

Makiwara Training

by Lawrence Kane

Disclaimer: Makiwara training can be dangerous if undertaken incorrectly. Use only a properly built makiwara, performing all techniques under the guidance and supervision of a qualified instructor.

"Makiwara training is essential because it develops your technique, your kime (focus). Through diligent practice on the makiwara you will learn how to transmit your full bodily force at the exact moment of impact, from your hand, into an object. Another important benefit is that such practice will forge a strong spirit." - Morio Higaonna, Hanshi

The only time I've ever been sucker-punched was at a college fraternity party more than 20 years ago. The person who hit me was a 22-year-old, 310-pound Samoan football player, a guy twice my weight and strong as an ox. Although his blow caught me along the side of my jaw, knocking me to the ground, I was back on my feet doing my best Bruce Lee imitation seconds later.

While I ultimately lost the fight, I received no serious injuries beyond a sore jaw and a bloody nose. My opponent, who barely flinched under my best shot, wasn't seriously injured either. The two of us thumping on each other to no effect was actually kind of funny in retrospect. By the time the altercation was over we held a grudging respect for each other's ability to take a punch and even became friends after a fashion later on. We did not realize it at that time, but despite his strength and my agility neither of us could throw a decent punch.



The hardest I've ever been hit, on the other hand, was last year in a karate class by a 57-year-old, 165-pound Japanese Naha-te practitioner. He nearly broke my leg blocking my kick with his arm. The sad fact is that he was demonstrating a kata bunkai (fighting application) at the time and intentionally pulled his blow, yet I had to hobble around without putting my full weight on my right leg for a couple of days afterward. The bruises lasted over a month.

The important lesson from this experience is that size and strength alone mean little in a fight if you do not know how to punch or kick correctly. While fighters who rely on external power become weaker as they age, martial artists who utilize internal power and focused technique become stronger as they gain more knowledge and skill. With superior technique, age matters not.

While the football player used his enormous arm strength to thump me, his "push punch" did little more than knock me down, even though he hit me numerous times. The karate master, on the other hand, used superior technique to create shock, transmitting the full weight of his body and all his energy with his blow. One punch from him was more effective than a dozen from a younger, stronger man. And he wasn't even trying to hit hard! This is a good example of the Japanese concept of ikken hissatsu which, roughly translated, means "one blow, one kill," the ability to deliver fight-ending power with every punch.

Ikken Hissatsu (one blow, one kill)

As most practitioners realize, the traditional martial arts were developed long before the advent of modern medicine. In those days almost any damage suffered in a fight could ultimately prove fatal via incapacitation, infection, or other collateral impact. Since the shorter duration of the fight the less likelihood of injury to the

practitioner, the ancient masters who developed these arts were very concerned about ending fights quickly and decisively. If they could end a confrontation with a single blow so much the better.

Even today, if you lose a fight on the street there is no guarantee that you will walk away without permanent injury, or that you will even walk away at all. If you are lucky you might get to resolve your differences over a beer and a game of pool afterward as I did with the football player at the frat party. If you are unlucky, on the other hand, your adversary may not stop once he or she has beaten you down, continuing to attack until you are in a coma or worse. Even if the bad guy lets you live, you may still be raped, robbed, or violated in various other unpleasant ways before he finishes with you.

If you face off against a skilled attacker such as an experienced street brawler, boxer, or even a fellow martial artist, your opportunities to successfully land a blow during a real fight are limited so you really need to make each one count. The first person who lands a solid blow to a vital area earns a huge advantage even if it doesn't end the fight right away. Defensive movements, techniques commonly thought of as "blocks," can also be fight ending or fight ameliorating if applied properly. At the stadium where I work security I have witnessed several instances where a skilled martial artist broke or dislocated his attacker's arm using a traditional block, ending the confrontation without the need to throw an offensive blow. The defensive movement not only finished the fight but also kept the practitioner out of jail.

