

YOUR FIRST PRINT

an introduction to Japanese Woodblock Printmaking

A Rich Media eBook by David Bull

SAMPLE FILE

This sample file contains 24 of the 60 pages of the real version. Three videos are included: on the 'About the Author' page, on the 'Gradation printing' page, and another on the 'Sharpening' page, and there are also some sample audio clips, scattered here and there.

Because this is a partial file, some of the links in the Table of Contents, and in the Navigation menu at the bottom of the pages will of course not take you anywhere.

Please read the READ ME file; it explains the sometimes confusing messages that Adobe Reader will sometimes display while you are browsing the eBook.



(Acrobat Reader 9 required to
view Rich Media content)

"Is this a 'book' or a 'website'? How do I move around? Is the content presented in serial fashion, or in a more convoluted layout?"

The content is presented in single-view spreads in a horizontal format that matches most viewing screens. Adjust your viewer window to match the spread you are looking at right now (the book is 'zoomable' to whatever size you wish to use), and then simply use the arrow keys on your keyboard (or click the arrows at the bottom of the book spreads.) No left-right or up-down scrolling should be necessary at all.

Thank you for your purchase of my book. I sincerely hope that it will be useful in helping you make some beautiful and interesting woodblock prints! Before you dig in and start reading, there are a few things you should know about how this all works.

[Navigation] The navigation link at the bottom of every spread contains a list of the pages in the document, allowing you to jump to any target instantly. 'Breadcrumbs' located at the top left corner of every spread show where you are at any given moment (and are clickable for jumping), and the Table of Contents is also 'hot' - clicking an item will jump you to the appropriate place. In addition to all this, the 'Search' function of your pdf reader will also be very useful in finding particular items of interest.

[Rich Media] This is a Rich Media eBook, which means that it contains audio and video content. But because this is (relatively) new technology, in order to use these features, the book must be read with the Acrobat Reader from Adobe, and the version of Reader *must* be 9 (or greater). This is free software, available for any modern computer, and it can be downloaded from the Adobe website. If viewed in another reader, the text and illustrations will be viewable, but it is only when viewed in Acrobat Reader 9, that the rich content becomes accessible (on both Mac and Windows machines equally).

[Audio] The presence of audio content is indicated with the headphone icon. Clicking it will popup a small player with controls, and the audio can be played, paused, or stopped as desired. Try it with this sample:



[Video] The video clips look similar to the photos that are scattered through the book, but are identified as 'Video' in the captions (and are accompanied by a small icon of Boots-chan, our project mascot!) A simple click is all that is necessary to bring up the player controls and start the clip playing.



[Streaming content] In the version of this eBook that you are currently reading, the Rich Media content is not embedded within the book itself, but streams from the internet on demand (at the moment you click 'play'). This will of course only work when you have an internet connection. An alternate version of this book - containing

all the media embedded within the pdf file itself, and thus not needing an internet connection - is also available (on CD, as it is far too large for comfortable downloading). In that version, the photos are also embedded at very high resolution, and can be 'zoomed in' to inspect a very high level of detail.

[Acrobat 'Security' Issues] When you first click the Full Screen On/Off command, the Acrobat Reader will ask - as a security measure - if you do indeed want to go to full screen. There is nothing 'dangerous' in this book, so you may say 'yes' with complete safety. If you also check the 'remember my choice for this document' checkbox at that time, it will never ask you again. I think this book really does look quite effective when viewed in full screen mode, but this is of course a matter of personal taste. This security 'feature' is also triggered the first time you try to play some of the streaming Rich Media. Again, none of the files associated with this book are in the least bit dangerous; they contain nothing but the audio or video content.

[User Support] You will have questions. No matter how well I have done my explaining, and how carefully you follow along, you will still have questions. And you will not be alone. So I have established a support area on my website where you can post questions and receive answers, both from myself and (hopefully) from other people who have worked through this book before you. When you purchased this book, you were sent a Support ID for the site, which can be found at this address:

<http://woodblock.com/support/>

That site is structured to match this book identically - with a set of discussion topics corresponding to each book section. The 'question mark' icon at the bottom of every instruction page of this book will jump you directly to the appropriate area of that site for posting questions, answers, or any other comment relevant to that particular point of printmaking. Given enough community participation as time goes by, it is hoped that this will grow into an excellent resource which will greatly expand the usefulness of this book. We'll see!

Dave Bull
Tokyo Japan, Autumn 2009

ISBN 978-4-90367214-4

Copyright © 2009 David Bull

Published in Japan by Mokuhankan Publishing


<http://mokuhankan.com>

All rights reserved

(Boots character © 2009 Mark Mason)



Introduction


- How to use this book
- Table of Contents (this page)
- About the author 
- The Preface FAQ

Japanese Printmaking


- The traditional 'key block' method

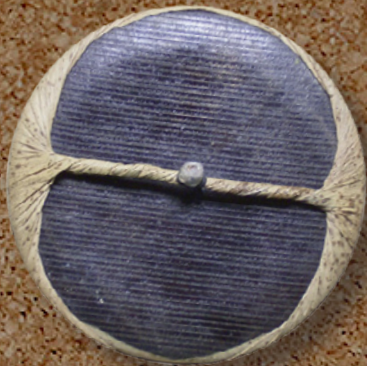
Tools

For cutting

- The knife : cutting the lines
- Gouges : clearing major waste
- Chisels : cleaning up
- 'Sosaku' type cutting tools
- Sharpening 

For printing

- Brushes for printing
- Water brush, pigment 'brushes'
- The baren
- Baren maintenance
- Baren recovering 



Materials

- Wood
- Paper
- Pigments
- Pigment preparation
- Miscellaneous small supplies

The Workplace




- The carver's space
- The printer's space



The Image

- General considerations
- Preparing 'hanshita' paper
- Pasting the design to the block

Cutting






- Stage one : cutting the lines 
- Stage two : clearing major waste 
- Stage three : cleaning up 

Colour separations

- Making the separations
- Colour blocks



Printing

- Printing 'Catch 22'
- Moistening the paper
- The printing 'cycle'
 - Adding 'ingredients' and brushing out 
 - Placing the paper 
 - Taking the impression 
 - Removing the paper and moving to the next sheet 
- Gradation printing 
- General printing management

Troubleshooting


- Block repairs
- Registration problems
- Diagnosing printing problems

Appendix

- Suppliers
- Afterthoughts

Epilogue



 indicates spreads with video content

I am an English-born Canadian, and make my living as a woodblock printmaker, working out of my home workshop, the **Seseragi Studio**, in a suburb of Tokyo.

I first toyed with woodblock printmaking while living in Canada, making a few prints as a hobby in the evenings while holding down a day job as a business manager in the school music industry. Although those first experiments were very clumsy - there were of course no guide-books or other instructional materials available back then - my interest gradually deepened, and in 1986 I quit my job and moved to Japan with my two young daughters and their mother.

