

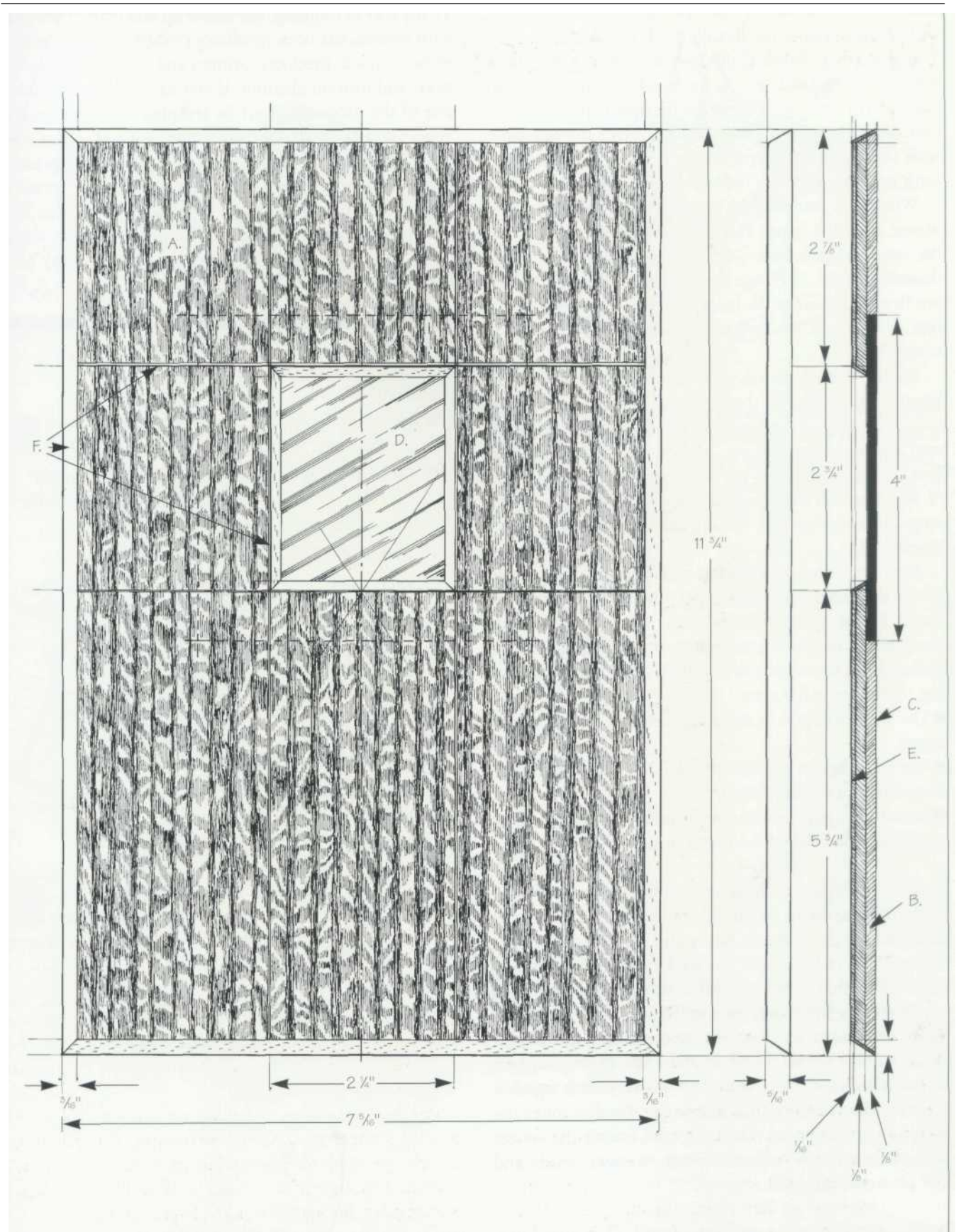
Marquetry Mirror



About five years ago, my son Glyn made a marquetry mirror for an English magazine called the *Woodworker*. It was a real success and there was lots of interest. This mirror draws its inspiration from that project. At first glance, this mirror appears to involve an incredibly complex and fine marquetry technique—very fine hairline inlays and a multitude of cuts. Certainly it is a most delicate and exquisite item, but appearances are not always what they seem! The marquetry surface is, in fact, made up from a sheet of specially printed and

pressed flexible veneer, while the hairline inlay is made from strips of sycamore veneer glued to the kerf face. As to the technique, it's no more than a few saw cuts and a bit of ironing.