Do you have the skill to generate power like that? Short of trying out your martial prowess in a street brawl there are several ways to find out. One method is to tape a couple of thick phone books together and have a partner hold them against his/her chest. Punch the phone books. If your partner feels a pushing sensation or surface pressure you are using external power and/or poor body alignment. Your kime (focus/penetration) is weak. If your partner feels shock deep within his/her chest, on the other hand, you are striking correctly.

A good karate punch delivered in the ikken hissatsu method should rock just about anyone's world, even through two large phone books. Using the whole body to focus internal power rather than "separating" the body in a manner that forces reliance on brute muscle strength is a key aspiration of many martial styles. These punches create instantaneous explosive force, delivering hydrostatic shock deep within the body that disrupts and devastates an adversary. Unfortunately, if you are anything like me, it takes years of diligent practice to get to the point of being able to do that, let alone to do it consistently.

So if ikken hissatsu is so important for real-life street survival, how do you train to develop it? The trick is to work on your kime or focus, delivering techniques with proper body alignment, quickness, and power such that you transmit the full force of your body and all your energy at the moment of impact. The time-honored means of perfecting this ability is through makiwara training.

What is a Makiwara?

Makiwara means "striking post." Maki means "to roll up" or "coil" while Wara translates to "straw." The traditional karate striking post was a board wrapped with a straw coil on one end and buried in the ground at the other, hence the name makiwara. For clarity, this is completely different than the rolled straw targets of the same name used by kyudo archers. For those of you who practice Korean martial arts the terminology used there is dallyon joo, which translates as "forging post." Dallyon joo is constructed in the same fashion and used in the same manner as a makiwara. There is no traditional Chinese equivalent though the muk yang jong (wooden dummy) plays much the same role in some types of kung fu training.

There are two major styles of makiwara-tachi (standing) and age (hanging). The tachi-makiwara is a standing post buried in the ground or affixed to a bracket on the floor. It is



most often made from a flat, flexible board though you may occasionally find one built from a split circular pole with a rubber pad set inside it and a straw wrap on the outside. Either way the top is padded, traditionally with rice straw though more often with leather or canvas and a thin layer of closed-cell foam today. The flat board version is only struck from the front while the thick pole can be attacked from all sides. The age-makiwara is a smaller padded board that is suspended from a rope similar to a boxer's speed bag. Age-makiwara are portable, though they are primarily used for kicks and elbow strikes.

You can occasionally find a box-like makiwara designed to be affixed to a wall too, though that style is not traditional and frequently damages the wall behind it when struck repeatedly with proper force. Another specialized form of makiwara is called a tou. It is a bundle of cane or bamboo stalks tied together with a straw rope which is used for nukite (finger strikes). Striking a regular makiwara with your finger tips is dangerous and should not be done.

Gichin Funakoshi, the founder of Shotokan karate, wrote, "The most popular way of training with the seiken (fore fist or traditional karate punch) is to make use of a makiwara, a thick post covered with rice straw. The makiwara also, incidentally, may be used in strengthening the shuto (sword hand), the elbows, and the knees. I think I am in no way exaggerating when I say that practice with the makiwara is the keystone in creating strong weapons."

Makiwara are not just for punching. They can be used to develop, refine, and practice te waza (hand techniques), ashi waza (leg techniques), uke waza (receiving or blocking techniques), tanren (conditioning exercises), kime (focus/penetration), dachi (stances), and tae sabaki waza (moving/shifting techniques).

While the goal of this article is to discuss open-hand techniques, practitioners of kobudo and iaido also use makiwara for weapons forms, practicing kihon waza (basic techniques), maae (proper distance), chikara (power), and kime (penetration) with wooden instruments (it is not practicable to use a makiwara with metal weapons as either the weapon or post tends to be destroyed rather quickly). Weapons forms are often performed on a pole-style tachi-makiwara while open hand techniques are typically performed on a flat board-style tachi-makiwara.

