du Maurier.  

Figure 7 (right) - A detail from the engraving depicted in figure six. The engraver was attempting to imitate the artist’s pen strokes by carving away the wood in white areas to leave black, sketchy, pen-like lines.  

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37 Gascoigne, How to Identify Prints (2004) pg. 6a  
38 Ibid. pg. 6a  
39 Ibid. pg. 6b
Figure 8 – A wood engraving of a painting by Johannes (Jan) van Eyck published in the April 15, 1843 issue of the Illustrated London News.\textsuperscript{41}

\textsuperscript{40} Ibid. pg 6b
\textsuperscript{41} Illustration to accompany “Van Eyck’s Picture in the National Gallery” The Illustrated London News (April 15, 1843)
Figure 9- The original 1434 painting by Jan van Eyck off of which the engraving in figure 8 was based. The painting is entitled “The Marriage of Giovanni Arnolfini.”

Norbert Schneider, *The Art of the Portrait: Masterpieces of European portrait painting 1420-1670* (New York: Tachen) 1999 pg. 32
Figure 10 (left) – An illustration from the first issue of Penny Magazine for an article on Charing Cross.43

Figure 11 (right) – An illustration of a grizzly bear from the first issue of Penny Magazine made to accompany an article on the Zoological Gardens. The sentence this picture illustrates is as follows- “…a bear has been seen walking on his hinder feet along a small tree that stretched across a river, bearing a dead horse in his fore-paws”44

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43 The Penny Magazine Online, “The Penny Magazine No. 1” http://www.history.rochester.edu/pennymag/001.htm (access April 20, 2005)
44 Ibid.
Figure 12 – The wood engraving used on the front of almost every issue of the *Illustrated London News* (this particular one is from the first issue published on May 14, 1842). It depicts a river view of London and was engraved by S. Sly. The letters were designed by Vizetelly.\(^45\)

Figure 13 - The reverse of a 19\(^{th}\) century woodblock showing how many small pieces could be bolted together after a machine was invented to cut the grooves.\(^46\)

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\(^45\) de Maré, *The Victorian Woodblock Illustrators* (1980) pp. 80-81

\(^46\) Sander, Wood Engraving (1978) pg. 18
Figure 14- An interpretive wood engraving from around 1885 made from a sketch of the London riverside near St. Paul’s Cathedral photographed onto wood. ⁴⁷

Figure 15- A detail of figure nine showing how the artist had to use a variety of parallel lines to convey the tones present in the original sketch. ⁴⁸

⁴⁷ Gascoigne, *How to Identify Prints* (2004) pg. 6c
⁴⁸ Ibid.
Figure 16 - An illustration from the Illustrated London News (March 21, 1863) entitled "The Royal Procession at the Grand Arch, London Bridge."
Figure 17 – A wood engraving made from a reader submitted sketch and published in the March 18, 1843 issue of the *Illustrated London News*.  

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B. R. Haydon “Haydon’s Curtius” *The Illustrated London News* (March 18, 1843)
Figure 18 – Sketch of the surrender of Sedan later made into a wood engraving for the September 17, 1870 issue of the Illustrated London News.\textsuperscript{51}

Figure 19 – The final wood engraving made from the sketch in figure 12. The upper left quadrant of the sketch was the only part of the sketch engraved.\textsuperscript{52}

\textsuperscript{51} Jackson, The Pictorial Press (1968) pg. 318
\textsuperscript{52} Ibid. pg. 319
Bibliographic Essay

There are many different books and websites that focus on wood engraving or on illustration methods in general, though only a portion of these works focus on the Victorian period and even fewer works focus on wood engraving and periodicals.

