OPEN ● WORLD LEARNING

river

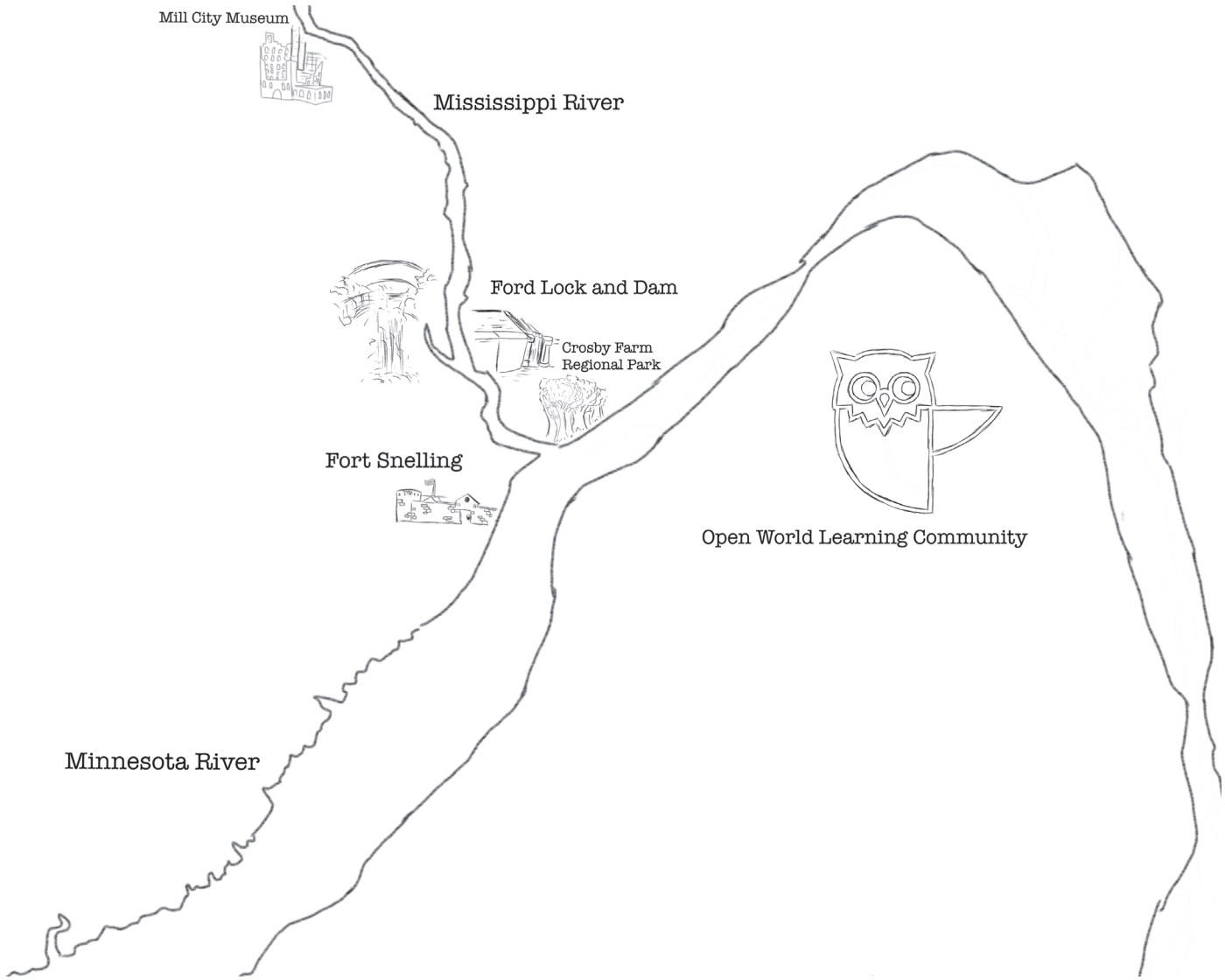
BOOK

spring 2019



writing, photography, and illustrations
by OWL's eighth grade

RIVER BOOK 2019
OWL 8TH GRADE EXPEDITION



Foreword

Our Mississippi River expedition began this year at Itasca State Park, the home of the river's headwaters. Students of course made the legendary walk across the river, and they also paddled voyageur canoes on Lake Itasca, hiked the magnificent trails, climbed the fire tower, and had the opportunity to mingle with and learn from the Wilderness Inquiry staff that led the trip.

It's a great place to begin a journey. The focus of the journey is to help the students interact, physically and intellectually, with the Mississippi River. After this powerful introduction, we spent additional time getting to know our local Mississippi. We focused on six nearby locations: Saint Anthony Falls, The Ford Lock and Dam, Minnehaha Falls, Fort Snelling State Park, Crosby Farms Regional Park, and Interstate State Park. We personally visited each site with guidance from local experts.

In the classroom, we spent time learning more about the history and geography of each site, and studying current issues that affect the River. Students engaged in a Socratic fishbowl discussion about whether or not the Ford Lock and Dam should be removed and why the so-called 'buffer bill' is important to the river's future.

In order to prepare students to write historical fiction in English class, they received targeted lessons in social studies about the history of each location they visited. In science, they studied the geology of the river valley throughout the year.

We are indebted to our partners in this examination of the river. Wilderness Inquiry (WI) was instrumental in our journey; WI guided both the Itasca trip, and continues to help us find dynamic ways to interact with the Mississippi. I think their organization is particularly good at making the river a fun place to be. In addition, Kate Clayton of Friends of the Mississippi River was another great asset. The National Parks Service continues to be an invaluable contributor – Lyndon Torstenson spear headed one of the most impressive and elaborate fieldwork days I have ever seen at Crosby Farms Regional Park, and Brian Goodspeed lent his considerable expertise on a guided hike to Pike Island. Our friends at the Science Museum of Minnesota also continue to be an important source of support and inspiration to keep driving the river expedition forward.

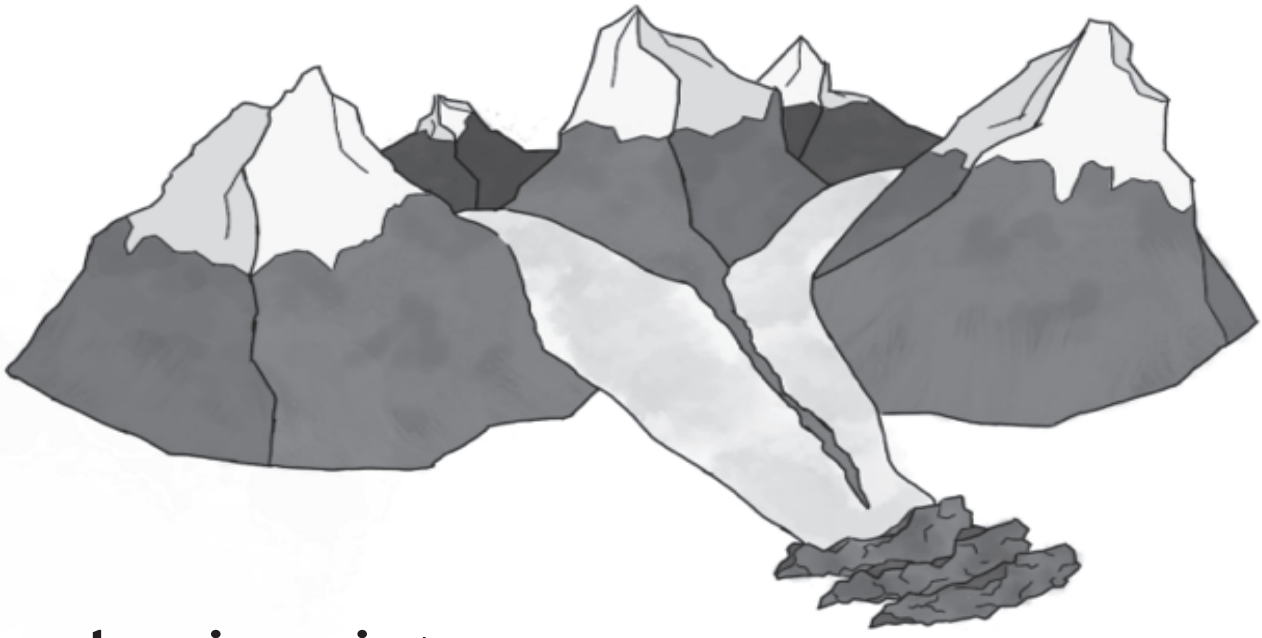
I would also like to thank teachers Luke Turvold and Rebecca Palmer. Both are wonderful people to work with, and their instruction helped lend the river expedition a higher level of interdisciplinary connection that we continue to build each year. Andy Kunkel also deserves special mention for his tireless work that helped us survive four nights at Itasca with 75 eighth graders. Finally, I am indebted to Hazel Carroll, Veronica Rohde, Joe Gorton, and Cy Christensen, the members of the team who devoted over 30 hours to laying out this book during interim. This book would not be possible without their considerable skills and dedication.

This book is a testament to my students' growing relationship with the Mississippi. It begins with geological history, and the remaining content is organized by location, from Itasca flowing south. The anthology captures the stories, observations, and knowledge we gained this year. I think the organizations we worked with all would like to see students interact in a meaningful way with the Mississippi River so that they can grow into the role of being committed stewards for this amazing and important resource.

Time will tell whether or not we have accomplished that goal, but this book indicates that we are off to a promising start.

Leo Bickelhaupt
Open World Learning Community

1	GEOLOGIC HISTORY	"Ocean waves eroded away the basalt cliffs at Interstate, and huge chunks of rock broke off and fell into the water. " -*Conglomerate* (page 3)
9	THE RIVER'S SOURCE	"The lake shimmers like a mirror in the sun." -*The Beauty of The Headwaters* (page 11)
20	THE MILLING DISTRICT	"I started walking toward rice park and heard the loudest sound I've ever heard in my life." -*The Mill on Fire* (page 29)
34	THE RIVER GORGE	"I sat down and tried to think of a way to turn a trickle of water into a raging river.." -*Falls Not Working? Just Add Water* (page 37)
42	THE CONFLUENCE	"Around twenty minutes later I saw the rapids up ahead." -*Rapids* (page 47)
52	THE RIVER'S MOUTH	"The Mississippi connects many people in our nation." -*Jackson Square, New Orleans: Mile 0* (page 52)



Geologic History

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What Geologic Proof do we have of Itasca's Fiery Past?