Is it Safe to Use a Makiwara?

With prudent and proper training, the makiwara is safe to use. Contrary to popular misconception, the main purpose of makiwara training is not to break down your hands and re-build them into lethal club-like weapons via micro-fractures in the knuckles. Few martial artists would willingly participate in an activity that was guaranteed to cause them lifelong challenges performing important tasks central to their existence like feeding themselves, tying their shoes, signing their name, or using their computer, yet you will find one or more makiwara in nearly every traditional dojo (training hall) throughout the world. Long-term training on the makiwara may produce unsightly keratinized skin but that is limited to natural padding from calluses. The underlying structure of the hand is unaffected.

Regardless of whether or not you are a martial artist, most people have at least a few calluses, developed as a natural defense against prolonged and repeated rubbing and/or pressure on the hands or feet. Many students, for example, develop a callus along the middle finger of their dominant hand from regular use of a pen or pencil. Similarly, stringed instrument musicians often develop calluses on their fingertips. This thickening of the skin protects the fingers, allowing extended play without discomfort. If a beginning player practices too long, however, a painful blister may form. It works the same way with makiwara training. If you overdo it early in your training you are bound to feel discomfort if not outright pain.

Several studies have been conducted to ascertain the safety of impact training in martial arts. In a 1985 British Journal of Sports Medicine report, for example, the study by A. C. Crosby concluded that "long term and routine practice of karate does not appear to predispose to early onset of osteoarthritis or tendonitis in the hands

of those studies." A 1970 report by H. J. Larose published in the journal *Medicine and Science in Sports* revealed a comparison of karate master Sosai Masutatsu (Mas) Oyama's hands which were x-rayed in 1955 and again in 1970. Although the founder of Kyokushinkai karate performed daily drills on the makiwara for fifteen years between examinations the report found that, "There was no evidence of any kind of degenerative disease of the bones or joints. The density and size of the bones and joints were normal. There was no evidence of old fractures of any bone. There was no evidence of calcification (new bone formation) of the bones, joints, or soft-tissues."

Reviewing these studies and others, sports medicine guru Keith McCormack concluded that, "Using recognized toughening drills, appropriate to your level of training, correctly executed techniques will not cause damage to your hands." His conclusions were published in the December 1985 issue of *Fighting Arts International*. My personal experience and that of my instructors as well as my students concurs with his findings. Used properly and with good form, the makiwara is a safe and advantageous way to develop striking power in your martial training.

Safety Tips

Be sure that no pre-existing arthritic conditions, fractures, or other hand or foot injuries exist before training on the makiwara. If in doubt, check with your physician as well as your instructor.

- If you injure your knuckles-tearing, bruising, bleeding, or any other damage-stop training until you are fully healed. In most cases you may still strike the makiwara with uninjured parts of the hand or foot (e.g., palm heel, blade edge).
- Do not use the makiwara if you have an open wound. If anyone is cut and bleeds on the makiwara striking pad, clean the affected area with a mixture of bleach and water to reduce the possibility of blood-borne pathogen contamination. While HIV can only survive for a few seconds outside the body certain contagions such as hepatitis can even be transmitted via dried blood.
- Only train under proper supervision until you have developed a level of expertise that your sensei (instructor) feels is appropriate to warrant practice on your own.
- Exercise proper form when punching-keep your wrist straight, and do not lock your elbow at full extension. Proper body alignment not only increases the power of your technique but also protects against injury.
- Hit only with the appropriate portion of your hand or foot. When performing seiken tsuki (fore fist punch) or tate tsuki (standing punch), for example, connect with only your first two knuckles (~ 80% impact on the first knuckle). Wrist injuries or boxer's fractures (breaking the metacarpal along the top of the hand and/or breaking the knuckle of the little or ring finger) are likely to occur if you hit improperly.
- Do not perform nukite (finger strikes) or head butts on the makiwara. Either technique is likely to cause injury.
- Start with half-power blows, aiming at the surface of the board. Gradually increase the force you apply over time, shifting your aim further and further through the makiwara. Limit the number of punches you throw with each part of your hand (e.g., knuckles, palm, edge), especially in your first few training sessions.
- Do not let young children use the makiwara. A practitioner's hand should be fully developed before striking any solid surface. Depending on the individual, youths 16 years of age and older should be able to use the makiwara safely under proper supervision.