At that time it was inconceivable that woodblock printmaking would provide an income, and I supported the family by opening an English 'school' in our apartment, while pursuing printmaking in my spare time.

I visited the famous Yoshida school for a couple of months in the fall of that year, but although they were very friendly and open, I myself was specifically interested in the classical *ukiyo-e* techniques, something not their area of expertise. So I left and continued 'studies' on

my own. I use the word 'study', but this simply consisted of repeated trial and error printmaking, making occasional visits to older craftsmen to garner what advice I could.



After a few years of this, my skills had slowly progressed to the point where people were showing interest in the

prints I was making, and in 1989 I began production of a series of 100 prints based on the old *Hyakunin Isshu* - depicting poets of old Japan. That project slowly gained attention, and by 1991 I was able to close the English school, becoming a professional printmaker.

The long project finished in 1998, and since then, I have created a number of varied woodblock print series:

- » Surimono Albums : 1999 ~ 2003
- » Beauties of Four Seasons : 2004
- » Hanga Treasure Chest : 2005
- » Scroll Project : 2006
- » Small Print Collection : 2006



Nearly all of the prints in these collections were designed in the Edo and Meiji eras by various artists. I worked in 'collaboration' with these men, carving and printing their designs, just as the craftsmen of the Edo period worked together with the artists of their day.

In 2007, I began work on the 'My Solitudes' print collection, which - in a major step for me - was a series of prints of my own design. As I write this, in October of 2009, I have no idea what project will come next.



“Why do I need this book?”

In recent years, there has been an explosion in the amount of material available to the person who wants to learn about Japanese woodblock printmaking. Both on the internet and in printed books, the beginner has access to so much information that it can be difficult to know where to start.

That is where this book comes in. Remembering back to the days when I was first exploring this craft, I have created the book that I needed back then, but which didn't exist - a book that included everything that I needed to know, and excluded everything else.

This is not an 'Encyclopedia of Japanese Woodblock Printmaking'. It is a guidebook that will take you completely through the process of creating your first print, answering (hopefully) all the questions you will ask along the way.

“Do I need a special workplace?”

Nope. This is going to be a 'kitchen table' project. And actually, that's not far off the amount of space that the professionals in Japan require. Remember, there is no press involved, just a few simple hand tools. Keep the stuff in a box somewhere, bring it out when you have an hour or so for the project, then pack it out of the way. There are no oily pigments that need solvents to clean up, nothing toxic is involved at all, and you'll make nowhere near the kind of mess that I did just while preparing dinner last night.

“How long will it all take?”

That's tough to answer. For a print of the pretty straightforward kind of sample design we have in this book project, to go from sitting down to work out the design, right through to stacking a pile of (say) 50 finished prints in the batch, I would be looking at maybe two working days. You are going to take a lot longer.

But it's kind of an irrelevant question, because - for the most part - it can be done on a 'stop-start' basis. If you intend to make substantial editions, then once printing begins you will have to organize some blocks of time for that, but other than that, just work on it when you have time; put it away when you don't.



“What will it cost to make my first print?”

If I were to total up the cost of all the tools I use in the production of even the smallest prints I make, it would probably be rather discouraging for you. I am a professional, so of course I have many expensive professional tools.

But even student-level tools for Japanese printmaking can be expensive, and this can be a big barrier. So a major consideration kept in mind while preparing this book has been keeping a pragmatic approach - wherever possible using tools and materials that you probably have already at hand. I am not a 'snob' about any of the traditions of this craft; for your first print you do not 'need' a knife with a \$50 Japanese blade; you can use a cutter knife from the drawer in the kitchen. Once the print is finished and you have fallen in love with this whole process, then later - if

you are so inclined - you can think about some nice tools to make the work more pleasurable. Later.

If you have a normal household, with a few tools in the garage, and cupboards with the usual family assortment of odds-and-ends, you are going to spend almost nothing on this project. (But I *am* going to ask you to get some nice Japanese paper - that will be a non-negotiable demand. We'll talk more about that later ...)

“Do I have to make a 'Japanese' print?”

If you are talking about the design - the content of the image - then no, of course not. This is an important point to make: this book gives an overview of the process of making a woodblock print using traditional Japanese techniques, pretty much as they were used in the old days to make those famous prints of kabuki actors and Yoshiwara courtesans, but there is nothing in the technology that will result in your finished print automatically becoming 'Japanese'. We're going to cut some shapes on pieces of wood, brush pigments over them, put paper on top, and rub it.

“Then why should I be using Japanese techniques at all?”

Now that's the first really interesting question you have asked! I think I'll *tell* you the answer, rather than try and write it ...



道具

Tools

As I mentioned back in the introduction, I use quite a few specialized tools, and some of these - because there are so few makers left - are ridiculously expensive. For the beginner, these are not 'necessary', and simpler/cheaper alternatives can be used, but this leaves me with a problem: which do I use to illustrate the process in this manual - my own expensive tools, or the 'household' alternatives? Do I show how it's done 'properly', or show something 'practical' for the beginner? I expect that you will be able to bring a pragmatic approach to this, so in many of the photos you will see me using my normal tools; I am going to assume that you can look at what I am doing, and 'work out' something for yourself that will accomplish the same end.

For an example, in the photos that show me cutting the outlines of the keyblock, I am using a knife with a blade that cost around \$50. The \$50 is not relevant to 'your first print'; what *is* important is the overall concept of what I am doing - study the angle of the knife in the wood, how deep I am cutting, and what the process is trying to accomplish. Then, with that information in mind, pick up your \$2 cutter knife, or whatever tool you feel can do the job, and get to it.

In this section, we'll look at tools for both cutting and printing:

Cutting

- The knife : cutting the lines
- Chisels : cleaning up
- Sharpening
- Gouges : clearing major waste
- 'Sosaku' type cutting tools

Printing

- Brushes for printing
- The Baren
- Baren recovering
- Water brush, pigment 'brushes'
- Baren maintenance

Sharpening stones (water stones)



Sharpening is another of those aspects of printmaking that beginners make much more difficult than necessary. There is no reason for this at all; inexpensive waterstones are now available anywhere, and it requires only a small amount of practice to get to the point where your tools can always be in good condition for cutting.

The professional will own at least four levels of stone: 'rough' for quickly removing metal when repairing chips on the blade, 'medium' (the workhorse stone), and 'fine' for the final dressing. An additional soft stone known as 'nagura' is used to whip up a nice pool of mud before beginning the actual sharpening.

(These photos show my own professional stones, but the video illustrates how it is done using a hobby-level two-ply stone.)

Making mud with the *nagura* ...



