

# CITY That DRINKS The MOUNTAIN SKY

The epic story of New York City's water supply, told in the elemental beauty of puppet theatre.  
A perennial favorite since 1999. Grades K-10 and family audiences.



Heralded as one of the wonders of the world, New York City's ingenious system of aqueducts and reservoirs provides clear mountain water from the Catskills to nine million downstate residents. And though the struggle over these water resources has, at times, bitterly divided city managers and watershed residents, it has also irrevocably united them.

Through a shimmering tapestry of poetry, puppetry and evocative music, **City that Drinks the Mountain Sky** brings alive the lyrical landscape of the Catskills-- -- to portray the on-going story of the watershed and the uneasy marriage of those who must protect its vulnerable flowing treasure. You can expect plenty of visual punch and timely wit as the Hudson Valley's premier *eco-logic* theater traces life's quintessential liquid from mountain top to city tap.

The performance is 55 minutes in length and presented by a company of four performers.

**Production of this show was made possible in part by** grants from the Catskill Watershed Corporation in partnership with the NYC Dept. of Environmental Protection and from the National Environmental Education and Training Foundation. Public performances in New York are made possible, in part, through public funds from the NY State Council on the Arts.

Performance credits include: Tribeca Performing Arts Center, New York, NY ~ Central Pennsylvania Festival of the Arts, State College, PA ~ American Museum of Natural History, New York, NY ~ Long Island University's Tilles Center, Brookvale, NY ~ Warwick Summer Arts Festival, Warwick, NY ~ Abrons Art Center, New York, NY ~ Clearwater' Revival, Croton, NY ~ The Jewish Museum, New York, NY ~ Festival of Mt. Culture, Hunter, NY

# TECHNICAL INFORMATION

This production involves numerous props, images and puppet figures, all of which appear within a multi-layered set measuring 25'W X 12'D X 9'H.

One musician with an array of instruments (keyboard, drums, trombone, etc.) is positioned directly to the downstage right of the set. The show is designed for a proscenium stage. It will not work on a thrust stage if audience is seated on the sides.

**Company Size:** 3 performers, 1 musician

**Running Time:** 55 minutes.

**Space Requirements:** 36'W X 20'D X 12'H

(If necessary, we can make some adjustments and "shrink" our width to 32')

**Tech Support:** 1 sound technician, 1 lighting technician

**Load-in:** We will arrive two hours prior to house opening. Two stagehands are needed to assist in the load-in. A parking place is required for our bus (22' L X 8'W X 9' H, NY license plate # A98 8LN).

**Set:** 25'W X 12'D X 9'H Constructed of painted canvas on 1"x3" framing members. There are five narrow vertical layers enclosed within side and back curtains. The set will be positioned downstage, approximately 5' from the lip of the stage. The House front curtain will be not be needed.

**Lighting:** A balanced (warm/cool) wash on the set & musicians. Accent lighting upstage center and downstage far right and left. There are no lighting changes during the show.

**Sound:** Arm-of-the-Sea comes equipped with all instruments, microphones and effects. Direct box for patching into the House sound system is needed downstage right. The musician will mix his sound on a small board on stage, then send that pre-mix to the House board. Sound board operator will control overall EQ and volume. A stage monitor stage right is required.

For small venues, if necessary, we can use our own sound system. Please clarify this arrangement with us beforehand. For venues larger than 250 seats, we prefer to patch into the House system.

**Presenter Must Also Provide:** Two dressing rooms with toilet facilities & plenty of cold drinking water. When load-ins or shows span a mealtime, the presenter will provide a light meal: e.g. sandwiches, fruit, tea, coffee, juice, etc.