- Ensure that the makiwara is properly built and in good repair before striking it. There should be no splinters or cracks in the wood. It should retain sufficient flexibility to absorb blows and possess adequate padding. If in doubt, it is better to be too flexible than not flexible enough.

How Do You Use a Makiwara?

In 1908 Yasutsune (Anko) Itosu, considered by many to be the father of modern karate, wrote, "The hands and feet are important so they should be trained thoroughly on the makiwara. In doing so, drop your shoulders, open your lungs, take hold of your strength, grip the floor with your feet, and sink your intrinsic energy to your lower abdomen. Practice with each arm one or two hundred times each day."

The makiwara can be used to reinforce proper form and to perfect striking power. There are two primary ways to use a makiwara-slow work and impact work. Slow work is done to build form while impact work is done to perfect power. You can do both things simultaneously, of course, but it is a bit easier to explain and less difficult to practice when broken into component parts. Since form is a necessary precursor of power, we'll cover slow work first.

Slow Work

A traditional way of practicing proper form in the dojo is via sanchin shimé (testing of technique and power). The way it works is that students complete sanchin kata (a core form of many martial systems) while an instructor checks their concentration, body alignment, movement, breathing, and mechanics of their technique by giving pressure and striking various parts of the student's body. The teacher's slaps and pushes provide essential validation and reinforcement.

Shimé testing helps practitioners focus on parts of the body that are not actively being used so that they do not forget about them, facilitating a practitioner's ability to concentrate on his or her whole body simultaneously. These same principles can be applied using a makiwara in your solo training.

To test your stance you can press against the makiwara with your palm using the progressive resistance as the board bends to check the stability and alignment of your body. In sanchin dachi (hourglass stance), for example, force should travel through your arm and body downward into your back heel if you are standing properly. No matter how far you push the makiwara (and how hard it pushes back), your alignment should not waver. You can do the same thing with any stance.

Similarly, you can slowly deliver any type of punch, block, or kick and feel the effect of reverse pressure against your body, checking for stance, body alignment, and effective technique. Practice each technique slowly and smoothly, keeping the resistance from spoiling your form. Use abdominal breathing to help focus your power and keep your center of balance low, inhaling through the nose and exhaling through the mouth. Check your alignment both at the moment of impact as well as throughout your full natural extension.

Impact Work

While slow work develops proper alignment, impact work builds penetrating power. Proper kime requires coordination of mind, body, and breathing which is a lot more complicated than it sounds yet is easily facilitated via the makiwara. When struck with force, the makiwara provides positive reinforcement when you get it right and painful negative reinforcement when you get it wrong. You get kinesthetic, visual, and auditory feedback. When struck properly, you can feel the impact, see the board snap back, and hear an explosive cracking noise. This is not caused by the board breaking but rather by



it flexing with alacrity. If you strike it improperly, however, the board will bend back and make a dull thump or creak rather than snapping back with force. It may also hurt your fist and/or wrist to strike the makiwara improperly (a few improper blows will probably not cause any lasting injury yet pain does tend to facilitate rapid self-correction).

So if you can feel, see, and hear a good blow but are having difficulty executing one consistently, how do you get it right? Proper alignment is crucial, especially when punching something solid. Individual bones in the fingers and hand cannot withstand much force by themselves, but as a solid integrated unit they are very strong indeed. Start with a good, tight fist. Keep your elbow close to the body, aligning the knuckles and wrist. For a standard punch there should be a nice straight line of force starting at the point of impact on your first/second knuckle, traveling through your wrist, up your arm, through your shoulder, and into your body. Not only does striking with the first two knuckles help properly align the force and protect your hand, but it delivers force across a smaller surface area, hence striking with more penetrating power.