Some pointers:

- § Japanese waterstones are not used with oil, like typical western stones, but with ... water. Dunk your stone underwater for at least a few minutes before beginning work.
- § Keep the stone and tool wet throughout the process. Dab or dribble on more water as required, but not so much that you wash away the mud.
- § You won't need to use the rough stone very often; it is really only used when the blade is chipped or broken, or you wish to change the angle. In daily practice, work on the medium stone first when your tool begins to lose its edge.

Support the blade firmly



The overall process is straightforward:

- § 'Mate' the bevel of your tool to the surface of the muddy medium grit stone.
- § Rub it gently back and forth, making every effort to keep the tool absolutely flat on the surface.
- § Stop when you have raised a fine 'burr' on the edge of the blade.
- § Flip the tool over, and work on the back side. Don't let it 'lift up,' or the fresh edge will become rounded and dulled.
- § Wipe the blade and repeat those steps on the fine stone.
- § Get back to your carving!

The bevel is held **flat** on the stone



The back side is easier to keep flat ...



Video: let's put it all together ...



First things first - the printmaker's brushes are not 'paint-brushes', neither in the artist's nor the housepainter's sense. Those people use their brush to 'apply a coat' by picking up a quantity of the medium, and letting it 'run out' onto the surface in various ways. For the printmaker, a quantity of the pigment mix is already in place on the wood waiting, and

A selection of maru-bake



it is the function of the brush to blend the different materials together (pigments, paste, water), and spread them out smoothly across the entire surface of the wood.

In order to properly perform this basic function of mixing and spreading, the printer's brushes are quite stiff; they are made from fairly strong horse hair (usually a mane and tail mix) tied into very tight bundles and mounted in handles.

The brushing motion is vigorous and energetic; a printer working in a poorly heated winter workshop here in Tokyo will not usually have any reason to complain about the lack of heating - he'll be producing plenty all by himself, with his brushes and baren!

Brushes come in a variety of sizes. Ideally you select the one that is the most suitable for the particular block in play: a brush too small simply won't hold enough pigment, but one too large isn't usually a problem. In fact, it is an advantage, as

the extra pigment 'reservoir' helps maintain consistency from sheet to sheet in the amount being applied to the wood.

A real problem for the beginner is the problem of keeping brushes clean. Even though a professional will wash out his brush after each session, it is difficult to clear all the pigment from the base of the hair, so he will not re-use a brush for a different colour group. Once a brush has been used for blue, you could never use it for yellow; you'll never be able to avoid a greenish tinge.

So if you need many different sizes, in many different colours, then what is the beginner to do?

Well, you buy the largest ones that you can afford, and you get good at washing them! And honestly speaking, because you will probably not be making prints in batches of hundreds at a time, the pigment will not be driven all that deeply down into the brush, and you should be able to get most of it out each time. (Note though, black pigment just isn't going to wash out, so mark those brushes as 'Black only!')

Wash brushes by rubbing the hair under running water, trying not to let the wood section become soaked as you do so. Shake out as much of the water as you can, wipe the brush repeatedly over newspaper to get much of the rest out, then hang it up (out of direct sunlight) to dry thoroughly. Never leave it standing on the bristles.

Brushes of the traditional 'upright' type



About sharks ...

I said that the hair selected for printmaker's brushes has to be stiff; there is no way that we could use anything like a sable brush. But stiff hairs tend to leave streaks in the pigment/paste mix on the block, and these end up being visible in the finished print.

The solution is to 'tear' the tips of the hairs - create 'split ends' as it were - by rubbing the brush on a rough surface.

Softening with a sharkskin ...



A piece of sharkskin dried and glued to a board has been the traditional tool for this for hundreds of years, and is extremely effective. If you have neither access to a piece of shark, nor the taste for it, it is possible to do the softening job with a rough sandpaper.

The product known as 'Dragon Skin' (a hardened steel sandpaper substitute) is also very effective (but vicious - be careful!).

Put on strong gloves, moisten the brush, and start rubbing. Watch carefully, as it can start to abrade very quickly; you don't want to overly shorten the hairs, just frazzle the tips.

Before you can use your new baren, the skin must be lightly lubricated with camellia oil. This oil has a couple of functions:

- it of course helps the baren to slide smoothly over the surface of the paper, without tearing the fibres.

- it deters absorption of the paper moisture up into the bamboo skin. The skin is always moistened before tying, to make it flexible and supple, but is then allowed to dry before use. If it starts to pick up moisture from the paper, it will become too soft to use ...

Prepare some cloth about 15cm square - thick enough to form a soft 'pad' on which the baren can rest during the printing process. This pad will gradually become fairly saturated with the oil, and you will not have to apply new oil very often. Use a type of cloth that doesn't shed lint easily. Printers keep a little bottle of the oil at their bench, and use a cloth or swab to

dab some on the baren when necessary. I have found it useful to keep the oil in a small plastic 'squeeze bottle' - this makes it very easy to apply just the right amount. Put a bit of oil on the skin, and then rub

The inner coil of a professional baren



the baren vigorously on its pad. The bottom surface will pick up a nice sheen.

Note: using other types of oil is most definitely not recommended. Sewing machine oil (watch oil, etc.) leaves oil stains in the finished prints, and vegetable oils soon become rancid. Camellia oil does neither. And yes, the older printers here in Japan (the ones who still have hair), easily get a quick 'recharge' of the oil on their baren by wiping it across their head ...

Another note: the baren should never be left sitting on its pad (except during the actual printing work). The skin becomes soggy from the oil and from not having a chance to air out. Whenever pausing in the work for more than even a few minutes, flip it over on its 'back' to expose the working surface to the air. At the end of the day always put it away on a shelf, exposed to the air. Don't keep it shut up in a tight box.

Baren on its pad ready for use



Rotating the inner coil

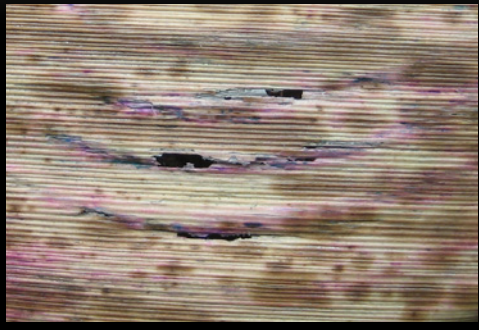


When using the baren, always remember that the inner section must be rotated occasionally inside the skin. This is to ensure that the bumps of the inner coil do not always press against the same places of the skin. If allowed to do so, they will wear through very quickly - but even before things get to that stage, you will notice a great decrease in the 'power' of the baren, as the bumps dig into the skin and lose their effectiveness.

The coil is rotated by holding the baren flat in one palm, and using three or four fingers of the other hand to press the ategawa disc and twist it in place. (A very slight moistening of the fingers sometimes helps). A new tightly tied baren skin can be extremely difficult to rotate; it begins to loosen up a little after some impressions have been taken.

