Creating a Compost Bin out of 'Lightly Processed' Lumber

Josef Nixon, a South Minneapolis resident and woodworker/artist/craftsman, builds a compost bin at the East Phillips Improvement Coalition Community Garden on S 17th Ave and E 24th St.

Joe was interviewed on October 14, 2024. His comments are shared in italics. They have been abridged for space and flow.

Joe has developed a process over the last few decades called "light processing," which means he uses a chainsaw, adze, wood plane, chisel, and other tools to turn wood waste into differently-shaped lumber that adds structural and sculptural value.

Joe is inspired by the history of woodworking, which encompasses European, African, and Indigenous traditions and practices. He envisions a future where all wood is not valued by its straight lines, perfect dimensions, and engineered specifications, but where building materials can reflect the unique shapes of our imaginations and cultural traditions.
As a woodworker of many years, Joe is certain that urban-sourced, lightly processed wood is superior to much of the lumber that can be found at big-box lumber suppliers.

“What I do, and what I think about when I’m doing it, are all the hundreds of thousands of years of people who have done this sort of thing. And I do as much as I can to be able to trace that lineage, and learn some of those old-world techniques. I also add what I can with some modern technology to put this stuff together. What can be done is really quite vast.

“A wind storm brought some trees down, so there’s plenty of material to pick and choose from. This wood came from various places that are nearby around town within a short biking distance from here.”

Joe uses multiple sizes of chainsaw to achieve the precision necessary to create strong joints. In this stage, he is creating a cross-brace to add structural strength to the compost bin.

“It’s actually easier and more interesting to use wood that came from branches that are more or less twisted up, and come in all different shapes and sizes. It’s odd how that came to create what’s a more uniform structure. That was a fun surprise.”

“Most of the time people would expect to get a perfectly straight board or lumber that came from a tree, but that’s definitely very rare when that happens– unless it's an engineered product. I’m a carpenter and I mostly work with wood, so when I get a piece of lumber, the slightest nuance or imperfection could throw you off. You have to rethink your process anyways, so I have certainly learned to work with the nuance inherent in wood that’s just not uniform. This is just on a more extreme scale than that. You ought to be able to work with wood that’s not “perfect wood.” And I like to think that I’m accepting of material that may not just be “right on.”

With a remarkable, spatially creative mind, Joe is able to create level surfaces where two pieces of differently-shaped lumber will come together.

Using lightly processed lumber helps better inform the project you’re working on. It makes it more interesting, and makes a better exercise in honing one’s technique and understanding of construction on whatever scale, large or small.

If you are using what is nominally scaled, dimensional lumber that has been stamped with a barcode, and has a paper trail, and it's in a big book amongst other products that has been monetized— for me at least, and I've been doing this for a long time— more confusion starts to set in. But when I'm pulling from a pile of Ash logs that I found on the side of the street, well, I know that it's Ash, and I'm able to learn about its characteristics from its origin. I understand just how strong it is because I'm able to identify its weak points better because I'm seeing it as a whole. I see the difference between the heartwood at the center of the log, and the outside perimeter of the log is softer, and maybe it's not as refined… so it's more informative and gives the person a better understanding of its best uses.

Joe uses a 1" diameter auger bit to create a hole that matches between two pieces of lightly processed lumber that sits atop one another.

"Most of this stuff would probably end up as wood chips. And a lot of it does."

“You have to let go of a lot of conventional heuristics, and some of the rules that have been made up. I’m comfortable working outside of that construct of those general rules that in many cases are made up. Working outside of the box is the most comfortable place for me to be.”

Back at his home workshop, Joe used a table saw to turn ash wood waste into 1”x1” square pegs. At the site, Joe uses a wood planer to turn the square pegs into round pegs, and then hammers them into the hole he created with the augur bit.

The compost bin uses no metal hardware— like screws or nails— to join the pieces together. The entire structure is made out of wood that came down in the urban landscape during storms.

Joe describes his process of fitting differently-shaped lumber together to East Phillips resident and organizer, Luke Gannon.

“A lot of the time it’s just trial and error, and you‘re gonna make mistakes, and you have to come to the best point or the desired shape through those means.”

The shapes present in the compost bin resemble a birds’ nest, braided rope, or forest vegetation vining organically around itself. Joe reminds us that in America, in centuries-past, and in parts of the world even today, perfectly straight lumber is not utilized to build functional structures. The resulting structures are equally strong as dimensionally milled lumber, yet they require more creativity to assemble.

Joe also notes that lightly processed lumber which was sourced in the urban landscape has the advantage over milled lumber, because the wood is often more than a century old, and the wood worker has an intimate knowledge of whether they are working with heartwood, or peripheral wood, which tends to be softer. Working with “wood waste” allows Joe to better understand the structural integrity of the lumber.

Joe works with Luke to move a piece of lumber that is over a hundred pounds. They twist the piece along the ground, and work together to set it down lightly in the right spot.

EPNI is seeking funding to expand this work in order to build urban farm infrastructure at the former Roof Depot site. The infrastructure will include a woodshop, fencing, raised beds, compost bins, public seating, birdhouses, a tree nursery, and hugelkultur vegetable mounds.