

An Introductory Tour of Kumiko

February 15, 2022 Ruth Warbington

Some background

Lots of woodworking examples

How it can be done



Traditional Japanese Shoji



© [Fukuzumiro Spa](#)

The translucent form evolved about **900 CE** with changes in architecture
Then became more elaborate with added prestige for the samurai class

Shoji “obstructs view” and “blocks” bright light and adds privacy in a traditional Japanese room.

They’re sturdier than curtains yet less obtrusive than wooden walls or solid doors. If a shoji screen is broken or torn, it isn’t difficult or expensive to replace” Japan Objects website



Ranma panels above for additional light and ventilation



Shoji was part of privileged class homes from about the mid-19th century



M Murakami

Shoji with kumiko lattice and kumiko designs can make a personal statement

Shoji and ranma



Kumiko is part of the Japanese shoji tradition

Kumiko are the thin wooden slats that support rice paper in shoji screens

Kumiko is also the decorative patterns that embellish shoji and other panels



Kumiko in furniture



Kumiko Coffee Table by Jon Billing (Big Sand Woodworking, Brooklyn, NY)

Fine Woodworking #261 May/June 2017



Jigumi coffee table by Big Sand Woodworking



John Reed Fox Fine Woodworking May/June 2012

Mike Pekovich uses kumiko as a focal point in cabinets and boxes



Mike Pekovich mirror



Japanese inspired shoe bench by Seth's Projects Woodworking



Credenza by IPPIN



Bed by Kendrick Anderson





Bourbon cabinet by alibi woodworks



Wall cabinet by Matt Kenney



Media cabinet by Stephen Thrasher

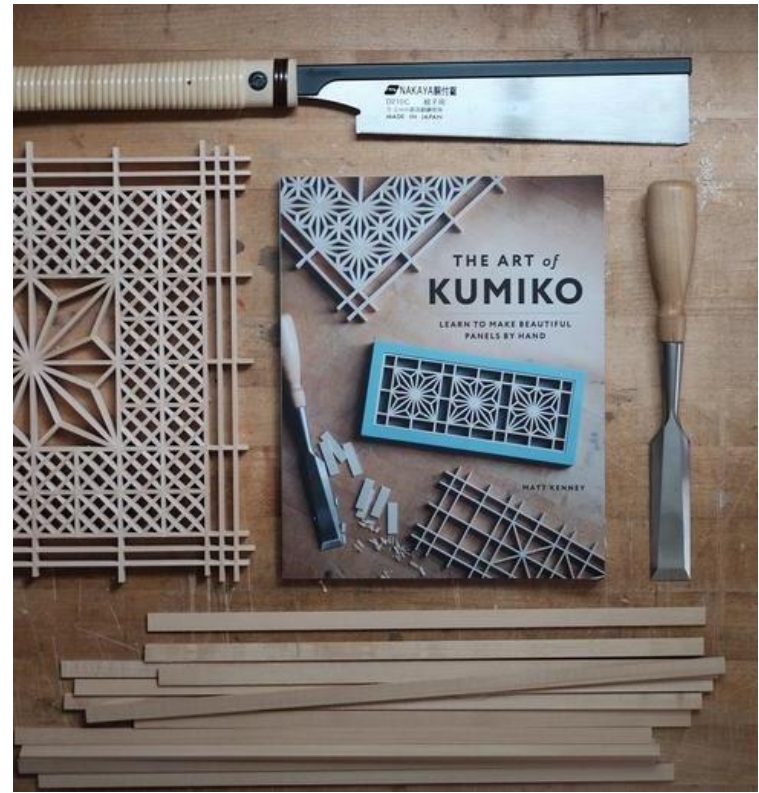


Beech cabinet by Joel Krakauer

Des King screen (Book 2)



