Print Making Process

The process used to produce an Ukiyoe wood-block print is unique in the world in both its complicated technology and its level of artistic expression.

A publisher would set up a design plan. He would commission an artist to draw the design sketch. Then his engraver would carve the design into the block, and his printer would use the engraved blocks to create the finished product. This divided labor system seems strangely fascinating to people from countries where it is common for a wood-block print artist to initiate the design, engrave the blocks and do the actual printing all by himself. But it was a fact of business practice in the Edo Period world of the Ukiyoe that it was the publisher who had the financial power and know-how to produce prints, and that the design artists and the engraving and printing craftsmen were treated as no more than the
publisher's underlings. The publishers were only interested in sales and profit and had no sympathy whatsoever for the integrity or artistic desires of the designer. There are cases in which a more popular artist's name was printed on the work of one who was less successful but whose work sufficiently resembled that of the other artist to sell, and cases of Actor Prints in which only the facial features and the name of the actor were altered when another actor took over the same role as a print that had already been engraved, in order to save the expense of engraving a whole new set of blocks. As a result, numerous arguments between artists and publishers about the quality of engraving are recorded. Hokusai was one who often expressed displeasure at the manner in which his pictures were produced.

**THE DESIGN SKETCH** The process of producing a Ukiyoe print began with the execution of the design sketch by the artist. He was required to make the design sketch the exact size that the final product was to be. He would choose a subject from his rough sketchbook that fit his publisher's order, and compose it with draftsmanlike care. For this he needed great skill in line and composition.

During the days of the classical *nishiki-e* print, the design sketch was drawn directly on to a special thin tracing paper, but in recent years, the practice of tracing it on to the thin paper after executing the original painting on some other thick paper first has become common.

Beginning in the 1780's, the Tokugawa government set up a censorship system for Ukiyoe prints. The publisher was required to take the design sketches to the censor's office and receive his stamp of approval before they were allowed to proceed with the engraving and printing. And it was necessary for this stamp to be reproduced on the final product. There were several different sizes and shapes of stamps, and they can be found on all the works of Utamaro, Hiroshige and their contemporaries. After the beginning of the Meiji Period in 1868, the censorship system was revised, and the stamp came to be placed outside the frame of the actual picture, along with the name and address of the publisher and the date approval was granted.

**THE ENGRAVER** The next step in the process was the delivery of the design sketch to an engraver who was familiar with the style and technique of the artist. Today there is no way of determining whether or not it was the actual case, but it would seem that the better works must have been produced.
by a set team of artist and engraver who knew and understood each other’s work well. It is known to be a fact that in the latter days of the Edo Period, when engraving and printing techniques had reached an extremely high level of development, that there were artists who would leave the filling in of details such as hair and other tediously delicate lines to the discretion of the engraver, not even bothering to draw them in on their design sketches.

The engraver began by selecting a well-seasoned piece of regularly-grained wild cherry wood. Next he would plan it down until it had a perfectly flat surface. Then he would cover the surface with a thick paste and carefully place the design sketch on top of the paste. He would then leave it set for a time, until it had become about half dry, after which he would rub the surface of the paper lightly with the tips of his fingers, until the paper came off in shreds, leaving the drawing imprinted on the surface of the wood. He would often leave the applying of the paste to the surface of the block to an apprentice, but would place the design sketch over the paste by himself to make certain that it was laid on smoothly and in the precisely correct position.

Next he would cut along both sides of the outlines of the design with a small knife. After the entire design was cut into the wood, he would cut away the surface near the lines of the design with a curved gouge and a wooden mallet. Then with a V-shaped gouge and a larger mallet, he would cut away the large areas of surface wood that had no lines. Finally he would cut away the remaining excess wood from along both sides of the lines of the design with a small flat chisel, leaving the design in clear, sharp relief on the surface of the block.

The finished block was shown to the design artist for approval, and the mutual efforts of the artist and the engraver would be exerted to produce an outline that satisfied them both.

The last job of the engraver was to carve an L-shaped groove just above the lower right-hand corner of the design and a short straight line at a point about three-fourths of the way down the left side. These grooves served as guide lines or registration marks to be used in the precise registering of color blocks in order to make sure that the colors were printed exactly within the areas for which they were intended.

This outline block was delivered to the printer, who made the first copy by using a brush to cover the block with India (sumi) ink, and pressing a piece of high quality paper, face downward, on to the ink-covered block. He further pressed the paper against the block by rubbing it carefully with a baren.

The block, and the galley-proof copy thus produced, were returned to the engraver. Then the engraver made ten more copies, which he gave to the artist for the purpose of having him fill in one color on each copy, as is seen on pages 94 and 95. After this was completed, the engraver would make a block for each separate color.

