

The Technique of Marquetry



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**Bureau Plat with Boulle Marquetry
Ebony, Tortoise Shell, Engraved Brass**

When I explain to customers that I make marquetry, they either ask: “What is that?” or they exclaim: “Oh, you mean inlay!” Although excellent examples of marquetry can be found in many museums and antique shops, it’s still a poorly understood technique.

Developed during the Renaissance, the technique was made famous by Andre-Charles Boulle (1642-1732), who incorporated into his designs such exotic materials as brass, pewter, horn, ivory, and tortoise-shell, as well as hardwoods.

Marquetry represents one of the most advanced forms of furniture decoration. It flourished in France in the 18th century and experienced a revival a hundred years later in England.

In simple terms, marquetry and its cousin parquetry are complete surface coverings of decorative patterns assembled from veneer. Parquetry consists mainly of straight lines cut with a knife or veneer saw; marquetry is made up of more curved and naturalistic shapes cut with a jeweler’s saw. Inlay consists of pieces let into a solid-wood background, and is used as a decorative accent in the primary wood. The advantage of marquetry is that the cabinet itself can be made of a common wood like oak, beech, or pine, and then be completely covered with a surface decoration assembled from more exotic and rare woods.

Producing a marquetry picture involves much of the patience and skill required to assemble a jigsaw puzzle. The difference is that the marquetry requires making the pieces first.

This is the exciting part of the job, since you can select exactly the color, species, and grain pattern needed for a realistic design. Techniques such as hot sand shading and engraving can enhance the overall effect.



Sand Shading in Ecole Boulle

Dr. Pierre Ramond, in his 1989 book, *Marquetry*, explains that there are essentially 5 different historical methods of making marquetry. The first four methods are given Italian names, since they were popular during the Italian Renaissance, and the fifth is given a French name, since it was developed in Paris during the 18th century. Tarsia Certosina is the most ancient method known, dating to Egyptian times. This method simply requires cutting a cavity into a solid wood ground, and inlaying a contrasting material into it. Tarsia Geometrica was invented during the 14th century, and is called “frisage” by the French, and “parquetry” by the English. In this method, a

surface covering is produced using geometrical shapes. Tarsia a Toppo dates from the 16th century, and usually was produced by a specialist. This method is to assemble a large block of different shapes into a “sandwich” which is then sliced into strips which are used as decorative banding or “inlay”.

Perhaps the most well-known method is Tarsia a Incastro, or the “Bouille” technique, named after the cabinetmaker to King Louis XIV. Invented early in the 17th century, this method is to assemble all the layers of material in one packet with the design drawn on top, and cut them simultaneously. The advantage is that all the pieces easily fit into place every time. The drawback is that the design is destroyed and the saw kerf leaves a small gap around each piece, which must be filled with a mastic made of sawdust and glue. For this process to work, the saw blade must remain perpendicular to the packet at all times.



Example of Tarsia Certosina, Studiolo
Attributed to Giuliano and Benedetto da Maiano
Mosaic woodwork
Urbino, Palazzo Ducale



Stack 4 layers classic method marquetry

The most important method of making marquetry is called “The Classic Method” or “Piece by Piece”.

This method was made possible after a system of duplicating the design was developed, since it requires the artist to start with at least a dozen exact copies of the drawing for each panel.

The principal advantage is that the saw kerf is eliminated completely, and many copies of the final marquetry panel can be produced with the same amount of effort.

There are two basic methods for cutting marquetry. The first, popular in France, is horizontal sawing; the second, popular in England and America, is vertical sawing. I prefer the horizontal method since it allows the cutting hand to be on the same side of the pad as the pattern and eye. The vertical method requires the cutting hand to be under the pad and the pattern to be on top, which makes accuracy more diffi-



W. Patrick Edwards cutting on the Marquetry Chevalet

cult. Work cut with the vertical method uses a “birdsmouth”: a notched piece of wood clamped to the bench, that supports the pad around the cut and allows the saw blade access. Work cut by the horizontal method uses a donkey with a foot operated vise, and a carriage for the saw frame.

The “Chevalet” or donkey is a curious apparatus and never fails to draw comment. Its operator sits on an integral bench and works foot pedals which close the vise jaw on the work. A spring releases the jaws as soon as the feet are raised. Both hands are thus free to operate the saw and move the packet into the blade. The real advantage of this tool is that the saw is held on a carriage, thereby eliminating hand fatigue, and keeping the blade perpendicular to the work at all times.

My donkey is a reproduction of a French chevalet made in the 1830’s, and still available as late as the 1930’s in that country. Complete patterns for this tool are now available in Dr. Ramond’s book, published by Taunton Press. I’ve enjoyed hundreds of hours sitting at the donkey cutting minute and delicate pieces of wood, all of which must fit perfectly into each other to form the finished product. It’s a process that is as time-consuming as it is rewarding.

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