Some works focus almost exclusively on wood engraving as an art form and not its historical impact. These types of books can be used for gaining a basic understanding of how wood engravings are created. The most useful and concise of these types of books is *How to Identify Prints: A complete guide to manual and mechanical process from woodcut to ink jet 2nd Edition* by Bamber Gascoigne (New York: Thames & Hudson, 2004). This work includes a brief historical background and the basic methods of production for every type of graphic art process created from antiquity to the time of publication with reproductions to accompany every entry. Also included are methods of distinguishing similar types of methods from one another. This was the only work surveyed that clearly defined the difference between the engravings of Bewick and the various reproductive engraving techniques.

*The Techniques of Graphic Art* by H. van Kruinigen and translated by B. K. Bowes (New York: Frederick A. Praeger, 1966) is another work that includes description of various illustration techniques, but with much fewer pictures than the Gascoigne work. The brief entry on wood engraving includes a very short historical background and separate sections on each aspect of wood engraving and the printing of engravings. Other techniques of illustration are also included and are useful for quickly comparing different methods. David M. Sander’s *Wood Engraving: An adventure in printmaking* (New York: The Viking Press, 1978) also focuses mostly on technique. It is, however, exclusively
devoted to wood engraving and the chapter on history is more substantial that the Kruinigen work. Sander’s book also includes many excellent reproductions of wood engravings and photographs of wood engraving tools.

Geoffrey Ashall Glaister’s *Encyclopedia of the Book* (New Castle, Delaware: Oak Knoll Press, 1996) is a unique work that includes encyclopedia style entries on almost every major technique and personality associated with illustration and other aspects of the book. The entries are extremely short but occasionally this work is the only source for obscure terminology. Its non-narrative structure, however, can make it difficult to use.


Many other works on wood engraving or the graphic arts focus on the historical development of illustration techniques. *The Art of Illustration 1750-1900* by Margaret Slythe is a useful introduction to early illustration techniques that can serve as a jumping off point for more in-depth studies. This slim volume highlights many of the major people and places associated with various illustration techniques including wood engraving.
Two books that focus exclusively on the Victorian era, though not exclusively on periodicals, are *Victorian Book Illustration: The technical revolution* by Geoffrey Wakeman (Newton Abbot: David & Charles, 1973) and *The Victorian Woodblock Illustrators* by Eric de Maré (London: Gordon Fraser, 1980). Wakeman uses the Great Exhibition of 1851 as a pivot point for technological advancement in his book and also includes the development of photography as it applied to Victorian illustrations. De Maré’s work is more useful for readers who are interested in periodicals. The author includes an entire chapter on periodicals with many reproductions of engravings as well as chapters on famous individual wood engravers and the craft in general.

One of the most useful works on wood engraving and Victorian periodicals is *The Pictorial Press: Its origin and progress* by Mason Jackson (Detroit: Gale Research Company, 1968). This work was originally published in London by Hurst and Blackett in 1885. Jackson, according to the 1911 Edition Encyclopedia online (http://30.1911encyclopedia.org/J/JA/JACKSON_MASON.htm, accessed April 20, 2005) was himself a wood engraver and was the art editor for the *Illustrated London News* for 30 years starting in 1860. His detailed and informative work includes almost every major and minor illustrated periodical that had been established up to the time of publication and includes many illuminating anecdotes about pivotal figures in the field of illustrated journalism as well as many reproductions of key works. Also included are detailed descriptions of engraving methods and the business aspect of wood engraving. The only drawback to Jackson’s work is that, like many works from this time, there is no index; however, topics included in each chapter are given in the table of contents.
Finally, no study of wood engraved illustrations in Victorian periodicals would be complete without examining specimens of the periodicals themselves. The Perry Castañeda Library on the campus of the University of Texas at Austin has in its collection microforms of the *Penny Magazine* starting from the first issue as well as physical copies and microforms of the *Illustrated London News* starting from the first issue. A few issues of each publication can also be found at the Harry Ransom Center for Humanities Research also located on the University of Texas at Austin campus. Select issues of the Penny Magazine from 1832 to 1835, including the first issue with its wood engravings, can be found at The Penny Magazine Online (http://www.history.rochester.edu/pennymag/, accessed April 20, 2005).