Matt Kenney



Matt Kenney





Adrian Preda

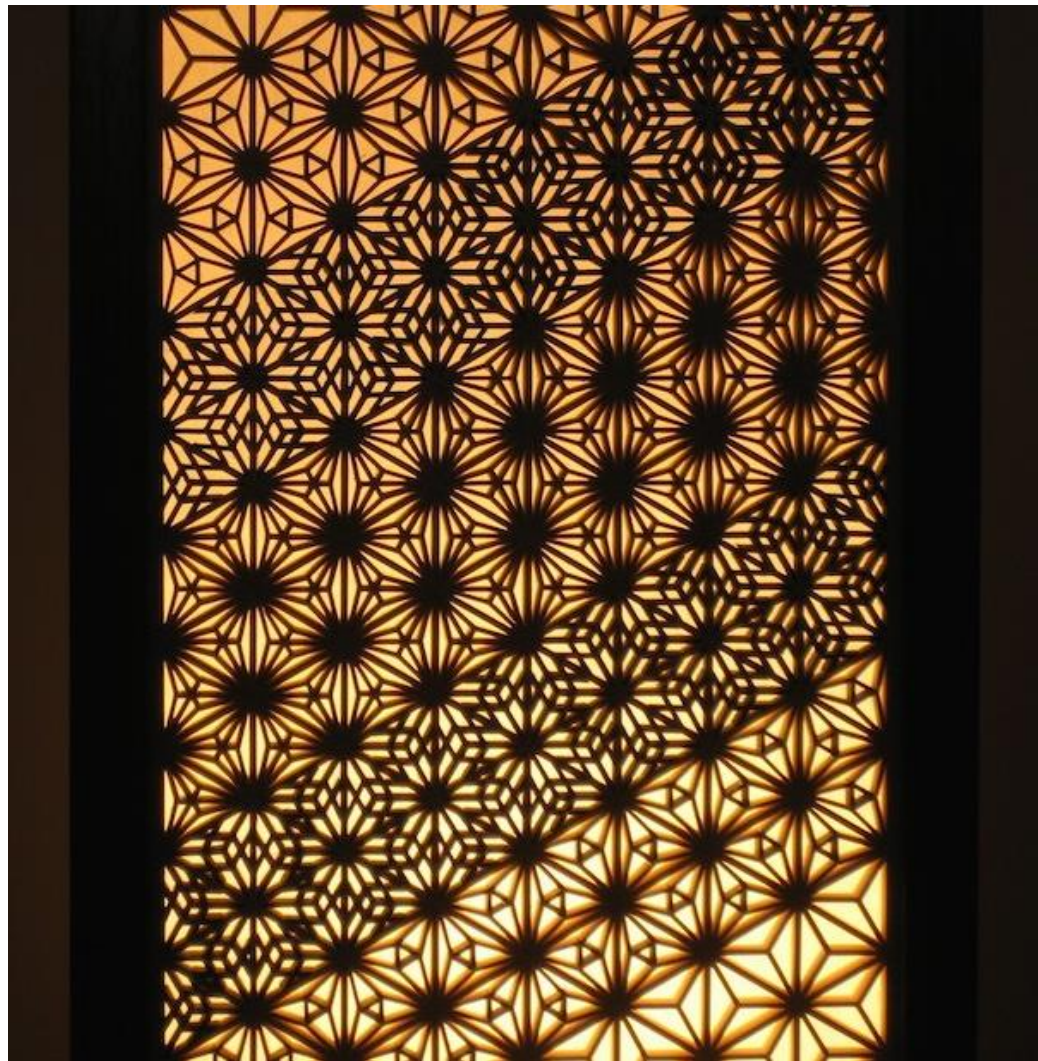
Andon by Ian Curtin

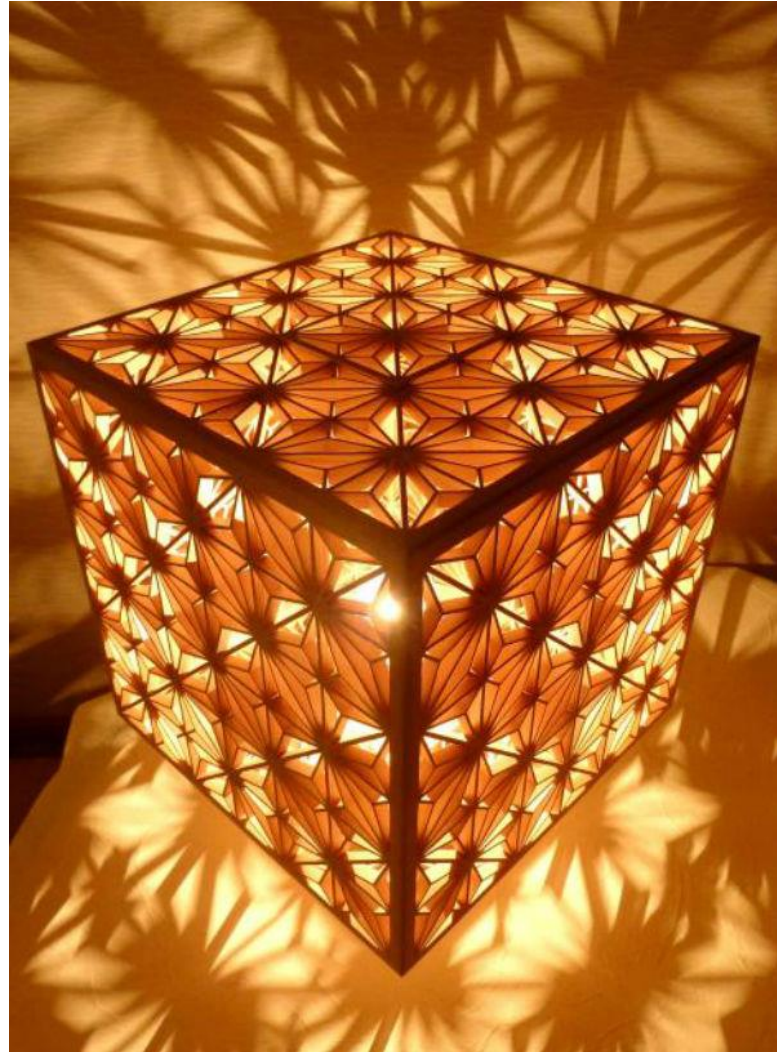


Small andon by Des King



Large andon by Des King “Meteor shower”