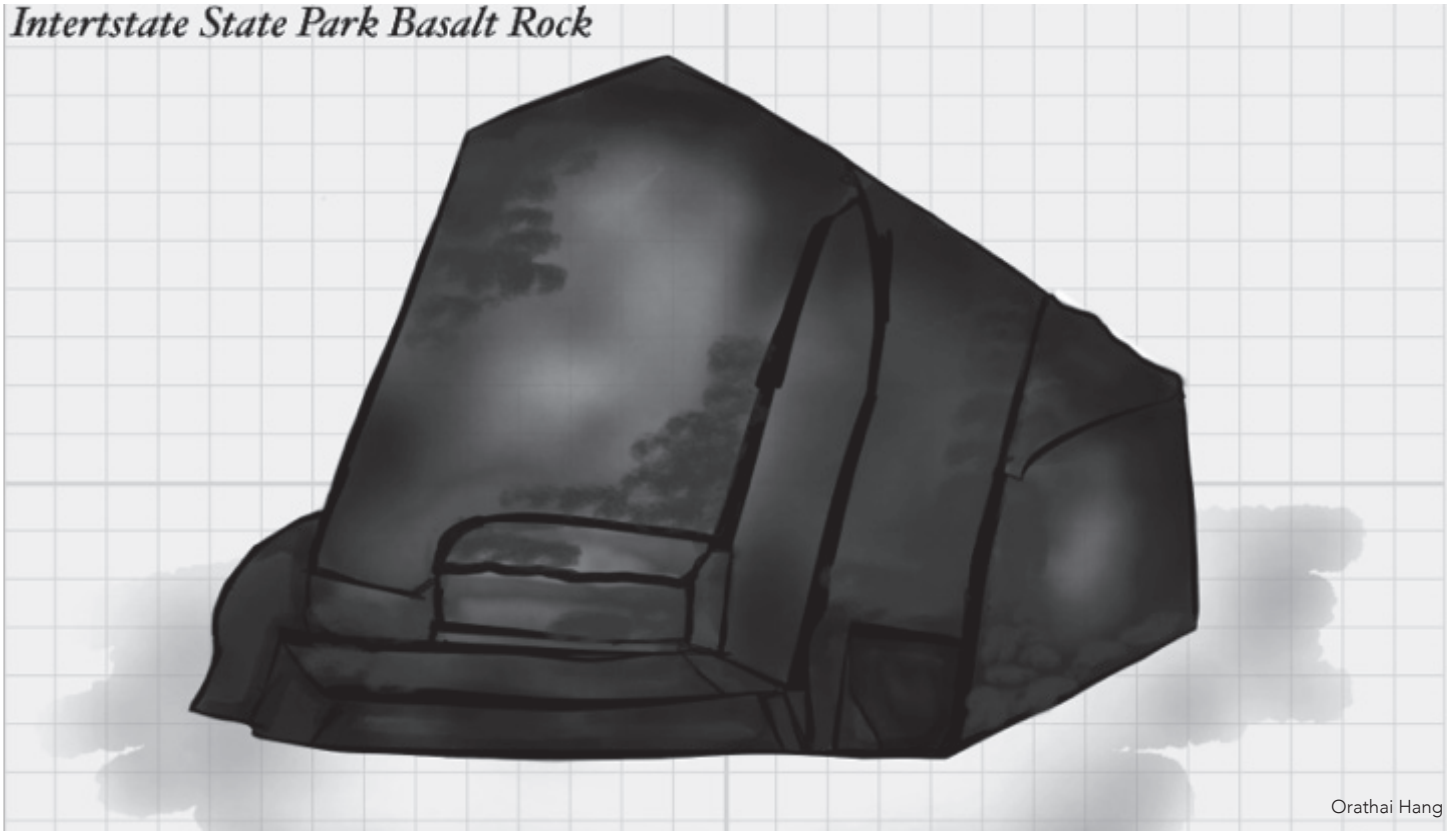
Basalt

Ulric Cha

1.1 BYA, before the Cambrian time period, there was a mid-continent rift which had started to pour lava out of the rift. As the lava hardened, it formed into a rock called basalt. Basalt is a black igneous rock. It is a black-gray color from the cooled lava and hardened to make a rock. Since it formed this way, it is an igneous rock from its cooling process. It cooled on the surface of the earth, and since it cooled like that, it is an extrusive igneous rock. This is similar to how the basalt rock in interstate state park forms as well. The rock forms when the lava from the rift had been deposited onto an earlier layer after it opened and closed last time. However, as mentioned before, the mid-continent rift kept on releasing lava flows, but it had started to open and close the cracks every few years or so until the start of the Cambrian time period where it fully closed.



Brodie Olmstead



Orathai Hang

What Geologic Proof do we have of oceans in Minnesota?

Conglomerate

Lily Weissman

During the Cambrian Time Period, 500 and 550 million years ago, conglomerate rock was formed in Interstate State Park. Minnesota was a vast ocean, with seas covering what is Interstate State Park today. These seas were bordered by huge cliffs of basalt that formed into conglomerate rock. When you look at the conglomerate from Interstate you can see large pieces of different rocks, mostly basalt, you can also see small pieces of sea animals. Ocean waves eroded away the basalt cliffs at Interstate, and huge chunks of rock broke off and fell into the water. These pieces of basalt, along with some small sea animals, were covered with sand on the ocean floor. Over time the larger rock pieces bonded together and formed conglomerate. The smaller pieces of fallen rock and sea animals were covered with sand and slowly turned into sandstone as the seas retreated.



Ian Rosenberg-Scholl

Shale

Otis King

500 million years ago, when the area of interstate state park was covered by the Cambrian Sea, the sedimentary rock known as shale, was formed when the fine silt deposited by the sea was compressed and hardened over time. The waters receded revealing the rock known as shale. It is a fine grained clastic rock, with a grey color, that can break easily into thin sheets. It can also be pretty sharp. Found along the curtain falls trail and near the river level by the highway bridge at interstate state park. In conclusion shale is the compressed silt of a sea billions of years old, thin and sharp. The next rock that came to be was sandstone.

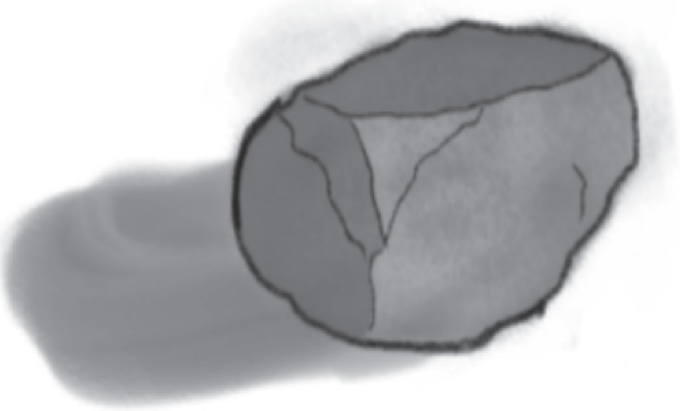


Veronica Rohde

Sandstone

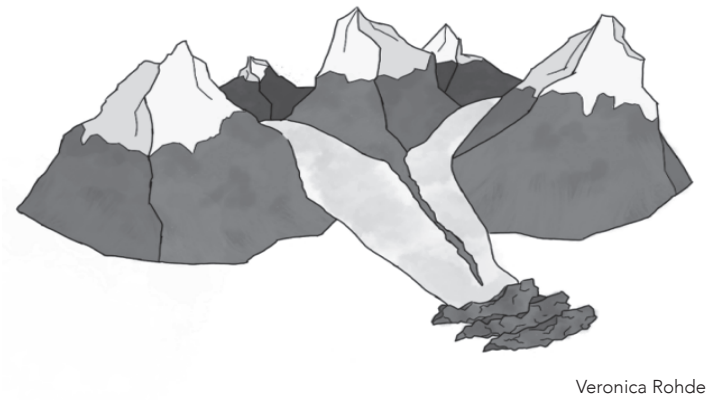
Antonio Rosell

Sandstone is a clastic sedimentary rock found in Interstate State Park, which surrounds the Saint Croix river. It is one of four rocks found at Interstate after the midcontinent rift. That was when the Saint Croix river area almost split North America in half, about a billion years ago. After basalt, shale, and conglomerate appeared at Interstate, sandstone became present when the sea carried sand, which hardened into sandstone.

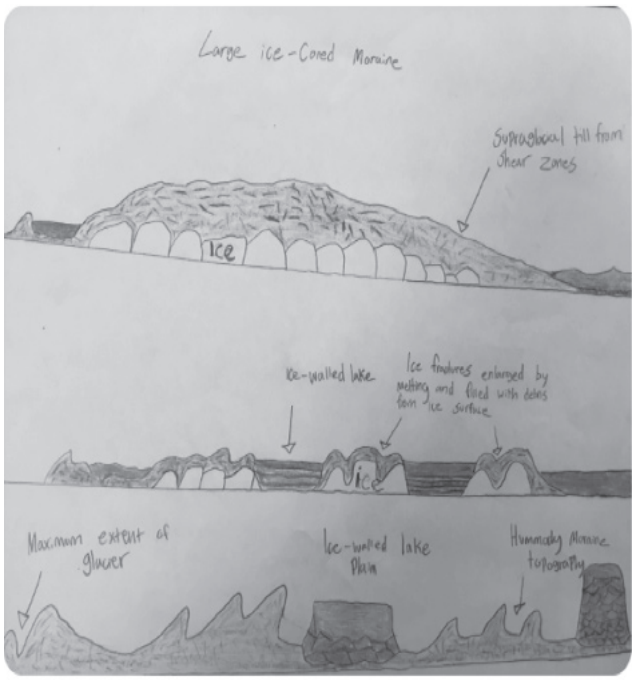


Owen Vaughan-Fier

What is Geologic Proof of Minnesota's Icy Past?



Veronica Rohde



Lae Doh Wah

Icy Past

Ian Brooks

Ice walled lake plains and potholes are two valuable pieces of evidence that point to past presence of glaciers in Minnesota. About 10,000 years ago, during the Holocene epoch when parts of glaciers melted, they would deposit sediment and leave water, creating lakes with walls of ice from areas that did not melt. When ice surrounding the lake melted, it would leave the clay lake bed suspended in the topography with wall shaped sides resembling ice. Turtle Lake is is one example of an ice walled lake plain that shows that a glacier moved through Interstate State Park and Minnesota.

