



Lesson 14– Water for a Thirsty City

Objectives - Students will:

- interpret information from the 1910 Federal Census,
- debate the viewpoints of Ulster County residents living in the path of the Ashokan Reservoir and officials of the NYC Water Supply Company.

Materials

- 1910 Town of Olive Census
- Discussion Web Format Sheet



Background Information

The following excerpt is found in the essay, *The World's Greatest Aqueduct* by Alfred Douglas Flinn of the Board of Water Supply of the City of New York. It was published in Harper's Monthly in 1909. The complete text can be found at <http://www.catskillarchive.com/rrextra/dnaque.Html>

THE Catskill Mountain water system being constructed for New York City is one of the most notable engineering enterprises ever undertaken. Ranking with the inter-oceanic canals at Suez and Panama, the Assuan irrigation works in Egypt, and the projects which are converting western America's wastes into fruitful fields, the Catskill aqueduct, with its tributary reservoirs, probably surpasses any one of them in the variety of problems to be solved. Although undertaken by a municipality, these works in magnitude and cost compare with national enterprises.

Imperial Rome's longest aqueduct was fifty-seven miles in length; the Catskill aqueduct will be ninety-two miles long. Rome, with hordes of laborers from conquered domains, carried its aqueducts at the hydraulic gradient across valleys on imposing masonry arches. Modern explosives and rock-drills enable New York to tunnel in solid rock beneath valleys and rivers, avoiding masonry, which is now expensive, and which is likely to suffer in New York's severer climate.

Approximately forty miles of new highway and thirteen miles of new railroad will have to be built. A concrete arch bridge at the dividing dam will afford connection between the northern and southern sides of the reservoir. Seven villages and many scattered dwellings and other buildings now dotting the valley will have to be razed. From forty small cemeteries all the bodies in 2500 graves must be removed. All trees and brush will be cut and taken away or burned. The landscape will be changed, but guarded by the somber mountains, Ashokan Lake will add to the attractiveness of the scenery.



Camilla Calhoun, in her compelling essay, *A Town called Olive*, speaks of the plight of the more than 2,000 residents of the towns that were to be razed for the completion of the Aqueduct. Her ancestors were among those who were uprooted for the sake of New York City's drinking water.

“Imagine the logistics of getting 2,000 people, some who had lived there for generations, to move from their homes in this lush, fertile valley at a time when transience was uncommon. One thousand New York City residents, who had second homes there, also lost their homes. Located in the valley, among other things, were 35 stores, 10 churches, 10 schools, 1 gristmill, and 7 saw mills. In order to begin the exodus from the valley, the Commissioner of Appraisal had to post notices warning property owners ‘that in less than two months title to their property would be vested in New York City and they would be subject to a ten-day notice to move. The State Water Commission had supported the plan despite the fact there were hearings and residents fought the city's plans with capable lawyers.”

Calhoun, states that the reservoir was built by nearly 3,900 laborers, made up of mostly Italian immigrants and African American workers from the south.

“Many of the men working on the reservoir had families. Two segregated schools were built for their children, one for the Italians and one for the African Americans. Many of the laborers carried weapons. Fights broke out on a regular basis, with several fatalities. The watershed police, whose job today is to protect water quality, was originally established to protect residents and keep peace in the labor camps.”

Her complete essay can be found at www.reflector.net/watershed

Another wonderful site for background information on the Ashokan Reservoir written by students at the Bulkeley Middle School in Dutchess County titled, *Underwater Towns*, can be found at:
<http://www.rhinebeckcsd.org/bulkeley/hvhome2003/sokolowskibwebpage>

Diane Galusha, in her book, *Liquid Assets*, states that unskilled workers working during that time earned \$1.20-\$1.60 a day. Water boys, as young as nine, earned \$1 a day. They had the job of hauling twelve quart pails a half a mile and back to their starting point several times a day. Pipe fitters, pump men, and plumbers earned \$2 a day, stonemasons made \$3 per day, and powder men made \$10.16 per week. The workers were charged a monthly fee of \$20-\$22.50 for their room and board in the company camp, and some greatly struggled to pay it.