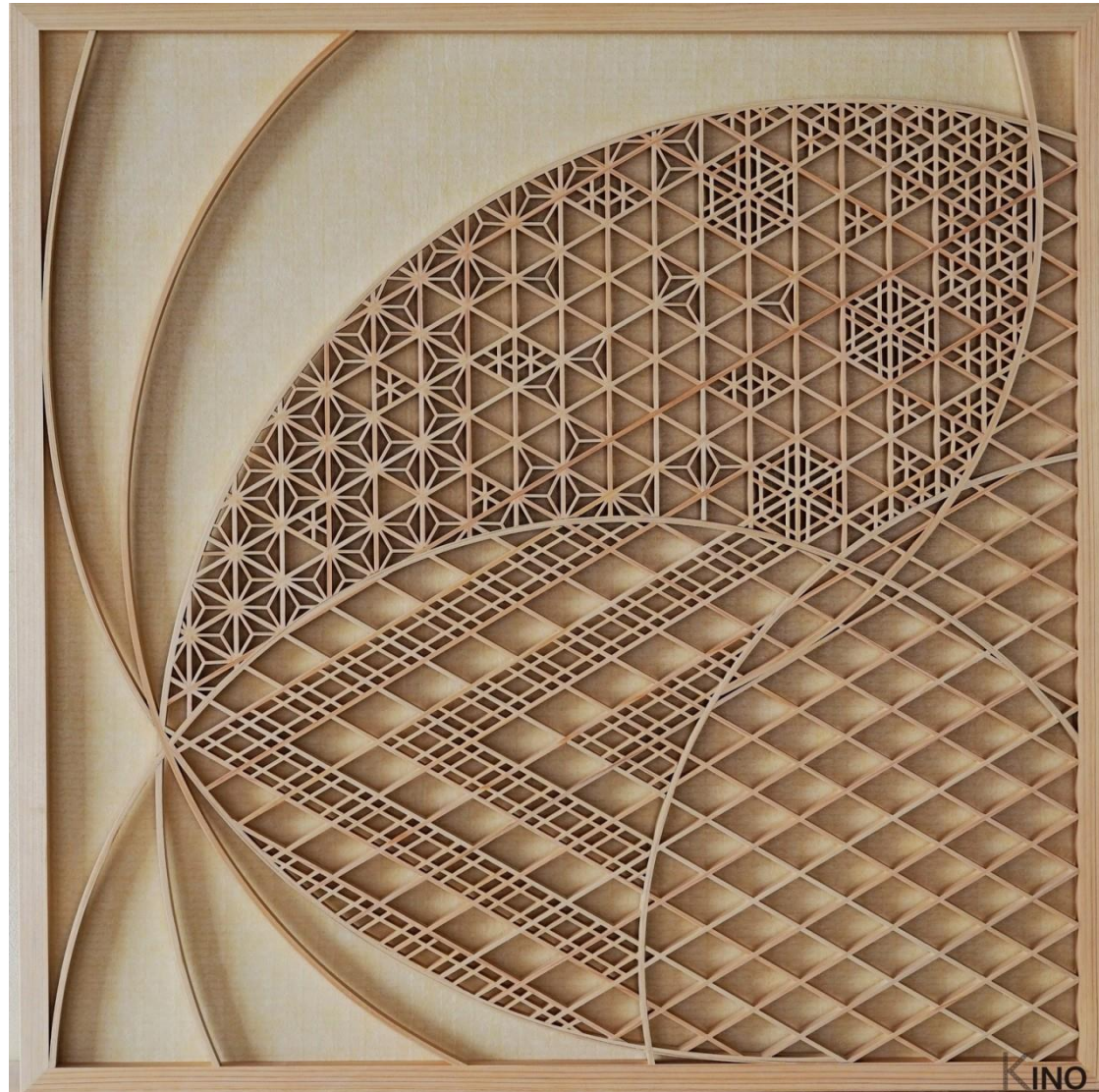


Interior-is

Sideboard by Degree

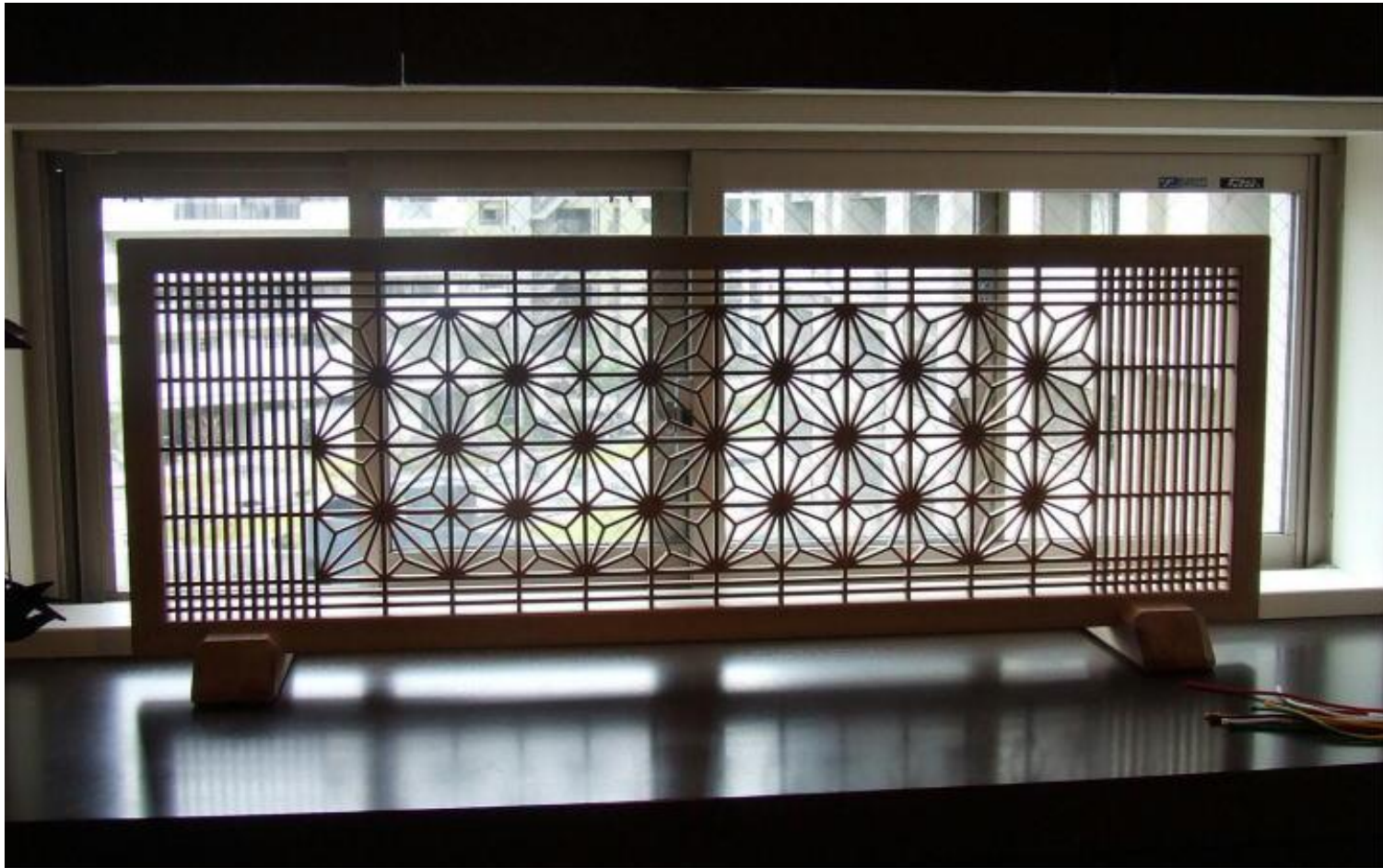


Kumiko art by Kino company



Kino company





By Tanaka



Tabletop screen 320 x 200 mm. Queensland maple and Huon pine.



Coasters by Des King



Tea box by Dick Harbert

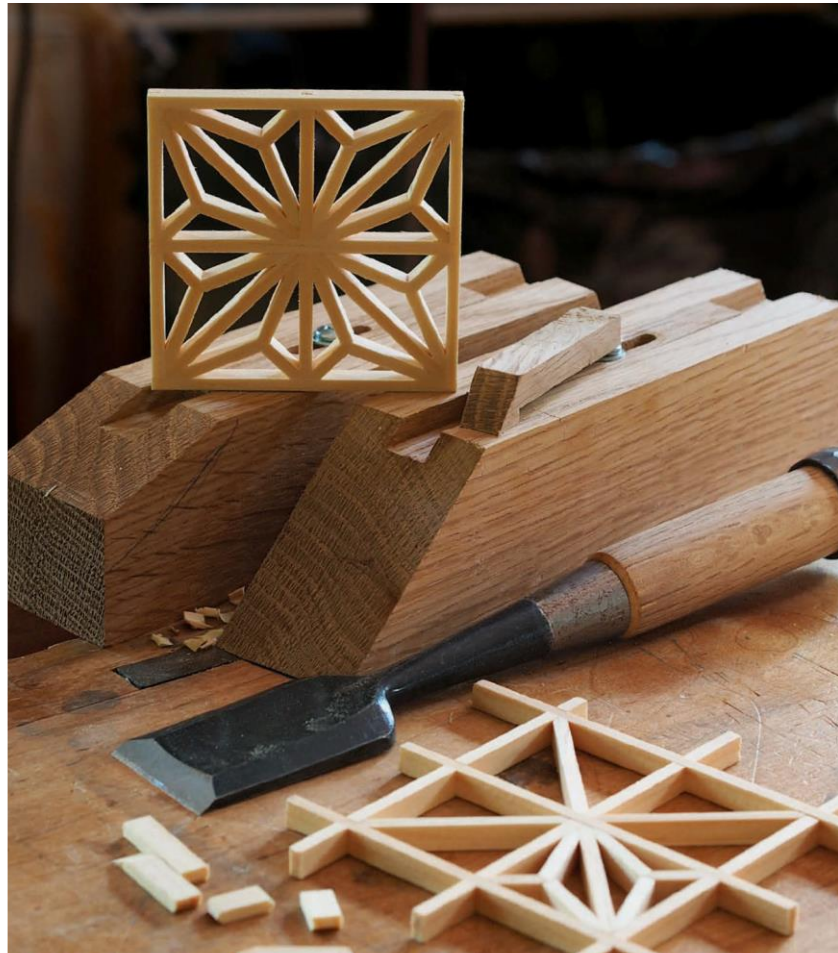


Making kumiko projects: Asanoha pattern



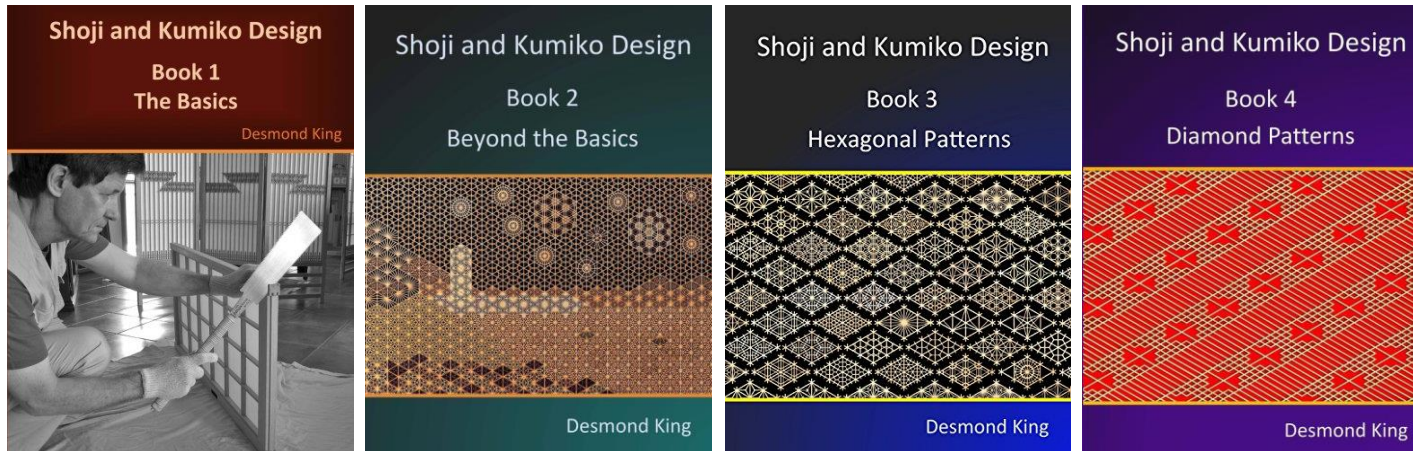
Display panel by Ruth Warbington

Many of the works shown earlier use the Asanoha, or hemp leaf, pattern
It is one of the easier patterns and a great place to start your own project



"Spice up your work with kumiko" Mike Pekovich Fine Woodworking Jan/Feb 2017

Mike Pekovich, Des King, Matt Kenney, Mike Farrington, William Ng and others have posted free how-to videos. Des King has four books on shoji and many, many kumiko patterns



Matt Kenney has a book



I thought it would be fun to try and some of the Women's SIG were interested too
After a prototype set of bevel jigs and a first project I made another 14 sets of jigs