On heavy printing jobs, the coil is rotated after *every* impression; on light jobs much less frequently.

What you don't want to see ...



材料

Materials

Woodblock printmaking is a very old technology, and one that is found in pretty much every society around the world. There is no clear evidence that it arose in one place and then subsequently spread around the globe; it is such a basic technique that any society that gets to a certain level of technical sophistication would develop it as a matter of course.

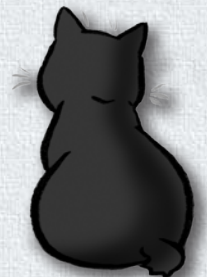
As a result of this, woodblock printmaking (whether for artistic or purely reproductive purposes) now comes in a great many 'flavours'. As one might expect, the techniques common in the west differ quite a lot from those in the east, but even within regions - between Japan and China to take just one example - the process is very different.

So although the fundamental concepts - cut shapes in wood, apply a colorant, place paper on top, apply pressure - are the same here in Japan as anywhere, there are a number of characteristics that make Japanese printmaking unique - and superior! - in comparison with other types.

Far and away the most fundamental of these is the use of *washi* - that magnificent material that deservedly gets its own vocabulary entry. Here in Japan the word *kami* refers to 'that flimsy white stuff that the rest of the world uses for writing on,' while the term *washi* (literally - 'Japanese *kami*') is reserved for the material formed on a bamboo screen after being dipped from a vat of beaten plant fibres, commonly mulberry, and which is a world all to itself.

In this section of our book, we'll take a quick look at this paper, and the other materials that will go into the making of our print:

- Wood
- Paper
- Pigments
- Pigment preparation
- Miscellaneous supplies



The wood used for a woodblock print of the type we are considering has to strike the right balance between a few (sometimes competing) factors:

- » it must absorb water, but not to the extent that it becomes soggy.
- » it must have enough physical strength to stand up under the vigorous rubbing process.
- » it must be hard enough (have the structural strength) to allow clean cutting, without chipping or crumbling.
- » it must not be so hard that it is exhausting to carve, or to the extent that it will not absorb water properly.

There is of course no single type of wood that will be the best for every printmaker. What kind of wood you will use will depend completely on the type of design you create. If you are sensible, your first design will be similar to the sample in this project - something without many fine lines, and without too many very broad colour masses. For work like this, the softwood plywood known as *shina* will be perfect. It will carve easily, you will not break your knife, and it will print smoothly.

If though, you intend to make a print similar to an old *ukiyo-e* design with delicate tracery, *shina* will not suffice. You need something that will hold detail both while you are carving and later under the pressure of printing. The wood of choice for this is cherry (specifically Japanese *yamazakura* - the mountain cherry), which has an excellent balance between those competing requirements of hardness and absorption.

Making your selection from one of those two options will put the fewest barriers in your path. If you can't get the wood of choice, then it is of course *possible* to use anything at hand for your first experiments. The guy writing this manual knew very little about suitable woods back at the beginning, and used a piece of heavy maple plank for one of his first prints. Maple ... cherry ... they're both good hard woods; what's the problem ... Well, he got through it, but what a horrendous mess: broken knife blades, ragged curves, chipped lines, sore shoulders ... you name it. Experimentation has its place ... but so does experience!

Back in the old days - and I mean the *old* days ... well over a century ago - there were dozens of shops in Tokyo supplying blank blocks for woodblock printmaking. Dozens of shops, supplying hundreds of carvers, who in turn kept thousands of printers busy. Those were the days when most commercial printing was still being done on wood, and even the full text of long books was all carved by hand - character by character.

Because it was such a fundamental part of the commerce of the day, very knowledgeable and expert men controlled every aspect of the process: from hiking the mountains to find trees which they knew would make suitable planks, through all the subsequent lumbering, transport, re-sawing, drying, selection and dressing stages, right up to the carver's workbench.

But when the printing presses moved in, back in the Meiji era, and killed off the hand work, that system collapsed and all the accumulated knowledge was lost. When I open a package of new cherry blocks from the supplier these days, I do so with trepidation, rather than the pleasure that used to accompany the occasion.



Shina plywood



Cherry plywood (thick facing)



Block planer Mr. Shintaro Shimano (d. 1999)



Pigment can be ground either in a mortar, or on a slab (glass plate, countertop, hard wood surface, etc.) Start with a spoonful of the pigment, sprinkle it with a bit of water, and grind out the lumps. The longer you keep at it, and the finer you grind, the cleaner and smoother your printed colours will be. Some pigments are initially resistant to blending with water; adding splashes of alcohol (from your medicine cabinet, or your liquor cabinet, as your taste determines) will allow them to be mixed.

Add more powder and water bit by bit as you work. The idea is to end up with a smooth, pasty mixture, one that won't 'run' off the edges of your work surface. Keep it all wet, so that no dust is released as you work. If you're nervous about this, use a mask, and ventilate well. In traditional workshops the pasty pigment mix is then stored in glass jars, with a layer of water on top of it. (If the jar is not disturbed, the layers remain separate.) Each and every day, the water on top is gently decanted and

replaced with a fresh supply, thus keeping the liquid from becoming moldy. My own method is somewhat more 'low maintenance' - I have no apprentices here to do a job like that! I scoop the paste into a jar, mix in some alcohol, close the lid, and store the jar in a cool place. It doesn't last 'forever', but if you make it in relatively small batches, it should be just fine.

Mixing pigment on a slab



Make a completely smooth paste



Mixed pigment in storage ready for use



Must you go through this fundamental mixing process with each and every one of the various colours and tones you are going to use in your prints? Do you need a shelf full of hundreds of these jars of prepared pigment mix? No. And this brings us to another of those important points that need to be emphasized - in the traditional Japanese printmaking technique, only a few 'base' colours are prepared in advance, and the actual colours that will be used in any particular print are created at the printer's bench, at the point of printing.

Traditional printers here will rarely use a store-bought green pigment, or a brown or a purple, etc. The key point is that the Japanese woodblock printer (and this will include you, soon!) does not *choose* his colours, he *creates* them. Think back to the indescribable multitude of subtle colour tones that we see in the old *ukiyo-e* prints - they were the work of the *printers*, not the designers, and they were created by those craftsmen right there at the bench. My own set of base colours is completely typical, and

from these seven little jars I have produced every single colour tone in every single print I have produced in the past couple of decades:

- » **ai** : indigo blue
- » **kin-bero** : prussian blue
- » **shu** : vermilion
- » **hon-yoko** : a red similar to carmine
- » **ben-gara** : a 'rusty' red
- » **ki-o** : a traditional yellow
- » **sumi** : carbon black

Paste

All the other materials that we will need fall pretty much into the 'household items' category, so I'll just describe them as they come up during the explanation of the process below. But one does need a bit of explanation - the paste.