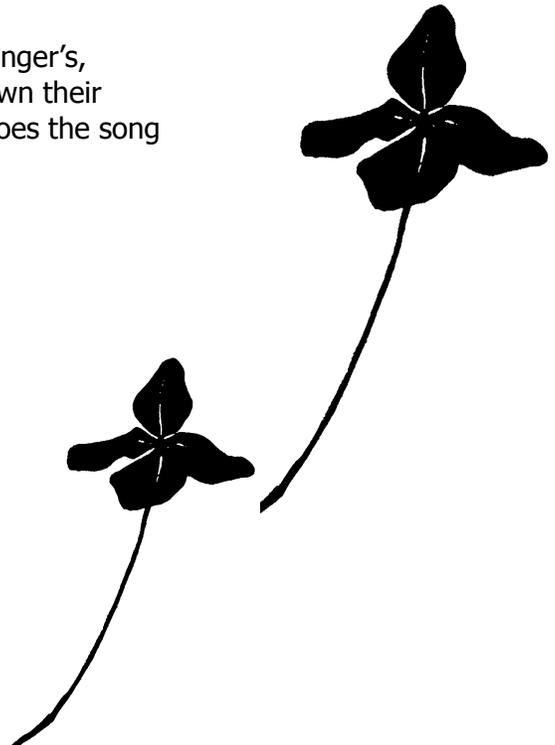


Teaching Sequence

1. Analyzing a Census
 - a. Call students attention to the nationalities, ages, and races on the 1910 Census.
2. Creating a Discussion Web
 - a. Assign a partner to each student. Pose the following question: **Did the NYC Water Supply Co. have the right to build the Ashokan Reservoir?** (Remind them to think of the thousands of jobs created that were filled by immigrant labor)
 - b. Working with the Web format, students take turns filling in the yes and no columns of the chart, the reasons they agree or disagree with the question. Students are to try to have equal numbers on either side of the chart. By looking at both sides of the issue, they will be engaged in critical thinking.
 - c. Ask each pair to join with another pair and compare their responses. At this point, they are to decide, as a group, if they agree or disagree with statement. They are to choose the main reason for their choice and their final conclusion and fill in the appropriate boxes on the Web. The goal is to work towards a group consensus. Each person is asked to keep an open mind. Remind students that it is okay to disagree. There will be opportunities to voice their opinion during the class discussion.
 - d. Each group is asked to pick a speaker to share their responses with the class. After the speaker has finished presenting, others in the group are given an opportunity to voice their opinions.
 - e. Ask students to think of other possible solutions to this dilemma.

Extension Activity

- Play a recording of Molly Mason and Jay Unger's, *Ashokan Farewell*. Have students write down their reaction to the melody. "What emotions does the song bring to mind?"



