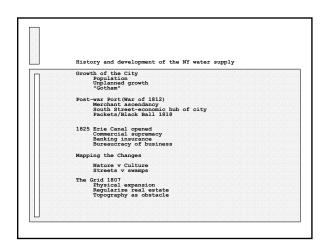
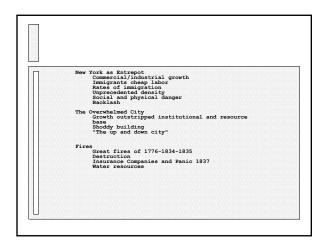


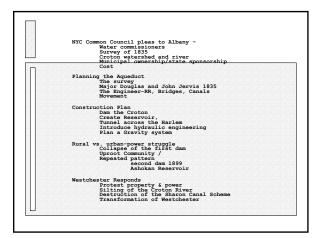
	4. Chapter in the History of urban development
1	New York City case study Different scale Application to other cities
	Planners and city fathers
	Impulse to grow Class and entrepreneurial interests.
	Public health history and dynamic capitalism h
	History of 19Century Cities Movement and circulation. People, capital, and water Congestion and Growth
	5. Public Health Crises
	The unhealthy city Polluted water supply
	Framing the issue Constructing the public health issues Remaking the City's Reputation





Disease Pire's twin demon Thomas Rever_110 of 1832 1830-1875 Period of 1832 1830-1875 Period of the Great Epidemics Context: Warning preparations Street world-husiness garbage- offal hyperators Street cleaning/garbage privatized Manure and privise Rever as sever Whose responsibility? Cholers Epidemic comes in June 1832 Mortality rates/ sudden and unexpected Flight of the upper class Orse of flight the boot/voiti-contagionist
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Weak 19c municipal government/
Weak 19c municipal government/ NYC Crises What's at Stake?
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Weak 19c municipal government/

Model in Philadelphia water works
The model city.
Benjamin Latrobe's 1801 Schuylkill water
supply Fairmont works 1822
Architecture
Architecture
 Why was NYC so late?
History of NYC Water supply
Early drinking water sources
The Collect fresh water pond (Foley Square)
Polluted 1790s "shocking hole"
Animals(Horses) & household garbage
City caught up with Collect by 1800
Privies & Pollution
NYC water's distinctive taste
Canal to drain the collect
The population out stripped the water base
Other non-potable sources
City needed adequate clean water supply
City and public water works.
Aaron Burr and the Manhattan Company
Private capital and monopoly Chambers St. reservoir 130,000 galls
Chambers St. reservoir 130,000 galls
1796 and profits
Triggers for Action-Cholera and Fire
1832 Cholera Impact
Shock and Fright



The Tunnel Plan	
40 Mile tunnel 7 5' to 8 5' range in diameter	
7.5' to 8.5' range in diameter Brick and local stone	
Shape of tunnel	
Building the CRA Property owners	
Irish workers	
Temperance Public works projects	
Ventilators and waste weirs	
Stone culverts and the line	
Sing-Sing kill and the bridge	
Harlem River Bridge	
Traffic vs. siphon	
The Harlem to Murray Hill Embankments and walls in Manhattan	

Opening	Celebration Oct 1842
	Water arrived July 4,1842 Character of celebration
	Water available
	Fountains
	Cost of connection
Impact	
	Public baths
	Closet baths, water closets/indoor plumbing Street clean-ups
	Consumption increase
	1856 expand the reservoir
	extend the watershed.
	"Adams Ale" and the dram shops
	Temperance postponed
	Sewers and sanitary engineers
	Edwin Chadwick in England
	Dr. John Griscom in NYC
	Private waste and house drains
	"Water carriage" sewerage 1849-1865 NYC built 125 miles of lines
	Sanitation Health & class
City's l	Reputation
	Analogy with London Commercial dominance
	Unfettered growth
	City- Suburb
	Reach of the City
	Circulation

RECONCI	LIATION AND MEANING Progress and nature Historical association-a continuum
	July 4, 1842 The public celebrates Popular attraction Architectural style Civic event
	Technology and historical association
	"Croton Ode for celebration"
Charles	s King, "Memoir of Construction"(1843). American superiority Free labor Conspicuous consumption God's gift.
Fayette	Towers Engineer Art, science and the appreciation of nature the let fountain at the Harlem River built foresation Bucolic fistorical association with Spoleto Dam technology-sublime High Bridge

Insatiable City
I.Croton System
Out grew the supply ten years Dammed more branches of Croton River
Add 12 reservoirs and three lakes
Found to be insufficient
10% supply
II.Catskill System Annexation of Bronx, Brooklyn, Queens 1898
Requires More Water
Esopus River 100 miles away in the Catskills 20% Watershed in Catskill preserve
Ashokan Reservoir more all Croton in capacity
Completed 1944
40% supply
III. Delaware System 1928 Delaware River
Reservoirs -Neversink, Pepacton, Cannonsville,
Roundout Completion in 1965
50% water supply

Surface Supply system
Protection & Safety
Watershed = 90,000 acres
NYC owns 7%
NIC OWID / C
Size of city a function of size of watershed
Croton
Water treatment
Sewage treatment plants in the watershed Croton 53 sewage treatment plants
Water quality
Septic overload
Costly filtration
Catskill
water guality
Population low
Natural purification Subdivisions
Subdivisions
Delaware Watershed
Cannonsville problematic
Algae bloom summer months
Phosphorous run off
Cannonsville problematic Dairy farms Algae bloom summer months