This is one of the most confusing and least-understood elements of the traditional Japanese process. On the face of it, there is nothing confusing - the paste is what 'sticks' the pigment to the paper, no? Well, no. It's quite possible to take an impression with nothing but pigment (mixed with only water, no binder at all) without using any paste. It hardly seems possible, but the result is a completely 'normal' woodblock print. The colour becomes embedded among the paper fibres, and neither 'dusts' off, nor can be rubbed off. So if the paste is not needed as a binder, then why do we use it?

It helps with a couple of things: when brushing out the mix over the surface of the block, using paste clearly helps make a *smoother* impression. Without it, the colour tends to become blotchy, and indeed, when looking for a mottled impression (goma-zuri, or 'sesame-seed printing') one part of the recipe is to reduce (or omit) the paste and use a watery pigment mix. Another thing that paste does help with (although this is minor) is that for certain types of blocks - notably those with small surface area - the paste does help the paper stay in position during the rubbing.

It's certainly not necessary to make your own paste from scratch. I use hand-made paste (prepared for me by a lady friend!) for *ukiyo-e* reproductions, where I really need the finest and smooth impressions, but for modern work, where the impression is frequently 'textured' anyway, commercial paste is fine. The kind you want to find is that fairly translucent type that comes in plastic squeeze tubes for household use. It's too thick to use straight from the tube, but can easily be watered down. Just exactly how thick/thin to prepare the paste, and how much to use on the block is another of those things that will only become clear with experience. When we start printing later, I'll 'tell you what to do' at first, and you can take it from there depending on the results you get.

'Runny' paste in the cup ready for use



Suitable bowls for pigments



There's no end to the list of 'little things' you need for printmaking - especially when you are printing, but most of them are likely to be already at hand in your home:

- » bowl for water
- » 'non-slip' sheet for use under the block while printing
- » rags for wiping and cleaning

- » 'junk' paper for colour testing
- » strong plastic bags for covering the printing paper

One thing that I find to be useful is one of those small electric 'cup warmers'. And it's not just for my mug of tea - I use it under the bowl of pigment during winter; you have no idea how cold a Japanese house can be in February!

Stiffer paste for bonding the tracing to the block



Oil for lubricating the baren



仕事場

The Workplace

Traditional carvers and printers in Japan work in very small spaces, many of them at home, and in very small homes to boot. Professional printers have worked out a particular style of workbench that allows them to work at top efficiency while making batches of thousands of prints at a time, but I rather suspect that such a thing will not be necessary for you just yet. For both carving and printing, it would be counterproductive to ask you to sit on the floor at a low bench; a normal tabletop will do.

Nor will you need to set aside a special place for your printmaking activities. Everything will clear away in a few minutes. For the first fifteen years that I was a professional printmaker - making my living at this - I had no workroom. For a time we were a family of six living in a very small Japanese apartment; I used foldable carving and printing benches that I had made for myself, and each evening when the day's work was over, I packed them away, swept any wood chips off the floor, and laid our bedding out in the same space. Unless you too live in a small house in Japan, this won't be necessary, but my point should be clear - making your first woodblock print is a job that can be done 'part time' on your kitchen table. On the next couple of pages we'll look at the specifics of how to organize the workspaces for carving and printing.



My current workspace

The Image



In this section, we'll look at what sort of image you might select for your 'first print'. I have no intention of trying to direct your 'artistry', and you will get no hints from me on such things as 'composition' or any of the other factors that go into making the 'art' itself. But there are a number of things to consider once you have decided to make your creation in the form of a *woodblock print*, as the medium has its own characteristics and limitations.

A few decades back, a group of craftsmen here in Tokyo made a reproduction of a small Chagall watercolour; they used more than 200 blocks to re-create every small nuance of gradated colour, and were very proud that their finished product could not be distinguished from the original when placed side by side. Well, congratulations to them, but when making one's 'first print', where the intention is mostly to familiarize yourself with the concept, it might be better to stick a bit closer to the 'basics'.

By basics I mean that the print we are going to work with in this little manual will be of the 'outline' type, with a key-block and separate colour blocks. This is the most fundamental type of Japanese print, and knowledge of how such prints are made is essential to any understanding of the genre. Once you have worked through a print like this, you should have no problem adapting the method to whatever individual style of working you choose to explore.

It will - I hope - also provide you with a better understanding of what you are seeing when you look at traditional Japanese prints. I sometimes do printing demonstrations, where the viewers see me progress from a blank sheet of paper to a finished - and sometimes very complex - multi-colour print, all in the space of a few minutes, and without moving from my cushion. They are always astonished at the 'disconnect' between the complexity and sophistication of the finished product and the apparent simplicity of the tools, materials, and process that they just watched.

So pay attention, work carefully through the rest of this book with me, and soon you too, will be amazing everybody!

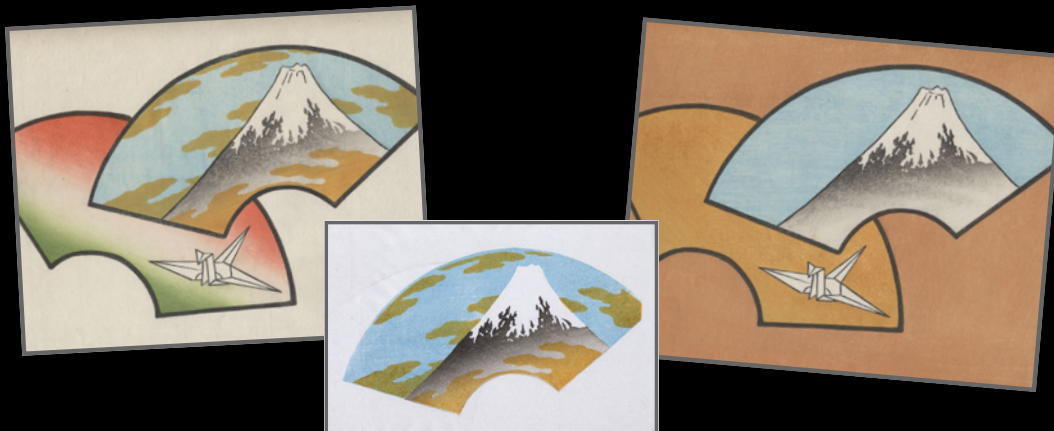
The sample image provided here - which you will see in the subsequent process photos - has been created with a few things in mind:

- » to introduce you to how the traditional 'key block' system works.
- » to provide you with a pattern to use, if you would like to follow these photographs and steps exactly for your first print.
- » to illustrate what type of image is suitable for minimizing difficulties for the novice.

Because the first time printmaker has no experience, it is difficult for them to know what is 'Sure, no problem!', what is 'Yeah, you *should* be able to handle that;', and what is 'Don't even *think* of trying that!' The image I have prepared falls into the middle of those three categories.