Another piece of evidence for presence of glaciers in Minnesota is potholes. Potholes were created in large numbers at Interstate State Park also about 10,000 years ago during the Holocene epoch. When the St Croix flooded with glacial meltwater, whirlpools filled with sediment and acted as drills powered by quickly moving water. According to the Minnesota DNR, "water alone couldn't do the job. Fast, powerful streams carry a lot of sediment with them, and the Glacial St. Croix was faster and bigger than any river in North America today. It carried huge amounts of silt and sand, and you can see how the rocks it once ran over were smoothed by this "liquid sandpaper"." In time the water and sediment eroded rock creating over 100 holes up just under 60 feet deep. Some also have rocks called grindstones in them. These are smooth rocks created when larger rocks covered tops of the potholes. The water grinded at the sides until the rock was small enough to fall into the hole, often rolling around inside afterward. These potholes and grindstones could not have been created without the intense surge of speed and water that melting glaciers cause.

In summary, Turtle Lake and potholes at Interstate State Park are two examples of formations in topography that could not have been created without the presence of glaciers in Minnesota.

Fieldwork Site #1: Saint Anthony Falls

Fieldwork analysis

Guadalupe Dimayuga

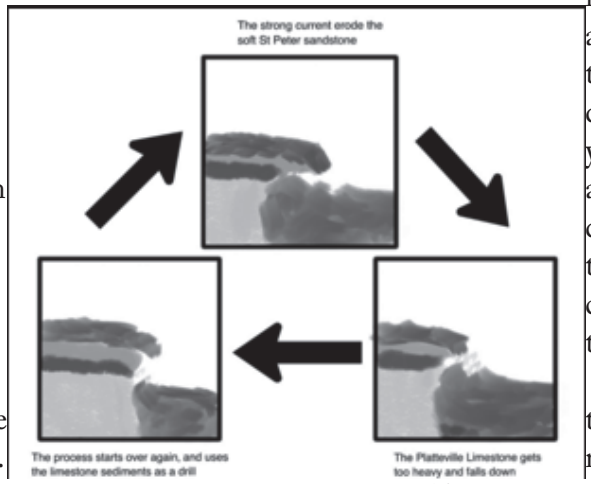
The Mississippi River might be one of the longest rivers in the world, but it's certainly isn't winning any awards for the most waterfalls! Surprisingly, the Mississippi River has only one major waterfall; St. Anthony Falls. It's located in Minneapolis, Minnesota, and is the only major waterfall on the Mississippi River. But St. Anthony Falls wasn't always in Minneapolis. That's right, the falls moved. They moved at a rate of 4 feet per year for 12,000 years. That's roughly 9 miles in total! But how and why did the falls move?



Guadalupe Dimayuga

Before the glaciers

About 450 million years ago, during the Ordovician time period, an ancient sea covered this land. As the sea advanced, many different types of rocks were created. Three types of rocks were deposited at St. Anthony Falls; the oldest and softest one being the St. Peter sandstone. The St. Peter sandstone is made from the fine-grained sand from the ancient beach. The second oldest rock, Glenwood shale was made from the offshore mud. The youngest and hardest rock is known as Platteville limestone and its made from the deep ocean coral reef sediments. At St. Anthony Falls, the rock layers are arranged from oldest to youngest. Sandstone is at the bottom (it being the oldest),shale in the middle and limestone on the top.



Guadalupe Dimayuga

After the glaciers

Although the falls are currently located in Minneapolis, the falls' origin is St. Paul. To move something as big as the falls, we would need something very strong. In this case, giant glaciers would melt, creating extremely strong currents that eroded the soft sandstone at the bottom, leaving no support for the limestone on top. Then the limestone fell and the process started again. Around 10,000 years ago, the St. Anthony Falls were located near the site where Minnehaha Creek entered the river. As erosion brought the falls upriver, they passed Minnehaha Creek, causing a new waterfall to form known as Minnehaha Falls. Later on, humans built a cement structure on and around St. Anthony Falls so that they wouldn't move anymore.

Human affect

The movement of the falls was completely natural. But when humans settled here in Minnesota, certain companies got right to building mills. The water power from the falls was an extremely efficient source. The waste from the mills went straight into the river, polluting it. In 1869, after a year of digging under the falls, the falls collapsed. Humans nearly destroyed the work of 12,000 years, in an effort to give power to a company down the river. They decided it would be a good idea to reinforce the falls by building a cement structure around it, so in the end, it all worked out.

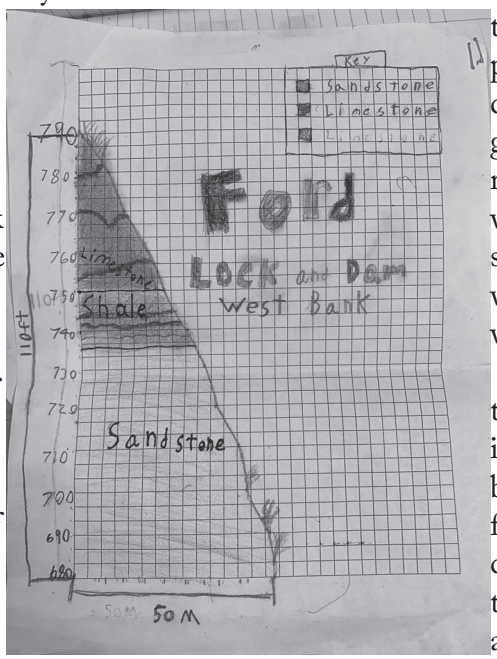
To summarize our original question, "how and why did the falls move?" An ancient ocean created three types of rocks, St Peter sandstone, Glenwood shale and Platteville limestone. These rocks were layered on top of each other in such a way as to allow a strong and powerful current to slowly erode, or push St. Anthony Falls backwards for 9 miles. Now that you've read the story of a massive 12,000 year old fall and how easily humans could have destroyed it, what can YOU do to help prevent things like that to ever happen again?

Fieldwork Site #2: Ford Lock & Dam

Fieldwork analysis

Isaac Stender

You walk towards Lock and Dam #1. You are either awed by the architecture, impressed by the size, or bored because it's just a big rough concrete thing. Maybe you are thinking about all the detrimental effects that the lock has on the river ecology. You hear the river go over the dam and watch the water endlessly progress downriver. What you don't do is turn around. Why would you? But by not looking behind you and continuing to observe the lock, you fail to notice the cliffs of prehistoric rock behind you. This is an important location along the Mississippi River because of the exposed rock layers that show what the area's history was like.



Abe Baer-Benson

As shown in the image below, there are 3 visible rock layers at Lock and Dam #1. Following the Principle of Original Horizontality, they were deposited horizontally, because the sediments were influenced by gravity. This caused the tops of each layer to be flat.

The bottom layer is the St. Peter Sandstone. Applying the principle of Superposition, which states that the bottom rock layers are older than the ones above, it is the oldest layer visible at the lock and dam. It formed approximately 458-455 million years ago (mya), during the Ordovician time period, which lasted from 485-443 mya. The sand grains came from the beaches of an ocean that once covered southern Minnesota. The layer is roughly 150 ft thick. The sandstone is composed of whitish yellow quartz sand grains of medium size, and is easily eroded.

The middle layer of rock is the Glenwood Shale. Because of the Superposition principle, it is younger than the sandstone. It varies from 3-5 ft thick, but in some places it is not even there at all. It formed from offshore mud and silt in the ocean. The material was deposited and compacted approximately 455 mya. It also formed during the Ordovician time period. It is gray-green in color and highly weathered.

Capping the shale and sandstone is the Platteville Limestone. Gray-tan in color and including many marine fossils, it formed from coral reefs from the ocean. According to the principle of Superposition, it is younger than either the sandstone or the shale, having formed about 455-454 mya. The limestone, like the sandstone and shale, formed during the Ordovician time period. Following the principle of Original Horizontality, it was deposited in many flat layers, due to gravity. The limestone is much more resistant to erosion than the others, which is why it was responsible for slowing the upriver progress of the waterfalls, until humans stopped the waterfalls from retreating any further.

Normal soil is all that is on top of the limestone. This is kind of confusing because other rocks were probably deposited after the limestone. In fact, others were, but they were all destroyed by the glaciers that came through the area over 11,000 years ago. As a result, only the older rock is still there, untouched by the glaciers that only destroyed the upper layers.

In conclusion, there are three exposed rock layers present at Lock and Dam #1. They are St. Peter Sandstone, Glenwood Shale, and Platteville Limestone. They were deposited during the Ordovician time period between 458 and 454 million years ago. Any evidence of rocks deposited more recently was destroyed by the glaciers over 11,000 years ago. The location of Lock and Dam #1 is an important site along the Mississippi River because of the exposed rock layers that show what the area's history was like.

Fieldwork Site #3: Minnehaha Falls

Fieldwork analysis

Hazel Carroll

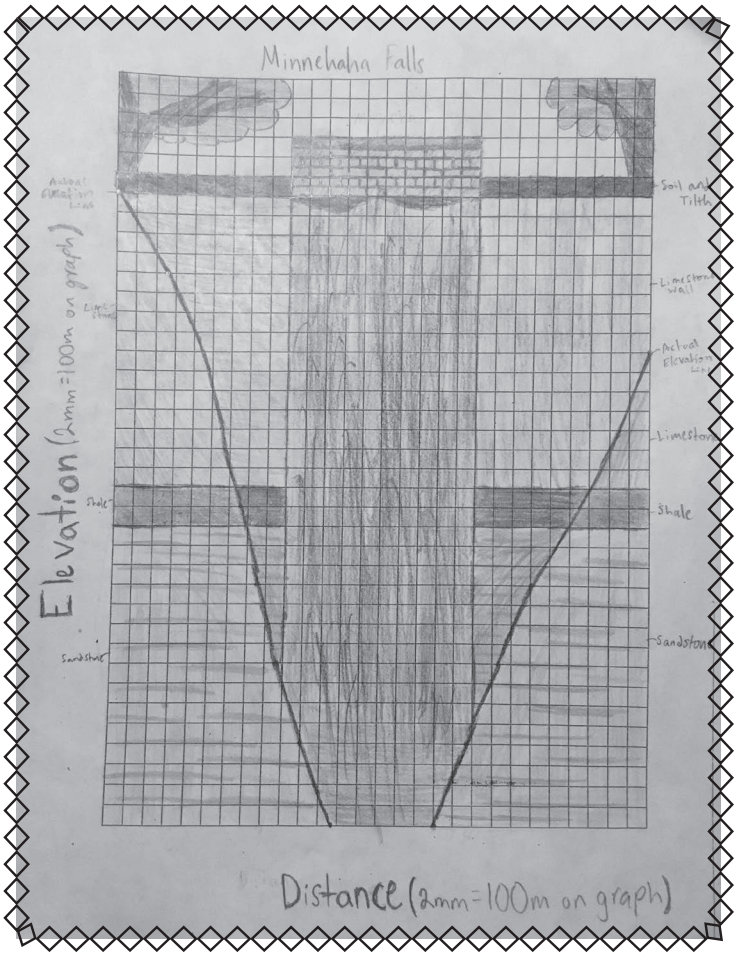
The air smells damp and the sound of rushing water pounds in you ears. You look out over a rushing river stemming from a majestic waterfall. But you're more interested in the wall of rock behind the falling water. Though the clear distinction between the rocks has been mostly eroded away you can still tell the difference between the centuries old sandstone, the more recent limestone, and the shale that holds the two together. These rocks provide evidence that the Ordovician Sea spread throughout the state and helped form the Minnesota we know today.

