

My Approach to Marquetry

Bill Leonhardt



Outline

- Introduction
- Examples of Marquetry & Parquetry
- Patterns
- Material (veneers)
- Tools & Jigs
- Cutting Methods
- Borders & Shading
- Mounting & Substrates
- Step-by-step Process
- Resources

What's in a name?

- Marquetry
- Parquetry
- Intarsia
- Inlay
- Veneer Craft

Veneer Craft

(In my mind this is not marquetry)



Intarsia

(3 dimensional)





Marquetry

(for the purposes of this talk, i.e. my definition)

The creation of pictures using thin veneers of wood, often with the addition of other materials (shells, bones, gems, etc). These pictures can stand alone or be inlaid into wood objects such as furniture.

Lots of examples to be found



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7

As wall panels



Gubbio Studiolo at NY Met



On furniture



“Craftsman” style furniture ala
Gustav Stickley

more furniture



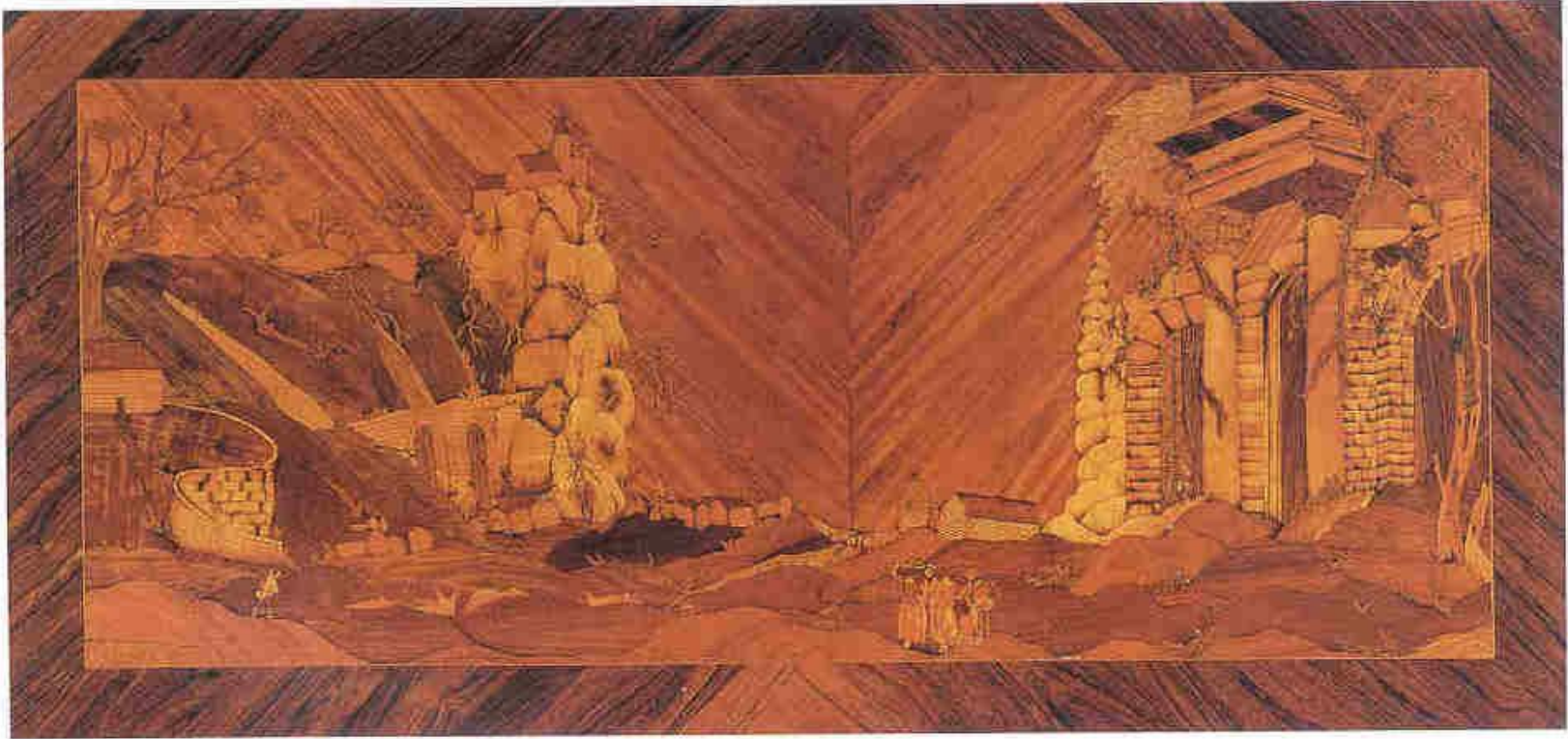
Silas Kopf

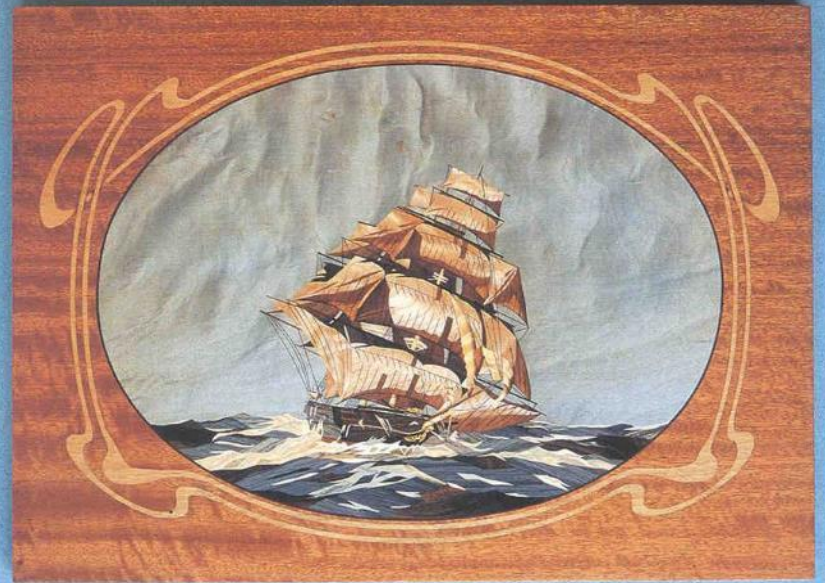
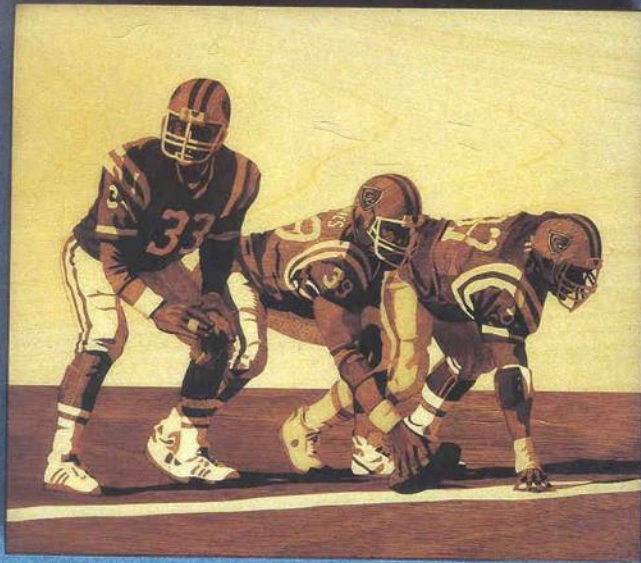
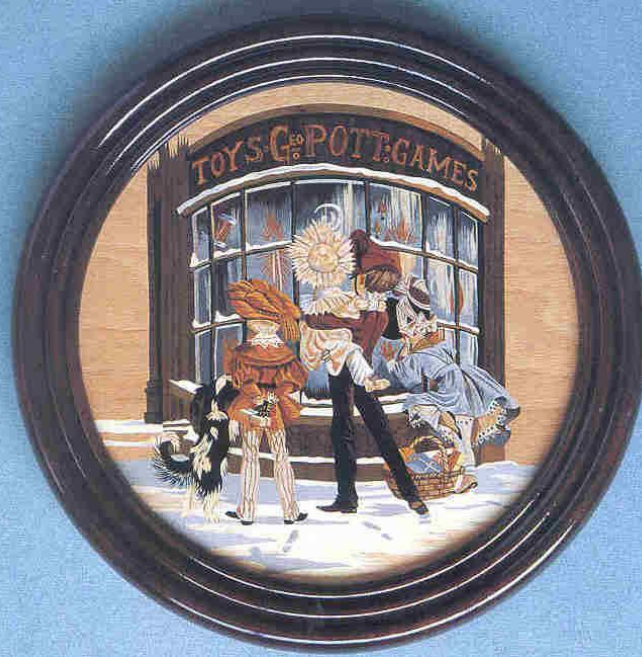


Even more furniture



Pictures









FIRE SCREEN

MADE BY JOHN APPS AND THE
LEEDS MARQUETRY GROUP

We took the bold decision from the outset to involve as many people as possible in its construction. John's stylish frame provides the perfect surround to complement a marquetry theme. Members of the Leeds Marquetry Group each contributed to the ten panels which make up the two-sided screen. Artist and group member Elizabeth Dorree created the line drawings to scale for each panel. Dyed veneers were used wherever possible—a bold, but correct, decision.



5/16.

Fire screen – side 1: An Oriental garden



16



Parquetry

Work in the form of usually geometrically patterned wood laid or inlaid especially for floors.