For the actual shape and character of the mirror, there are any number of exciting possibilities. You can chop and change the veneer around to create different effects; you can rearrange the saw cuts so that the little "window" is triangular, hexagonal or star-shaped. In fact, you can go for just about any shape that takes your fancy.



MAKING THE MIRROR

Before you do anything else, you need to play around with the materials—the flexible veneer and the gluefilm. The gluefilm is wonderfully easy to use. All you do is position it paper-side up on the baseboard and iron it in place with a hot iron; remove the backing paper and position the marquetry on the gluefilm; cover the assembly with the backing paper and run the hot iron back and forth until the glue has melted.

When you understand how the gluefilm technique works, clear the bench ready for action. Start by cutting the two boards to size—the top board and the mirror thickness board. Then use the gluefilm to bond your chosen flexible veneer to the front face of the top board. And just in case you are wondering, yes, it is as easy as it sounds!

Having used a pencil, ruler and square to draw the lines of the design on the veneered surface so that they run off the edge of the board, sit awhile and consider your next move. As you can see, all you need to do is make four cuts straight across the board and at a mitered angle of 30°. Then fill the resultant saw-cut kerfs with a glued strip of veneer so that the angled veneer becomes the beveled edge.

Now there are two ways forward. You can either do as we do and make one cut straight down the length of the board, fill the cut up with the veneer strip and move onto the next cut, or you can make all four cuts and then fiddle about gluing up the whole assembly. Either way, the gluing procedure is the same.

- Use the scroll saw to make the beveled cut across the board.

- Use the gluefilm to bond the strip of sycamore veneer to one face of the kerf bevel.

- Smear PVA glue on the face of the sycamore strip and push the other side of the board in place.

Then continue making beveled cuts with the scroll saw, sticking veneer strip to one side of the bevel, sticking the other side of the board in place, and then on to the next cut until the task is done. The trick is to finish up with a mirror hole that is nicely beveled on all four edges.

When the glue is dry, use a small plane and the finest-grade sandpaper to clean the whole works down to a smooth finish so that the edges of the veneer strips appear as fine inlay lines. This done, glue the two boards together to make the recess for the mirror tile. Finally, miter the edge of the two-board thickness, trim it with the veneer strip, burnish the whole works with beeswax polish, and the project is finished.

SPECIAL TIP

To my way of thinking, the whole art and craft of working with veneers has been revolutionized by the introduction of two miracle products: printed and pressed flexible veneer, and iron-on gluefilm. If you have trouble obtaining one of the products, don't be tempted to use traditional veneer and hot-melt glue, but rather visit a specialist supplier and ask specifically for the products by generic name. You need "thermoplastic gluefilm," and "pressed and printed flexible veneer." Flexible veneers come in a whole range of designs and colors, everything from imitations of exotic veneers to designs that look as if they have been woven.

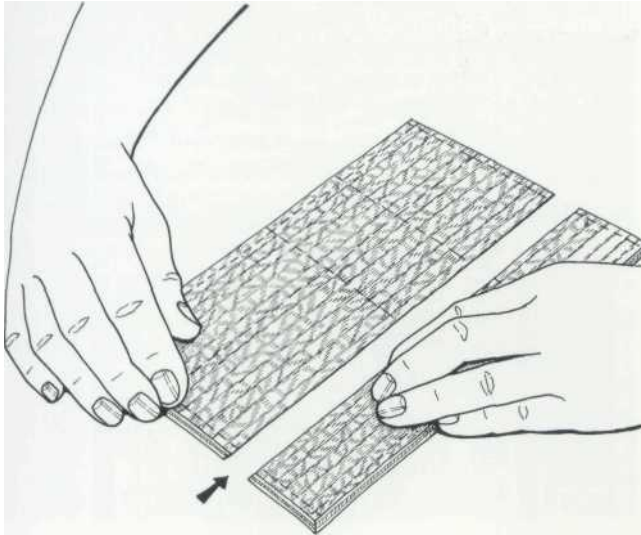
MATERIALS LIST

A Front board (1)	1/8" ply × 7 3/16" × 11 3/4"
B Mirror thickness board (1)	1/8" ply (same thickness as the mirror tile) × 7 3/16" × 11 3/4"
C Backing paper (1)	6" × 6"—sticky-back paper or plastic to hold the mirror secure
D Mirror tile (1)	4" × 4"-square tile
E Veneer (1)	printed and pressed flexible veneer 12" × 12"—this allows for cutting waste
F Inlay (1)	sycamore veneer 14" × 10"—this allows for a good amount of cutting waste

