Practicum In Forest Farming
Horticulture 426
Fall, 2008

Japanese Shiitake Log Hillside Stacking

As described by Josh Wilson
Drawings by Rachel Brinkman

Josh Wilson, who is an alumnus of our Practicum in Forest Farming course, 426 spent 4 months during 2007 working on a Japanese Shiitake farm. He explained to us that farmers have for generations practiced a sustainable shiitake production system. Rice is grown on valley bottoms, while the adjacent steep hillsides are for Shiitake mushroom production. By way of comparision, shiitake logs stacked in laying yards in the US are typically on more or less level ground where crib stacking, lean-to or a-frame stacking is usually practiced. None of these methods is stable on steep hillsides. The Japanese hillside log stacking method taught to us by Josh is unlike anything I have ever seen practiced in the US. The following drawings by Rachel Brinkman show how this is assembled, step by step. Although it may not be obvious from the drawings, keep in mind that the tree stump, shown in Figure 1, on which the first log is lain, is at the downhill end of the stack, which increases in elevation as the structure grows in length. In the last figure, Fig 12, the end of the last pair of logs (blue) in contact with the ground is about 3 – 4 feet higher than the base of the stump at the other end of the structure. P.S. It is not necessary to paint your logs red, yellow, purple, green and blue and orange. Accordidng to Josh, in Japan, farmers do not soak (shock) logs to bring on a uniform fruiting like many growers in North America do. Rather fruiting occurs naturally on the stack that is illustrated here. Note that it is fairly open, which facilitates picking. My apologies to Josh if I have gotten any of the details wrong.

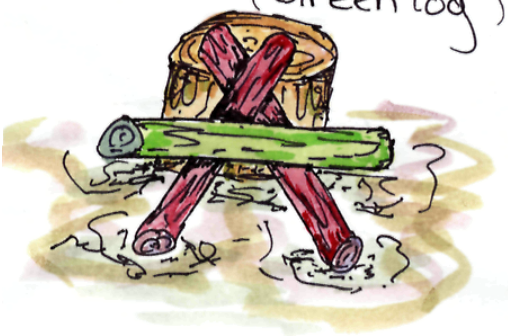
Step 1:

Have a strong base to start with; a tree stump or a half buried large log make a good starting log.

Step2:
(Red logs)

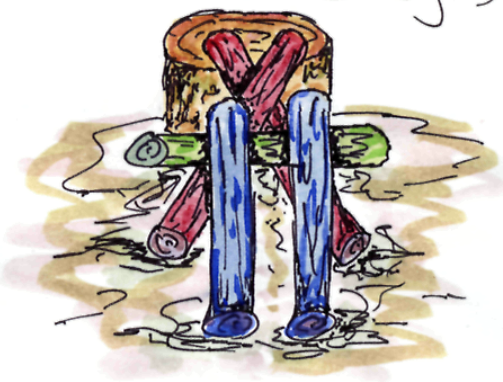
Cross two logs in an 'A' shape and lean against the base log.

Step:3:
(Green log)



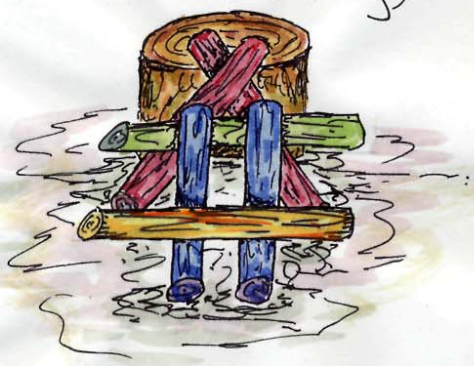
Lean one log across the 'A' shaped logs (will need to hold this log in place until step 4).

Step 4:
(Blue logs)



Lean two log over the log from step 3.

