# On-Water Intensive

# Observations on Scientific and Ecological Processes at Bartram's Garden #2

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**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 2 of 3 shown below.**

**Group 2: Henry, Kathryn, Max and Bri**



We boarded the kayaks at Bartram's Gardens. We paddled south 100 feet or so and, after spying on some cormorants, we docked on the west bank of the Schuylkill and started exploring.

There was trash everywhere, but what stood out, besides the intact pineapple, were small stonelike rectangles scattered everywhere. We realized that they were manmade when we found serial numbers engraved on most of them. Some of them have small nodes on one side.



They are sturdy yet brittle. They easily make marks like graphite. When smashed open we found corroded wires. The nodes were corroded too.

There is a slight variation on shape; it is clear that they come from several different manufacturers. After a little investigation we discovered that they are carbon brushes.

About forty feet away were the train tracks. There were no such conductors closer to the tracks. We don't know yet where they came from or what they were used for.

Before we left the west bank, we poked open the waterlogged pineapple. It actually smelled pretty good. Ethyl butyrate is an ester that produces a fruity odor.

We may have smelled that compound, but it might have been something else. When we crossed the river, we found no carbon brushes on the east bank, but we did find another pineapple.



We also found a two foot long carp well into active decay. We smelled putrefaction before we saw it: trimethylene, putrescine and cadaverine caused by the breakdown of amino acids in living and dead organisms.



Flies were swarming the fish. The carp's scales were hard and appeared tanned. When we flipped the fish over we got hit with another foul wave of odor. We were expecting to find wiggling maggots inside, but all we found was what appeared to be old couscous. Maybe eggs? Maybe guts?