The first and oldest layer of the falls is sandstone and is around 26.5 feet high. We know it is the oldest layer due to the law of superposition and original horizontality. These laws state that rocks are formed in horizontal layers that are formed with the oldest on the bottom and youngest on the top. This soft rock was formed as the Ordovician sea advanced. It is made out of small perfectly rounded grains of sand that were cleaned and compacted from hundreds of years of advancing tides around 458-455 million years ago.

The second youngest layer is also the smallest. It's shale and it's about 5 feet tall. This rock was formed as the sea began to cover Saint Paul and the rest of Minnesota. It is formed out of silt, mud, and sand that washed up on the edges of the slowly advancing Ordovician Sea around 455 million years ago.

The last and youngest layer is limestone and is around 21.5 feet tall. This rock was formed when the Ordovician sea covered Minnesota. This is seen as it is filled with many marine fossils that are suspected to to have lived at the bottom of the ocean. It was formed nearly directly after the shale 455-454 million years ago.

In conclusion, the limestone, shale, and sandstone all provide evidence of the advance and retreat of the Ordovician Sea 458-454 million years ago.



Orathi Hang

Fieldwork Site #4: Fort Snelling

Fieldwork analysis

Daniela Rodriguez Amaya

Students at OWL went to Fort Snelling in the fall of 2018. Fort Snelling is a old military fort in Minneapolis, MN. It was built on a hill next to the Mississippi River. There are 3 types of rocks that formed along the river at Fort Snelling. SandStone, Shale, LimeStone were formed at Fort Snelling in the ordovician time. These rocks are flat layers, Due to the principle of original horizontally. Due to the law of superposition, the oldest rock is on the bottom and the youngest rock is on top.

The first layer at Fort Snelling is St Peter Sandstone. St Peter Sandstone was formed 458 million years ago. SandStone is a whitish and yellow colored rock. It's medium-grained, not real smooth and not too rough. The SandStone eroded from the Ordovician sea that covered the area 458 million years ago. The SandStone layer is can be 150 feet but at Fort Snelling it's 5-10 feet.

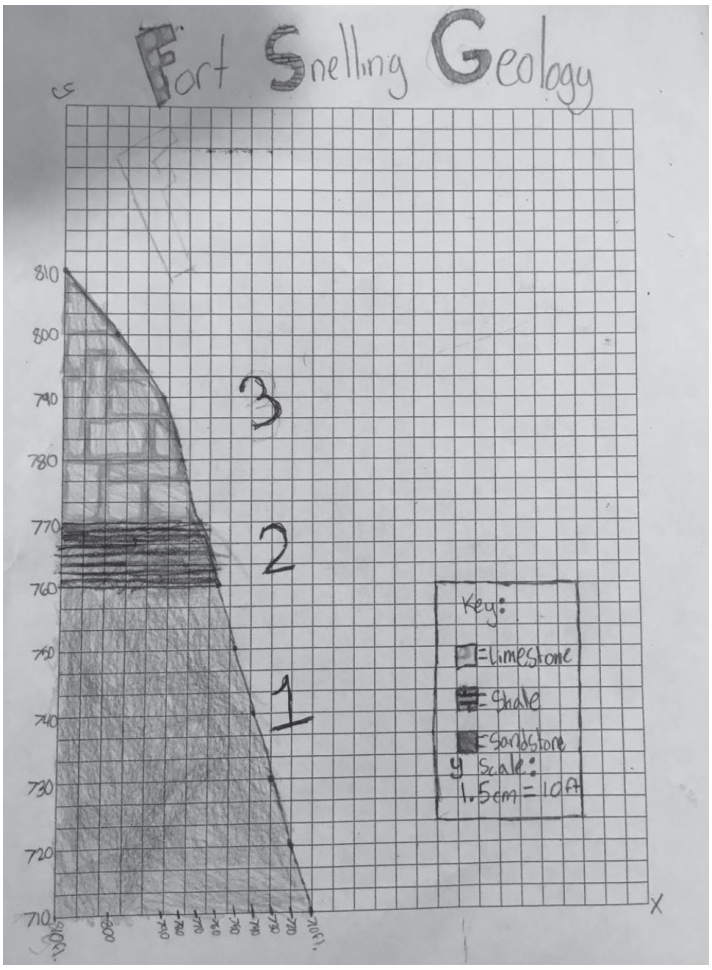
The second layer at Fort Snelling is Shale. This layer is small and hard to see. Shale was formed 455 million years ago. It was formed from the deposit and silt, sand and mud from the Ordovician sea. This layer is 3-5 feet in many areas but not at Fort Snelling.

The third layer is Limestone. This layer is at the top. The layer is 400-500 feet. Platteville Limestone is the youngest rock, that forms flat layers along the Mississippi River. Limestone forms in clear, warm and shallow water. It is made up of rocks, fossils, shells, and fecal debris.

In conclusion, Fort Snelling has Sandstone, Shale, and Limestone that date back to the Ordovician period. These rocks are in layers, with the older layer at the bottom and the youngest layer at the top.



Sophia Windingstad



Sophia Windingstad



The River's Source

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ITASCA STATE PARK: Mile 2,348



Location Summary

Ian Brooks

Itasca State Park has been inhabited by multiple groups of people and industries in history. The region has been occupied by various groups of Native Americans since approximately 10,000 BC and was occupied by the Ojibwe people when the United States had its first contact with it. In 1803 an American geographer named Henry Schoolcraft was led to the headwaters by Ozaawindib, a leader in the Ojibwe tribe. Schoolcraft called the area "Itasca", a combination of the Latin words for truth (veritas) and head (caput). The notion that Itasca held the headwaters of the Mississippi was met with skepticism, which was not denied until 50 years later in 1889 by confirmation from the Minnesota Historical Society. In 1891, Minnesota legislature passed a bill proposed by Senator John Sanborn and advocated for by Alfred J. Hill, Joseph A. Wheelock, and Jacob Brower that created a 35 square mile park around Lake Itasca. Despite their success against logging companies using the white pines in the space, the companies continued to use the lake as a holding area for lumber. Attempts to minimize logging presence were in vain, and the area stayed with significant logging influence until 1920 when logging companies were finally finished with the area.

Today at Itasca State Park, there is camping, fishing, skiing, and various other outdoor activities, a visitors center, and lodges to stay in, but the main attraction is the headwaters. From the Visitor's Center, a short hike brings you to a small, sandy beach in a clearing. Rocks have been constructed at the source in a way that allows tourists to walk across the Mississippi. A few meters downstream, there is half of a tree trunk laid across the water, allowing those not comfortable scaling the rocks to cross as well. Directly next to the headwaters, a wooden sign reads, "Here, 1475 ft above the ocean, the mighty Mississippi begins to flow on its way 2552 miles to the Gulf of Mexico."

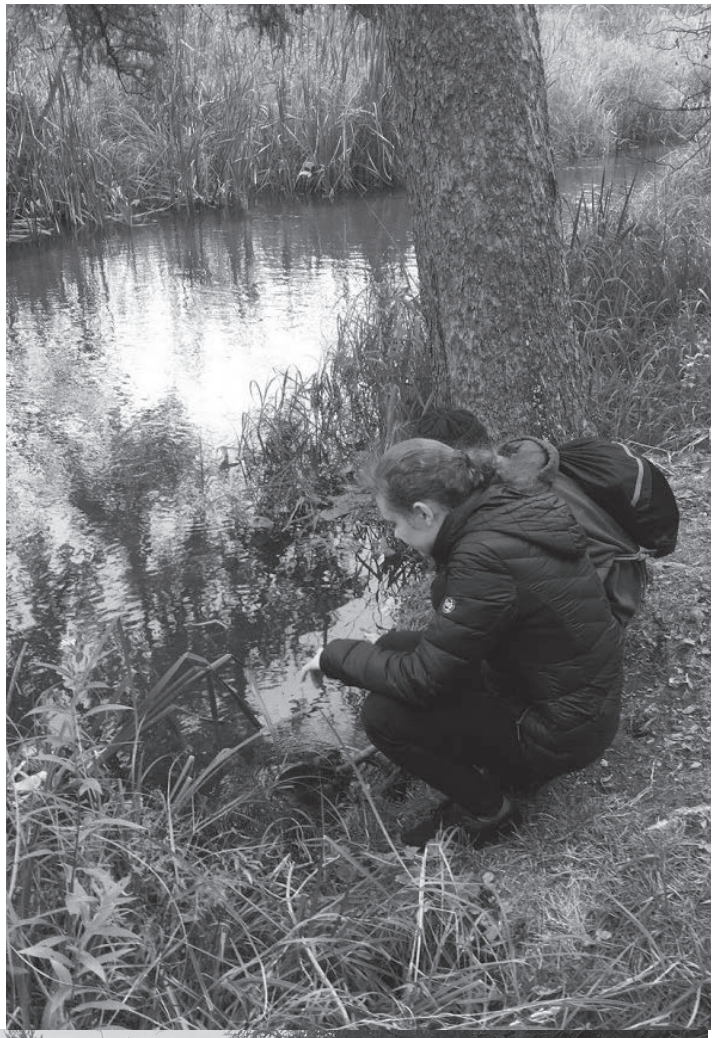
The Beauty of The Headwaters

Sense of Place

Joe Gorton

The smell of the surrounding pine forest fills the air in the crisp fall weather. The Mississippi flows by with light shines of like small flakes of gold. Rocks in the river cause small ripples and disturbances in the water as it runs between them. The light noise made by the river is covered by the talking of a group of students. A small group of people wade in the river and a few walk across the rocks. A large tree trunk placard with yellow writing describes the river's path down to the gulf. The wood bridge lays across the river a few yards away. The water is cool to the touch.

