

# Japanese Workbench

The Japanese Work Bench

By Mark McAllister

I discovered Japanese carpentry over ten years ago, through my love of martial arts. Like so many things learned about in life, I discovered Japanese carpentry from a place of necessity. My family had recently moved, and I needed a new work bench, but didn't have the money or desire to purchase a new one from Lee Valley. Having a workbench that I could take with me when my family moved became paramount. One day, I was scratching my head in my new shop space and I thought, "there has to be a better way to make a work bench... right? What did people do before the industrial revolution? People had to be self-sufficient, living off a DIY, can-do attitude, right... so how DID they make a work bench..."

That's when I remembered something one of my Japanese Sensei had said to me. "My ancestors didn't invent anything, but the Japanese do improve upon things, culminating in perfection." That statement got me thinking... "now how DID the Japanese work on wood before the invention of power tools?" I knew about the Roman soldiers' "portable" work bench. It was carried on the back of a wagon. That didn't sound very simple or portable enough for me given I was fresh out of Draft Houses and a wagon.

A quick search of "Japanese woodworking" on Google changed my life! Turns out, the Japanese used a work bench that was VERY portable, breaking down into individual pieces that fit together like my kids' Lego toys... and all without glue! Their work benches consisted of two sawhorses (see picture) and a single large slab of wood that rested on top... acting as... you guess it... the top. I was hooked! Through the discovery of their work benches, I also learned about Japanese wood joints. I discovered very quickly that, like martial arts, perfection with non-powered hand tools only comes through thousands of repetitions. My joints had tear out, and my cuts were crooked. Through trial and error, self-analysis, a lot of study and practice; today, I can make a "B+" Mortise & Tenon. I'm not kidding myself though... without the direct tutelage of a Japanese Carpenter, I don't think I'll ever achieve their level of quality.

Making my first Japanese work bench led me to the discovery of a whole world of new techniques. I discovered that, unlike a Roubo bench, Japanese benches are VERY low to the ground. Why? A Roubo workbench required standing at the table. Most North Americans are used to woodworking this way... and some... including myself, considered such requirements as manly. So, what were the Japanese doing? How did they hold wood steady on the bench when it was so low to the floor? Well, turns out, the Japanese had a brilliant and stupefying answer to this question. They SAT on the wood and bench when cutting it! At the time of first learning this, I remember thinking "You can do

that? Why didn't I think of that?" It's so simple an idea that even a child might have stumbled upon this technique on their own! Over the course of time, I've learned that a simple Pipe Clamp works just as well as any fancy tail vice, or 200lb corpse like mine to sit on a project. This discovery led to my next question. "So how did they plane a plank of wood?" My posterior got in the way of planing the entire length of wood. Well, the Japanese carpenter had a thoughtful solution to this problem as well. They inlaid a piece of wood into the bench, which sat a quarter inch proud of the rest of the tabletop. This was their version of a workbench "Dog".

Through making a Japanese work bench, I have discovered that modern power tools aren't the invention of anything new that wasn't already made several thousand years ago. The Greeks used metal lyths to construct computers that tracked the stars. A Stanly Universal Plane can cut as fancy a trim as any expensive router bit. The Welsh have used a foot/tree powered leth since before the time of Christ. The Japanese can plane a piece of lumber that has shavings measured in microns! Power tools take the brutal labor out of rip-cutting a slab of wood. Power tools cut down time, and lower the cost of making things. These are all wonderful advantages, especially for those of us like myself with physical deficits. But the use of power tools could never teach me the things I have learned from constructing a Japanese work bench with just hand-saws and chisels.

The more I studied the Japanese work bench; the

more I began to understand the mind of the Japanese carpenter. They all had one thought running through their minds... "Why use many tools, when one tool can do many things." My hero, Doctor Nitobe Inazo, once said that the Japanese mind was understood in the following statement... "If there is anything to do, there is certainly a best way to do it. The best way, is going to be the most graceful and economical." The Japanese work bench is a living example of this maxim... dirt cheap to make and deviously elegant in design and use!

It was perfect, and love at first sight, exactly what I needed in my situation! In the last ten years, I have learned that Japanese joinery, like martial arts technique, must be practiced, to become effortless. In that time, I have made and given away several benches. I wouldn't trade my experiences in learning these skills for anything. The crazier the world gets with new technologies, or situations like this pandemic, the more comfort I take in time-honored traditions that have not changed in over a millennia. Learning old skills teaches me more about myself than any fancy new power tool ever could. Time spent in the shop, practicing these techniques, gives me insight, like a time machine, into the minds of these men from our past.

My latest workbench, which I just finished this week, was made using dried wood from several species of trees that had fallen over at my workplace during a wind storm. I let the wood dry for six months (checking the moisture

content every month or so) until it reached 6%. Most of the bench is made of Mortis & Tenon joints. Two of the joints require keys that lock the legs together and prevent the bench from rocking. Over the years, I've learned that the heavier the wood I use for the bench, the better and more stable the bench becomes. The Japanese traditionally used whatever "off cuts" they had lying around, to make these benches... and that's the spirit I recommend constructing them in. BUT – and for some strange reason, I have NEVER read the following information in any book or article about these benches – nobody has ever explicitly said that the benches work best with the heaviest wood possible! This is key to a successful bench! My first bench was made from Sika. Sika is a very light wood and makes for a very unstable work Bench. I would recommend constructing a bench weighing at least 40 to 50 pounds. I've discovered that no amount of Sika will stabilize the bench from rocking!

These benches are fun to make because they can be customized to whatever dimensions you like, or according to the wood you have available. I find the more expensive and "nice" something is, the less I want to use it... due to the fear of me damaging it. These benches avoid this issue altogether because of the "shabby" materials they're made from. Besides, if you don't like a flaw in a piece of the bench, it can be easily replaced with a new section of wood! There are plenty of free plans available on Google for you to choose from. A traditional Japanese way to decide on how tall the bench should be, is to use the measurement

from the floor to your knuckles, resting at the side of your body... making for a perfect fit to your size requirements. I hope you enjoyed the article and have even more fun with the project!