Objects





Desk Door



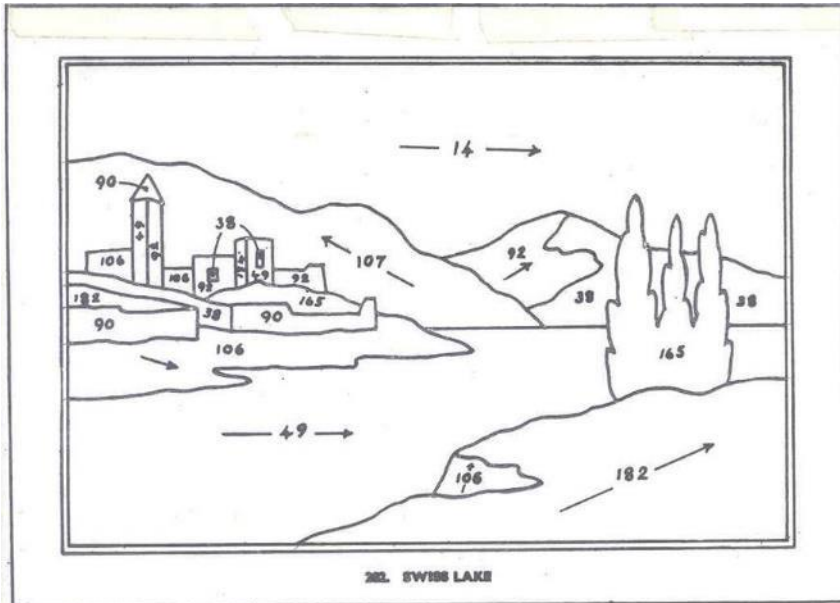
Floors



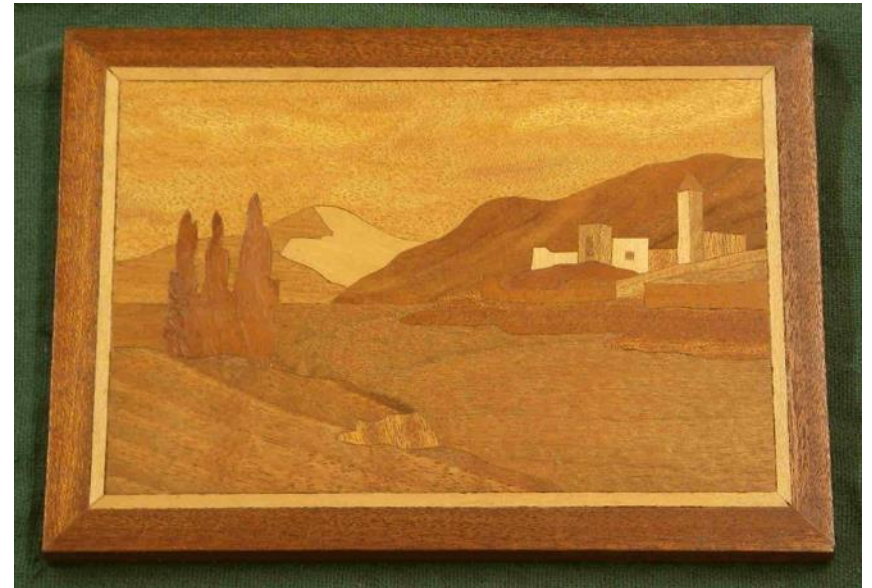
Patterns

- Purchased
- Free from clubs, web sites, etc.
- Copied from magazines
- Hand drawn

Purchased Kit



© The Art Veneers Company



Club Newsletter

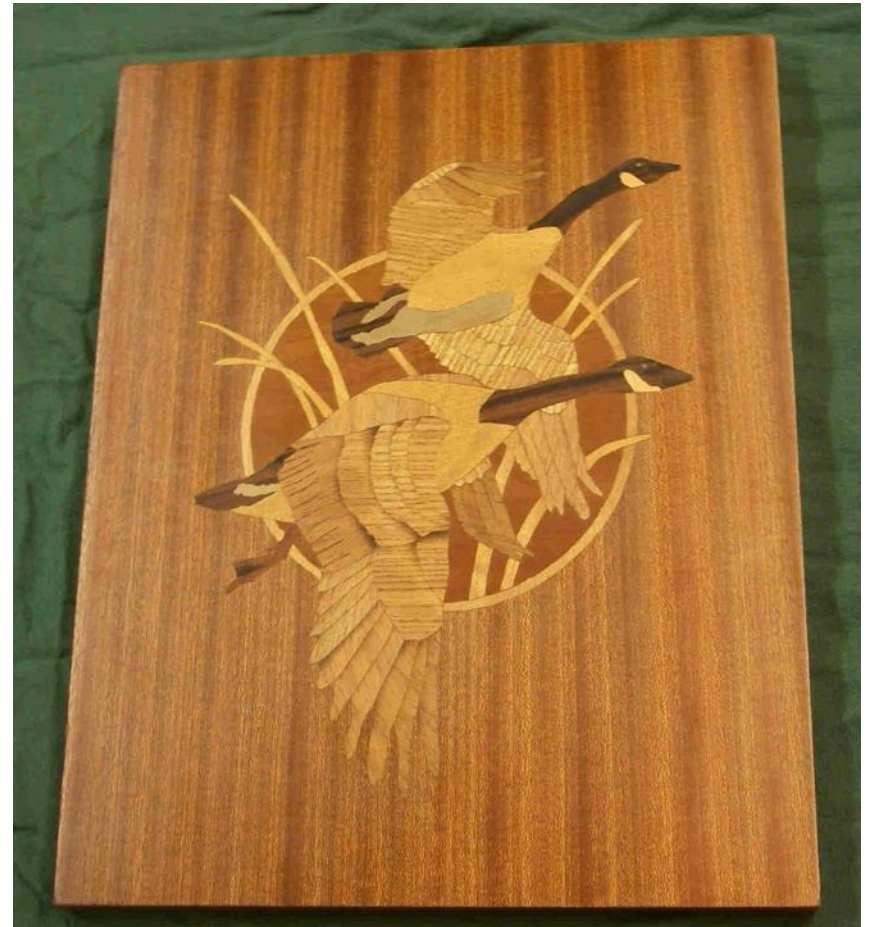
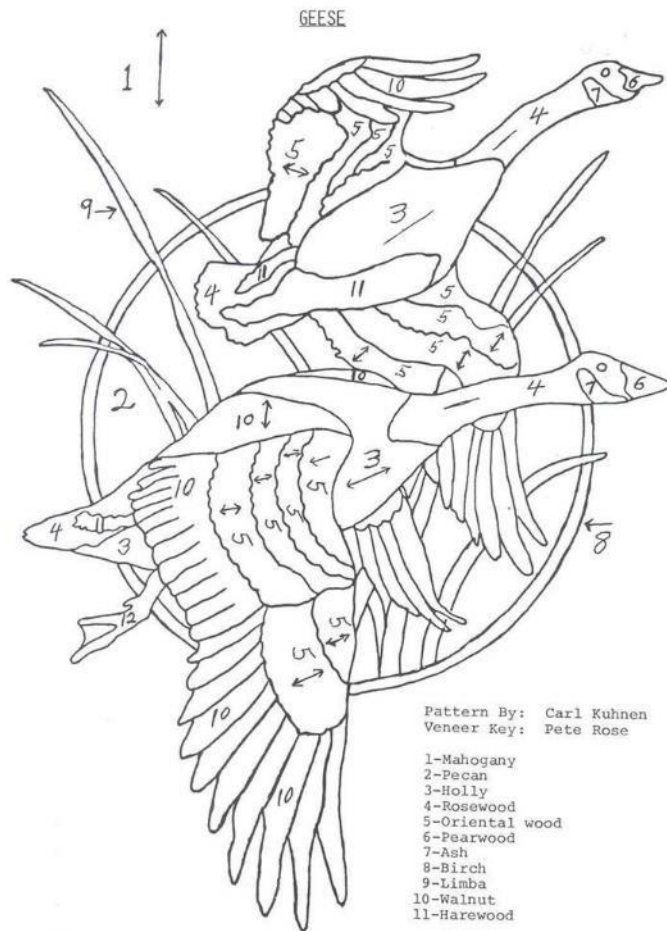
Yours very truly,
Ed. L. Turner OR