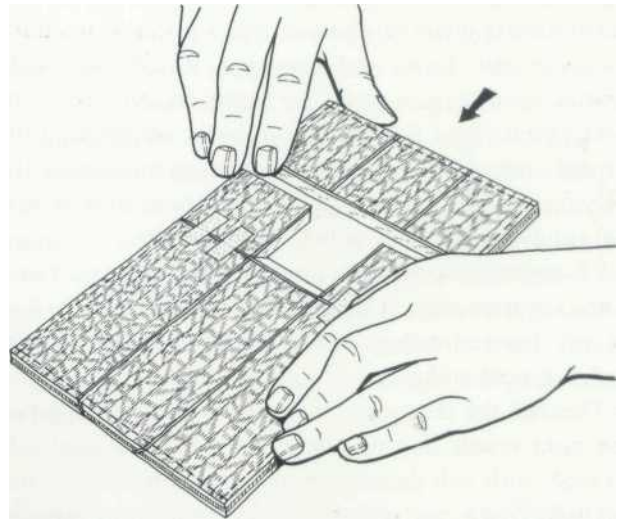
HARDWARE AND EXTRAS

G Thermoplastic gluefilm (1)	18" × 18"
H PVA glue	

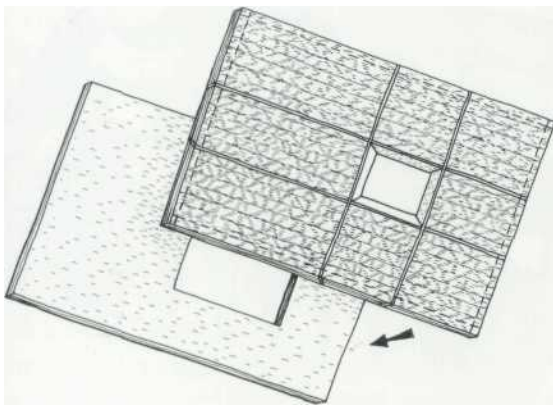
STEP-BY-STEP STAGES



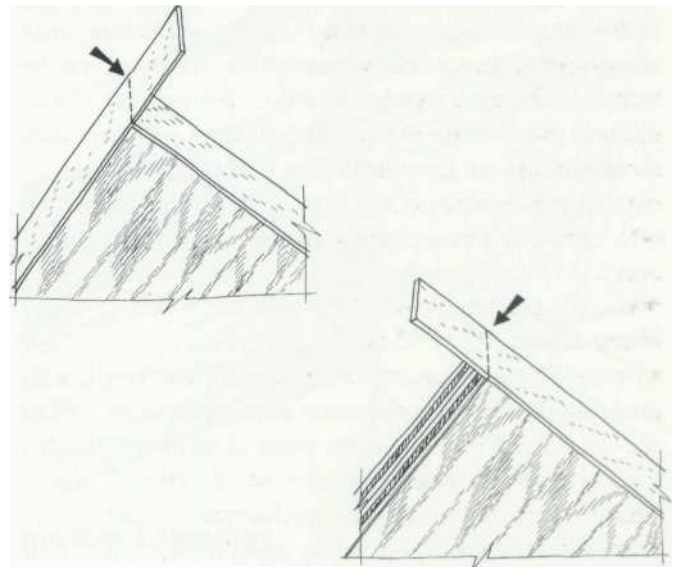
1 Set the saw table to a tilt angle of 30° and run a saw cut right across the length of the board. Then, glue a strip of veneer on the sawed edge and glue the two parts of the board back together.



2 Continue running straight saw cuts across the board and filling the kerf with veneer until the design is complete. If you do it right, the procedure will automatically result in the mitered edges of the mirror hole or window being veneered with the strip.



3 Glue the backing board in place so that you have the thickness of two boards. Then run a beveled cut around all four sides of the frame.



4 Glue the strips around the mitered edges and trim and sand the corners to a crisp finish.

MORE ABOUT THE CRAFT OF MARQUETRY AND INLAY

If you have enjoyed this project and want to know more about the craft of inlay and marquetry, then the following brief history will give you some useful leads.