Jigs and kumiko ready for Women's SIG use

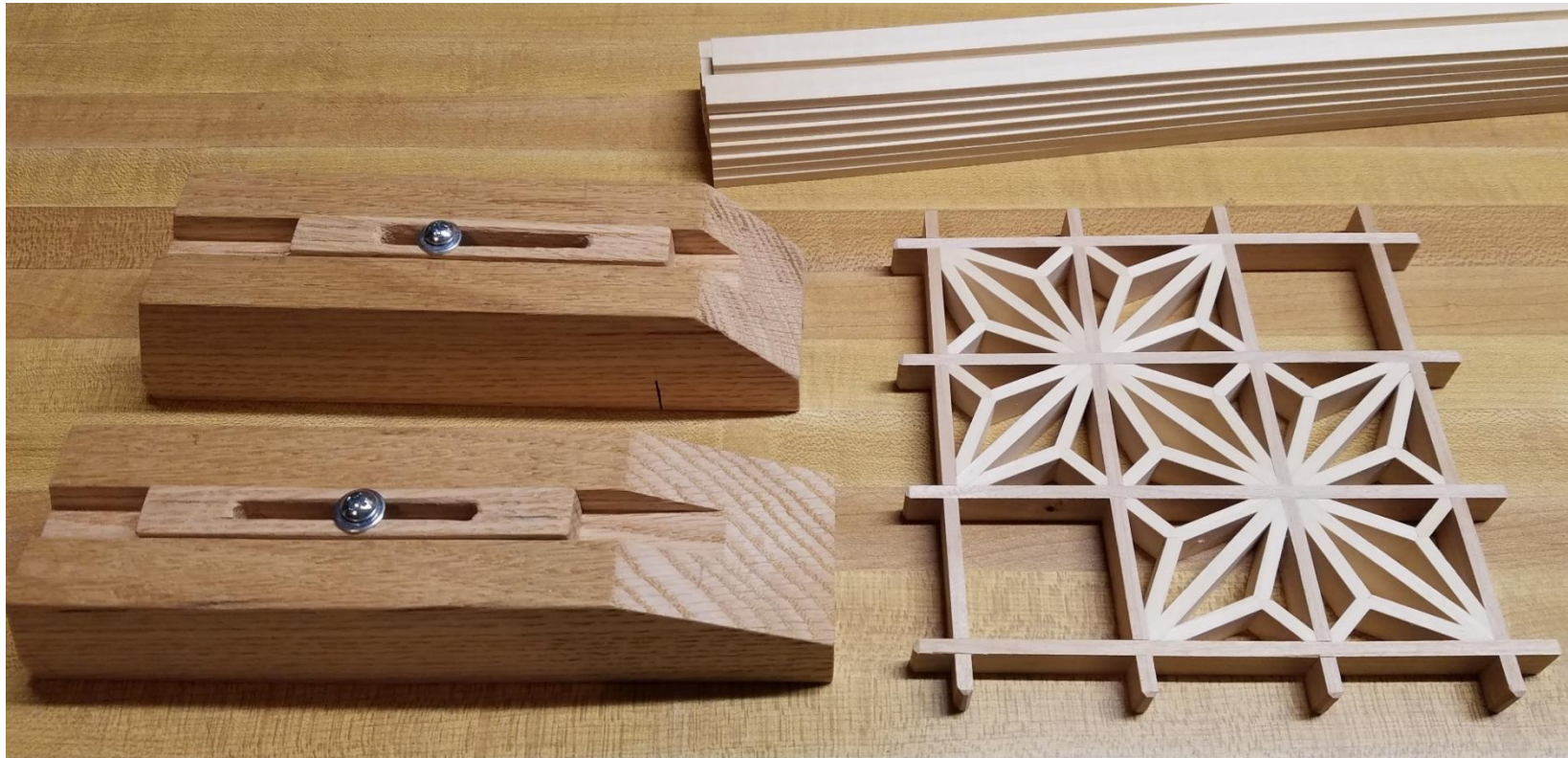


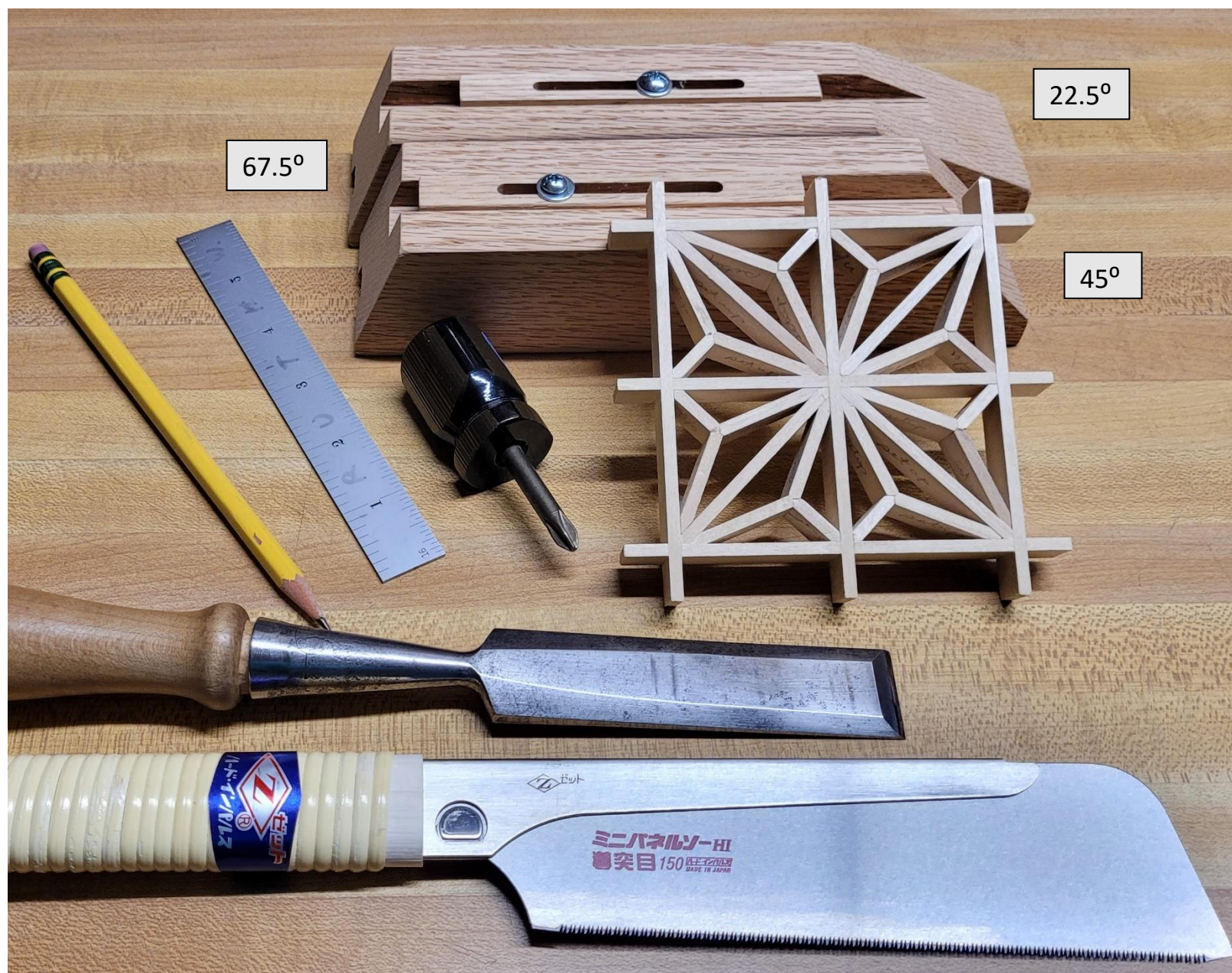
My grid size and kumiko dimensions followed Des King projects:

Pitch of 45mm, kumiko 1/8" by 1/2"