If you would rather use a design of your own, you are of course completely free to do so. It wouldn't be a bad idea though, to try and follow the same general kind of image that I prepared; I don't mean the 'fan' concept, but such things as line widths, image dimensions, and overall level of complexity. If you push too far beyond these suggestions - making the lines much thinner, including a lot more detail, or making the print larger - you will greatly increase the difficulty of the project ...

A tracing of this sample image, ready to be printed out and pasted onto the block for carving, has been included in the download package of this eBook. (If you wish, you can ignore the image portion, and just use the borders and registration marks, drawing your own design into it, either manually or with a computer.)



When I first carved this set of blocks, I had a fairly clear idea in mind of what I wanted, and the print that I made turned out to match that fairly closely. But any given set of blocks can be printed in an infinite number of ways:

- » colour tones can be lightened or darkened
- » colours can be switched to something completely different
- » gradations can be applied
- » printing 'variations' can be used: textured printing such as 'goma-zuri' (sesame seed printing, with a mottled effect) or 'baren-suji' (showing the marks from rubbing with the baren)
- » blocks can be omitted, or new ones added

There is of course no end to it. The images on the left show some simple variations on this basic image that were printed with the same set of blocks.



You want to get the hanshita pasted down as smoothly as possible, and the procedure illustrated here - using the paper prepared on the previous page - will let you do that. It is pretty self-explanatory, but there are a few things to note:

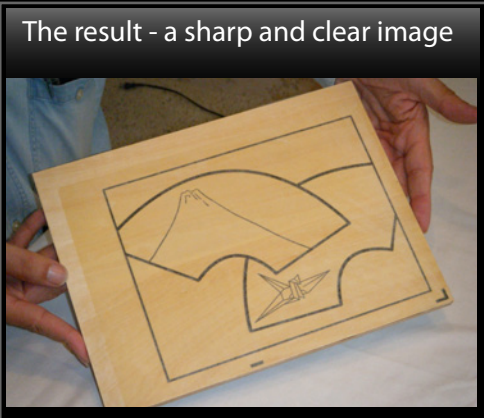
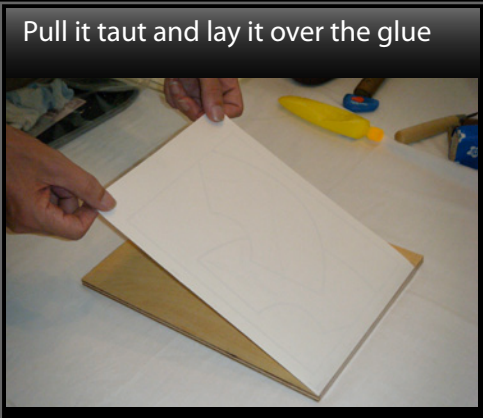
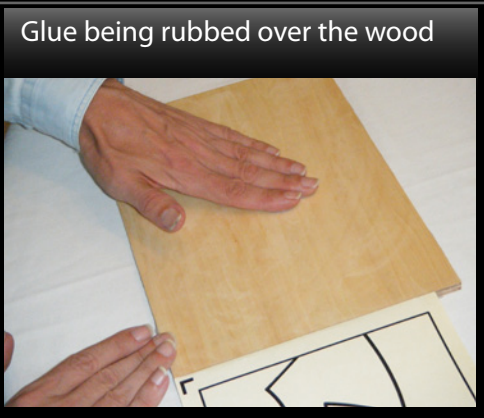
- » You want the registration marks to be near one edge of the block, as visible in the photos, but don't put them right at the edge; it's difficult to make adjustments later if they are hanging right near the edge of the wood.
- » Before taping the sheet in place ready for gluing, ensure that any defects in the wood will fall in open spaces on the design. The plywood illustrated here is pretty smooth and clean, but when I use hard cherry wood, I have to keep any knots, etc. away from the lines of the design.
- » When you are rubbing the paste over the wood surface watch carefully not to miss any spots, as the hanshita would thus be loose in those places (if the image contains many very fine lines, I use a strong wood glue for this job, but an image of the type in our illustration can be secured with any common paste)
- » Before the paste is strongly set, gently peel away the backing sheet (or it too can become stuck). Be careful not to lift up the thin paper. Inspect the surface carefully, to ensure that the entire sheet is adhered well. Set it aside to dry.

Mirroring ...

There is endless confusion among beginners to printmaking about 'reversal' of the image during the process, and I have seen any number of prints made with errors in lettering. The confusion can be dispelled in one simple paragraph:

The preparatory drawing is done in correct, normal, orientation, with no reversal of any kind. This image is pasted *face down* onto the wood. The carved shapes - whether they be lettering, or pictures - are thus reversed from real life. Once printing begins, the block is inked, and the printing paper is also placed *face down* onto the surface. When it is pulled off the wood, the lettering and imagery on the paper thus appear in normal orientation. The preparatory drawing has been 'cloned'.

So there it is - while you are preparing your image, no reversal is necessary. You can now simply forget about this for the rest of your printmaking career. Just draw what you want, in the normal orientation.



Cutting

彫

Cutting the key block for a traditional Japanese print is not a random process, but one that breaks down naturally into a few stages, each with a particular goal, and each utilizing its own particular selection of tools.

The Three Stages

- » Cutting the lines : For this stage, only a single tool is used - the beveled cutting knife. Both sides of each line in the design are cut, separating what will become waste, from what will remain.
- » Clearing major waste : A selection of larger chisels and gouges is used for this stage, in which the bulk of the unneeded wood is removed. On harder woods, a mallet is usually used to drive the chisels. The tools are kept a short distance away from the previously cut lines. (Just how close to come is a battle between common sense and bravado!)
- » Cleaning up : A series of relatively small bull-nose chisels is used to remove that last strip of waste wood up against the lines of the image. The block is given a final once-over to remove sharp edges that may leave marks on the paper, and the registration marks are also cut.



色 分 け

Colour Separations

Back in the Edo period, woodblock prints were made by a number of men working in collaboration. The process would start with a publisher, who would hire a designer. The drawings turned in by this man were then edited into a form suitable for carving, and the subsequent *hanshita* (tracing) - at this point just the outlines of the image - would be sent to a cutting workshop. There, it would be worked on by a number of men, with the most experienced cutters of course doing the most delicate parts of the image. Working sheets taken from the finished key-block were returned to the publisher, who would - in the case of expensive work - consult with the designer about the colours to be used. The photo here is of one such work sheet, and contains notes by Utamaro, one of the most famous of the *ukiyo-e* designers.