- 11 -



Again, Club Newsletter

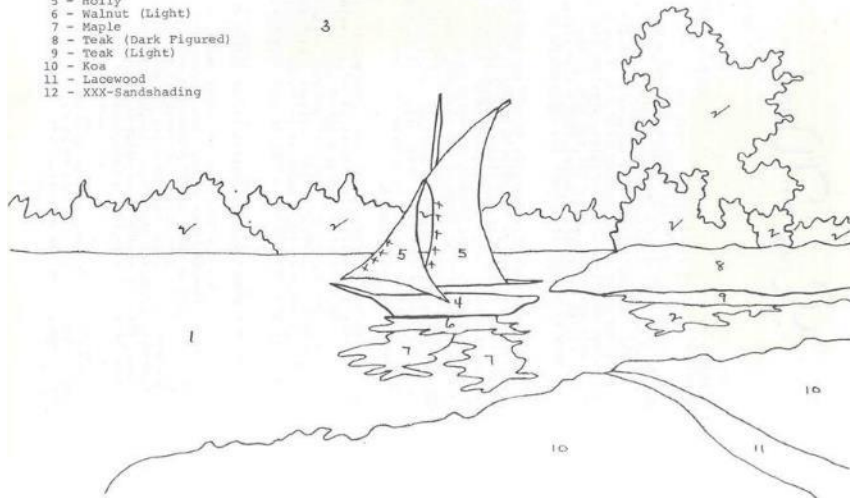


And, again, Club Newsletter

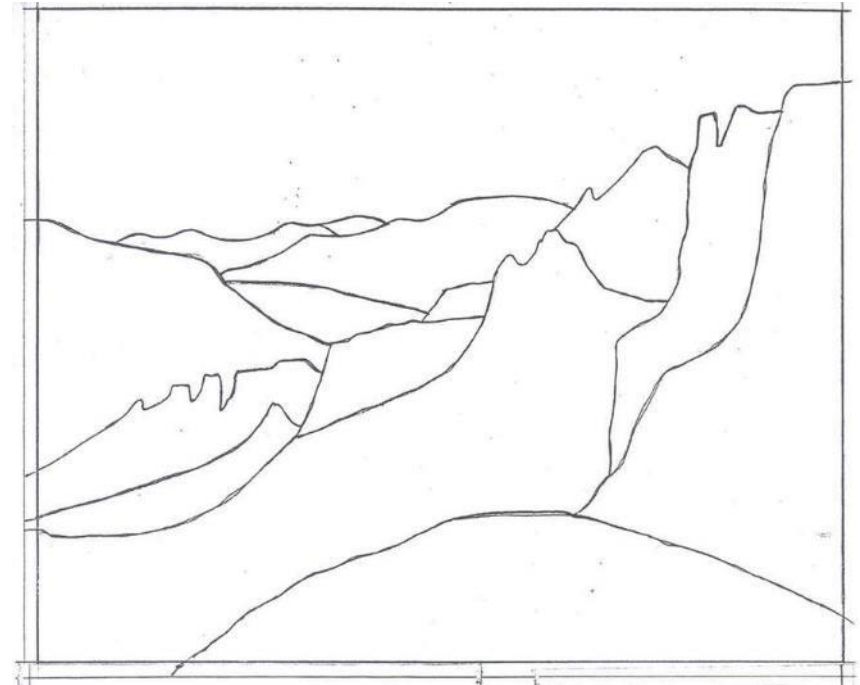
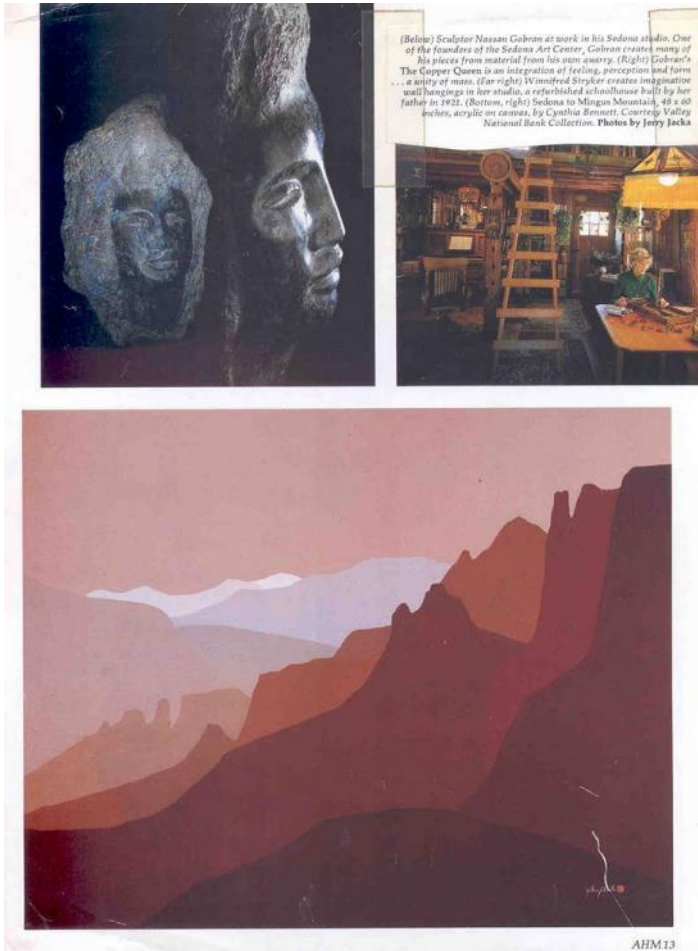
AFTERNOON BREEZE

SUBMITTED BY: ROBERT MULLER

- 1 - Gray Harewood
- 2 - Various Burlis
- 3 - Mottled Avodire
- 4 - Walnut (Dark)
- 5 - Holly
- 6 - Walnut (Light)
- 7 - Maple
- 8 - Teak (Dark Figured)
- 9 - Teak (Light)
- 10 - Koa
- 11 - Lacewood
- 12 - XXX-Sandshading



Magazine Photo



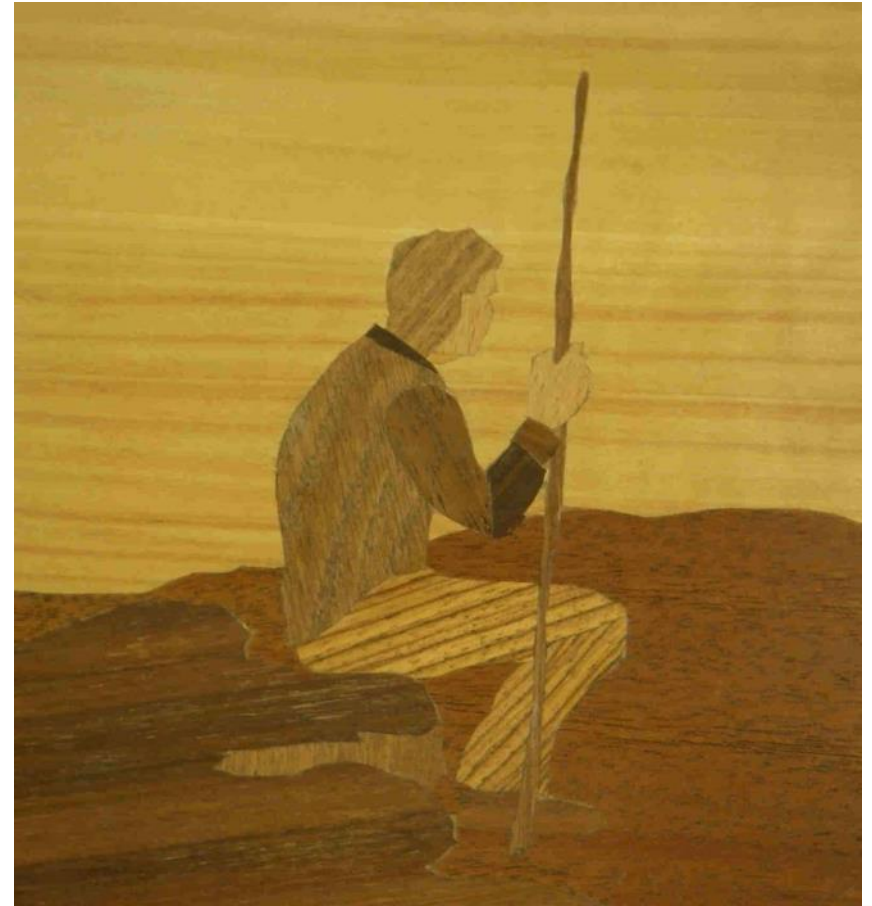


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29

Magazine Insert





Flesh and Blood

*Beside a singin' mountain stream where the willow grow
Where the silver leaf of maple sparkled in the morning dew
I loaded bags of willow, made a string of turkey beans
But flesh and blood needs flesh and blood and you're the one I need
Flesh and blood needs flesh and blood and you're the one I need*

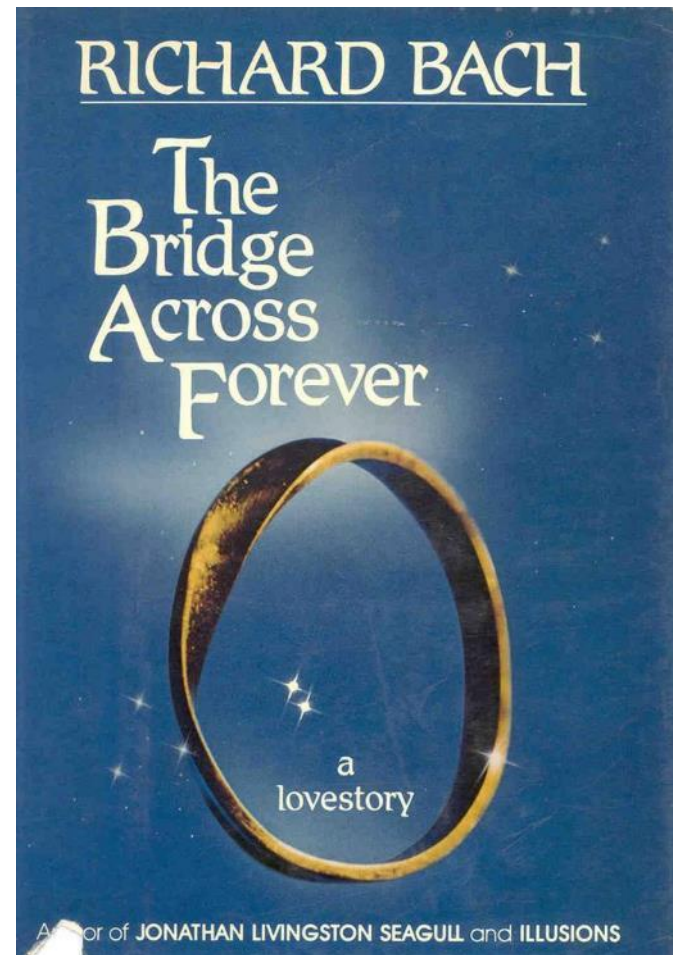
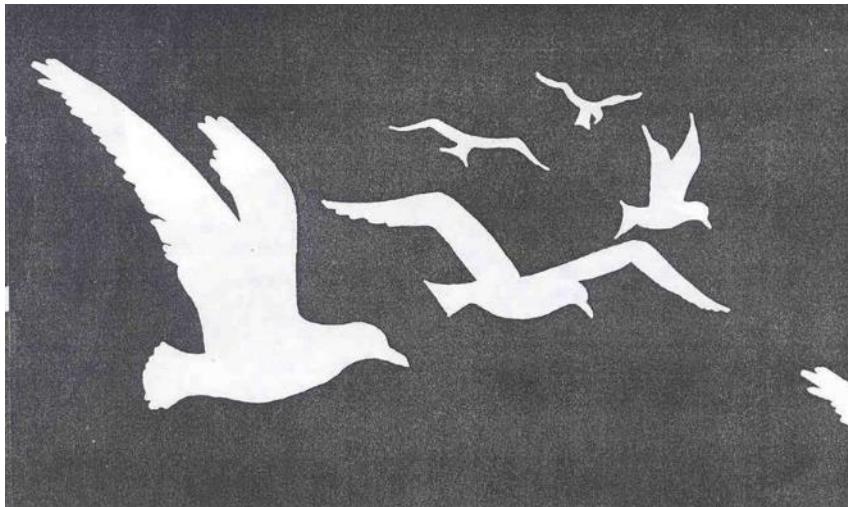
*I leaned against the bark of birch and I breathed the honey dew
I saw a northbound flock of geese against a sky of baby blue
Beside the lily pads I carved a whistle from a reed
Mother Nature's quite a lady but you're the one I need
Flesh and blood needs flesh and blood and you're the one I need*