1910 Census Township of Olive

Household No.	Name	Relationship	Sex	Age	Color	Place of Birth of this Person	Place of Birth of Father of this Person	Place of Birth of Mother of this Person	Year of Immigration	Naturalized	Date of Naturalization	Profession, Occupation, or Trade	Employed	Industry or Business	Value of Real Estate	Value of Personal Estate	Total Value	Mental Retardation	Deaf and Dumb	Blind	Total
247 249	Miriam Thomas	Wife	F	27	51	West Virginia	West Virginia	West Virginia	1907			English		House	40	26.0	66.0				
	Paul	Husband	M	27	51	West Virginia	West Virginia	West Virginia	1907			English		House	40	26.0	66.0				
	Paul	Son	M	2	3	West Virginia	West Virginia	West Virginia				None									
	Paul	Son	M	1	3	West Virginia	West Virginia	West Virginia				None									
248 250	Paul Boras	Head	M	24	3	West Virginia	West Virginia	West Virginia	1907			Polish		labor construction	40	40.0	80.0				
	Paul Bebek	Wife	F	24	3	West Virginia	West Virginia	West Virginia	1907			Polish		labor construction	40	40.0	80.0				
	William Andrew	Son	M	30	3	West Virginia	West Virginia	West Virginia	1907			Polish		labor construction	40	40.0	80.0				
	Marciano Sabatini	Son	M	26	6	Italy	Italy	Italy	1904			Italian		labor construction	40	40.0	80.0				
	Marciano Sabatini	Son	M	28	5	Italy	Italy	Italy	1902			Italian		labor construction	40	40.0	80.0				
	Marciano Sany	Son	M	19	5	Italy	Italy	Italy	1901			Italian		labor construction	40	40.0	80.0				
	Cherubino Sany	Son	M	11	5	Italy	Italy	Italy	1909			Italian		labor construction	40	40.0	80.0				
	Gregori John	Son	M	20	5	Italy	Italy	Italy	1908			Italian		labor construction	40	40.0	80.0				
	Alto Alpi	Son	M	17	5	Italy	Italy	Italy	1908			Italian		labor construction	40	40.0	80.0				
	Heed Tony	Son	M	23	5	Italy	Italy	Italy	1908			Italian		labor construction	40	40.0	80.0				
	Julio Sirlano	Son	M	22	5	Italy	Italy	Italy	1908			Italian		labor construction	40	40.0	80.0				
	Cherubino Sany	Son	M	16	23	Italy	Italy	Italy	1907			Italian		labor construction	40	40.0	80.0				
	Gregori Anthony	Son	M	13	5	Italy	Italy	Italy	1908			Italian		labor construction	40	40.0	80.0				
	Gregori Anthony	Son	M	12	5	Italy	Italy	Italy	1908			Italian		labor construction	40	40.0	80.0				
249 251	Sora Jane	Wife	F	22	18	Croatia	Croatia	Croatia	1908			Croatian		Mason Stone	40	40.0	80.0				
	Mary	Wife	F	22	18	Croatia	Croatia	Croatia	1908			Croatian		Mason Stone	40	40.0	80.0				
	Quinn	Wife	F	2	3	Italy	Italy	Italy				None									
	John	Son	M	2	3	Italy	Italy	Italy				None									
	Marciano Sany	Son	M	20	5	Italy	Italy	Italy	1908			Polish		labor construction	40	40.0	80.0				
	Suzuki Miki	Wife	F	17	3	Japan	Japan	Japan	1900			Polish		labor construction	40	40.0	80.0				
	Barclay Brown	Wife	F	25	3	West Virginia	West Virginia	West Virginia	1908			Polish		labor construction	40	40.0	80.0				
	Salac Mito	Wife	F	17	3	West Virginia	West Virginia	West Virginia	1908			Polish		labor construction	40	40.0	80.0				
	Salac Jozo	Son	M	19	3	West Virginia	West Virginia	West Virginia	1908			Polish		labor construction	40	40.0	80.0				
	Dragica Joz	Son	M	13	3	West Virginia	West Virginia	West Virginia	1908			Polish		labor construction	40	40.0	80.0				
	Salac Anthony	Son	M	14	3	West Virginia	West Virginia	West Virginia	1908			Polish		labor construction	40	40.0	80.0				
	Resid Susa	Son	M	19	3	West Virginia	West Virginia	West Virginia	1908			Polish		labor construction	40	40.0	80.0				
	George Mark	Son	M	20	3	West Virginia	West Virginia	West Virginia	1908			Polish		labor construction	40	40.0	80.0				
	Sammond George	Son	M	10	3	West Virginia	West Virginia	West Virginia	1908			Polish		labor construction	40	40.0	80.0				
	George Peter	Son	M	16	3	West Virginia	West Virginia	West Virginia	1908			Polish		labor construction	40	40.0	80.0				
	Joseph Joz	Son	M	21	3	West Virginia	West Virginia	West Virginia	1908			Polish		labor construction	40	40.0	80.0				