Relax the deltoid muscles in the shoulder, tightening the latissimus and pectoral muscles on impact for best speed and power with a standard punch. At the moment of impact everything should be locked down. Align your hand and wrist. To create a force path from your hand into your torso your shoulder should be low and relaxed, not raised or extended. With a proper stance and muscle tension, your upper and lower body should become one solid unit. If your body is not integrated you only hit with the power of your arm. When your spine is straight and your body is integrated, you hit with the power of your whole being. Do not fully extend and lock your arm, however, as you may damage your elbow joint. Tighten all the muscles in your arm but do not lock the elbow.

Fa jing means explosive or vibrating power. It is sort of like a sneeze, a sudden unexpected movement. Speed and relaxation are necessary to achieve fa jing, followed by an instant of tension at the moment of impact. All punches should be performed in this fashion. Once you progress past slow work, never "pull" your punch. If you wish to strike lightly aim for the front edge of the makiwara and punch with full power. If you wish to strike hard, aim through the makiwara and punch with full power as well. Your point of aim determines the level of impact.

Be sure to practice techniques from static stances as well as when moving toward and away from the makiwara from various angles. Being able to strike while moving is very important in a real fight. You must be able to deliver both offensive and defensive techniques while moving, shifting, and evading an adversary's blows. Try both ayumi ashi (stepping) and tsuri ashi (shifting) movements with each technique, ensuring that you end up in proper range and with good posture at the moment of impact. Work on disguising your weight shift then exploding into your target.

You never know which blow will ultimately connect in a street fight. Consequently you must be able to hit hard and make every blow count no matter what limb is used to deliver it. Morio Higaonna, the chief instructor of the International Okinawan Goju Ryu Karate-Do Federation, wrote, "If a right-handed student strikes the makiwara 100 times, he should try striking it 200 times with his left hand. Students should always practice two or three times more with their weaker and less developed parts of the body than with those parts which are already well developed." This is sound advice.

Training Tips

- Use a wide variety of techniques, not just seiken tsuki (fore fist) punches. Try tate tsuki (standing fist), shuto uchi (sword hand), shotei uchi (palm heel), tetsui uchi (hammerfist), uraken tsuki (backfist), koken tsuki (wrist strike), furi uchi (swing strike), hiji ate (elbow strike), hiza geri (knee strike), mae geri (front kick), yoko geri (side kick), and so on.

- Practice striking from a variety of stances such as sanchin dachi (hourglass stance), shiko dachi (sumo stance), zenkutsu dachi (front stance), and neko ashi dachi (cat stance). Use everything you find in your kata (formal exercises), working both from the static stances as well as while moving.
- Maintain your mental focus, performing each blow with perfect form. Ten techniques executed with all your skill are better than a hundred performed haphazardly. Not only are you more likely to become injured with sloppy form, but you will also be reinforcing poor technique. What you do in training will heavily influence what you will do on the street.
- Work both your strong side and your weak side. Unless you are ambidextrous it is a good idea to practice two to three times as many repetitions on your weak side as you do on your dominant side.
- Practice speed and form to create power, relaxing until the moment of impact then tensing the whole body. Pay attention to the sound the impact makes to reinforce proper technique. A solid, well-delivered blow will cause an explosive cracking noise while a brute force push punch will only make a dull thump.
- Be sure you stand close enough to the makiwara to strike it with good form from either hand. In proper range, your gyaku tsuki (reverse punch) should be able to bend the makiwara to maximum desired extension without the need to overextend or roll your shoulder forward. This emulates punching through an adversary rather than at him/her, reducing the likelihood of surface impact without true "killing" power. If you are too far away, power is dissipated at every point where your body is not properly connected such as what happens when you roll your shoulder or bend forward unnaturally.
- Do not telegraph your punches. Each blow should suddenly explode from chamber (or wherever your starting point is) into your target as fast as possible with no warning. Avoid cocking your arm back, taking a sudden breath, tensing your neck, shoulders, or arms, widening your eyes, grinning, grimacing, or making any other inappropriate movement before each blow. If there is a mirror available it will help you notice and eliminate these foibles.
- Strike directly at the target covering the shortest distance possible. Keep your elbow pointed downward and your arm as close to your side as possible (except for furi uchi and similar techniques). If you have any hip rotation it should be slightly up/down rather than side to side. While side-to-side hip rotation helps generate external power, it also forces you to realign your body for each follow-on punch. This not only increases the time it takes to strike the target but also telegraphs your blow. Internally powered punches move faster, strike harder, and do not require this extra movement.