His input into the colour separation process? Scribbled notes about colours and patterns: "yellow, purple pattern, flesh tone, green, shiny black, peonies with scrolling leaves, crimson stripes ...", etc. etc. These simple notes would be passed back to the cutters' workshop, where these skilled men would decode and expand the bare-bones information and produce a complete set of blocks for making the final multi-coloured print.

The stage we are about to undertake - preparing the colour blocks for our print - will follow the old procedure, although in our case, instead of passing the sheets around town for decisions to be made, you'll be doing everything yourself!



The normal printing process uses wet pigment and paste, placed on the wood separately, and then mixed together well by the brush and spread across the entire surface of the printing area. Gradation printing also involves leaving a mixture covering the *entire* surface, but with one major difference - the pigment part of the mix is confined to a limited area. Paste (and water) make up the material on the rest of the block.

This is achieved by limiting the motion of the brush in such a way that pigment generally stays where it was put. I say 'generally' because some of the colour inevitably migrates out from that area, and it is this migration - pigment creeping out to mix with the water/paste - that produces the gradation.

The process begins by using a rag to 'pre-moisten' the area of wood where the gradation will appear. Rather than use a loose cloth, most printers use a small block of wood with a rag wrapped around it (held in place with pins, a rubber band, or a spring clip). The cloth is moistened before work begins, and is wetted again as needed as the printing progresses. The size of this block of wood will depend on the particular design being printed, but a

typical one is about the size of a deck of cards. Slide it across the wood, following the 'line' of the gradation. There should not be any loose water left standing on the surface, but the wood should be thoroughly moistened. Move along quickly, before this moisture either dries out, or soaks in ...

Then use the *hakobi* in the normal way to apply some pigment to the block, keeping it only in the area where the colour is needed.

Using a brush with a length that will allow it to cover the entire zone of gradation (from colour to nothing). Hold the brush face up for a moment, and apply paste to the end where there will be no pigment.

Begin rubbing the brush on the block - but unlike the normal pattern of rubbing in various circles and swirls - rub only in a side to side motion along the line of the gradation. As you brush back and forth you will see the pigment being drawn into a gradation with the paste, just as the paste will be drawn into an invisible gradation with the moisture on the block. There should be an unbroken smooth transition between pigment ... paste ... and moisture.

Video : Basic gradation printing



When it seems to be ready, print the impression in the usual way, rubbing the baren across the entire carved zone, not just on the portion containing pigment.

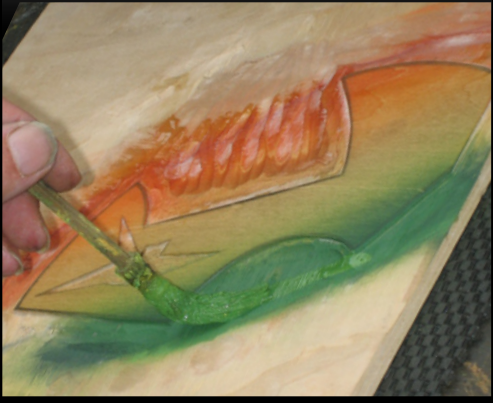
When you repeat on the next sheet - make sure you remember which end of the brush is which! Do not allow the brush to become turned around, or you'll get a real mess. Make a mark on one end of the brush, to help you remember.



Moisten with a damp cloth



Apply pigment only where needed



Brush it out with consistent motions



The result



[Printing order] This is a point of much confusion for the beginner; "Well, where do I start?" A few guidelines can be stated clearly:

- for a design with a traditional type of keyblock, that will come first. As the colours are presumably cut to fall within such outlines, those lines must be in place to allow registration to be checked and adjusted as the print develops. And because the black - the most common colour for the outlines - will cover all other colours, it doesn't matter to the end result that it wasn't printed 'on top' of them. Printing the outline block first does involve one complication; the black lines may subsequently 'transfer' to the wood of the following colour blocks. To avoid this, traditional printers will do the black key block one day, then let the stack rest overnight before proceeding with the colours.

- a block with areas of solid black (like the hairpiece blocks in the old prints) will usually be printed last, as such blocks are printed with a stickier pigment/paste mixture, which would always transfer to other blocks whether or not it was rested, as mentioned above.

- as a general rule, avoid following one colour with another that is positioned nearby (or overlapping), as

that area of the sheets will soon become over-saturated. (Stacking the sheets head-and-tails also helps a lot with this)

- if any particular block requires extremely tight registration, only do it when the paper moisture is well-balanced. Also, doing such a block early on will mean a minimum of wasted work if some of the sheets have to be discarded.

- by printing bold, stronger colours first, the lighter ones can much more easily be 'balanced'. If lighter ones are done first, they will almost always be found to be too light after their bold neighbours are in place.

Some of these points may contradict each other, and there is no single 'best method' to follow. Experience will count of course, but until then, just follow your nose. Your single most over-riding concern should be keeping the moisture balance even.

[Moisture control] It cannot be over-stated - the degree to which the final print will be considered a success or failure is directly related to how well you maintain the moisture level through the course of the printing process. The ideal to shoot for - and which a professional

printer will achieve every time - is for the moisture level to remain consistent from the time it 'settles down' shortly after the original moistening ... all the way through printing the (many) colours ... until the final one is done, and drying begins.

Why is this important? Because any small difference in the moisture in the paper translates immediately into a dimensional change - the paper expands and shrinks and registration becomes impossible. And as discussed in the section on moistening paper, the quality of the printed impression depends greatly on the moisture being correct - too much water in the paper and your pigment mix will have no room to enter between the fibres; too little and the mix simply can't get in there.

There are a few things working against you on moisture control:

- when you print a fairly wide impression of colour, water is added to that portion of the sheet (only).

- as you move the paper around in the open air during the printing process, water evaporates from the (entire) sheet.

- because of the dynamics of paper stacks, both the

(continued on next spread)

This was a run of 200+ sheets ... Pigment first ...



A touch of paste, then brush out smoothly ...



Look ma, no thumbs!



(continued from previous spread)

printing paper and the damping sheets tend to start drying around the edges.

If your climate is particularly dry, you may have trouble keeping the paper properly moist. Here in Japan, where the humidity varies widely as the seasons change, 'winter printing' and 'summer printing' require different management.

It will help a great deal if you keep the stack of paper 'staggered', with the sheets offset slightly from each other. Turning them heads-and-tails is also very effective, and for me, this is 'standard operating procedure' with every print I make. It means that pulling the sheets out for printing is slightly more troublesome, as half of them will be 'backwards', but this slight annoyance is far and away offset by the benefit of the equalized moisture.

[To add moisture] Use your large water brush to add moisture around the edges of the damping sheets as you work through the stack. It isn't usually necessary to add moisture directly to the printing sheets themselves, although a touch-up around the edges is sometimes needed in winter. Don't add moisture to the 'input' stack, but to the 'receiving' stack; by the time the sheets come

back around for printing, they should be ready again. (This is only true when the stack is large, and a print run takes time. If you have only ten sheets in there, you may have to take a break sometimes while the moisture equalizes)

[To reduce moisture] Temporarily insert sheets of some other paper between your prints. A few minutes at a time is usually all that is necessary. If your 'wet spots' are localized, then use sheets trimmed roughly to the appropriate size.