Step 5: (Yellow log)

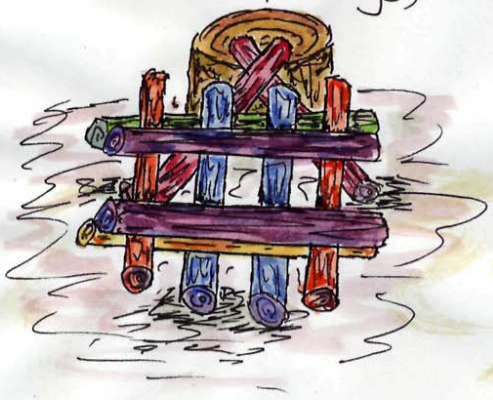


Lean one log across the last two logs placed in step 4 (this log will need to be held in place until step 6).

step 6: (Orange logs)

Lay two logs on top of the log from step 5 and the log from step 3 (these two logs are on the outside of the logs from step4).

Step 7: (Purple logs)

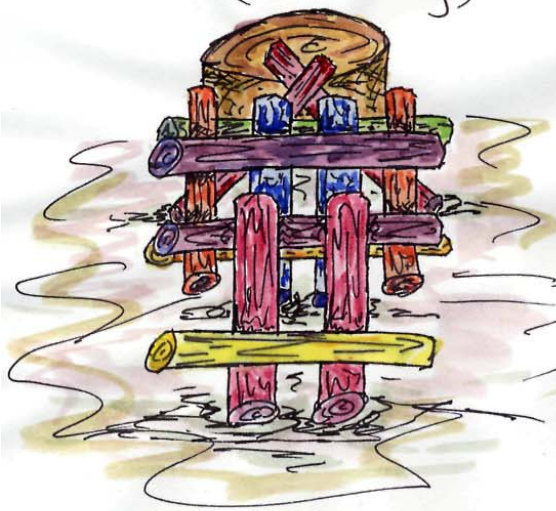


Place two logs across the logs from step 6 (the log closest to the base log with stay by itself but the other log will need to be held in place until the next step).

Step 8: (Red logs)

Lay two logs across the one you where holding in place from step 7 (this is repeating step 4).

Step 9:
(Yellow log)



Continue to repeat the previous steps (this step in a repeat of step 5).

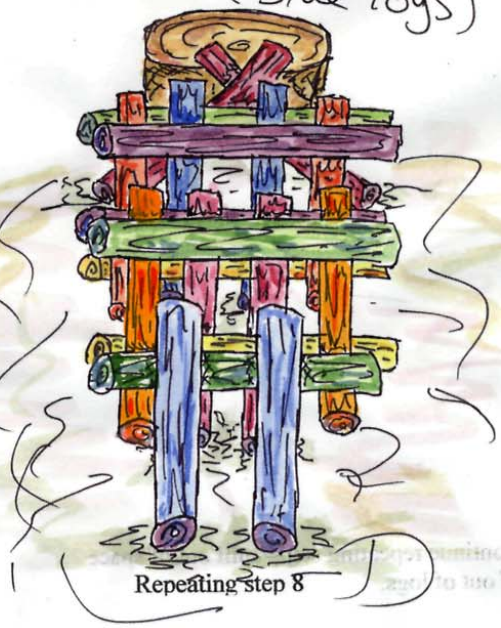
Step 10:
(Orange logs)

Repeating step 6

Step 11:
(Green logs)

Continue repeating steps until out of space of out of logs.

Step 12:
(Blue logs)



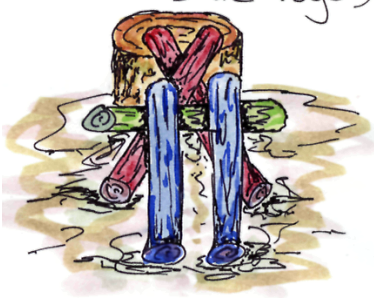
Repeating step 8

Step 1:

Step 2: (Red logs)

Step: 3: (Green log)

Step 4: (Blue logs)



Step 5: (Yellow log)

step 6: (Orange logs)

Step 7: (Purple logs)

Step 8: (Red logs)

Step 9: (Yellow log)

Step 10: (Orange logs)

Step 11: (Green logs)

Step 12: (Blue logs)