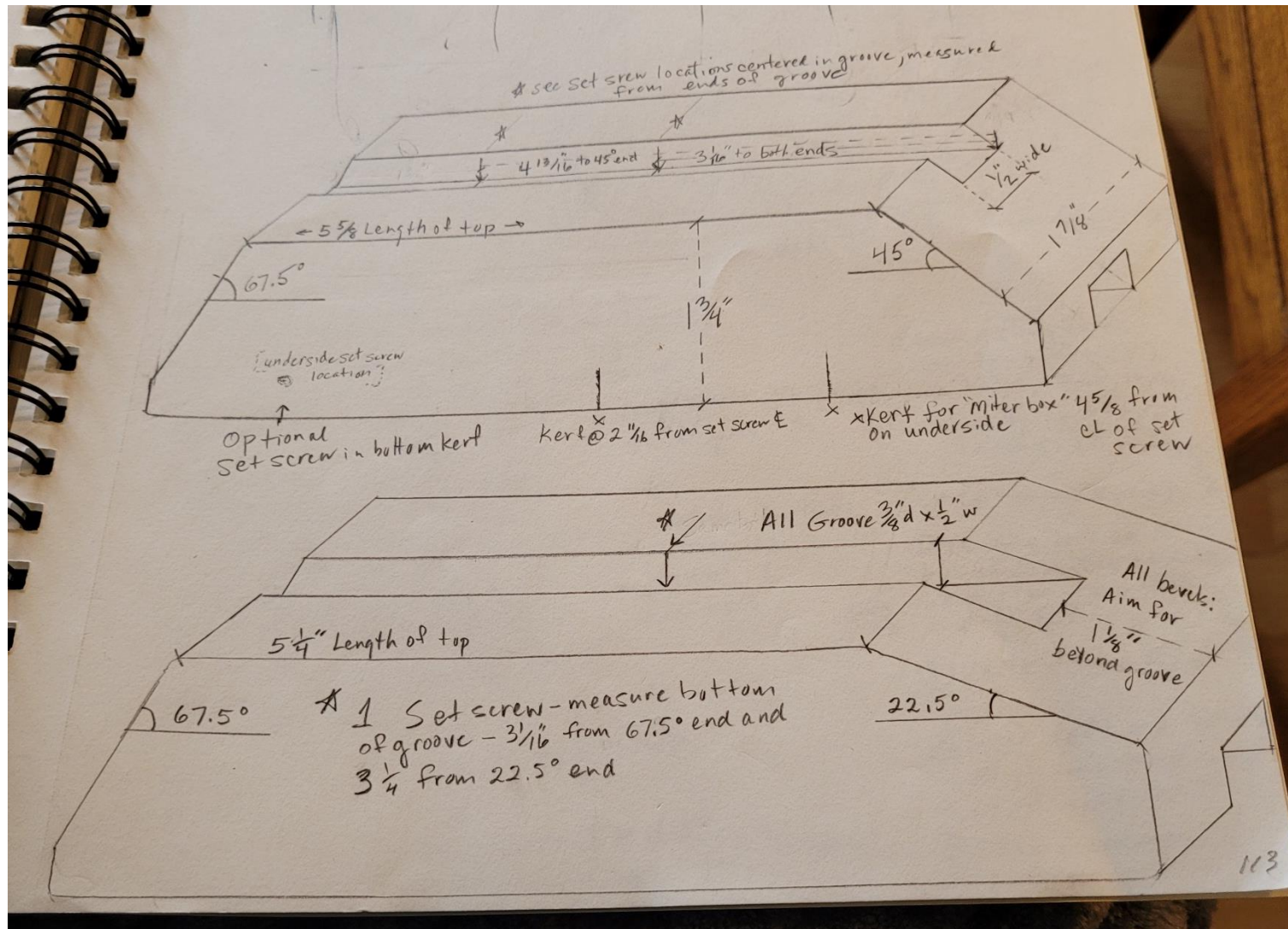
Basswood is a great material for kumiko with its pale, even color

It machines well and is easy to work with hand saw and chisel





Bevel angles are relative to horizontal

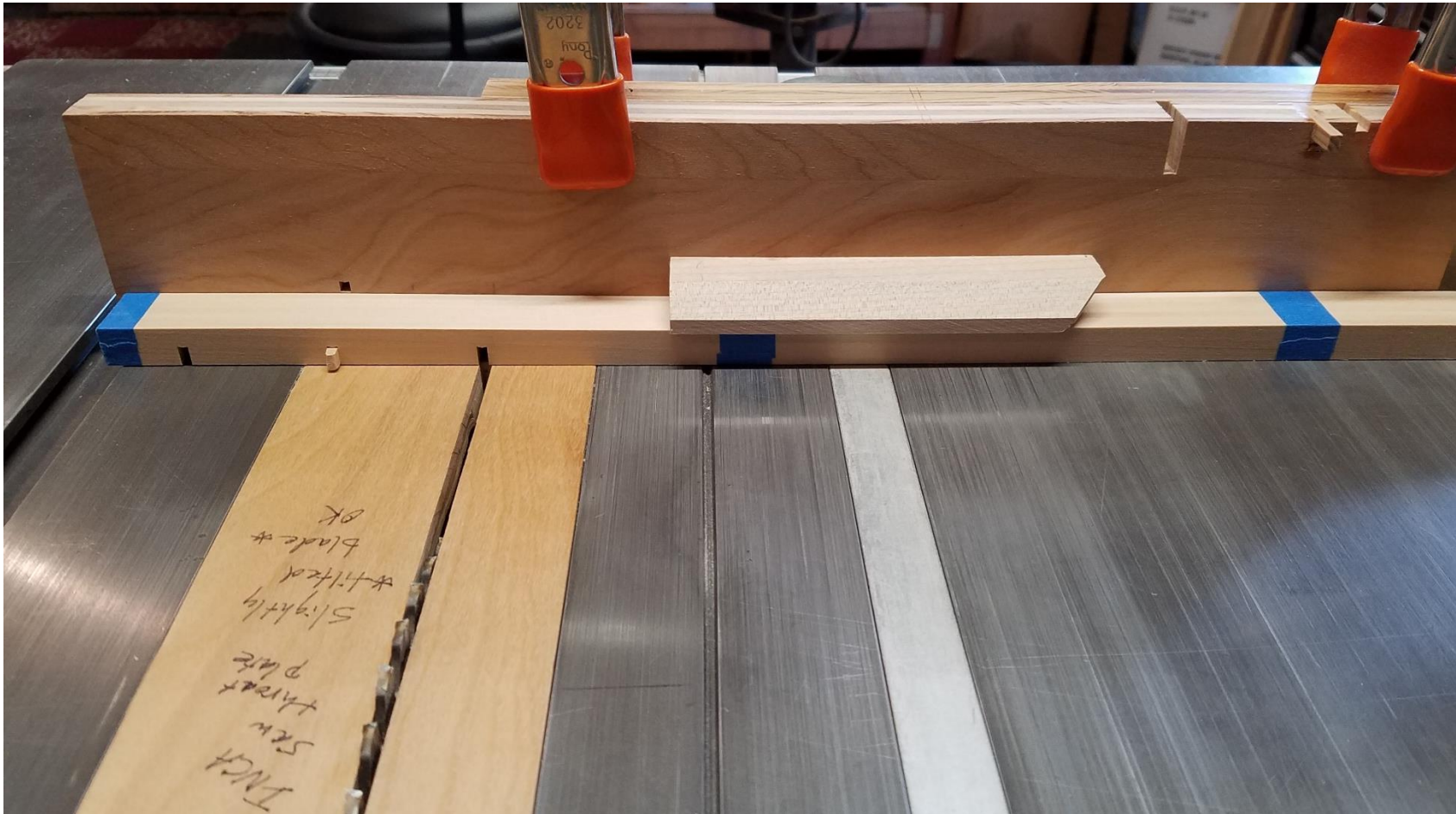


The first project step is gluing the grid, or lattice-work
Half-lap joints must be snug so the grid stays square



The kerf width of the table saw blade determines the final dimension of the kumiko,
which is milled carefully to the exact thickness (usu. 1/8")

The half-lap notches are cut on the table saw similar to a box joint,
Indexing each previous cut on the piece of kumiko in the fence