*A cardinal sang just for me and I thanked him for the song
Then the sun went slowly down in the west and I had to move along
These were some of the things on which my mind and spirit feeds
But flesh and blood needs flesh and blood and you're the one I need
Flesh and blood needs flesh and blood and you're the one I need*

*So when the day was ended I was still not satisfied
For I knew everything I touched would wither and would die
And love is all that will remain and grow from all these seeds
Mother Nature's quite a lady but you're the one I need
Flesh and blood needs flesh and blood and you're the one I need*

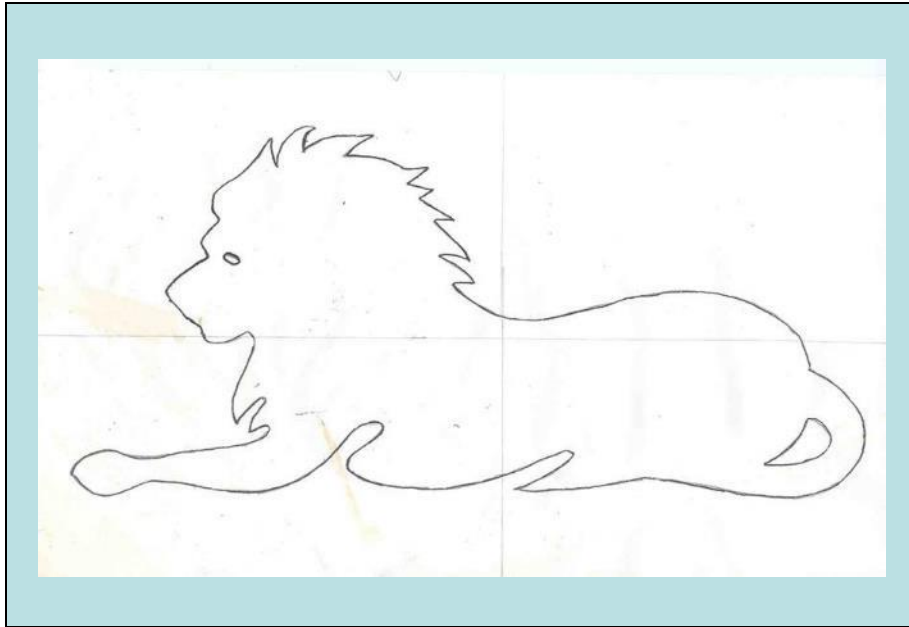
*words by Johnny Cash
feelings by me...*

Wrapping Paper & Book Jacket





Clothing Label





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35

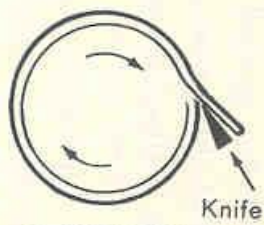
Material

- Homemade (re-sawn)
- Purchased -Traditionally 1/28 and/or 1/40 inch thick, now 1/32 -1/40 inch
- Dyed or natural

DIFFERENT WAYS IN WHICH VENEERS ARE CUT

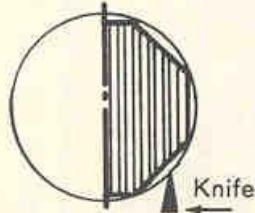
The manner in which veneers are cut is an important factor in producing the various visual effects obtained. Two logs of the same species, but with their veneers cut differently, will have entirely different visual characters even though their colors are similar.

In veneer manufacture, five principle methods of cutting veneers are used.



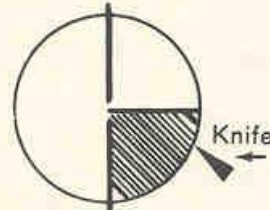
ROTARY

The log is mounted centrally in the lathe and turned against a razor sharp blade, like unwinding a roll of paper. Since this cut follows the log's annular growth rings, a bold variegated grain marking is produced. Rotary cut veneer is exceptionally wide.



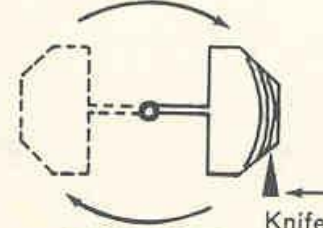
FLAT SLICING

The half log, or flitch, is mounted with the heart side flat against the guide plate of the slicer and the slicing is done parallel to a line through the center of the log. This produces a variegated figure.



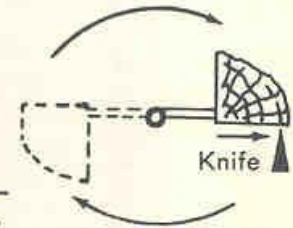
QUARTER SLICING

The quarter log or flitch is mounted on the guide plate so that the growth rings of the log strike the knife at approximately right angles, producing a series of stripes, straight in some woods, varied in others.



HALF-ROUND SLICING

A variation of rotary cutting in which segments or flitches of the log are mounted off center in the lathe. This results in a cut slightly across the annular growth rings, and visually shows modified characteristics of both rotary and plain sliced veneers.



RIFT-CUT

Rift cut veneer is produced in the various species of Oak. Oak has medullary ray cells which radiate from the center of the log like the curved spokes of a wheel. The rift or comb grain effect is obtained by cutting perpendicular to these medullary rays either on the lathe or slicer.

Besides the methods shown, certain very hard woods are sawn instead of sliced. Usually sawn veneers are thicker than those from a slicing machine.

Appliqués

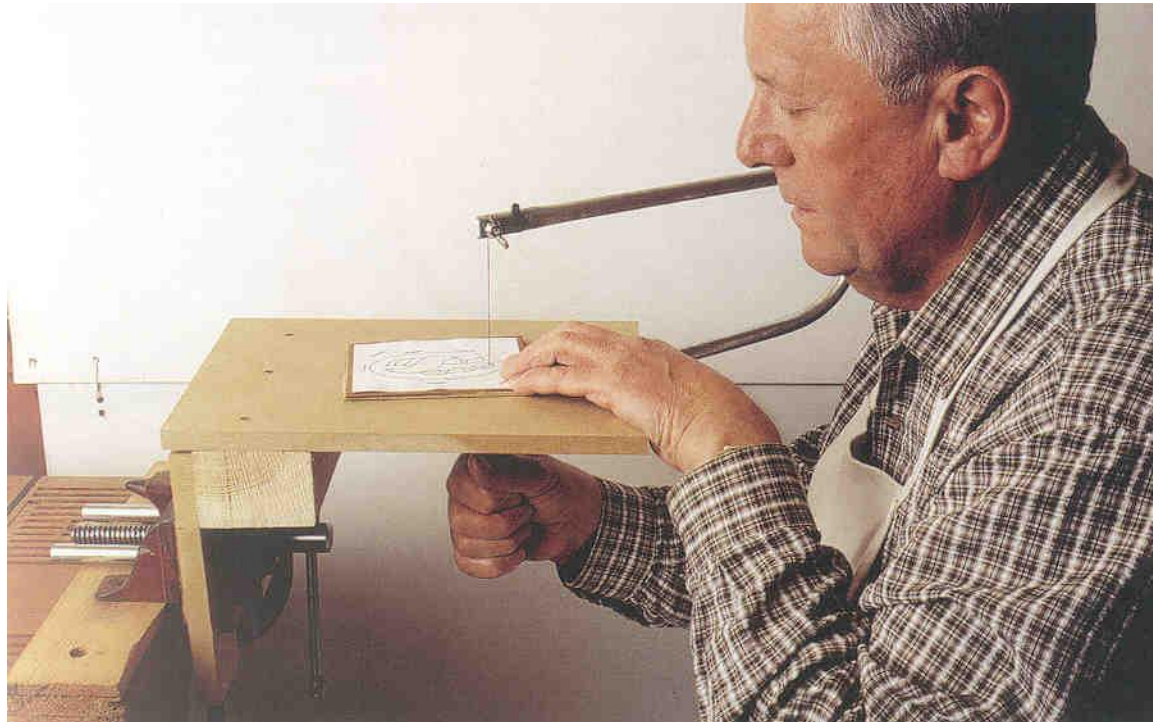


Tools & Jigs

- Craft (X-acto) knife
- #11 knife blades
- Fret saw & blades
- Steel straight edge
- Veneer tape
- Roller(s)
- Sharpening stone
- Veneer glue
- Bird's mouth
- Veneer saw
- Cardboard
- Carbon paper
- White glue
- Drafting triangle
- Masking tape
- Cutting board