On the trail pines rise up into the sky like buildings in a city. The lake shimmers like a mirror in the sun. Needles and leaves coat the ground, crunching underfoot. Small forest floor plants cover the ground as lone birds chirp periodically in the canopy. Fallen trees lay scattered around, some still with green. Some plants have red leaves or berries adding fall colors to the green of the conifers.





Singing on the Lake

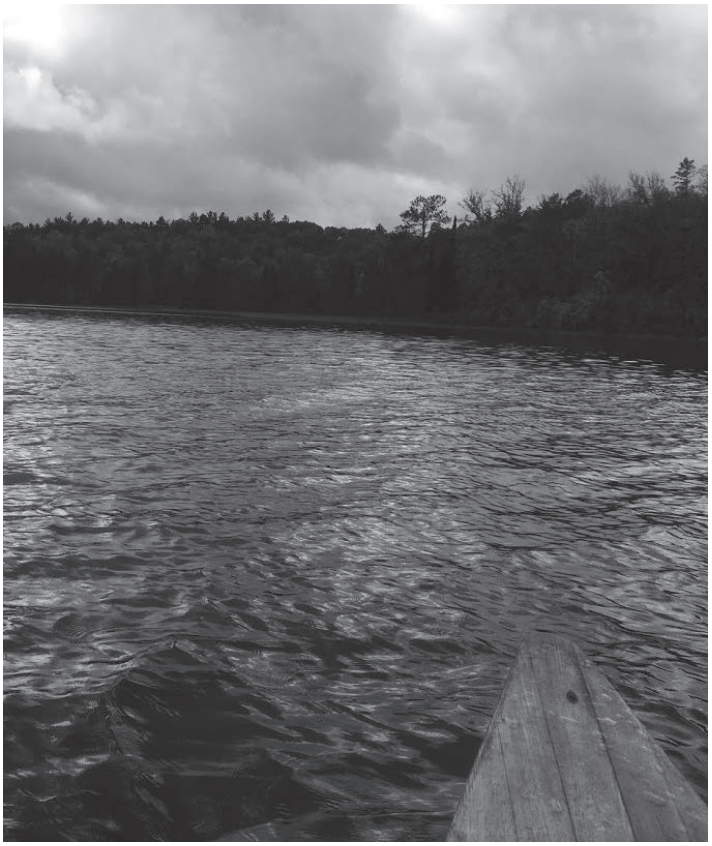
Sense of Place

Anders Mork

As you walk onto the dock, you look out on the lake and see the clouds just barely reflecting on the water. Behind the dock, there is a muddy trail to your left and a road circle with our buses parked there. There is a big bay end then a narrow stream flows out into another bay making a sort of L-shaped lake that will eventually go further and connect to the falls. All around the lake are tall pine trees and you can tell there are weeds growing in the water.

We get on the canoes and Murphy, our helper, tells us to start paddling. It starts lightly sprinkling and then Emi, Veronica, Emilia, Joe, Samantha and I start singing old Disney songs. Looking out over the lake, the rain is dropping on the water causing it to splash just a little bit. You can hear the crickets chirping from the sides of the lake. I can see my friends on the other canoes looking glum because it is raining. Then, suddenly out of nowhere, the sun comes out and everyone's frowns turn upside down. We are now suddenly paddling faster. Everyone seems to be having a great time, living in the moment, forgetting that we are freezing cold, paddling canoes in the middle of nowhere. It smelled like pine needles and wet feet. When we got off the canoes people were getting on the buses to drive back to the camp.





In the Canoes

Sense of Place

Krista Hines

Our group had hopped off the bus after driving down a dirt path. I could see the lake and a wide and short dock, hanging low against the water. A sturdy and nearly honey colored canoe sat next to the wooden platform while the fire red trees and swayed in the back. We piled into the shaking canoe. Our paddles went into the water and we pushed off. 2 feet; 3 feet;

"Our paddles went into the oddly warm water and we pushed off. 2 feet; 3 feet; 4 feet; 60 feet; 100 feet!"

4 feet; 60 feet; 100 feet! The sun was hiding in the clouds and the water looked dull and lifeless, if it weren't for the bright orange trees and bent evergreens, the entire area would've looked lifeless as we paddled slowly across the lake. My hand dunked in the water on accident, having it be warm but the air crisp and cold was strange. The same cold air that was washing over the lake was shaking the trees that had looked

like they came from a painting.

The sun surrendered during the hide and seek game and suddenly the lake was reflecting everything it could, blinding, like a new flashlight in the world's most perfect mirror. The bright trees suddenly looked more like crayons as the green weeds and reeds became more and more prominent.

The blinding reflections of the water paired with the fake looking trees made everything seem like we had just fallen into a Bob Ross painting. Eventually we started paddling back because we were getting short on time. The clouds came back and everything went back to being dull, as if we were in a cartoon and the happiness just left. Drip drop. Drip drop. Small and cold raindrops started falling from the sky. Everyone's arms started hurting but we paddled faster so we could toss on our ponchos and escape the rain.

At the headwaters

Sense of place

Owen Vaughan-fier

My group got to go to the headwaters first. We came out onto the shore of a small Mississippi flowing downstream to the right and to the left I saw the great Lake Itasca with blue, calm waters and the chirping of the birds. It was easier to see when I walked out onto the rocks that separated the Mississippi from the lake because there were no trees in the way of my vision. The Mississippi's water color was a light brown while Itasca's was a light blue.

I was the first one on the rocks but not the first to cross. Some of the rocks were covered by water so you had to be careful not to slip. Out of our whole group, only one person slipped and fell in with a big sploosh.

Out at Itasca

Fieldwork Recon

Noah Kong

After doing multiple activities and eating lunch at the "Mary Gibbs Mississippi Headwaters Center" at Lake Itasca, the 8th grade was split into multiple groups doing various activities. We visited the creaking Firetower and the history behind why firetowers were a thing. We also saw the sparkling water-running Headwaters and learned about the water there and it's cultural importance to Native Americans. My group's last activity was to walk the trails. This hike was to enjoy the trails of Itasca. It was calm and was a nice way to end the last day of Itasca.

We later drove back to the campsite that we were staying at called, "Camp Courage North." Some friends and I were drawing a map of the campsite for E-work. It was the first thing we did when we got back to the campsite. It was challenging to make a map because we had multiple trails to cover. By then night came and we all had to go to sleep.

The Path of History

Sense of Place

Brodie Olmstead

When we first got to the beginning of the trail I thought about how it would be just a fun hike with my friends and we could talk but I had been on lots of hikes before so I didn't think that the actual nature would be amazing.

We started walking and I was right, I was talking with my friends and didn't really notice the nature. But then Luke told us we were going to take a few minutes alone in silence to just look at nature. At first I thought that it would be boring and I just wanted to get going but then I took a moment and looked up.

"The thing that I remember most is the sound of the leaves ruffling and the trees swaying in the wind."

The trees were all tall and very green and the thing that I remember most is the sound of the leaves ruffling and the trees swaying in the wind. Then I took another moment and listened and I heard birds chirping which I thought was so beautiful because that was all you could hear: the leaves and the birds and nothing else.

We moved on and came to another spot where we took another moment and looked out at the lake and all you could hear was the leaves and the water. The water was blue and mostly still, the light glistening off very wave. I took a deep breath and we started our way back.



Climbing to New Heights

Sense of Place

Ellison Northrop - Kiel

We had hiked for about a mile now, the whole time was filled with our joyous singing and loud voices, the voices of around 30 middle schoolers. As we trudged down a steep hill, still winded from the incline, another loomed ahead of us. With a last spark of energy and curiosity Isa, Sofia and I sprinted, the momentum of the decline carried us up the leaf padded path. As we reached the top, one look up left us speechless. The fire tower taller than expected we stood in awe. Sofia was the first to speak, saying with fear and laughter,

"Ah hell no, I'm not gonna climb up that."

We all laughed between short, gasping breaths. The rest of the group arrived behind us and we prepared to climb up the monstrous tower. I linked arms with Isa after convincing Sofia to climb up with us. Heart pounding we went through the fence to the first set of stairs, tentatively placing one foot on the step. I took a deep breath and harnessed all of my courage and starting climbing, looking straight ahead, my mind was a blur for 5 flights of stairs.

Then Sofia stopped and I finally looked around me, it was breathtaking. Sofia had been overtaken by her fear of heights and we left her to climb back down. Isa and I kept climbing, the stairs got narrower and narrower, the tower started to shake, the people below me got smaller and smaller, as if they were little ants. I looked up, I was taken aback when there was still a ways to go. I was doubting myself the fear becoming harder and harder to bear. Isa nudged me along, I was shaking but I kept climbing. After what felt like an eternity later, we reached the inclosed part of the tower. As I looked around me I was astonished, I stood there for a while doing a 360 to see everything around me. We were more than 200 feet in the air, with a view of miles upon miles of trees and lakes around us. It really did take my breath away,

"Wow," Isa and I said at the same time. We were shallow breathed, and completely stunned. We stayed up in the tower for as long as we possibly could. I sucked in a breath and looked below me, my heart was pounding 100 beats per minute. I had to calm myself down before practically sprinting down the steps trying to get down to solid ground as fast as I possibly could. When I reach the bottom I felt the hard concrete and a sigh of relief washed over me. Turning to Isa I laughed and said,

"That was absolutely amazing and the most terrifying thing I've ever done." She nodded in agreement a look of shock on her face.

Sense of Place

Lydia GebbenGreen

I've been on a fire tower before, but this time it was a bit different. As I was walking up the metal stairs, I couldn't help but to keep my hands on both the railings, side by side next to me. The weather wasn't a bright sunny day like some people like it; it was cloudy, cold and wet… just like the metal.

I've never been afraid of heights but something was off as I was climbing the stairs. I was trembling more and more the higher we got but I still managed to look calm and continue climbing. And I realized it wasn't the fear of heights, it was the fear falling. Or tripping. The fact that I could trip and fall and severely hurt myself scared me. The slippery metal wasn't helping. Even though my friends who already went up told me not to look down, I found myself doing that every single level.

Finally, I reached the top. My body was still a little shaky, but my eyes pinned to the view. We were above the trees, so we could see autumn colors just starting to kick in on the tree's leaves. Rays of light beamed through the clouds, lighting up parts of the forest that was surrounding the fire tower. It really was a great view and completely worth the climb.