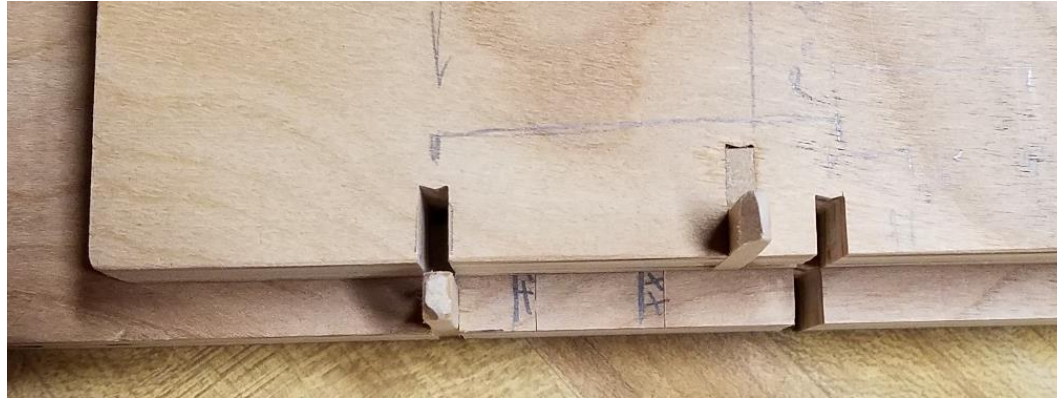
The grid work can be designed with borders



The design requires a second fence indexed to the first fence



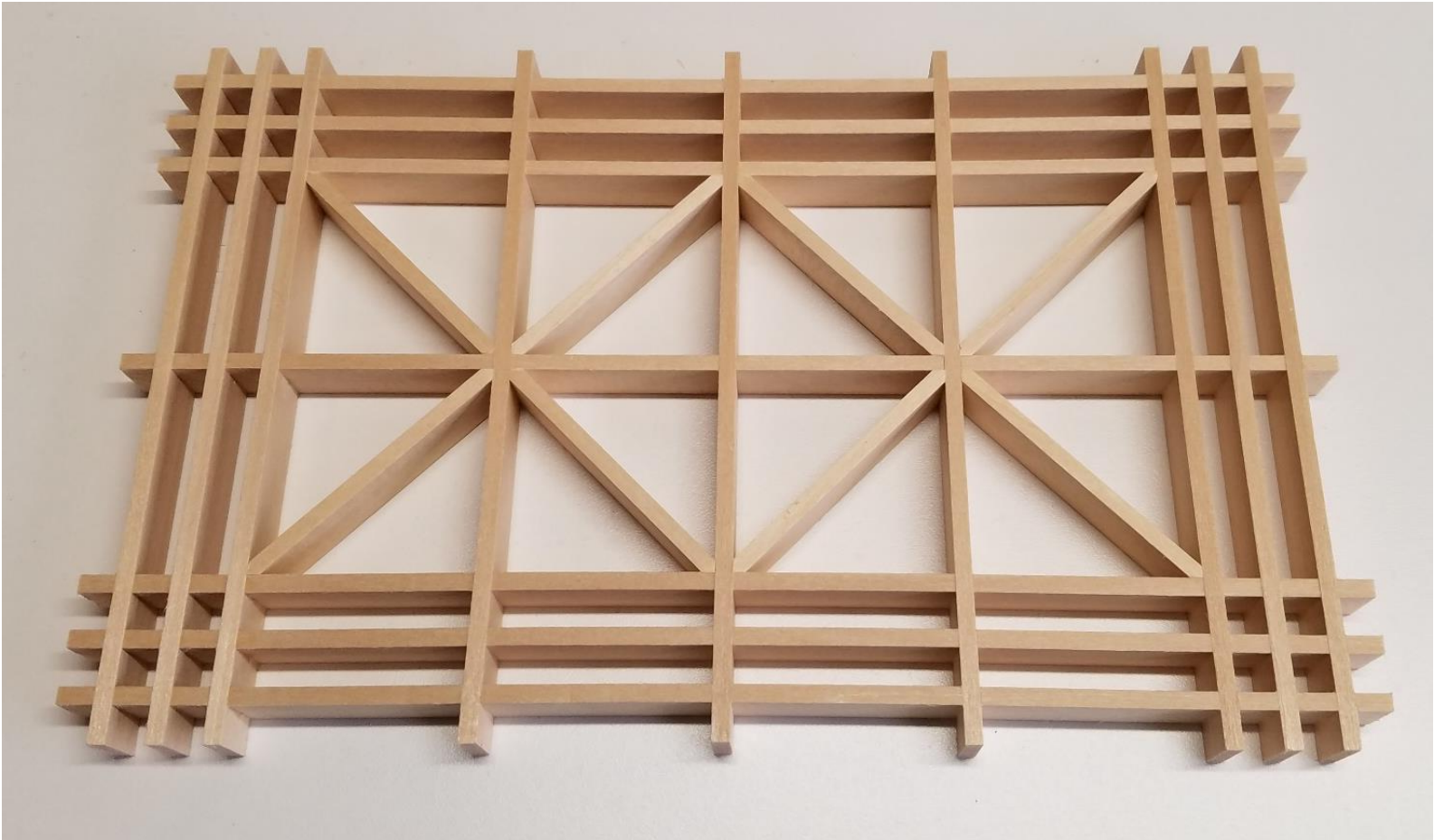
The second fence has smaller space between its registration key and the saw blade



The second fence is added and removed as needed to space the kerfs



Diagonals are installed first
Not so tight that the grid is distorted
Glue is optional

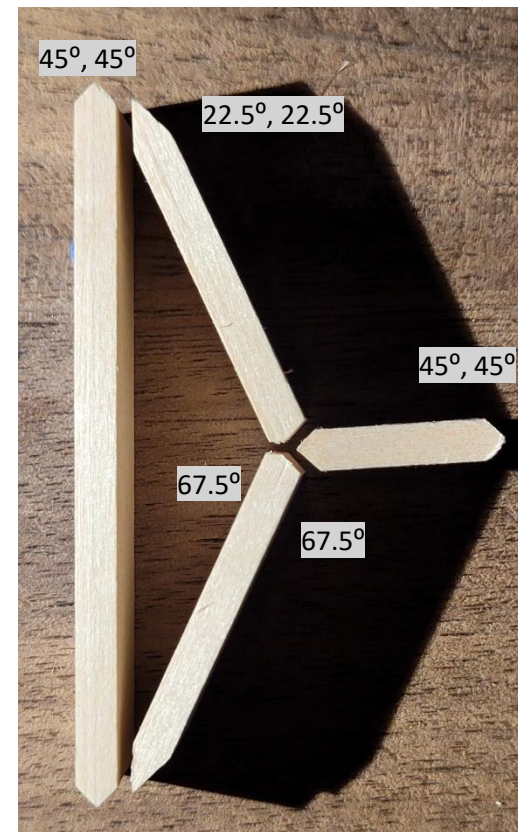
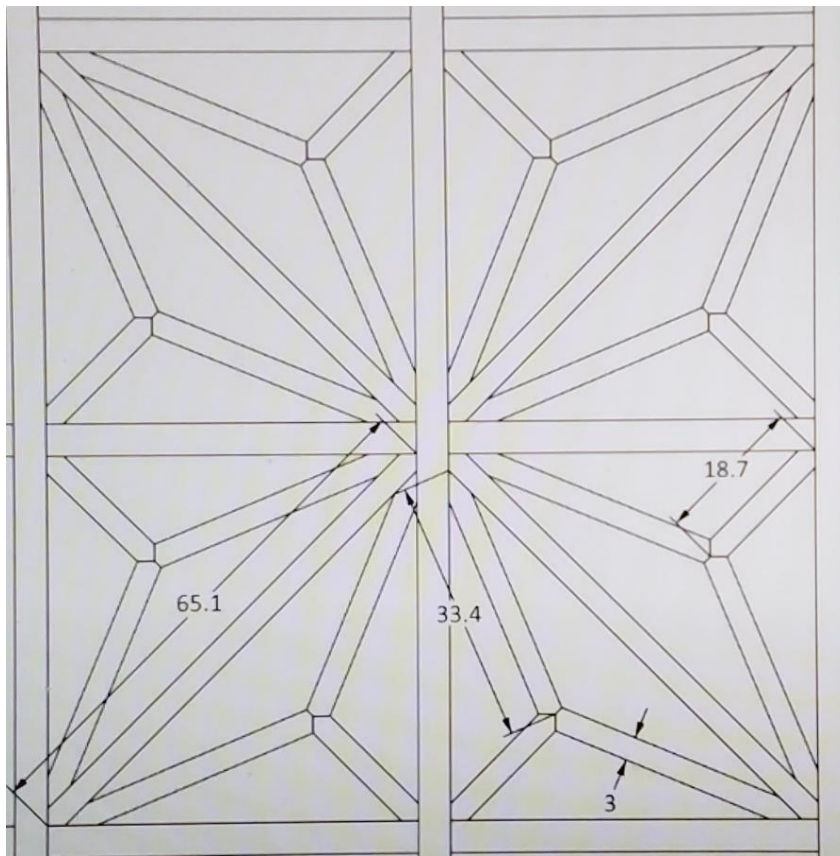