Fret Saw & Bird's Mouth in use



Chevalet

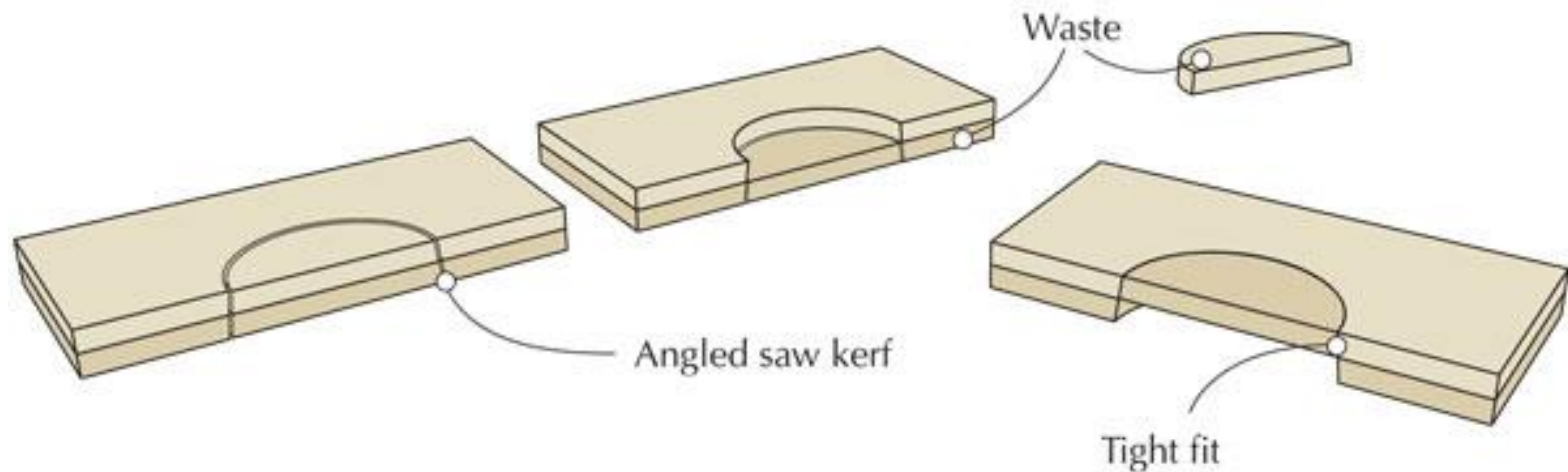


Scroll saw



Cutting on a Scroll Saw

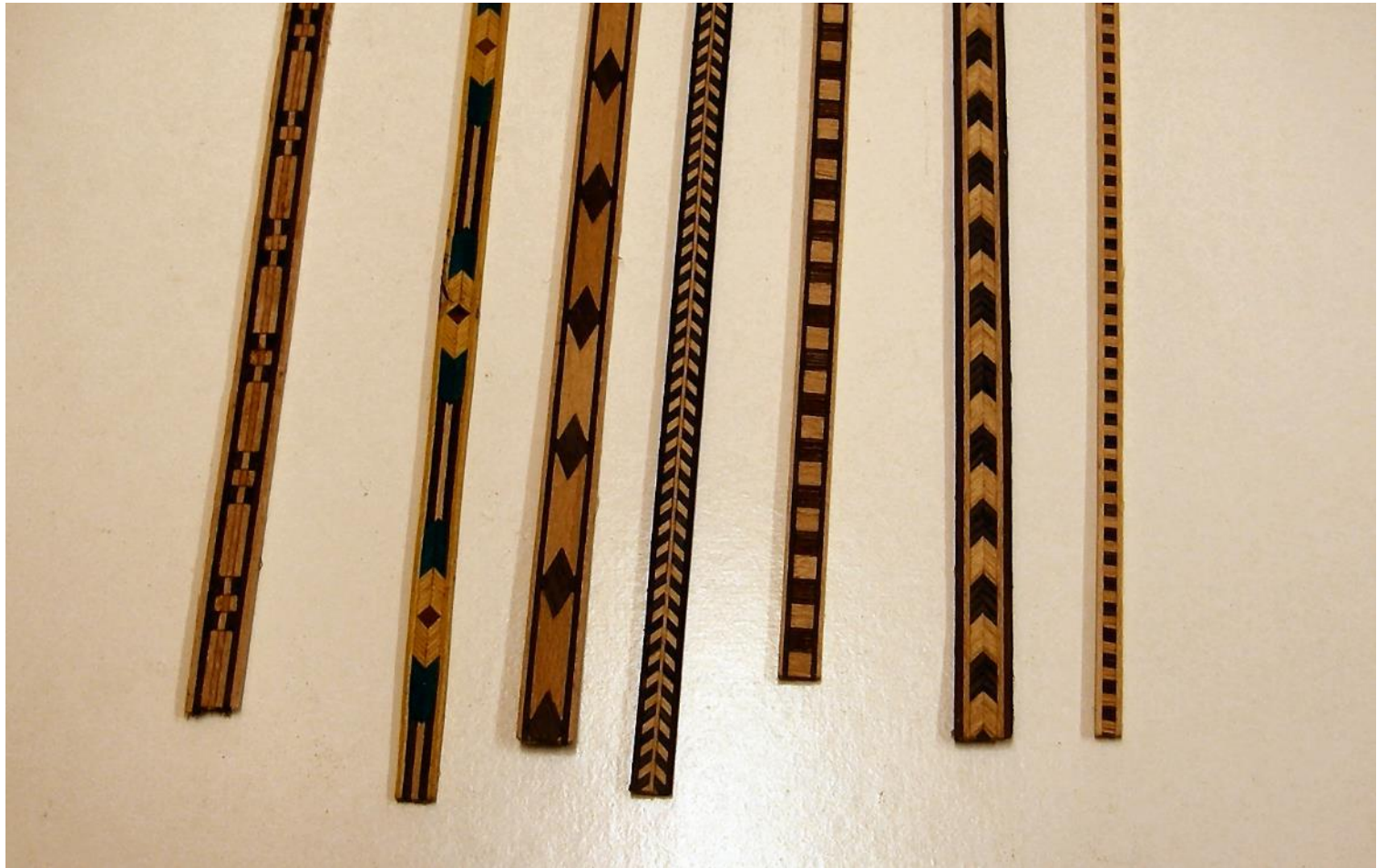
- Table is angled
- Angle determined by kerf width
- Techniques covered in a different talk.



Hand Cutting methods

- Window
- Pad
- Patch Pad

Borders



Borders



Shading

Shading creates shadows



Sand Shading



Figure 13: Create a raised flat plateau

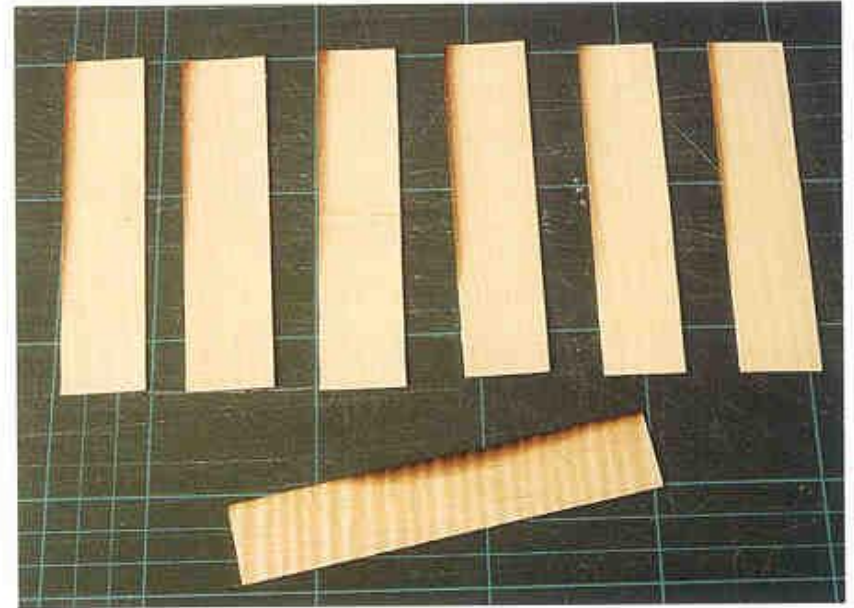


Figure 14: Spot the overcooked strip

Remember to put back the moisture if needed!

Mounting

- Veneer glue (contact-like-cement)
- Conventional glue & clamping
 - Mechanical clamping
 - Vacuum bagging
 - Vacuum pump set-up
 - Wine saver
 - Food saver

Mechanical Clamping

Fig. 8. Homemade press which has proved to be very satisfactory in use.