Why Not Use a Modern Punching Bag for the Same Purpose?

While the makiwara and heavy bag can both help build stamina and endurance, the makiwara is structurally superior for traditional martial arts training. To begin, it offers progressive resistance like a bow. Unlike a heavy bag there is no softness or give at initial contact. The harder you strike against it, the harder it pushes back. This not only facilitates an ability to validate stance integrity and perform other slow work, but also provides superior kinesthetic, visual, and auditory feedback with impact training.

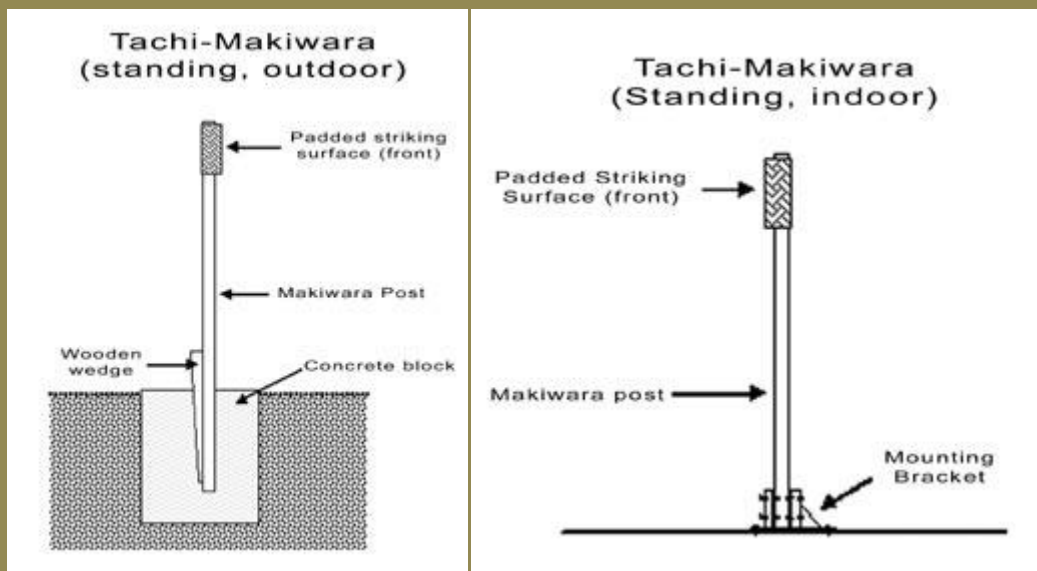
Soft punching bags are very good at cushioning your hand and limiting repetitive impact damage, yet they do not adequately simulate hitting a real target, often fomenting bad habits. Miscues that you may not even notice on a punching bag can easily lead to hospitalization on the street. Using bag gloves, taping your wrists, or relying on any other supportive device can exacerbate the problem. In a real fight you need to be able to strike properly with your naked fist, aligning the knuckles, wrist and arm so that you injure your adversary while not hurting yourself.