Three types of infill pieces

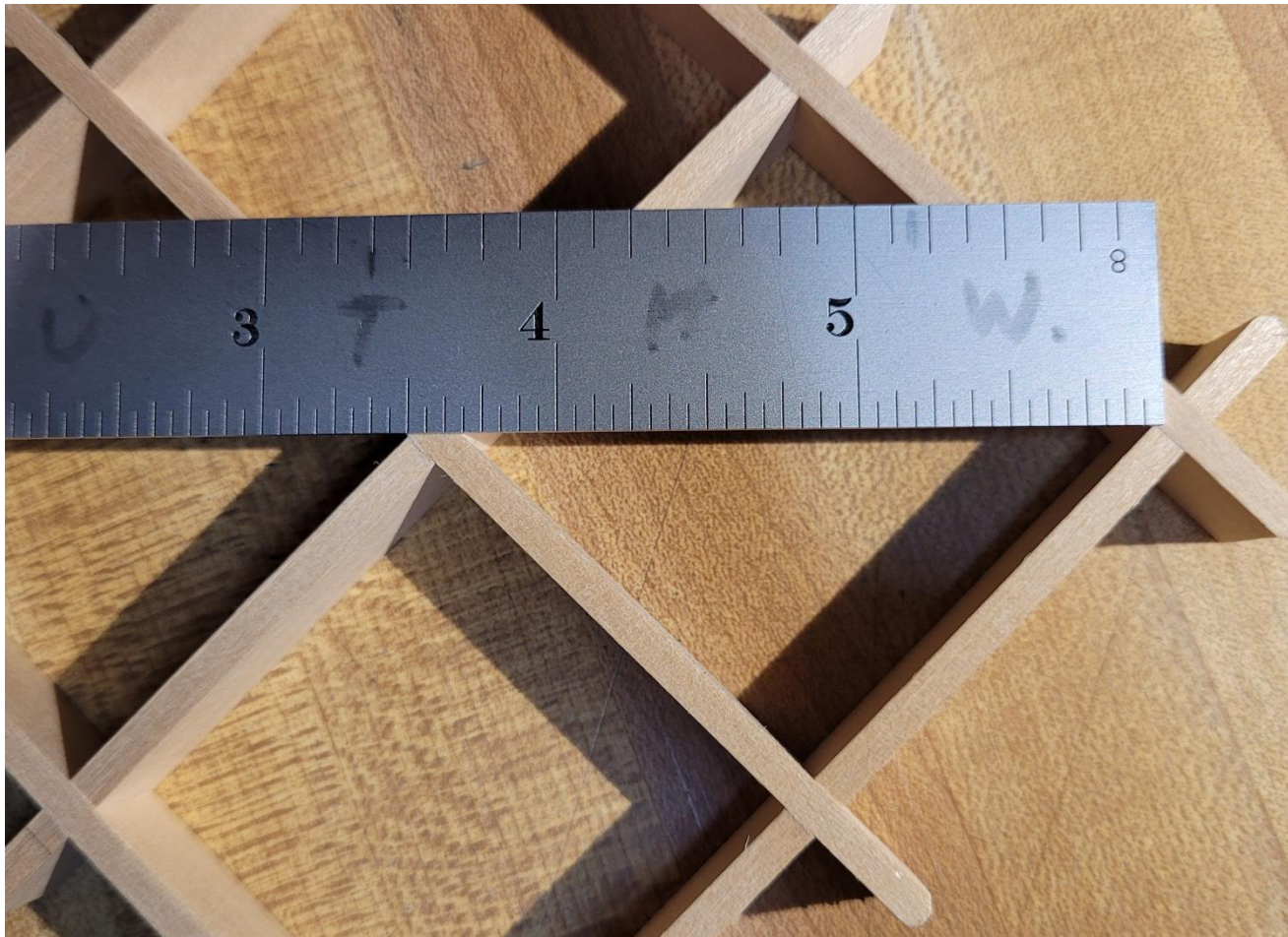
Diagonals - shave four 45° angles

Hinges - one end has two 22.5° , the other end two 67.5° bevels

Locking piece or key - four 45° 's like the diagonal



Determine the rough length for the diagonals by measuring and adding $1/8''$



Use the miter box on underside of bevel jig to saw kumiko to rough length

Use a finished piece to set a stop so pieces are $\frac{3}{32}$ " too long



A Japanese pull saw is easy to use



To shave the first bevels on a rough piece use the set up piece to set the stop over long



Shaving - the bevel jig is held in a vise, the kumiko held tightly in place, the chisel registering on the angled surface, taking tiny shavings



Careful shaving yields tight joints without gaps

The piece must not twist or slip in the jig

Bevels meet mid-thickness or are off-set as needed



The bevel face should be rectangular not narrower at one end



Bevel pairs come to a clean point



The hinge pieces are after the diagonals

They get 22.5° angles on one end and meet each other with 67.5° degree angles



The notch which receives the locking piece is a wider 67.5° bevel

A second jig (with the stop set for a slightly shorter piece) cuts the second 67.5° bevel



The hinge pieces will hold together even without the key in place

The locking piece is carefully pushed or tapped in



Two bevel jigs and a 1-inch chisel cut appropriate end angles on the pattern pieces



