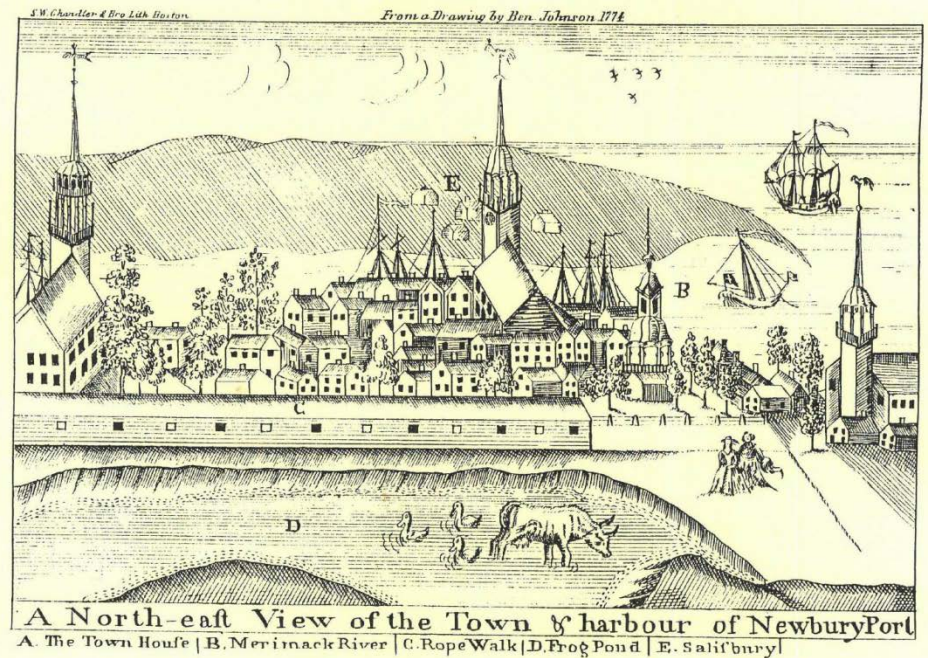




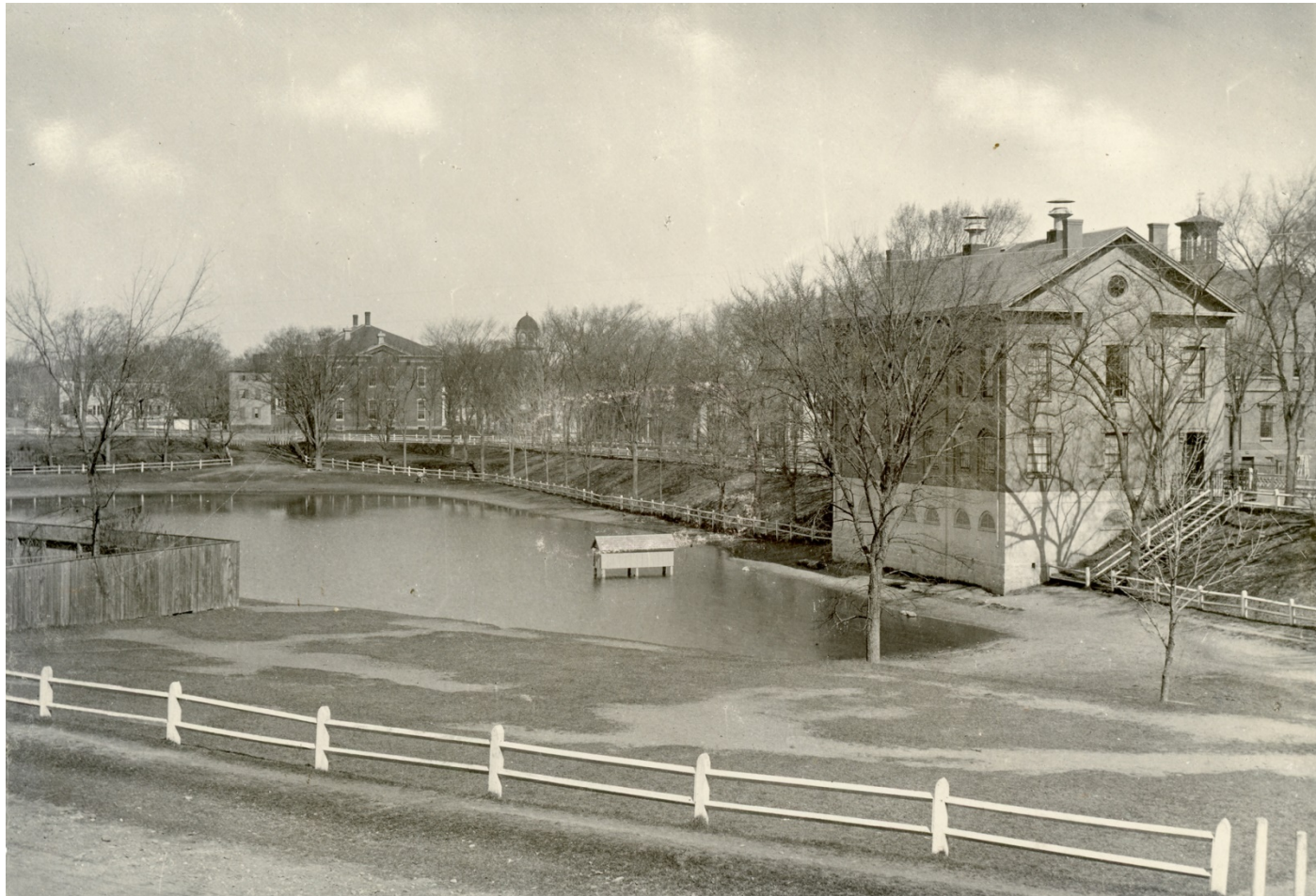
Breathing Life Back into the
Bartlet Mall Frog Pond

History of the Bartlet Mall

- Newburyport's first Common
- 1600's: Colonial settlers watered and grazed livestock
- 1700's: Rope making and training for militia that would fight in the Revolutionary War
- 1800: transformed from a place for industry to one for beauty and pleasure exclusively



The Mall between 1805-1891 (water inlet/outlet from ravine cut off)



The 'Tennessee Crane' added in 1891 (first attempt to clean the water)



Pond and Court, Newburyport.

The Swan Fountain in 1987

(diversion of stormwater, no municipal water source)



Study in 2014

- Showed depths of muck and identified contaminants (heavy metals) & TP in sediment
- Recommended dredging and disposing out of state
- Expensive
- Not environmentally conscious
- Likely will create a proliferation of cyanobacteria (HAB) because can't dig deep enough

Reverse osmosis in 2017

- Grant funded \$70K
- Failed because did not take into account the volume of TP in the muck which kept cycling back into the water as the water was cleaned
- Once some of the TP was removed, cyanobacteria (kept in check by TP) likely proliferated, causing HAB

We have reached a critical point
(HAB=harmful to people, toxic to small animals)



Original design intent



Edges are compromised



GRIFFIN 2017



GRIFFIN 2017

Water level is not consistent



Current thinking

- Working with a team from the Boston Public Garden Lagoon project, as well as local resident Vlad Novotny (world renowned water scientist) to execute a feasibility study
- Use encapsulation model: dewater, re-sculpt, liner or admixture, fill with fresh water, circulate and aerate
- Stabilize the edge

CPC requests

- Bathymetric Survey: \$13,812
- Water Source: \$40,200
- Edge Stone (1/3 of pond): \$132,023
- Fountain Restoration: \$126,000