Sense of Place

Dean Abdulla

Finally, after a long two mile hike we had made it to the firetower. We sat around and the instructor gave us the rules. One of my biggest fears is heights. But I wanted to go up so I took 15 minutes to make up my mind and eventually decided to do it. Me and my friends wanted to go up together, but you were only allowed to have five people on at once and there were three already up there. So me and a couple of friends went and the first two flights didn't make me feel scared at all. But once I went up another two, I knew there was no way I was going make it. I could feel the subtle shaking of the tower. People said it was normal but it still had me a little unsettled.

As I went I felt heavy winds come on to me and then shaking got more intense. Then I made a move people say you should never do if you are scared of heights, but I couldn't stand the urge and took a look down. I was up high and I was scared, but before I knew it I was at the top and I saw the beautiful landscape of the area. There was millions of trees as far as the eye could see, and even a little island far out on the horizon. Just like that my fear of heights was gone. I walked back down. I liked going up the fire tower. It was one of my favorite moments at Itasca.





Sense of Place

Otis King

The day my activity group for the eighth grade Itasca trip went to the decommissioned fire tower, there was on again-off again rain and heavy wind. All of us (excluding the people who were afraid of heights) were excited to get there, our spirits were down after the long hike though. When we finally got there I got very excited, then immediately got mad when I saw how many stairs there were. Right after our half hour hike to the fire tower, we had to ascend a 100 ft structure that swayed in the wind. Yay. The fire tower is a 110 foot tall metallic structure. It's not used anymore, probably due to the fact that it's not safe 6 months out of the year. When it was my turn to go up, I started getting kind of nervous. There were a lot of stairs and I could see the tower moving in the wind. Nevertheless I started to climb.

The wind was icy and powerful and almost knocked me back down a few times, which was, to say the least, very scary, but kind of fun. When I finally got up to the top, it was so worth it. The view was unlike any other. I could see the whole state park it seemed. When you first step up, there are four open sides you can look out. If you were standing facing down the stairs you could look to the right and see the most incredible view of all time. There was a medium sized glistening lake with a small charming island in the center, and that's where the sun was shining most. I stood up there for what felt like hours. As I came back down I felt very windswept and tired. I nearly died when I realized we had to walk all the way back.

A Brief History - Fire Tower

Gabrielle Her

Most of the fire towers in Minnesota were built in the early 1900's. Also called fire lookouts, they were built to protect forests from fires. People would sit in the towers and watch for fires, and when they saw one they would use an Osborne fire-finder to locate it. They would then tell the fire department where to find it. This system was used until the 1990s when spotting fires was easier to do and more cost efficient than fire towers. Now fire towers are best known for being a historical site for young children. The firetower in Itasca is around 100 ft tall, now at Itasca if you want to visit the fire tower you have to hike a mile. I recommend you go during end of fall when the leaves are orange and red. It's such a beautiful site.

Smoke in the distance

Historical Fiction `

Emilia Hulson

As I walked up the many metal stairs in the 100 ft tower, I felt the familiar jolt and rush as I slowly looked down from the top. It was an amazing view, you could see for literally miles around, and fall was my favorite time of year. Right now you could see all the different colors on the trees as they changed, it was great, and I knew I had an amazing job. I manned the fire tower in Itasca state park, and loved every second of it. I had never actually seen a fire, but that was good in the grand scheme of things.

I looked over the different oranges, reds, yellows, and greens, splattered with a few odd lakes, and scanned the horizon. Nothing. I went to the next side, where the big Clarke Lake was. Nothing. I turned to the next side and something caught my eye, a trail of black smoke coming from off in the distance. "What? No it can't be an actual fire, can it?" I said to myself. I squinted at the black line that was smearing itself into the sky, and made out a faint yellow-orange smudge, a fire!

"Something caught my eye, a trail of black smoke coming from off in the distance"

"Ok, Ok!" I said, slightly panicked and ran over to the Osborne Finder. "Turn the ring." I turned the inner circular ring so I was opposite the fire with the flat metal column sticking straight up out of one side. "Look and find the fire." I looked through the small slit in the column, turning the inner ring slightly until I saw the fire through the slit. "Get the degrees." I looked down at the small markings on the outer ring and saw it was 209° due South-East. "Estimate the miles." I looked down at the miniature map and estimated that it was about 14 miles away.

"Record it." I looked at the paperwork and then looked back at the fire, was it me or had it gotten bigger? I looked through the Osborne Finder again. It had definitely gotten bigger. Well dang. It seemed to be getting closer too. I quickly breezed through the paperwork, grabbed my radio and called headquarters.

"Hello this is Alton Heights fire tower." A scratchy voice came through.

"Alton heights do you have a fire emergency?"

I replied "Yes, I do. It is a growing fire 209º South-East of my tower."

"Okay we will send a group over right away."

I watched and heard as a helicopter flew in and started spraying some sort of a white foam that puffed up to try and suffocate the fire from above. Meanwhile another crew of firemen on the ground in fire trucks sprayed water at the base. After about 30 minutes of batting with the fire they were able to stop it from spreading by getting it cornered, under control and contained before putting it out. In the end it was one of my most exciting days as a park ranger, and was happy that I had seen the fire after all.

Lightning Strike

Historical Fiction

Roberto Alfaro Medrano

Robert was one of the park rangers at Itasca, he loved his job because he was assigned to the fire tower where he had to overlook the forest. Fortunately Robert was not afraid of heights so he could climb to the top with no problem, apart from the exhausting trip up stairs of course. It was Robert's first year at his job so he was pretty used to going up and down the fire tower and seeing Itasca's sea of trees and the lakes that added shades of blue to the green landscape which made it appear even more magical, and especially in autumn when the leaves turned shades of orange, red and brown.

This day was different though since something Robert was ready for but didn't expect was going to happen. Robert woke up and started his morning routine, he took a shower, ate poached eggs on toast for breakfast and brushed his teeth. He walked outside and drove to one of his co-worker's house to pick him up since he didn't have a car.

"Heya John, get in!" said Robert as he drove in front of John's house.

John got in and greeted Robert, "you ready for another day at work?" he asked.

"You know I am!" said Robert, "although this thunderstorm seems a little dry."

"Ehh, don't worry too much about it, it'll be fine."

Little did John know that the thunderstorm was something to worry about.

They arrived at Itasca and split up as usual. John stayed down below at a Cabin and Robert went up the fire tower. An hour went by when suddenly: *TTTRRRRR* the thunder resonated a couple seconds after the lightning struck and as luck would have it there was fire, Robert flinched, startled from the loud and booming thunder, worry struck him as hard as the scare when he saw that a couple of the trees where the lightning struck had caught on fire and the fire began to spread. Robert was trained for this and immediately knew what to do, he used his Osborne Firefinder to pinpoint the exact location of the fire, once he did that he called the local dispatch to report the fire's location.

The Drought

HIstorical Fiction

Lars Neske

The brisk autumn wind whipped against the sides of the fire tower as I climbed it with more fear with each step, I have to do this every day and it is the worst part of my job. The air was cold and sharp on this autumn day as I surveyed the view outside, the view was beautiful like always and today there was a tint on the sky that looked like a half ripe orange.

I didn't notice any smoke on the horizon and that was a huge relief especially because of the drought we were having. We have gone almost gone 15 days without rain. Today there was a pretty high chance of a wildfire due to the wind and low humidity so I decided to take a walk to check for drunk people, litter, and fires. The way down the fire tower was a lot easier for me because with each step the tower swayed less and less and I was closer to safe ground. I set out on my walk, as a result of my walk I got 13 pieces of litter, no fires and thankfully no drunks.

When I finally took the last reassuring step and stepped into the enclosed top, I grabbed my binoculars and took another check of the horizon and saw what I always dreaded most, a large billowing cloud of smoke that looked like a storm cloud around 20 miles away. I used my Osborne Firefinder to find out how far away the fire was, and approximately how large it was, then I called it in to firefighters who were on standby.

The woman on the receiving end of the call told me that I was very lucky to catch a wildfire this early, especially with the condition of the trees and wind. Indeed I was, the firefighters told me that if I didn't catch it, it would be disastrous.

Next time, I will take my horse

Historical Fiction

Lucy Annis-Bercier

It was a warm autumn morning. I was headed to fulfill my daily duty of climbing the fire tower and checking for a forest fire. It has been cold for the past few weeks due to the start of fall, but it was particularly pretty outside today. I took advantage of the temperature and decided to walk to the tower instead of riding my horse. I began to jog just for the fun of it. My keys jingled from my belt as I jogged but I didn't mind it. Unfortunately, I noticed it was getting colder and windier as I jogged. The trees above me had begun to shake and leaves were falling off by the second.

After walking for about 15 minutes, I approached the fire tower. I sat on a log to catch my breath because I was about to climb 16 sets of stairs. I stood up and walked towards the tower. I held onto the railings and started climbing up the metal stairs. Considering I had been doing this for approximately two years, the height was not an issue. In other words, I wasn't scared of being 110 feet off the ground.

I climbed about 9 sets of stairs and I could feel the wind getting stronger and the temperature dropping. When I first started the cold was harder on me but I acclimated quickly. I reached the top and took a quick look around. I was expecting to see the everyday view, a sea of trees in all different colors, lakes and ponds of all different sizes and wooden cabins scattered here and there.

Today, something different caught my eye. I saw a fire, a blazing one spreading slowly from tree to tree. I jumped to the Firefinder. It was my first time using it because the technology was relatively new. I remembered my training and pointed the Firefinder in the direction of the smoke. It would measure the distance of the fire and help me alert the fire crew on the ground how to locate it.

I ran down the 16 staircases as fast as I could. I made it to the bottom and began sprinting across the path back to the fire department. I was mad at myself for walking when I could have spotted the fire earlier, arrived to the department faster, and possible prevent some of the damaged that was already caused.

I made it to the fire department out of breath and told the crew there was a fire and where the fire was located. The firefighters thanked me for telling them and ran out to the trucks. Fortunately, the fire didn't spread far because I had caught it when it was only spreading to a few trees. Even though they were able to put out the flames before it before it got out of hand, it was still a good reminder I should always stick to protocol. Next time I will take my horse.