	Thomas Frank	Son	M	22	3	West Virginia	West Virginia	West Virginia	1908			Polish		labor construction	40	40.0	80.0				
249 251	Magali Marian	Wife	F	29	1	Italy	Italy	Italy	1907			Italian		labor construction	40	40.0	80.0				
	Ernest	Son	M	10	1	Italy	Italy	Italy	1909			Italian		None							
	Carrie Vincent	Wife	F	20	3	Italy	Italy	Italy	1909			Italian		labor construction	40	40.0	80.0				
	Magali Vincent	Son	M	11	3	Italy	Italy	Italy	1909			Italian		labor construction	40	40.0	80.0				
	Joseph Vincent	Son	M	10	3	Italy	Italy	Italy	1909			Italian		labor construction	40	40.0	80.0				
	William Vincent	Son	M	10	3	Italy	Italy	Italy	1909			Italian		labor construction	40	40.0	80.0				
	William Vincent	Son	M	10	3	Italy	Italy	Italy	1909			Italian		labor construction	40	40.0	80.0				
	William Vincent	Son	M	10	3	Italy	Italy	Italy	1909			Italian		labor construction	40	40.0	80.0				
	William Vincent	Son	M	10	3	Italy	Italy	Italy	1909			Italian		labor construction	40	40.0	80.0				
	William Vincent	Son	M	10	3	Italy	Italy	Italy	1909			Italian		labor construction	40	40.0	80.0				
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	William Vincent	Son	M	10	3	Italy	Italy	Italy	1909			Italian		labor construction	40	40.0	80.0				
	William Vincent	Son	M	10	3	Italy	Italy	Italy	1909			Italian		labor construction	40	40.0	80.0				
	William Vincent	Son	M	10	3	Italy	Italy	Italy	1909			Italian		labor construction	40	40.0	80.0				
	William Vincent	Son	M	10	3	Italy	Italy	Italy	1909			Italian		labor construction	40	40.0	80.0				
	William Vincent	Son	M	10	3	Italy	Italy	Italy	1909			Italian		labor construction	40	40.0	80.0				
	William Vincent	Son	M	10	3	Italy	Italy	Italy	1909			Italian		labor construction	40	40.0	80.0				
	William Vincent	Son	M	10	3	Italy	Italy	Italy	1909			Italian		labor construction	40	40.0	80.0				
	William Vincent	Son	M	10	3	Italy	Italy	Italy	1909			Italian		labor construction	40	40.0	80.0				
	William Vincent	Son	M	10	3	Italy	Italy	Italy	1909			Italian		labor construction	40	40.0	80.0				
	William Vincent	Son	M	10	3	Italy	Italy	Italy	1909			Italian		labor construction	40	40.0	80.0				
	William Vincent	Son	M	10	3	Italy	Italy	Italy	1909			Italian		labor construction	40	40.0	80.0				
	William Vincent	Son	M	10	3	Italy	Italy	Italy	1909			Italian		labor construction	40	40.0	80.0				
	William Vincent	Son	M	10	3	Italy	Italy	Italy	1909			Italian		labor construction	40	40.0	80.0				
	William Vincent	Son	M	10	3	Italy	Italy	Italy	1909			Italian		labor construction	40	40.0	80.0				
	William Vincent	Son	M	10	3	Italy	Italy	Italy	1909			Italian		labor construction	40	40.0	80.0				
	William Vincent	Son	M	10	3	Italy	Italy	Italy	1909			Italian		labor construction	40	40.0	80.0				
	William Vincent	Son	M	10	3	Italy	Italy	Italy	1909			Italian		labor construction	40	40.0	80.0				
	William Vincent	Son	M	10	3	Italy	Italy	Italy	1909			Italian		labor construction	40	40.0	80.0				
	William Vincent	Son	M	10	3	Italy	Italy	Italy	1909			Italian		labor construction	40	40.0	80.0				
	William Vincent	Son	M	10	3	Italy	Italy	Italy	1909			Italian		labor construction	40	40.0	80.0				
	William Vincent	Son	M	10	3	Italy	Italy	Italy	1909			Italian		labor construction	40	40.0	80.0				
	William Vincent	Son	M	10	3	Italy	Italy	Italy	1909			Italian		labor construction	40	40.0	80.0				
	William Vincent	Son	M	10	3	Italy	Italy	Italy	1909			Italian		labor construction	40	40.0	80.0				
	William Vincent	Son	M	10	3	Italy	Italy	Italy	1909			Italian		labor construction	40	40.0	80.0				
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	William Vincent	Son	M	10	3	Italy	Italy	Italy	1909			Italian		labor construction	40	40.0	80.0				
	William Vincent	Son	M	10	3	Italy	Italy	Italy	1909			Italian		labor construction	40	40.0	80.0				
	William Vincent	Son	M	10	3	Italy	Italy	Italy	1909			Italian		labor construction	40	40.0	80.0				
	William Vincent	S																			



Activity Sheet 14 - Discussion Web