Another thing worth mentioning, based on what I have seen at various workshops/meetings I have attended, is that inexperienced printers are frequently 'careless' with their paper stacks. The damping sheets are unevenly moistened (and usually too few), the plastic cover is open to the air here and there, and the prints are usually scattered in random order. These people are perhaps thinking, "Oh, I'm only doing a few sheets ... it doesn't really matter." Well, it does matter. A well-balanced stack is a pleasure to print, and the results will be under your control; a careless stack is nothing but trouble. Believe me, if you are an inexperienced printer - which I presume is why you are reading this book - make the effort to learn

to keep your stacks smooth, well-ordered, well-balanced, neat and clean, just like the pros do.

[Drying the prints] If you have been generally successful at maintaining the overall moisture balance of the sheets during the course of printing the batch, then they will still be flat and smooth. They will also be quite soft, and any creases or knocks introduced at this stage will be permanent, so handle them with a great deal of care.

The prints can best be dried between stiff sheets of flat card. To avoid introducing waviness as they dry, it is best to do it in two stages: first put the prints two-by-two back to back between the drying boards along with loose sheets of another paper to absorb most of the moisture. Then, after about 10~15 minutes go through and pull out the loose sheets, which should have picked up a great deal of the excess moisture. If the printed paper is still very wet, use yet another set of loose sheets to remove more moisture. Doing it this way should stop the main drying boards from curling with the moisture, and everything should stay basically flat.

Just where to rub soon becomes instinctive ...



Always check every impression for problems



Doing two at once can save a lot of time!





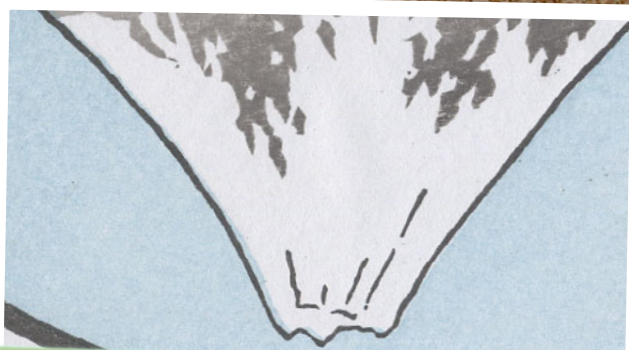
The horizontal striations in the colour here were left behind by the brush. Perhaps the paste was too thick (or there was too much of it), or perhaps the hairs of the brush are too stiff, and need to be softened up on the sharkskin. Or perhaps the printer failed to 'lighten up' with the final few strokes, which are usually made across the wood grain.



Pigment clinging to the edges of the carved area is known in Japanese as 'tamari'. It's usually an indication of just too much stuff (pigment/paste) on the block. When printing small areas like this, it may not be necessary to add new pigment for every impression. Tamari can also be caused by poor brushing. Keeping your final strokes soft and delicate will help.



Soft delicate colour isn't produced by 'soft and delicate' baren rubbing - that just gets you a weak impression like this one. Even the softest colours still need a vigorous brush out, and a vigorous baren rubbing. If you want low saturation of colour, it must come from adjustments of the pigment/water/paste mix, not from 'delicate' rubbing..



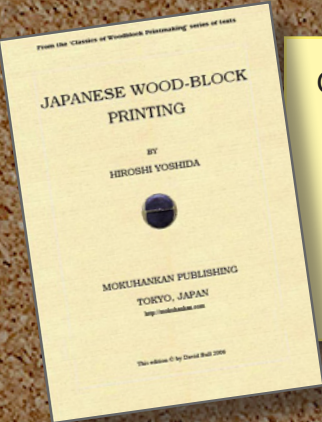
It can sometimes be very difficult to spot small amounts of mis-registration. When stacking your prints heads-'n-tails in the receiving pile, you must become familiar with inspecting them in the upside-down orientation. This impression might seem OK at first glance, but when you turn it over for normal viewing, the registration problem will leap into your eye. ... when it's too late..!



This one is sometimes deadly. The marks here were left when the baren ran outside the printing zone and bumped into an uncarved area of the block. But because the printing bench may be brightly lit from above, such marks may remain unnoticed while printing. Only when the prints are being inspected later, might the problem become apparent ...

This space reserved
for *your* print ...

I'm sure that once the readers of this eBook put their minds to it, they can come up with many more examples of printing problems. If you have something that you feel would be worthy of being added to this page, please send it to the author (via the support forum - through the '?' link at the bottom of this page), and it may appear in a future edition.



Other Mokuhankan eBooks on woodblock printmaking:

- Japanese Woodblock Printing (1939 edition)
- Hiroshi Yoshida
- Woodblock Printing (1916 edition)
- Frank Morley-Fletcher
- Colour Woodcuts (1949 edition)
- John Platt

Annual 'Gift Print'

In autumn every year, Dave prepares a presentation package of one of his small prints. It's a beautiful little item, one that is always received with pleasure.



'Hanga Treasure Chest'

- A collection of 24 beautiful woodblock prints, contained in a custom-designed storage/display box.



Dave's 'A Story A Week' book collections

- A new volume every six months, each one available in both paper and eBook versions.



The Mokuhankan print catalogue

Featuring reproductions of old Japanese prints side-by-side with new commissions from contemporary designers.



Woodblock.com

'Dangerously Distracting! ...'



その他の

Appendix

So we've come to the end of our exploration of the traditional Japanese printmaking process. It is of course a question of immense interest to me just how many of the readers of this little book will now go ahead and ... you know, make some prints! I can't expect that it will be everybody; after all I myself have a variety of instruction manuals sitting on my bookshelves here, but I have read most of them simply for general learning about the particular topic, with no intention of actually doing it. (I will *never* build that boat!)

But having said that, I do remember back around thirty years ago, picking up a little book on woodblock printmaking in a used bookshop somewhere. It didn't give very much practical information, nowhere near as much as has been presented in this book, but it did whet my interest, providing one of the sparks that led to me eventually becoming a full-time woodblock printmaker, living in a strange country 'far away'. It gives me great pleasure now to think of my little book going forward, being read by people in years to come (although I have to ask, where are the interesting little shops filled with dusty 'used' eBooks?), and hopefully sparking some future young man's interest in printmaking, just the way that the book I found did for me.

For those who *are* ready to begin though, I will list some supply sources for tools and materials in this next section. And don't forget - when you run into problems, the Support Forum is always there ready for you; just follow that little question mark you find on most pages!