If you are going to use a punching bag, a Body Opponent Bag (BOB as it is commonly called) style is preferable to a traditional heavy bag since it provides solid resistance and more closely simulates striking an actual adversary. A makiwara, on the other hand, is cheaper to build and offers more flexibility and functionality for martial arts training. Like any other traditional tool, it would have been discarded long before now if it did not work effectively.

How Do You Build a Makiwara?

The makiwara needs to be flexible in order to operate properly. In general, it is better to be too flexible than not flexible enough. The flexibility of the board absorbs enough of the impact to eliminate the need for thick padding, so the covering of straw, leather, canvas, foam, or rubber protects the board almost as much as it protects the practitioner's hand. A properly designed tachi-makiwara should be roughly shoulder height as you take a fighting stance (e.g., sanchin dachi).

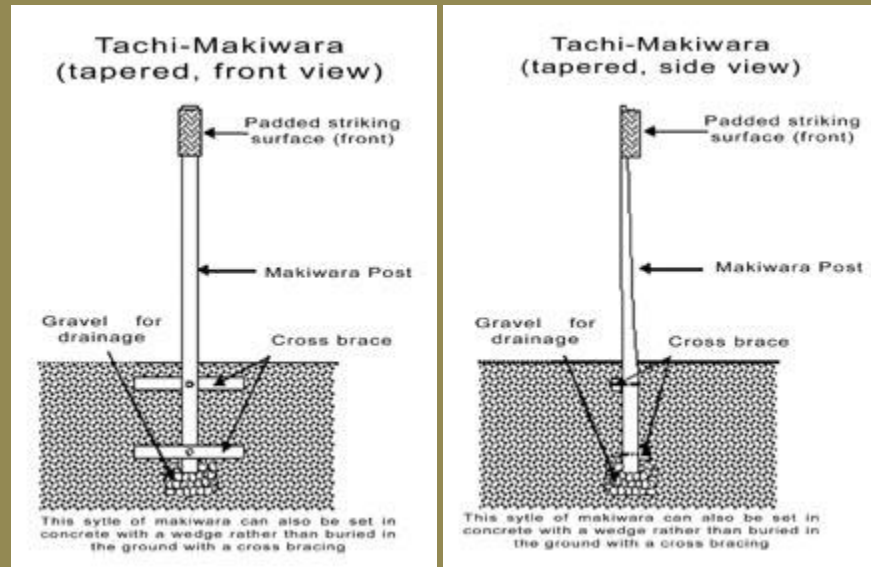
In Okinawa, makiwara are traditionally made of shijiya wood (a member of the Japanese beech wood family). Hinoki (Japanese cypress) and sigi (Japanese cedar) are also common. Ash, white oak, beech, cherry, hickory, and pine can also work well. Regardless of what wood you select, the board should be as knot-free as you can find with the grain running straight up and down to the extent possible. Quarter-sawn lumber works best where available because the grain will almost always be tight, straight, and parallel throughout the entire length of the board.



I like to use a 1' x 4' board with a simple leather wrap over the striking surface. Some folks start with a 4' x 4' board and plane it diagonally starting around 1/3 of the way up such that the base is square but the striking area is flat and only about 3/4" thick. It is common to affix a thick canvas/foam striking pad to this style of post. A stiffer board is required to support the weight of a heavy striking pad then is necessary with a thin wrap. If the board is too thin you get too much whipping motion from the extra weight at the top and not enough resistance for correct action. Whatever thickness you choose, there are two ways to secure the post at the bottom-bury it in the ground or affix it to a floor-mounted bracket.