The Milling District

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Saint Anthony Falls: Mile 1494



Location Summary

Natasha Klemmensen

Saint Anthony Falls is northeast of downtown Minneapolis. It's higher up the Mississippi River, and before they developed a cement apron to hold it in place it was the only major natural waterfall on the Mississippi River. St Anthony Falls and St Anthony Falls Bridge are near Hennepin Island and the Upper Saint Anthony Falls Lock and Dam and Minneapolis Stone Arch Bridge. The natural falls was replaced with concrete in 1869. In the 1950's and 1960s a lot of locks and dams built for more navigation upstream along the Mississippi. The Falls was named after saint Anthony of Padua. It is the birthplace to the city St Anthony and to Minneapolis, at the time the two cities joined in 1872 to use all of the power of the flour mills operation. In 1880 to 1930 Minneapolis was the Flour Milling Capital of the World.

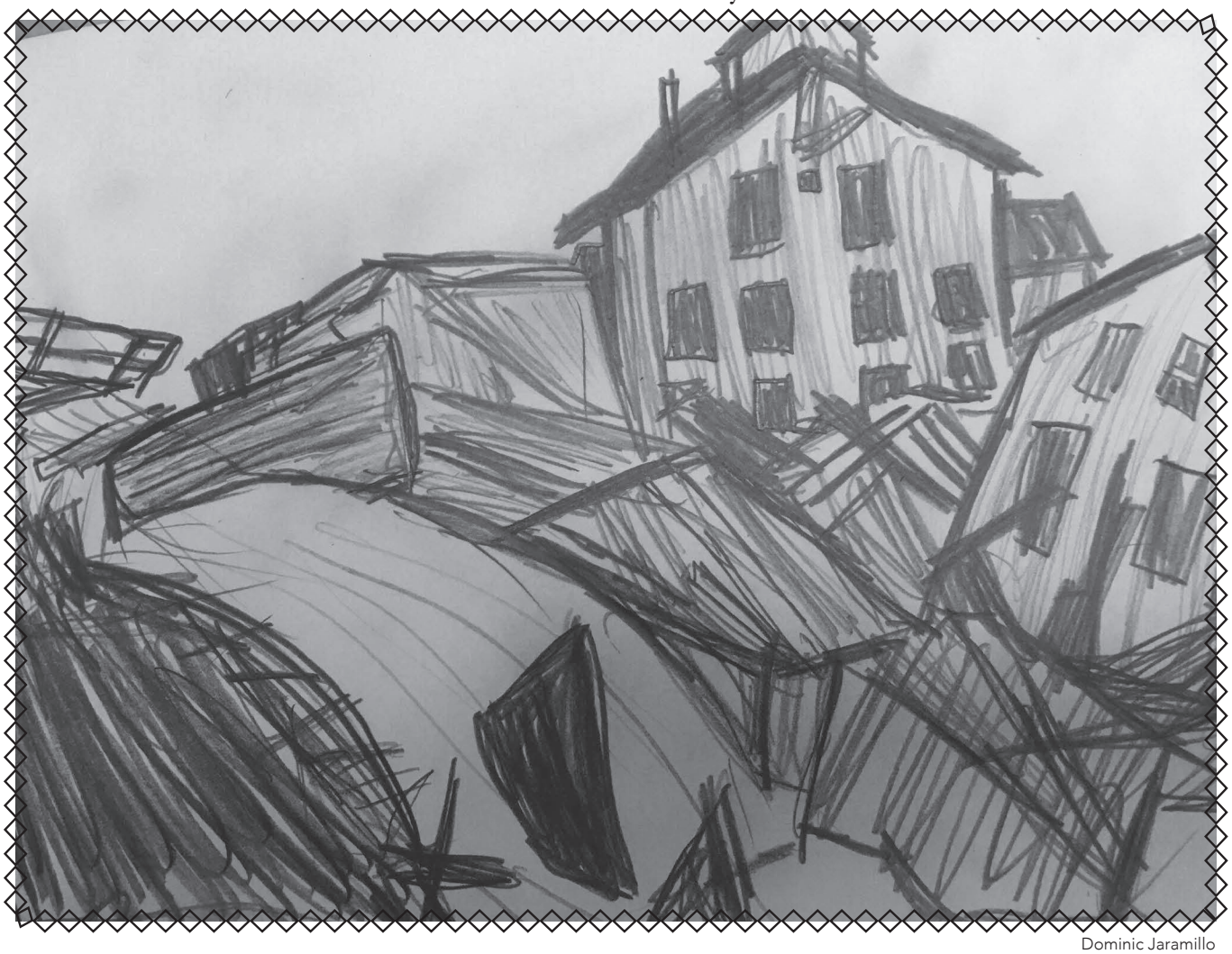
Now St Anthony Falls has attracted people for thousands of years for various reasons like religious significance or economic power. The St Anthony Falls bridge is a bridge that crosses the falls of Mississippi River. Today there are free tours of the lock and dam that are offered daily when the seasonal visitor center is open. Visitors can come any time during open hours with only 20 people at a time. The staff there can provide information about the history of the river, milling, and other topics.

A Brief History - Tunnel Collapse

Lily Weissman

In 1865, William W. Eastman and John L. Merriam bought a large section of Nicollet Island together, along with the land on the island they also bought the rights to the surrounding water. These rights had largely been ignored by the previous owner, but they were the main reason that Eastman and Merriam had bought the land. They wanted to develop Nicollet Island, however Saint Anthony Falls Water Power Company's dam was there, making development there impossible. So Eastman and Merriam brought Saint Anthony Falls Water Power Company to court and demanded that they either remove the dam or lower it, as they now had the rights to that surrounding water. Saint Anthony Falls Water Power Company argued, and said they didn't want to lose the hydropower that the dam supplied. A compromise was made and a tunnel was going to be dug from Hennepin Island to the tip of Nicollet Island under the Mississippi River, this was to preserve the dam's power.

Digging began on the tunnel in September of 1868, and work commenced for over a year with no difficulties, this was until October 4th 1869. On the morning of the 4th workers entered the tunnel to find water seeping in, they didn't think this should be an issue so they patched it and kept digging. The next day the entire top of the tunnel had collapsed leaving a ninety foot chasm behind. At this point the falls were in serious danger of becoming rapids. St. Anthony Falls provided much of the region's power, and if the falls collapsed it would all be gone. Hundreds of volunteers flooded to the area to help stabilize the falls, however their effort weren't enough and the falls still weren't stabilized. Finally the Minneapolis Fire Department and the director of businessman, built three dams to divert the water so the falls could be worked on more easily. However this solution was only short term, it wasn't until the Army Corps of Engineers stepped and built a full concrete apron under the falls, that they were fully stabilized.



Dominic Jaramillo

Escape

Historical Fiction

Debora Tesfamariam

It's another day of work. I wake up and get ready. As I leave the house I give a kiss to my wife and a hug to my 6 year old daughter. I am a construction worker currently working on the tunnel under Saint Anthony Falls. I have been working on this bridge for four weeks so far and the view is amazing.

It's been four hours of working on the tunnel and I heard my boss yell "Lunch break!" So I ran and grabbed my brown paper bag lunch and went and sat with my cousin Randy.

"How has your day been going so far," Randy asked with a mouth full of peanuts and almonds.

"EVERYBODY NEEDS TO RUN NOW!"

"It has been swell so far Randy, how about you," I replied.

"It's been going swell as well but I feel like something bad is going to happen for some reason."

Randy has always been afraid of everything for as long as I remember. Finally boss had called the break over and everyone went straight back to work. After 6 hours of work I go back home to my family.

The next morning I decided to go to work early. As we were walking near the tunnels I saw water gushing through the tunnels and pointed it out to Randy. Other workers were walking towards the Falls behind us. It looked like the river was going to go through the top of the tunnel. In a blink of an eye the tunnel was starting to collapse. Our boss was right in front of us trying to recognize what had happened and the collapse started to get worse.

"EVERYBODY NEEDS TO RUN NOW!" My boss said in his loudest voice. The tunnel was collapsing more and more by the second, and workers were sprinting from the tunnel. I was scared for my life.



I was walking back home while slightly limping and I was very excited about seeing my family. I walked in and gave them both a very big hug. "How was your day, dad?" my little girl had asked me. I started to laugh and gave her another big hug and a kiss on the forehead.

October 1869

Historical Fiction

Elizabeth Hallanger

October 4th, 1869

Looking into the darkness of the tunnel it seemed strangely foreboding. Even though I came here to dig every day the danger of the falls was always looming overhead. I imagined the rushing river flowing into the mine ready to swallow us up. Even worse was the garbage that was right above us. Even if the water was low one large pipe or rock could pin us down and cripple us, or worse, tear a limb right off. Then we'd have to wear one of those wooden legs.

The thought chilled me as we headed in with shining silvery pickaxes and golden lamps casting our shadows on the walls. I knew that when folks would ask about the tunnel's sturdiness the supervisor would assure them that their tunnel is "the safest we got around! Fitted with sturdy beams that can hold up an ox!" I thought about it and assured myself that the supervisor would never lie to us.

The sound of pickaxes on stone began scraping and clinking away. Whenever a pickaxe couldn't break the stone it would drag along it instead. The noise was annoying and I wished I could plug my ears and dig at the same time. I eventually drowned out the sound. I worked alone on a fork in the tunnel. Drip… Drip… The sound of water drops in the cave, but I kept working.

"We're working below a river, this is natural." I thought to myself, but a little sliver of nervousness remained. I knew the other boys felt the same too, but they'd never admit it, they'd be called a scaredy-cat and teased about it. "If they ain't suited to mine, they ain't suited to be a man."I remember hearing one of the men say. An hour passed, Drip.. Drip.. Drip.. The water droplets fell, a bit faster now but I hardly noticed, I was focused on mining.

Another hour passed, drip drip drip drip… The water droplets were even faster, this time they were above my head. Each droplet increasingly annoyed me. I moved to the side, ruffling my hair and flinging out water. When I looked over at where it was coming from, the water was now a steady trickle. I put my hand out into it. The water was ice cold, and sprayed off of my palm. I shook off my hand, and started wondering if the other boys were being rained with water like I was and surprisingly, I got my answer.

"What's the deal with this dang water? Did one of yall hit a pipe?" I heard a man yell. I peered out to the boys, there was water spraying all over. I knew they were working on the main passageway underneath the falls, if they were getting any water, it would be from the full force of the river.

"Hey Thomas!" I heard another man yell, I recognized it as Joseph Warren.

"Pardon?" I responded, Joseph stared at me. He was big and intimidating and I heard he wore that eyepatch cause he was shot in the civil war.

"You gettin water o'er there?"