FOR MORE INFORMATION PLEASE CONTACT

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# Arm-of-the-Sea Theater: CITY That DRINKS The MOUNTAIN SKY

## A STUDY GUIDE FOR EDUCATORS

New York City's water system is one of the engineering wonders of the world, collecting most of its water from watersheds in the Catskill Mountains and delivering it via gravity to the faucets of one million people in upstate communities and eight million people in NYC. *City that Drinks the Mountain Sky* is a docu-drama that uses the enchanting devices and symbolic visual language of mask and puppet theater to tell the epic story of that water supply. The show will take you into the very heart of a watershed. You'll see how forests are like kidneys, filtering water as it moves towards streams and reservoirs. You'll meet workers who built the aqueduct and reservoir system. And you may come to understand how this giant water project brought profound changes to the Catskill communities.

*City that Drinks the Mountain Sky* is enacted by three masked performers. These are water beings. They don't speak but are visible to the audience as they animate the visual elements---the props and puppet characters---of the story. Two musicians perform original music with an amazing array of instruments; they also make up voices for the various character in the play. The show will provide a special experience in the performing arts for your students but there is also a great deal of natural and social history concentrated in its 60 minutes. This study guide can help you prepare your class for the experience. Important terms and events are set in **bold print**. Obviously you will need to adapt them to the particular needs of your students.

The set is both a model of a **watershed** and a simplified landscape of lower New York State. It features images of marine **fossils** from the **Devonian Period**, the geologic era in which the sediments of **Catskill Mountain** bedrock formed. A series of mountains representing the Catskills are upstage center. **Manhattan Island** protrudes downstage left. The Hudson River runs past the mountains and to the sea. Before you see the show, look at a map with your students and familiarize them with this region. Watersheds are one of the most important themes running throughout the show. A **watershed** is an area of land that drains into a common body of water. As an example, cup the palm of your hand and imagine the tips of your fingers to be the Catskill Mountains. Mountain streams would form in the grooves between your fingers; their waters would join a larger river in the "valley" of your palms. This river would flow toward the sea. If you spray water on your finger tips you will see this miniature watershed in motion.

**~NY State Learning Standards: ~Math, Science & Tech: Standard #4 ~~~English Language Arts: Standard #3 The Arts: Standard #3~ Social Studies: Standards #1 & #3 ~Health, P.E. & Home Ec: Standard #2~~~**

### Chronology and Synopsis of Scenes

#### First Movement

**13,000 BC** The show begins with the melting of the **glaciers**. Clouds in the shapes of large eyes drop rain on the land which creates flowing streams (made of silk). As the land thaws, a forest grows and the animals of the forest come to drink at the streams. The show "zooms in" for a closer look at the **forest soil** where worms, insects, fungi and other **decomposers** break down dead leaves into nutrients. These **nutrients** (symbolized by red fabric) along with water (blue fabric) are absorbed by tree roots. Suddenly we "zoom" into the leaf of a tree where a special cell called a **stoma** releases water vapor back to the clouds. This process is called **transpiration**.

Second Movement, as the play moves into more of the human side of the story with scenes from NY history.

**1626** The sale of Manhattan Island by the Lenape Indians to Peter Minuit of the Dutch East India Company. Building of New Amsterdam, which later becomes New York when England takes over in 1664.

**1706** The English governor of the colony, Lord Cornbury, grants a tract of land in the Catskill Mountains to a group of businessmen headed by Johannis Hardenburg. This grant, known as the **Hardenburg Patent**, turns out to be 1.5 million acres of land! Slowly the Catskills are cleared and settled by **tenant farmers** who can never own the land but must pay rent to the landlord.

**1832 Immigrants** continue arriving in New York but the city well water carries diseases. **Cholera epidemics** kill thousands of people while frequent fires burn down parts of the city.

**1842** First dam and reservoir on the Croton River in Westchester County brings fresh water thirty miles into the city.

**1848** Time of **rent wars** in the Catskills. Tenant farmers refuse to pay rent to the landowners. Gradually the feudal landowner system changes. Meanwhile, more and more city people are vacationing in the Catskills. The *Romantic Movement* celebrates the American landscape in painting and poetry.

