On-Water Intensive

Observations on Scientific and Ecological Processes at Bartram's Garden #1

Posted by MPREMOLI *on* JULY 20, 2018

How does thinking with the atmosphere complicate our understandings of the following categories: local/global, invisible/visible, altered/"natural"? Taking up Professor Peter DeCarlo's discussion of the interrelations between water, air, and land within our changing atmosphere, students set out to explore Bartram's Garden and to observe and document the ecological meshworks that we're enfolded within. Part 1 of 3 shown below.

Group 1: Jolie, Jamie, and Grace

Our directive from Pete was clear and open-ended: Go outside, find something, and talk about the science behind it.





Sounds pretty simple. We thought it would be easy to go out, find something obvious, snap a few pictures, and get googling. ut the longer we ended up walking around, the more we pointed out, the

more we picked things off the ground and asked questions about them. We inspected spiky seeds that fell from trees; we peered through holes artfully nibbled into pathside vegetation; we examined sediment deposited onto leaves by the shifting tide.



But what we came back to was the first thing we walked past on our way down from the coach house to the water: a sprinkler. It's something you never think about too closely (or at least we didn't), as it seems to be just a given in upkept, landscaped areas. But what is a sprinkler, really, and how does it work?

Simply put, a lawn sprinkler uses its own water pressure to push out water through a long hose and out of the hole(s) at the end at a high capacity. It's an old technology: although the first patent for a lawn

sprinkler was registered in 1871, water distribution through irrigation systems and aqueducts is almost as old civilization itself, allowing humans to settle and cultivate crops.

Before water comes out of a sprinkler, where does it come from? Likely a treatment plant within the area, if not a rain collection source such as a rain-barrel. This is yet another scientific process in and of

itself. And water needs to be pumped out of lawn sprinklers in the first place in order to play its own role in photosynthesis, the process by which plants create food for themselves using sunlight, CO2, and water.

Turns out, sprinklers are a great conduit for questions of engineering, biotic processes, and human intervention in the natural world, themes we've been exploring throughout our On-Water-Intensive.

These questions playout in our own backyards more than we realize.

Check out our video of the sprinkler here .