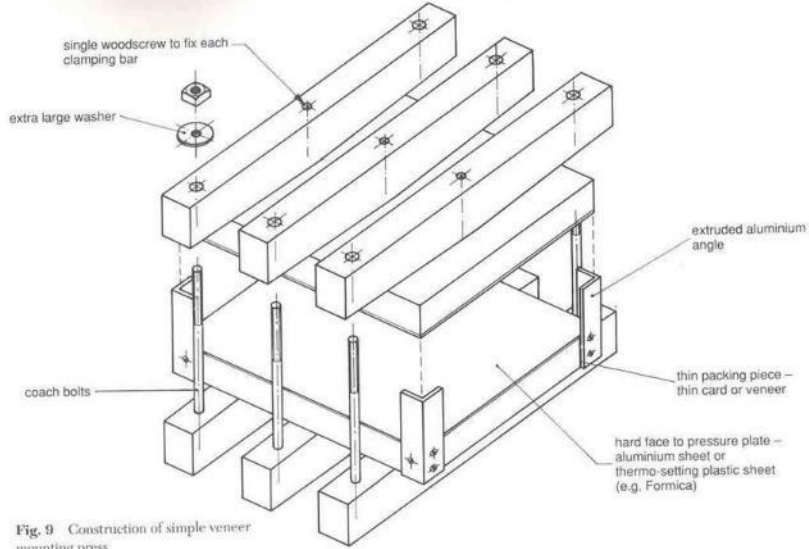
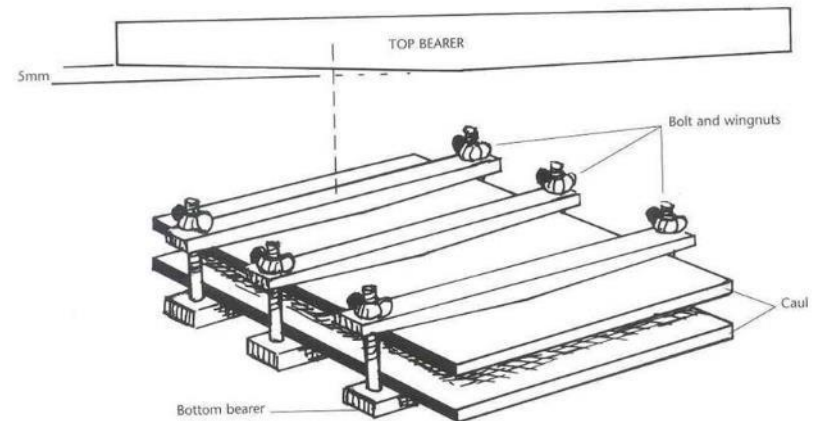
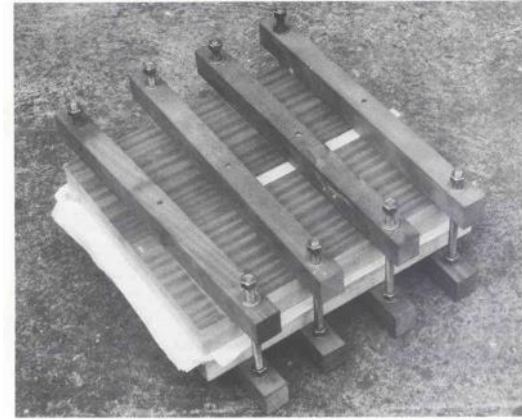
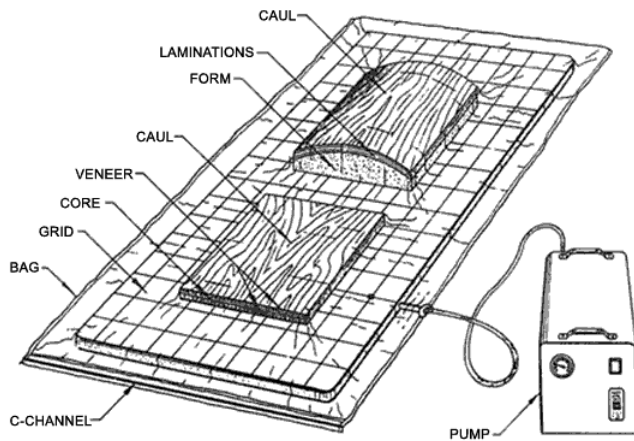
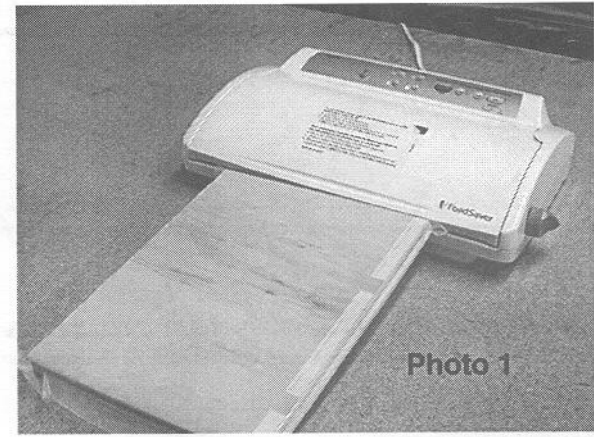


Fig. 9. Construction of simple veneer mounting press.

Vacuum Clamping



Substrates

- Solid Wood
- Plywood
- Particle Board
- MDF (medium density fiberboard)
- ???

Step-by-step Example

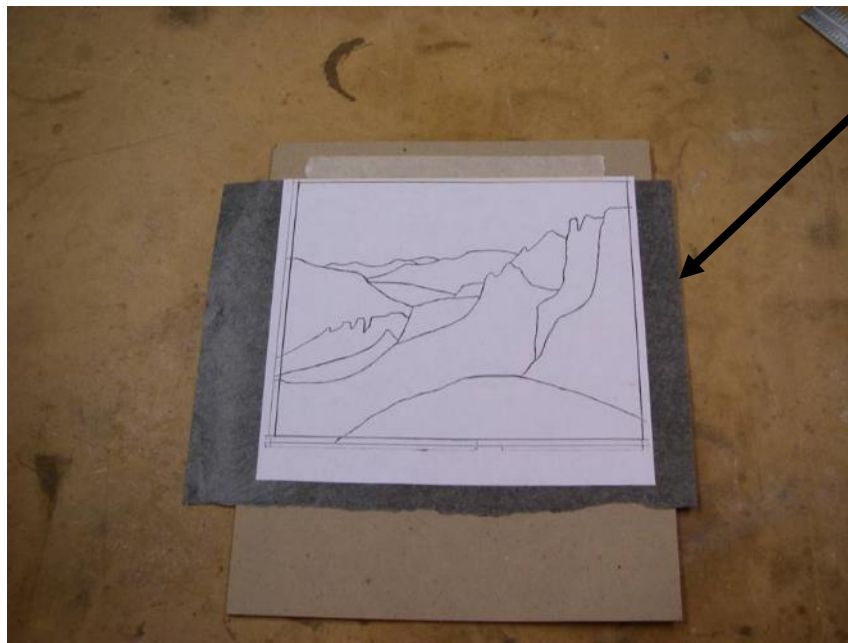


5/16/19

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54

Mount Pattern & Transfer

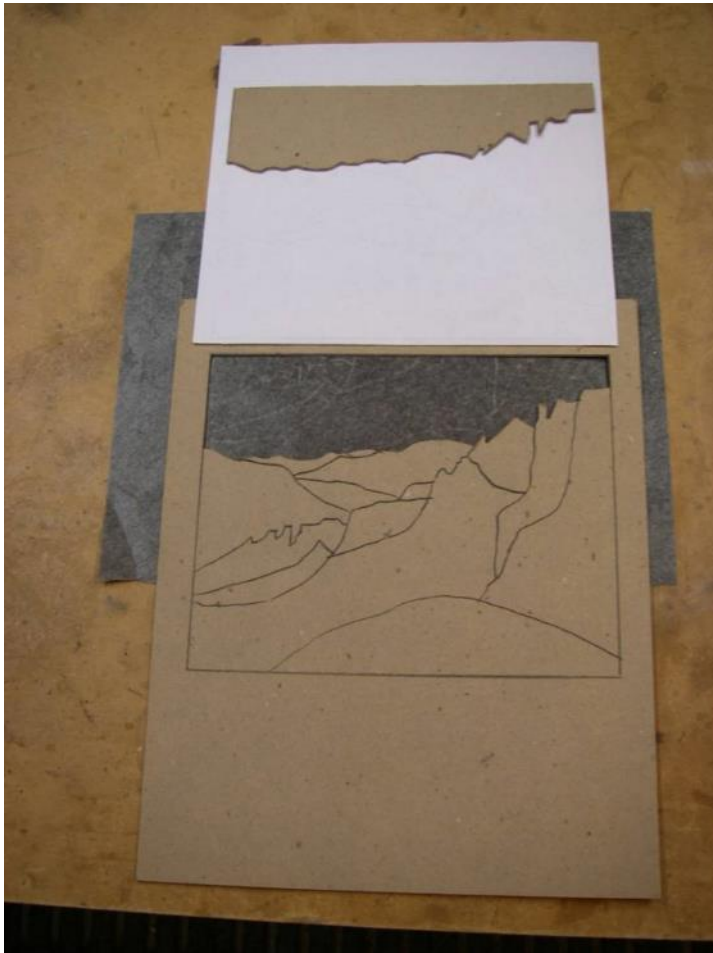


Carbon paper

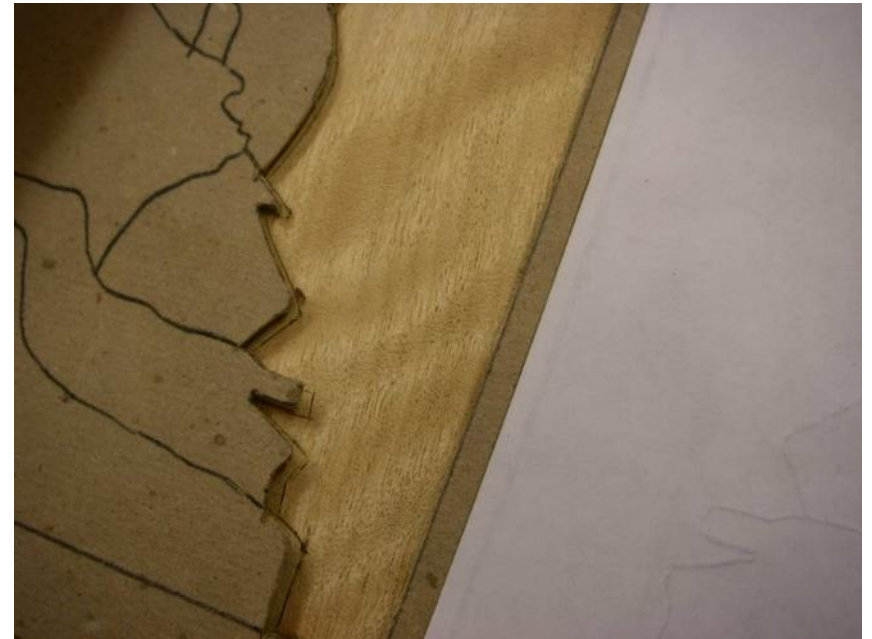


IMPORTANT – Mount pattern so it can hinge up and always return to the same place.