Marquetry and inlay were originally inspired by the ancient craft of "intarsia"—the making of mosaics by the inlaying of precious and exotic materials into and/or onto a groundwork of solid wood. The Egyptians decorated much of their woodworking with inlay. In fact, in the tomb of the Egyptian king Tutankhamen, just about all the furniture is covered with an inlay made up of little briquettes of wood, gold and ivory.

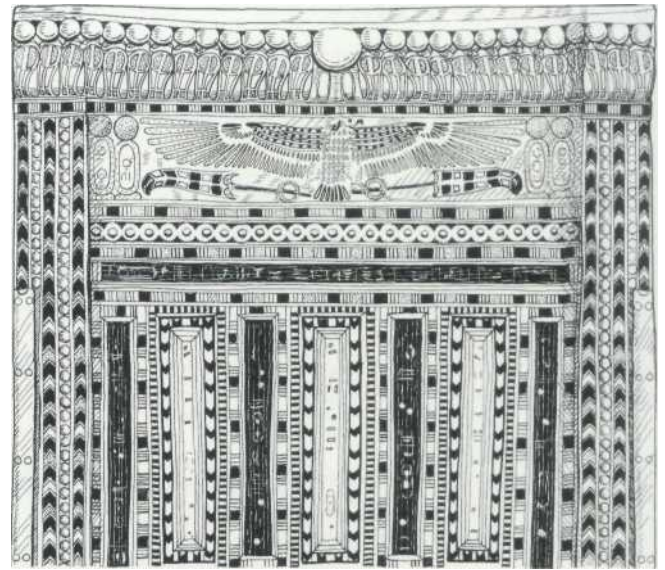
Through the centuries, in Egypt, Rome, Persia, Japan and right across Europe, the craft of inlaying gradually evolved, with rich patrons employing craftsmen to painstakingly cover base woods with rare and exotic woods. The craft involved importing rare woods, slicing the wood into little chunks, and then setting the chunks or briquettes one at a time into the base wood. The process of inlay was massively expensive in time and materials.

And so it might have continued had not some tired and weary woodworker—sometime toward the end of the sixteenth century—invented the jigsaw. From then on, the whole process became swifter and more efficient, until about the beginning of the seventeenth century, when the technique became so improved and refined that woodworkers were using thin sheets of wood—by this time called veneer—to glue directly to the base wood.

The craft as we now know it can be divided into four areas of study—veneering, parquetry, boule marquetry and window marquetry.

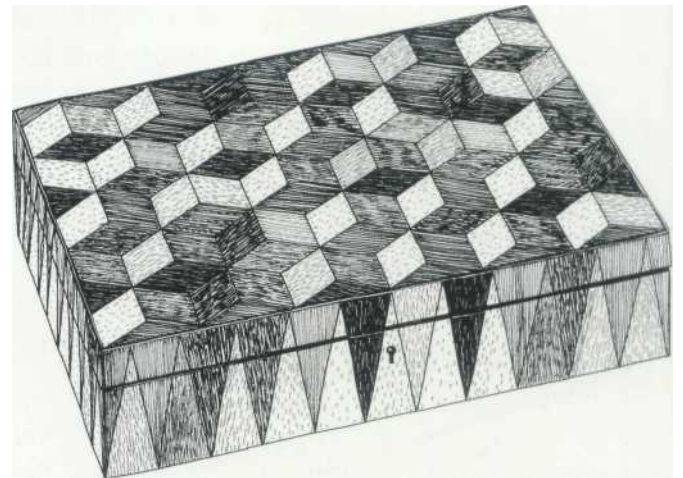
Veneering

In simple terms, the craft of veneering has to do with covering base wood with a more attractive species, to fool the eye into believing that the piece of furniture or other item is made of more expensive wood. Though at one time this area of the craft fell into disrepute, with the term "veneer" coming to mean tricky and/or cheap, it is now seeing a revival. Current thinking is that one way of saving rare and precious tree species is to make a little go a long way. For example, it is now possible to build a whole piece of furniture from a man-made sheet-wood material like MDF (medium density fiberboard), and then cover it with a pressed-and-painted flexible veneer—as in this project—or with plastic veneers or thin sheets of rare wood. One look through a batch of current woodworking magazines will bear out the fact that the time is fast coming when some woods will be so rare and costly that woodworkers will have no choice but to use thin decorative veneers on base-wood grounds. Interesting isn't it!



EGYPTIAN INLAY

Detail from the back of Tutankhamen's ceremonial chair—inlaid with exotic woods and precious stones.



