



Sunk Shore invites you to learn a bit about the past of Governors Island by standing on the shoreline and traveling back in time using your senses and imagination to see and feel how conditions here have changed.

Why the shoreline? Because this is an island, and the shorelines and water of an island hold some of the most important stories of how this place has changed over thousands of years, and how those changes have shaped what we experience now.

By understanding and feeling those changes and their repercussions that bring us to the present time, we can make better choices for the health of this place and the beings that live here as we head into the climate changing future.

This tour of the past can be done alone or with multiple people. If with two or more, one can read the instructions and allow others to close their eyes and listen at times as suggested.
Have a good trip!

Start by finding a place along the Governors Island shoreline where you can see Manhattan – maybe along the fence next to the Manhattan ferry landing near the Island Oyster restaurant.

Close your eyes and

- **Feel the air on your skin** - is it moving gently? Is it blowing with force?
- **Feel the temperature of the air** – is it sunny and warm? Cool and cloudy?
- **Feel the moisture in the air** – is there spray from the water? Is it sticky? Is there mist or rain?

Shore

Keep your eyes closed. We're going to travel back to 13,000 years ago, when the Ice Age is starting to end, when this terrain, and the Hudson River itself, are being formed.

Feel that cold, thick ice under your feet starting to retreat.

The cold slippery ice is changing gradually to loose gravel - roll that gravel around with your feet.

As the glaciers retreat, they've left behind this ridge of rocks that you're standing on now - the terminal moraine...

This is a crucial time –

Listen to that rumble you hear coming from up north

It is a huge amount of icy water from melting glaciers crashing down through the Hudson gorge in a towering wave of watery destruction.

That tearing sound is the southern end of the local moraine, right where you are now, getting smashed to smithereens as the floodwaters tumble past us, and run on out into the Atlantic Ocean.

Now open your eyes.

Look out on New York Harbor towards the Atlantic Ocean and picture the icy rush of water tumbling ...

See and hear the rush of waters begin to slow down...

Feel the waters retreat from around your feet and leave the land you are standing on right now!

Let's ride that water forward to the year 1400:

Close your eyes again:

- **Listen** to the constant movement of the estuary. These are the-waters-that-are-never-still or the water-that-goes-both-ways.
- **Smell** the shoreline seaweed, the smell of fish, and the briny-ness of the water.
- **Listen** to the cries of gulls, osprey, and hawks, as they hunt the plentiful fish in the waters - huge bluefish, striped bass, and weakfish.
- **Listen** to people calling out as they pull their canoes up on this island to set up fishing camps and gather oysters and clams bigger than your hands from these shores.
- **Shift your weight** a bit. Feel under your feet the soft sand that's also crunchy with oyster shells.

Open your eyes

Look across to the end of the long island across from us called **Mannahatta**. You can see sandy and rocky beaches around its edges, too. It is covered with trees of many kinds as far up the island as you can see. There is a large hill near the tip of the island and perhaps you can just make out some people walking on it. There are people on its shores with canoes and nets, and there are some campfires--you can just barely smell the smoke across the water.

Sunk

Let's jump forward again to 1700:

Look across the Hudson River and you'll see the settlement that is now called New York. You can see that there's been a dramatic transformation – the hill is gone, all the trees are gone. They've been replaced with buildings: see the fort at the southern tip, the churches, houses, shipping merchants along the shore.

The sandy shores are changed, now lined with walls, docks, and piers because this is a very busy commercial shipping harbor.

Here on Governors Island you can see behind us the early British barracks, and, if you listen carefully, you can hear the sound of the sawmill – the nut trees on Governors Island are being cut down to make farm land and timber like the Dutch were doing before the British took over this land.

We're making another jump forward to 1900 but move back from the edge of the shoreline - the island is shrinking!

It's 1900 - look around.

Almost all the trees were cut down by the early 1700s, and the island is much smaller because of erosion – only about a third of its original size.

Take a deep breath ... but not too deep!

The air is full of coal smoke, wood smoke, manure, and the pollution from many different factories.

Look over to Lower Manhattan and you can see there's been a lot more growth and construction since 1700. Such tall buildings! So much industry! New York City is one of the busiest, fastest growing cities in the world. Factories, businesses, piers, people everywhere - plus all those ships, ferries, sailboats, and steamboats on the water.

Can you see what else is in the water? See that brown sludge lining the shores? That's a mixture of untreated sewage and industrial waste that's clogging up the waterways--people still swim and fish in it, but it isn't healthy. Most of the shores that you can see from here no longer have oysters and if there are oysters, they aren't safe to eat. Too many people are getting sick with cholera and typhoid...

I think we've felt enough of 1900, so let's return to back to....

Shore

2020

It looks familiar, right? That's today's Manhattan across from you – all that glass and steel – that familiar skyline. Water taxis, ferries, sailboats, jet skiers, tugboats, barges ... all using the waters of New York Harbor.

What can you hear? - Seagulls? Engines? Helicopters? People talking? Water slapping against the rocks and walls along the edges of the island?

Let's tune into the current climate conditions:

Remember how the end of the Ice Age completely changed everything around you?

These days humans are the force that's dramatically altering the land, water, and air and everything that lives here. Remember what Governors Island and the shorelines and waters around us were like in 1400, before colonization, and then think about what it is today.

Consider how climate change is increasing the temperature of the air and the water, bringing more storms, higher sea levels, and putting shoreline communities at risk throughout this city.

The water in the harbor has risen about a foot since 1900

Spring comes a full two weeks earlier than it did then

Trees' blooming patterns have changed

Migrations of birds and fish are happening earlier

Air temperature averages about 80 degrees in the summer now and it keeps increasing.

The ocean is warmer, and there are more and stronger storms.

What will the future look like and what can we do?

Wander the island and look for changes that Governors Island and New York City are making with an eye to the future. Visit The Hills. Read about resiliency efforts to recreate higher land, to replace walls at the water's edge with oyster reefs and rocky shores, and to plant native plants that can tolerate the weather to come. Notice water recycling, trash recycling, and composting; farming and green and clean energy use. These are all good steps but there is much more to consider.

What else do you see?

What else can be done?

What vision do YOU have for the future?