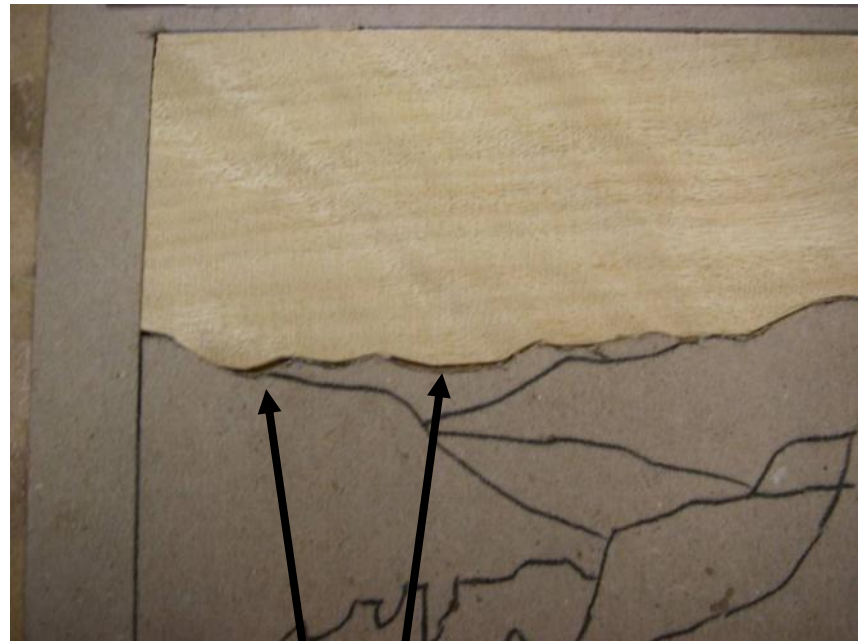
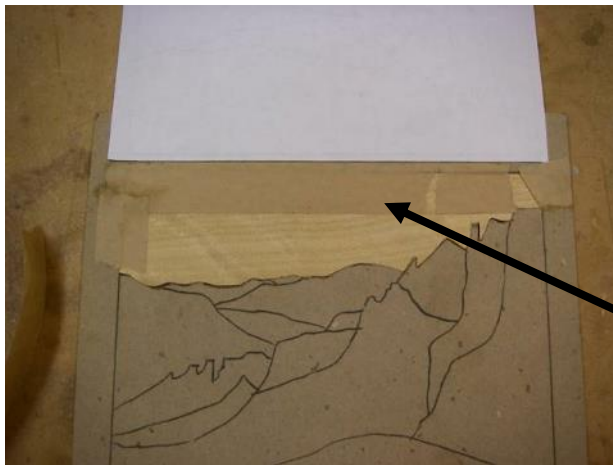
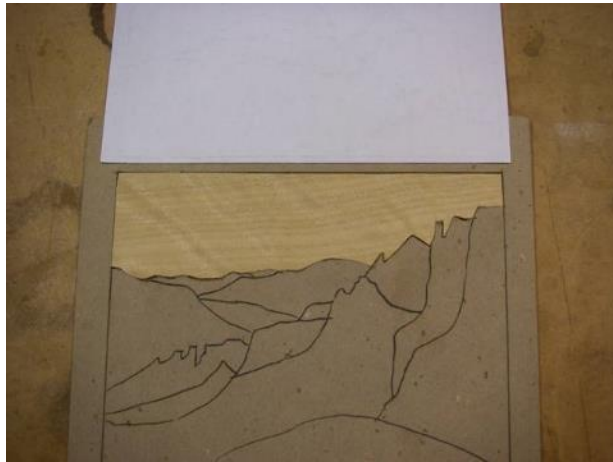
Cut First Window Align Veneer



Cutout Veneer



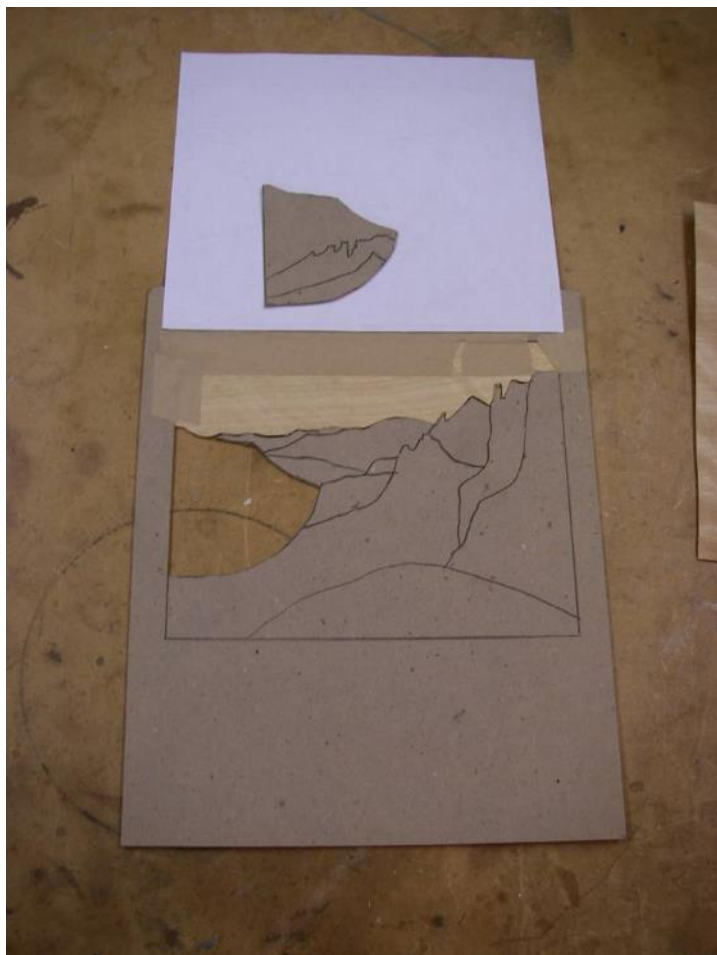
Insert Veneer into Window & Tape



Note gaps...not to worry...

