

Ponder Thrice; Measure Twice; Cut Once

The admonition “Measure twice, cut once” is hammered into many woodworkers, and I would guess other craftsmen as well, from the very beginning of their practice. It’s good advice too, as anyone who has experienced the sinking feeling of having the perfect piece of wood to be an inch too short of fitting, can tell you. I’ve done it just that way a few times and can bear witness to the feeling.

My sister and her husband built a post and beam house, from scratch, on a hilltop in middle Tennessee. They cut and milled the timber themselves and built the structure from green wood as prescribed in the plans they acquired from a well established source. These pieces were huge; sometimes more than a foot square and up to 18 feet long and weighed hundreds of pounds each. The building turned out to look like a piece of furniture in large scale.

It was entertaining, to put it mildly, to visit the construction site and hear them discussing their pleasures and ordeals in vivid details using the vernacular of the post and beam cult in the process of their explanations. It was fascinating to hear them discussing the process of producing dovetail joints, the size of which most woodworkers could only dream, and which had to fit perfectly the first time they were fit together – because they couldn’t be undone after that fit -- using hand tools only. It took hours, and sometimes days, to carve out one of those joints with one of them making the pin side of the dovetail and the other one making the tail side. They had the process down to an art. Certain sizes required certain proportions; a larger or smaller square end piece would look just like the others if you removed anything giving a sense of scale. I visited the site often just to hear their stories. We’d sit on some of the many stumps strewn about the site and listen to their experiences from the time we last visited.

On one visit we found a somewhat dejected if not philosophical pair of woodworkers. They had a new bench with perfect dovetails on both ends sitting on stumps. It was 12 inches on each side and 15 feet long. They had fashioned the joints with both ends of the timber beam, and both sockets for the beam, to completion and hoisted the beam up to fit it into the already constructed partitions using block and tackle and a massive fly line between two stout trees. When the beam arrived at its appointed location, it was precisely one foot short. The distance between the existing structures was 16 feet.

By the time of this occurrence they were experienced and seasoned woodworkers who had collectively put together many almost identical joints. So what went wrong?

You could just call it a measurement error, but they knew that the beam should be 16 feet in length. We’ll never know – they couldn’t figure out what happened in their post mortem – exactly how the beam became a foot short, so calling it a measurement error is probably a just conclusion. However the question remains of how it happened, how an experienced crew made such an error.

Hence the name of this article comes into play. I think the old saying should be modified to “Ponder thrice, measure twice, cut once”. What I mean by this, and I’ve practiced it myself lately, is that a plan needs to be thought out beyond dimensions and shapes. To avoid avoidable errors, one needs a procedure to follow. In other words, not only what are you going to do but how are you going to do

it. Thinking ahead in a systematic way can avoid a lot of errors. Think in terms of “painting yourself into a corner”.

What my sister and her husband decided to change was, that in a critical situation, it's not enough to say: “Here's what we're going to do. We're going to put this beam between those two other beams. You're going to cut the sockets on those two beams, and I'm going to cut the dovetails on this beam. Then we're going to put it up there between your sockets.” They included in their following operations another process in which they continued to think through all the things that needed to be done but added to that the thought experiment which involved the things that could go wrong. There never was a repeat of the ‘beam too short’ type of error.

This is what I mean by ponder thrice. Think through what needs to be done to do the job. Then think through the procedure on how you're going to do it. Finally, think through the things that could go wrong and have a plan to avoid the traps.

When there are two or more people working on a project – as was the case with my sister and her husband – there are many opportunities for miss communication. A friend and fellow woodworker reminds us of another old saying: “If you have a boy, you have a boy. If you have two boys, you have a half a boy. If you have three boys, you have no boy at all.” Pondering with another can be very helpful if the communication is complete and error free.