Lastly, the surface is sanded with a block and fine paper to remove fuzzies



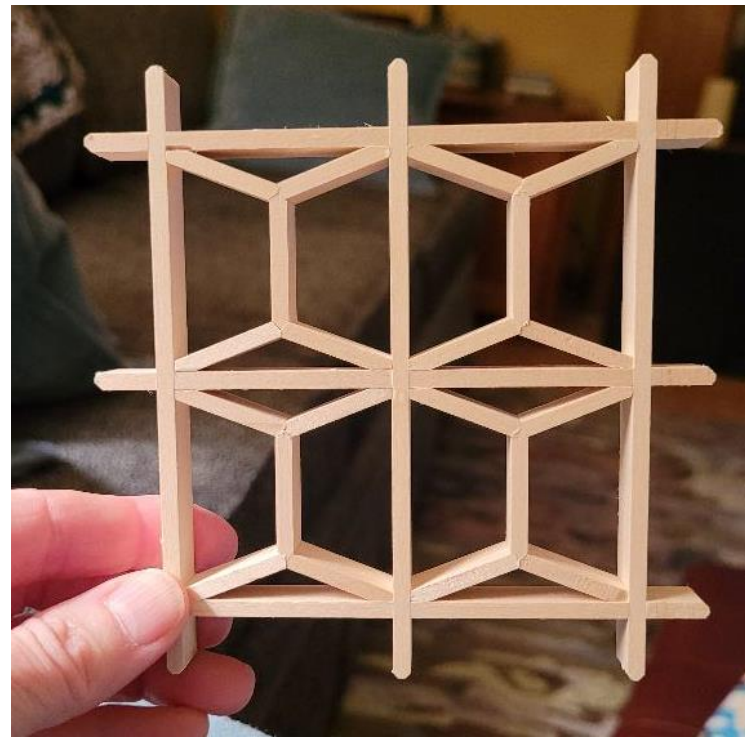
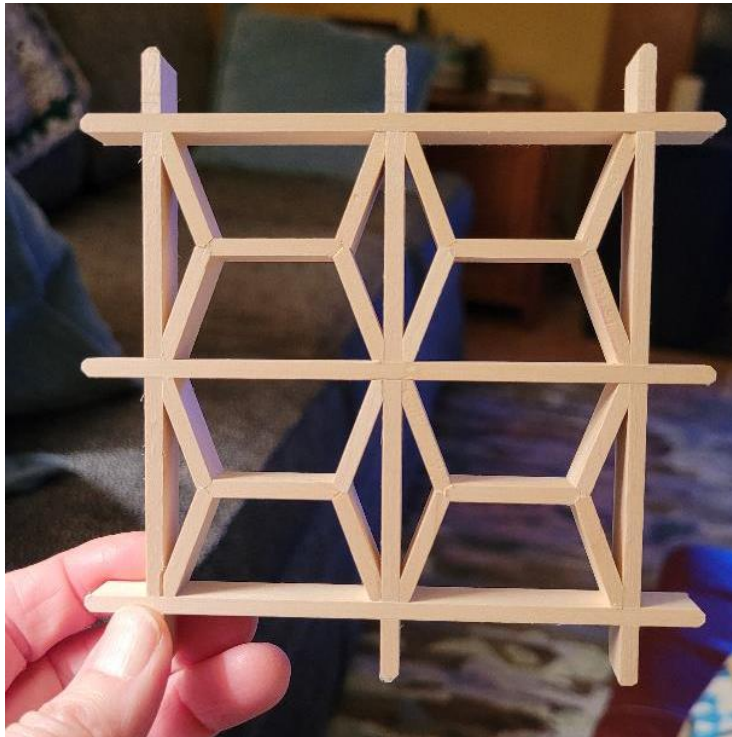
The end pieces may be sawed off and the piece framed



Kikko-nishiki

Kikko means turtle, nishiki means brocade. This could surround an Asanoha group.

It uses the same bevel jigs. It's really tricky to assemble.



There are many more patterns and projects to try

Hexagonal Kumiko Patterns

Click on the images below for information on that group of kumiko patterns.



General information



Asa-no-ha and variations



Sakura and variations



Goma-gara



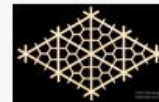
Kuruma-kikkō
Kikkō and variations



Yuki-gata kikkō
Kaza-guruma



Dahlia
Rindō



Tawara kikkō
Miscellaneous *kikkō*



Benten variations
Komachi variations

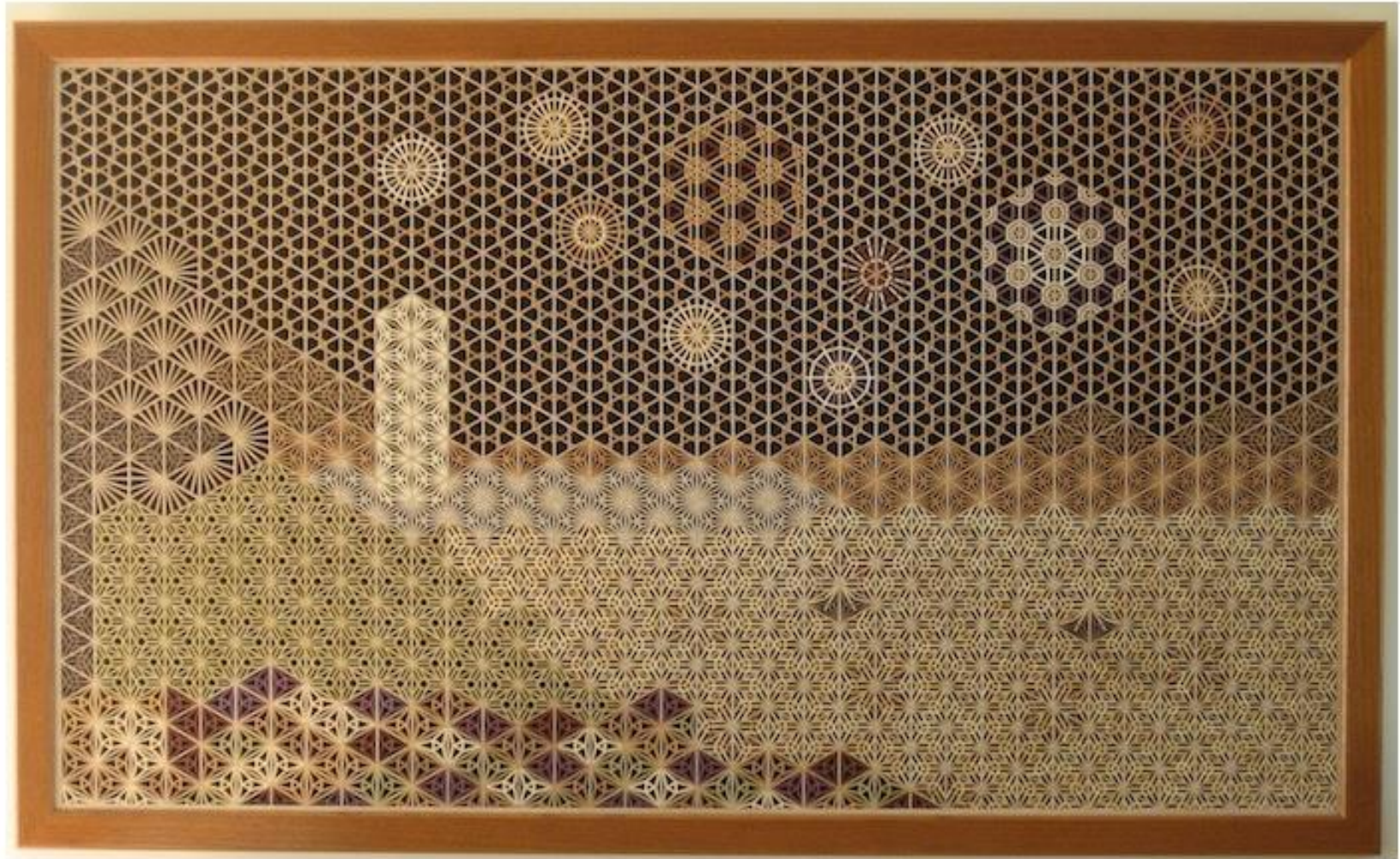


Karahana variations
Urahana variations



Ryūsō variations

Inspiration from Des King



HANABI comprises more than 10,000 pieces. I have used eight separate patterns and thirteen different wood varieties. All colours are the natural colours of the timber.



Coasting into kumiko

Build a coaster in 4 hours

Kumiko, jigs, and tools provided

Bring patience and attention to detail



Resources

Websites: kskdesign.com.au (**Des King**), pekovichwoodworks.com/howto, mekwoodworks.com/blog (**Matt Kenney**), BigSandWoodworking.com

Youtube: **Kskdesign** (**Des King**), **Pekovichwoodworks**, **Mike Farrington**, **Mayer Woodworks**, **Wood Art Studio** (**Taeho Kwon's kumiko club**), **Bike City Woodworks**

Instagram: **Desking01**, **mekwoodworks** (**Matt Kenney**)

Articles/videos:

Google: fine woodworking magazine kumiko

Google: youtube japanese arts kumiko (for **WOW** video of kumiko build)