NINETEENTH-CENTURY PARQUETRY

A classic example of a parquetry box—made in Tunbridge Wells, England, in the middle of the nineteenth century.

Parquetry

Squares, checkerboards, counterchanges, triangles, diamonds and zigzags—parquetry is the art and craft of math, geometry and the straight line. While marquetry involves pictures, patterns and all manner of wavy-line imagery, parquetry concentrates on straight lines and geometrical patterns.

Many American marquetry craftsmen think of parquetry as being similar to fabric patchwork. It's a good comparison. If you think of the geometrical patterns that make up a quilt, and if you go on to think of this same pattern in terms of tiles of veneer spread out over a piece of furniture, or maybe over a floor, then you have a parquetry. If you enjoy playing around with rulers and set squares, and if you enjoy logic, order and straight, crisp lines, then you will enjoy parquetry.

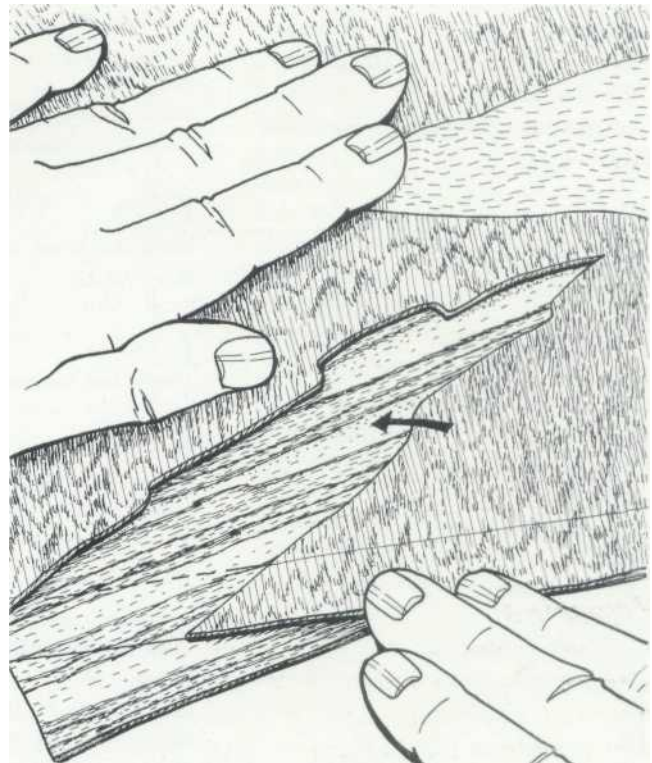
Boule Marquetry

Boule is a type of marquetry that was popular in France in the seventeenth and eighteenth centuries. The technique was named after Andre Charles Boule, a French marquetry craftsman under King Louis XIV. Now known as boule, boule, or even, buhl, the technique might best be described as getting two designs for the price of one. Traditionally, the boule technique involves setting two thin sheets of contrasting material together—usually brass and an exotic wood—and then cutting through both sheets at the same time to create a number of pairs of identical cutouts. For example, if you have two sheets of veneer sandwiched together—one black and the other white—and you cut a circle shape through both sheets and then swap the cutouts around, you will have a black sheet with a white circle at its center and a white sheet with a black circle. If you were to continue cutting out more complex shapes and swapping them around, you would finish up with two identical counterchanged designs—one white on black and the other black on white. If you sandwich four sheets of veneer together, then the technique really begins to lift off. If you enjoy intricate sawing, and exquisite pattern work—say on small boxes and the like—and if you like the notion of using up every last piece of veneer, then perhaps this is a technique that you need to explore.

Window Marquetry

Window marquetry, sometimes called picture marquetry, involves pencil-press, transferring the design through to a sheet of scrap veneer, then cutting out the elements of the design one step at a time and replacing them with more decorative veneers.

For example, if you draw a picture of an old sailing ship on the scrap veneer and cut out, say, one of the sails so that you have a hole, then you can slide the hole over your choice veneer and try out various grain patterns. When you have selected the veneer, you cut a piece to fill the hole. Then, you repeat the procedure with all the other elements that go to make the design—the sails, the masts, the hull, the clouds, and so on. Of course, if you continue in this manner, you will eventually finish up with a situation where just about all the base veneer has been replaced by little cutouts of contrasting veneer. When this point is reached, the resultant design can be mounted like a picture or built into something like a coffee table. Great fun!



WINDOW MARQUETRY

The technique is beautifully simple and direct. All you do is cut out an element of the design and then fill it with choice veneer.