**1886** NYC receives **Statue of Liberty** as a gift from the people of France. The population of the city reaches four million and is increasing at a rate of 100,000 people each year. **Water shortages** are widespread. Soon all five boroughs will be united into a single city. The decision is made to expand the public water system.

### Third Movement

**1906** Thousands of workers are employed in the building of the **Ashokan Reservoir** on the Esopus Creek in Ulster County. The land is condemned by state order and cleared of all trees, houses, farms, even cemeteries. An **aqueduct** is built from the Ashokan to Westchester county, passing 1000' under the Hudson River. **Mr. J. Waldo Smith** is chief engineer of the project. The first Catskill water reaches New York City in the fall of 1917.

**1912-1965** Five more reservoirs are built in the Catskills. Twenty nine villages and hundreds of farms are sacrificed. But each day nine million people living in Ulster, Orange, Putnam and Westchester counties and New York City receive their water through those aqueducts. That's one and a quarter billion gallons, filtered only by the forest and delivered by gravity.

### Fourth Movement

**1990** The federal government orders New York City to **filter** its water. This would cost billions of dollars. However, if New York City can implement a watershed protection plan to ensure the water coming from the Catskill Mountain watersheds can be kept clean, the City won't have to build the filters. The NYC Department of Environmental Protection---the DEP---is responsible for this tall order. In an effort to repair broken sewage systems, stop leaking fuel tanks, halt oil and salt from being washed from roads into reservoirs and control runoff from farms, the DEP proposes a new set of regulations for the Catskill Mountain watersheds. This angers many mountain residents; they form the Coalition of Watershed Towns to fight what they see as an infringement on their rights.

**1997** After five years of intense debate, city officials and watershed communities along with environmental groups and the governor of NY State arrive at a set of cooperative agreements to protect the watershed areas. Thus begins an important experiment to see how the Catskills can continue to be home for mountain residents and, at the same time, provide clean water to the **City that will drink the mountain sky** for hundreds of years to come.

### Research Topics :

What **watershed** do you live in? Is it part of a larger watershed? Find out how to read a topographic map. Locate your school on the map. Discuss how you & your classmates can be watershed stewards.

When you turn on your faucet, where does the water come from? Where does it go when it goes down the drain? Make a picture of the pathways that your water takes through the land.

Find out what is meant by **non-point source pollution**. How can these kinds of pollution be reduced and what effect will that have on water quality in your watershed?

Forests serve a critical role in maintaining water quality in a watershed. Find out the particulars of this.

### Important Resources

-The Ways of the Watersheds: An Educator's Guide to the Environmental & Cultural Dynamics of NYC's Water Supplies

by Kathleen M. Haskins, published by Frost Valley YMCA Publications, Claryville, NY 914-985-2291

-The Catskills, A Sense of Place. Teacher's Resource Manual

prepared by the Catskill Center for Conservation and Development, Arkville, NY 914-586-2611

-The Magic School Bus at the Waterworks : special NYC edition by Joanna Cole, published by Scholastic Inc. and available exclusively from the NYC Dept. of Environmental Protection

-River of Words: A National Environmental Poetry and Poster Contest for Students

This watershed-based program connects environmental education and creative writing. Includes a teacher guide. International Rivers Network, Berkeley, CA 510-433-7020

-The Last of the Homemade Dams: The Story of the Ashokan Reservoir

by Bob Steuding, published by Purple Mountain Press, Fleischmanns, NY 914-254-4062

-The NYC Dept. of Environmental Protection provides educational materials, field trip opportunities, staff development workshops and speakers to school and community groups. Contact NYC DEP Education Director Kim Estes-Fradis 718-595-3506 or in upstate areas: DEP Public Affairs Director Nancy Levine 914-742-2086

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Write to us and tell us what you liked and didn't like about the show

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City that Drinks the Mountain Sky graphic for posters etc. Woodcut by Marlena Marallo