If buried, an eight foot board is frequently used, with roughly four to five feet sticking out above the ground. I like to dig a hole in the ground, dump in some quick drying concrete, then place the makiwara post inside along with a secondary board behind it that is about a foot taller than the depth of the partially-filled hole. I then fill in the hole with concrete and hold everything in place while it begins to dry. After the concrete has set up but is

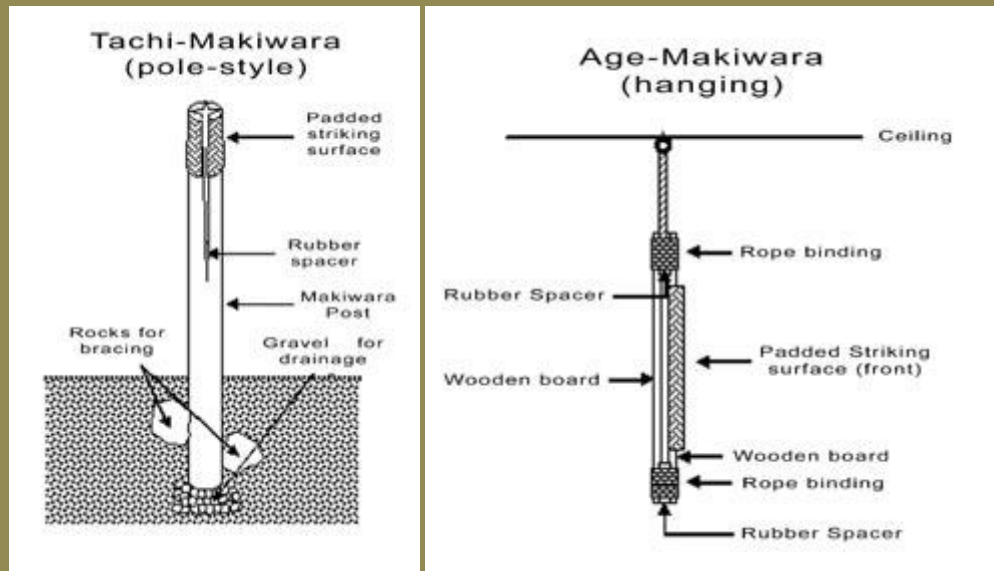
still green (not completely dry), I gently remove the shorter board. Once the concrete is completely dry, I reinsert a wedge-shaped board to hold the makiwara post firmly in place. The concrete encapsulates the buried portion of the board, protecting it from rotting and allowing it to last several years outdoors. If the makiwara breaks and needs to be replaced, I simply remove the wedge and drop in a new board without damaging the concrete base.



Alternately the makiwara post can be braced with cross-pieces or large rocks and buried directly in the ground. This is arguably more traditional but does not last as long as using a concrete base. Pour in some gravel before placing the board in the hole to facilitate proper drainage. Regardless of how you mount it, any wood used outdoors should be treated with a waterproofing stain or oil. Drop an empty bucket over the striking pad or cover it with plastic when not in use to help it last longer in inclement weather.

If you'd rather have your makiwara indoors you can build a wooden bracket or purchase a metal one to mount your makiwara post to the dojo floor. If you don't like putting holes in your floor, mount the bracket to a half sheet of plywood to create a portable stand. Your weight should be sufficient to keep the stand from moving around while you use the makiwara.

To make an age-makiwara, hold two boards together a rubber pad in between at each end, then wrap with a cord at both ends to secure everything in place. Wrap the outer board with straw rope or leather for striking then hang the resulting instrument from a ceiling beam or eyebolt. If you don't have a lot of room you may wish to affix a bungee cord to the bottom and secure it to the floor to keep it from swinging around too much during use.



Parting Thoughts

A common nickname for a makiwara is the "board of wisdom." This is because it provides immediate and accurate feedback with each blow, refining martial technique while forging a warrior spirit as you condition your hands and feet for combat. Makiwara training can strengthen your entire body, perfecting and aligning punches, kicks, blocks, stances, and even movement. It is an ideal way to learn how to strike effectively, delivering fight-stopping blows with focus, power, and penetration. With prudent and proper practice, the makiwara can become an essential component of your martial training regime.