The publisher would always urge the artist to use as few colors, as effectively as possible, for purposes of economy. This resulted in a high level of artistic technique, as it forced such artists as Utamaro, Sharaku, Hokusai, and Hiroshige to produce striking effects within an extremely limited range of colors.

When the engraving of all the necessary blocks was completed, they were delivered to the printer for the production of the final product.

THE PRINTER  A very high level of technical skill was required of the Ukiyoe printer. Since the early days of printing, these craftsmen seem to have preferred a wandering life. Most of them would appear at a publisher’s shop for work with
their printing tools in a small box which they carried on their backs. But still, they maintained a high level of proficiency and great pride in their work. Perhaps it was due to their wanderlust nature that, while the name of the artist and the engraver often appear on prints, there are extremely few examples of a printer’s name being recorded. There is one print by Harunobu titled ‘Bringing Laundry in out of an Evening Shower’ published in 1765, one of Hiroshige’s ‘Fifty-Three Stages of the Tōkaidō,’ titled ‘Goyu,’ and a few of the works of Toyokuni III and Kuniyoshi. The names that appear on these few prints were undoubtedly those of very high level artisans.

During the days when Ukiyo-e prints were being produced, the printers were not considered of much importance in the success of a print. However, today, the printer’s sense of color is considered of equal importance with the engraver’s sense of line and the artist’s style and expressive powers.

THE PAPER For the printing of Ukiyo-e, a strong paper with a soft, flat surface that will absorb color readily is necessary. In the early days, when only black, or at most two or three colors were needed, a thin paper called nishi-no-uchi was used, but with the advent of the multi-colored nishiki-e, thicker varieties such as Echizen-hōshi and Iyo-masa were introduced.

The paper to be used for wood-block printing is covered with an emulsion (made of glue and alum melted together in warm water) to make it waterproof. If the emulsion is left standing on the paper, it will repel the colors. Therefore, before printing is begun, water is applied over the entire surface of the paper with a special brush, and the sheets of paper are piled on top of one another and placed under weights for a short time, to allow the moisture to become evenly distributed. This softens the paper and aids it in absorbing the colors that will be printed on its surface.

THE PAINTS Originally, vegetable pigments taken from flowers and tree bark were used for the printing of colors, due to the difficulty involved in printing with oils and mineral pigments. Indigo was taken from the dayflower, crimson from the safflower, and yellow from the gardenia or the bark of the zumi tree, by boiling. Intermediate colors were made by mixing these basic pigments. Since these vegetable pigments have a strong tendency to fade, there are very few old prints that have retained the brightness of color they had at the time they were printed. During the middle part of the nineteenth century, imported paints were used, and around the turn of the
century, experimentation was carried out with dyes, but neither produced very satisfactory results. Chalk (also known as ‘Chinese white’) was used to print white sections, but it was almost never used as a thinner for other colors. A special type of India (sumi) ink was always used for black. The use of pigments changed with the times and with the tastes of the individual artist. Thus one can determine the period of a print and its artist merely by observing its color tonality. It was common practice to speed up the drying process of the colors by spreading rice starch over the surface of the freshly printed picture with a brush.

THE TOOLS  A printer’s tools consisted of a variety of large and small horsehair brushes for applying the colors and a special baren (made by means of an extremely complicated process, out of bamboo shoot skin, a special Japanese paper, lacquer, and cloth) which was used to press the paper on to the block evenly.

Ukiyoe Appreciation

I often receive requests to evaluate newly discovered Ukiyoe prints for provincial museums and exhibitions, but I very seldom come across any original printings or even pieces that are in a truly well-preserved state. Unfortunately, most pieces that I am shown are later reproductions.

When prints are put on sale, prices range from one thousand yen for reproductions to more than a million yen for well-preserved originals. One very seldom finds a real bargain in the field of the Ukiyoe these days.

The first step in determining whether or not a print is an original is observation of the quality of its paper. Really old prints are on thin paper that feels very soft to the touch, while newer copies and reproductions are on thicker paper, and have a glossy, rough surface.

Of course, well-made fakes are extremely difficult to detect, as many of them were made around the turn of the century by highly skilled engravers and printers. A large number of this type of fake Ukiyoe is to be found in the museums of Europe and America, due to the fact that when Westerners began to buy Ukiyoe prints, many of the old craftsmen were still alive and found the production of fakes for foreign consumption a lucrative business.

Care must be taken, however, to distinguish between fakes and reproductions. Please note that a reproduction is not a fake. In the case of Ukiyoe prints, a reproduction is entirely different from a copy. Really good originals are not available to the public. Due to their fragility, collectors keep them carefully preserved in their storerooms and hardly ever even look at them themselves, let alone allow anyone else to study or even view them. Thus precise reproductions must be made