Permaculture Team

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The Gibbs House Property Redevelopment was continued through the end of Summer and Fall. Many individualized projects were wrapped up and a larger team effort was devoted to much of the property leading into Winter. Projects ranged from native landscaping, pizza oven construction, continued harvests and produce distribution, late season plantings, seed saving, garden and hoop house winterization, hugelkultur development, and more. I will provide insight to projects that I was more heavily involved on in this report.

The native landscape continued to be developed through the end of Summer and early Fall. The newly formed beds nearest the East field were fully planted, which increased our native landscape by about 1,500 sq. ft. One notable bed was planted with over 200 plugs of four different species of Michigan native milkweed. Paths were sown with grass seed that unified the new addition with the existing landscape. We applied, and were awarded, for two native garden certifications. The first certification was through the Monarch Watch and their associated Monarch Waystation program aimed to create, conserve, and educate on the peril of the Monarch butterfly and their habitat. We also were certified through the Exerces Society for Invertebrate Conservation. Their programs educate on the importance of invertebrates in our ecosystems by demonstrating that habitat protection and management are key to their conservation.

As Fall came it was evident that our native landscaping lacked some late season bloomers, which provide crucial food supplies to local pollinators and other beneficial insects leading into Winter. Local non-profit organization, Wilds Ones, donated a variety of species including New England aster, sky blue aster, zig-zag golden rod, woodland golden rod, brown-eyed Susan, blue lobelia, among with some additional Summer bloomers to help solve this problem. Our native bee hotel was reinstalled in our landscape and will provide habitat for larval development.

The transition group working out of Chelsea, MI hosted a cob-earth oven workshop, which office interns, staff, and I were able to attend. Using what we learned at the workshop, we were able to build our own cob oven at the Gibbs House. This oven was a great educational installation to promote appropriate technology and low-tech resource building.

Figure 1: Close up of the native bee/insect hotel. Cup-plant stems were used to fill existing gaps and hold everything tight in place.

Figure 2: Series of photos showing cob oven construction, firing, and pizza cooked for the Fall Harvest Fest event.
Transitioning from the end of Summer into Fall, the bountiful harvests form the Gibbs House production gardens were winding down. After wrapping up our produce stand for the season in early September, we decided to support a WMU registered student organization, Campus Beet, by supplying them with fresh produce. The vision of the Campus Beet is to offer fresh, delicious, and ecologically sound food, to build the local economy and to support the WMU community. We were able to supply fresh produce for five weekly meals and a larger weekend event.

As warm weather turned cool, preparing the garden for Fall and Winter took priority. Crops and weeds were first cleaned up from beds. Once all production beds were cleared, a winter-kill cover crop of oats and cow peas was sown on the outside beds at 140 lbs. and 20 lbs. of seed per acre respectively. This cover crop will protect the soil from harsh Winter conditions and add valuable soil organic matter for next year’s growing season. In our hoop houses we planted cold season crops, which included kale, Asian greens, lettuce, spinach, radish, and beets. Other crops that were planted late Summer needed to be protected from damaging frost. Our kale, carrots, beans, beets, lettuce, and some peppers were covered in a light, floating row cover. The row cover will harness heat from the soil and keep it from escaping to the top of the hoop house. This should keep our produce alive a few weeks to a month longer.

With our former Permaculture Program Coordinator leaving, we had no one able to operate our tractor to get projects that needed heavy lifting and digging completed. In order to use the tractor, I first had to complete a tractor safety and operating test. One of the first main projects I had was to till up weedy areas for next years plantings. There were areas in the East field that were tilled and then cover cropped. I tilled a large section in the West field that will be planted as our food forest next season. Most of the food forest was spread with cover crop that was broadcast seeded and raked in by hand.

Another major project that was completed with the tractor was the formation of our fifth hugelkultur bed. The hugelkultur is located in the Northeast corner of the East field, on contour. With the bed on contour we will be able to mitigate an excessive water runoff problem by using that water in a ecologically productive manner. Using the tractor, a shallow swale was dug about 2 feet down to the subsoil horizon. The swale was about 18 feet long and 8 feet wide. The last of the large logs on the property were used to lay the foundation to the hugelkultur. They were laid the full 18 feet long, only about 6 feet wide at the base, and staked 4 feet tall. We wanted to leave 2 feet of width in front of the logs to act as a swale to catch water run off and feed it into the hugelkultur bed. Once the large logs were placed, smaller branches and twigs were layered on top. For our third layer, we utilized collected yard waste bags filled mostly with leaves. With our three layers complete, the soil that was initially dug out was placed on top, finishing off the hugelkultur bed.