Veneer Tape

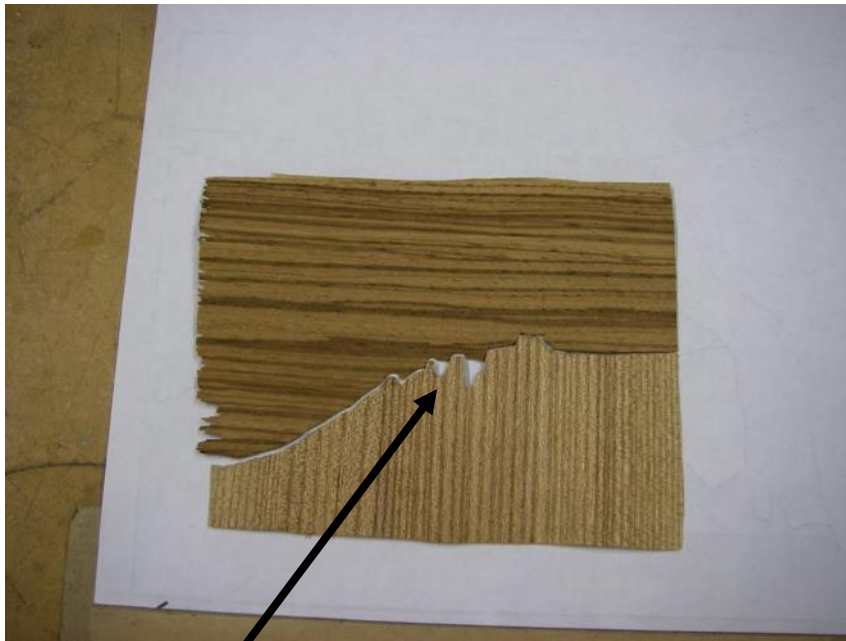
Cut Next Window Make Pad



Fret Saw Complex Curves



Interleaf Pad & Insert



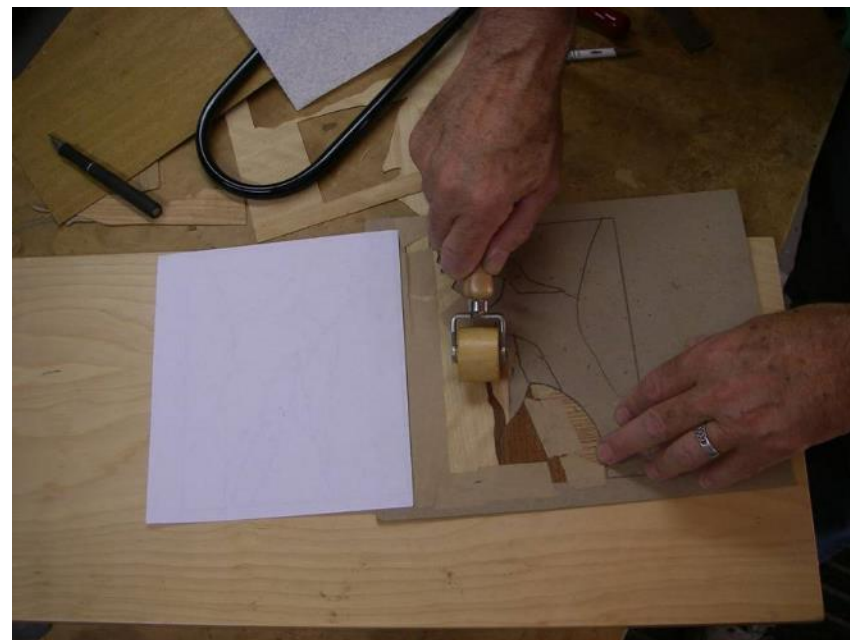
Problems – pieces broke off

Replacement piece - OK



Cut More Windows

Use Roller to Aid Install



Finish Cutting Windows & Veneer

Insert Veneer



Good side



Glue side

Cut Picture Free from Cardboard Trim Square with Drafting Triangle



Cut and Tape On Boarder Miter Boarder



Cut & Tape Frame Pieces



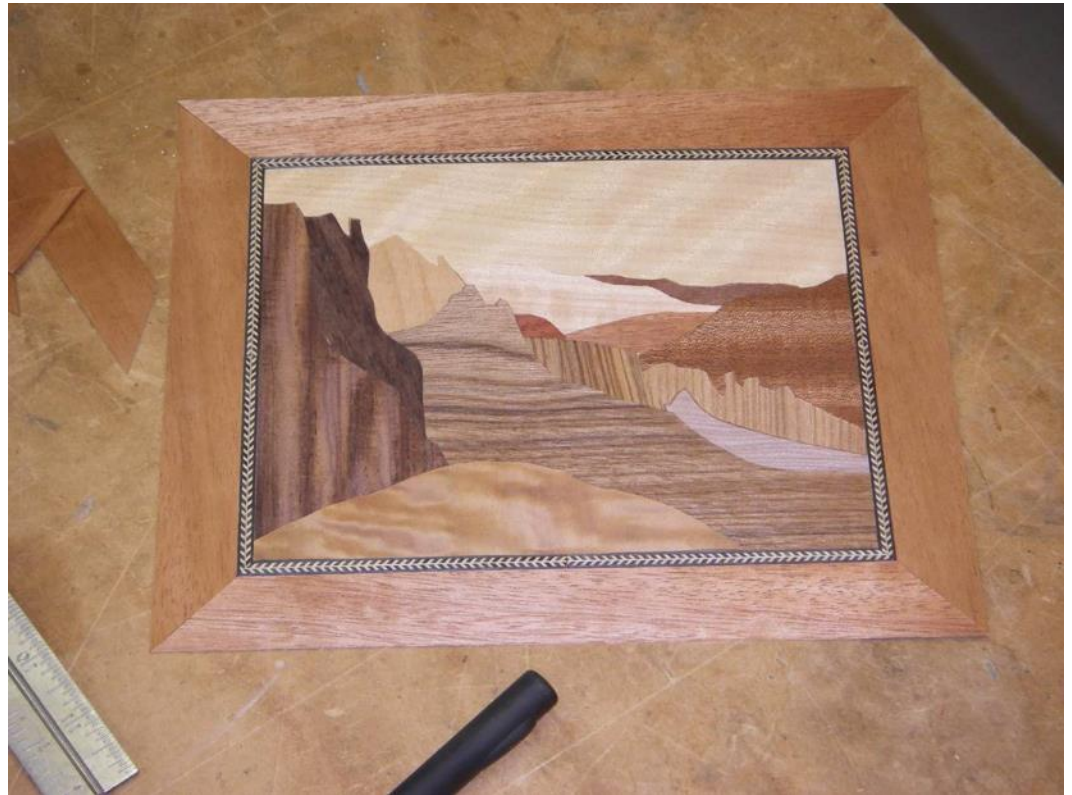
Miter Frame Pieces



Inspect

This is your last chance to change anything so.....

- Look the joints over for large gaps
- Replace any pieces you're not happy with



Pre-glue tasks

- Cut back & edges from same material as frame
- Cut substrate smaller than picture by about 1/8" on all sides. Important – the amount you make the substrate smaller must be equal in height and width so the miters line up properly
- Cut and relieve glue blocks

Glue-up Assembly Order

1. Attach back and trim
2. Attach sides and trim
3. Attach top & bottom and trim
4. Attach front and trim

Note – Trimming done in these steps is with a veneer saw.

Glue Back, Press with Roller & Trim



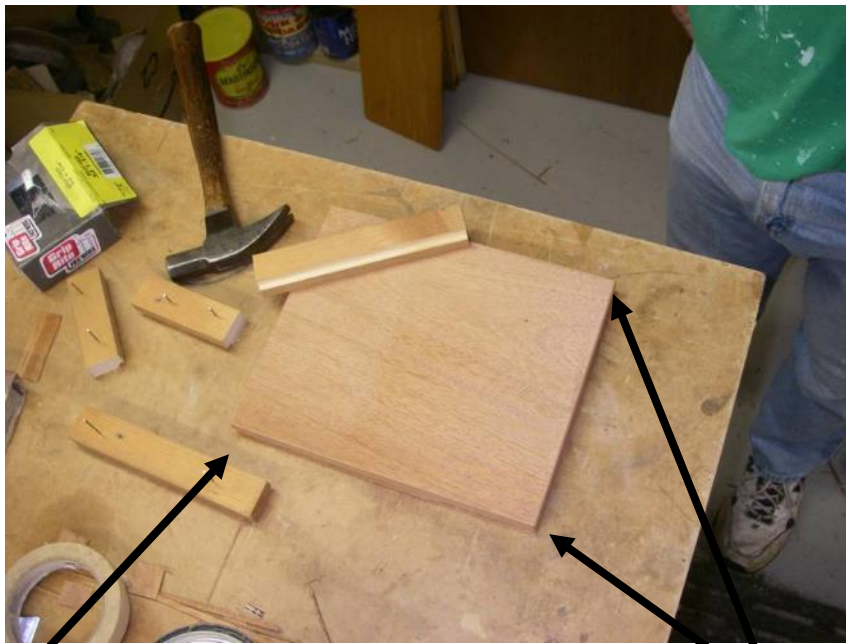


Glue Sides, Press with Roller & Trim Glue Top and Bottom, Press with Roller & Trim





Dry Align Front Tack Down Blocks



Miters are aligned on all corners
Picture held in place by masking
tape on bottom



Glue blocks keep miters aligned

Glue Front and Remove Press with Roller & Trim



Wet Tape and Gently Remove





Roll Down Surface Very Well



Fill

Fill cracks
with a
mixture
of very
fine saw
dust and
white
glue



When the glue dries, sand and finish as desired



All Done!!!



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82

Some pictures I have done



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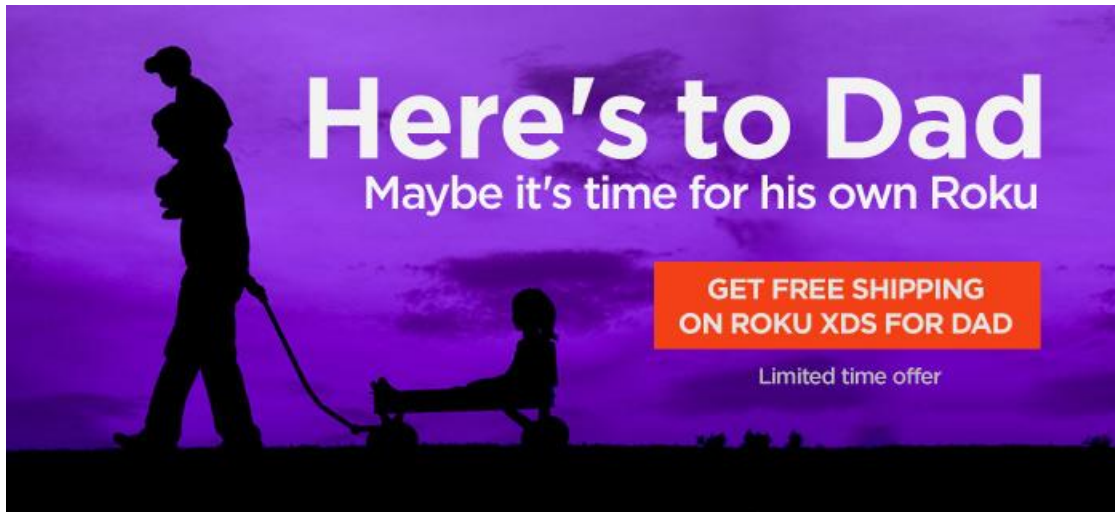
83



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84



Gary & Rose



Manhattan Henge



Emily's Box



Neckless Cabinets



Fall of Saigon



Resources

- **American Marquetry Society**
 - Local groups but none on Long Island
 - Newsletter, 4/year, patterns, techniques, etc.
 - Annual show
- **Yahoo Groups**
 - Marquetry
 - Parquetry
- **Google**
- **Library –books & videos**