"Yeah!" I shouted to him, Joseph turned around, looking annoyed and pinching the bridge of his nose "I can't seem to get a br-" before he could finish his sentence, booms echoed through the cave, I looked up to see a large crack forming in the ceiling, the leak turned into a flow of water, pooling at my feet, water was rushing in fast.

"Run!" I heard a man yell. We all scrambled for the exit, tripping over each other, men dropped their pickaxes and lamps or covered their heads, bats were frantically flapping their wings as they left the cave, I even caught Joseph dragging a scrawny-looking man along the ground, screaming like a young girl. We managed to all get out safely and onto a hill, and after only a few seconds, the tunnel collapsed with a loud boom.

The next day, October 5th, 1869

I came out to the falls to see men and women, children and elderly, some dressed in fur coats, tops hats and Victorian dresses, other dressed in dirty aprons and work clothes, watching various objects be thrown into the hole where the tunnel had been. Stones and logs, pianos and furniture were thrown in, men were building rafts and structures to cover whirlpools that formed, when they placed the rafts over the pools, it looked like a triumph… Until the rafts were sucked under and spit out into the river. Watching the chaos, I sighed, thankful I got out alive.

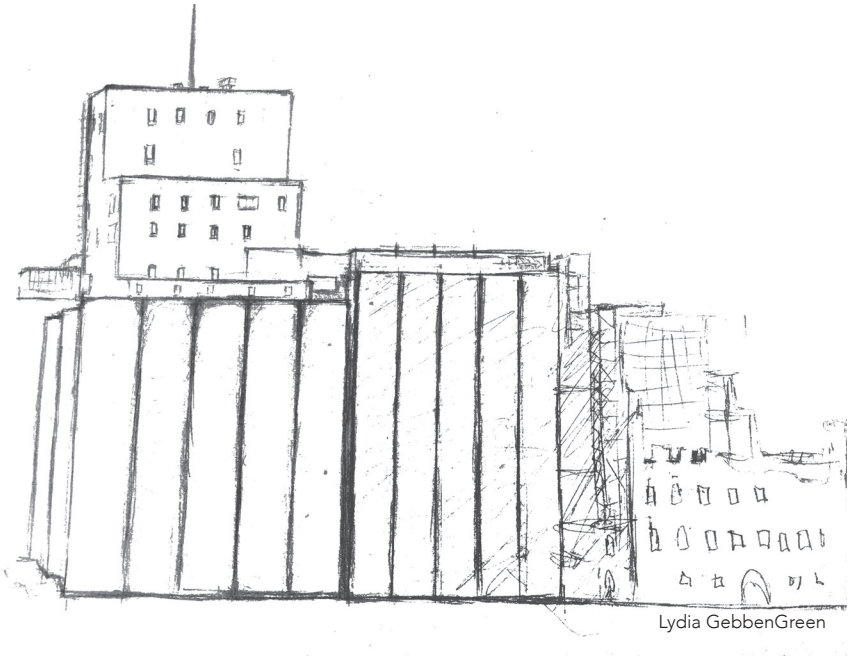
Well I suppose that did teach me something." I thought, "I'm never taking a mining job again.

Brief History - The Mill Explosion

Hazel Carroll

In May 1878, a spark from one of the many machines in the Washburn A. Mill lit the flour dust floating in the air. The mix of hot, expanding air and a tall narrow tower caused a large explosion which could be seen from miles away. This explosion killed 14 people.

Even before the famous explosion at the Washburn A. Mill, flour mills were one of the most dangerous places to work. Whether you were at risk for asthma, death by fire, or being injured by heavy falling objects, the dangers were many. Luckily, for all the risks, the pay was good and the work was generally steady.



Lydia GebbenGreen

A Loud Boom

Historical Fiction

Willam Patton

"Hey Mom?" I said.

"Yes dear?"

"Later today can I go see that flour mill that's been up for a couple of years? I haven't ever really had a good look at it before. I also just want to see the river too."

My mom said, "Sure, that's fine. It is a good view, but don't go to close. It is one of the biggest mills in the world and one of the most dangerous."

"Cool!" I said.

Later that night I was about to leave to go check out the mill when I wondered if my friend Edward would care to come. We both love biking. So I went over to his house to see. He agreed, because he didn't have much to do. So we made are way down the bridge across the river and had a glimpse of the look of the mill. It was pretty cool but we got tired of biking pretty quick and started to head back to our homes.

I said goodbye to him but just as I got to my door of my house, I froze in the hearing of a loud BOOM! I quickly ran to my mom who looked shocked.

"WHAT WAS THAT!" I said in a loud panicked voice.

"Let's go see," she said.

As we made are way outside along with my dad we all could see big flames of fire in the distance. I realized that it was that mill that me and my friend saw just hours ago. Later that day, I went to see how my friend was doing. I saw that everyone was in panic and learned that sad truth that many lives were lost in that fire.

Manny the Miserable Mill Man

Historical Fiction

Cy Christensen

Manny was a janitor at the Washburn A Mill whose life was miserable. Every day he came in to work and something awful happened to him. It seemed like he always had a cast on one limb or another. Whenever he tried to mop the floor he would just fall into a puddle. Nobody really knew how he kept his job. Maybe his boss was just taking pity on him.

Manny arrived at the Washburn A. Mill for work. He went about his normal day, mopping up and trying to avoid breaking his other arm. At one point while sweeping on the loading floor, he tripped and fell onto a man carrying a big sack of flour, which burst open, spilling everywhere. The boss just gave a knowing sigh, and told Manny to clean it up.

At the end of the day, as Manny was watching the last of the flour being loaded onto the train cars and shipped away, he was still cleaning up the mess he had made. It wasn't until late at night that he finally finished cleaning up all that flour. Late nights were the norm for Manny, as events like these happened often.

The next morning, when going to work, another tragedy occurred when Manny walked out of his house. He tripped down his stairs broke his last plate, along with ruining his breakfast of half a glass of watery milk and ice cubes, which he was drinking off a plate. (He had already broken all his glasses.)

With an empty stomach and his trusty mop primarily held together by twine and old glue, Manny went down to the trolley line, only to find that it was closed. Manny almost turned back home, but remembered that there was no way he would keep his job if he skipped work. With all the other bridges under renovations, he would have to think of something… interesting to get to work.

After the swim across the river, Manny realized that this might not be worth it to keep his job. But he was already in front of the mill, so he might as well do his job and get it over with. After all, the swim in the river was refreshing, if he ignored all the damp garbage that was clinging to his body and the boat that had almost hit him.

Manny was working late sweeping up flour at the mill when he heard an explosion above him. Moments later, the building was engulfed in flame and he died instantly.

Manny had no family, so the only person to show up to his funeral was a guy who wanted some food from the banquet, which was a single egg roll and two slices of ham.



Cy Christensen

A Bright Flash

Historical Fiction

Ian St Louis

Jake is walking to the mill. He is working the late shift. He is talking to his co-workers as walks to the mill.

"Man, I hate hauling that flour," says John.

"Well, at least I only have to use the conveyor belts," says Jake.

They keep chatting. A horse carriage drives past. Jake thinks about what it would be like to ride one of those carriages. They keep walking past the many brick buildings and the train tracks.

"BOOOOOOOOM!!!!!"

They get inside. Jake walks past. He gets to the belts and starts the dull work, but it gets him money. He gets bored and chats with the other person in the room.

"At least we don't have to haul those big flower sacks," Jake says.

The other person, Mike, replies with "yeah, but at least they get to do stuff."

"Yeah……."

A few minutes later, there is an odd noise.

"W-what was that?" asks Mike, they both turn around to see the spark.

BOOOOOOOOM!!!!!

The next day, the news paper reads "the Gold Medal Flour Mill in Minneapolis exploded last night when a spark from somewhere lit the flour dust in the air causing an explosion all 18 workers were killed and the building was destroyed."

Juju

Historical Fiction

Franklin Weaver

I was walking my dog, Juju. I usually walked her later but I was going to my friend Jules's house for dinner. He had just moved back to Minnesota from Massachusetts. We were going to see each other for the first time in 15 years and listen to music on my new phonograph. I had known Jules since we were kids. I would call him Juju and he would call me JJ. That's were Juju got his name. We grew up on the same block and were best friends throughout high school. After we graduated he moved away to go to college.

I decided to walk my dog before I left. Since I live in downtown Minneapolis We always walked across the bridge looked at the falls and then back. It was

"I never walked Juju that way again."

still light out. Before we headed back we sat down on a bench and looked at the falls and the mill. I was looking straight at the mill when everything stopped. Everything. The noise. It was so loud it was quiet. Too quiet. Scary quiet. I fell back, off the bench from shock and fear. I couldn't move. Juju ran. I stared. The flames from the mill glistening in my eyes. The screams, the terror, the stone and cement flying every which way. Then it hit me. Jules. We had planned to sit down and have supper at my house and listen to some music on my brand new phonograph. To celebrate him getting his job at the mill.

I jumped up and ran home. The tears rolling down my face. I cried myself to sleep that night. I had never realized that something could go so slow but also so fast at the same time. I never walked Juju that way again. I couldn't, I just couldn't.

The Mill Inspection

Historical Fiction

Sam Proper

May 2nd, 1878, Minneapolis, Minnesota

Christopher was getting ready for the inspection day for the Washburn A Mill. But for some reason, he felt that something was off. It was probably because he was kind of scared of the mill; mills could be dangerous places. To be truthful, his experiences of inspecting mills in the past had left him with near death experiences. The jobs weren't exactly safe.

> "Started whipping around and smacking the dry cement off the ground"

7:00pm

The time had come to visit the Washburn A Mill, the daytime workers were exiting and the nighttime workers were entering building. The night was cloudy and the air was as humid as a steam room. As Christopher was about to enter the seven story building a man stopped him.

"Wait!" He said, "Are you the inspector tonight?"

"Yes I am," I responded

"Great! Let me give you a tour of the place while you inspect."

We then entered the building and we were immediately greeted with the foul smell and texture of floating flour particles, dust, and smoke. The first room was where the grain for the flour was delivered and put on the conveyor belt.

"Are you kidding me! Someone left a flour mess on their conveyor belts!" said one of the workers.

"Just clean it up and report it to the boss," another worker told that worker.

I checked out the quality of the uncrushed wheat and it all seemed to be normal dry and clean. I also checked to see if the equipment was clean and it appeared to be normal. I gave the room a pass and we were about to move on until a man started throwing a coughing fit and knocked over a bag of flour.

"Noo!" One man said as he watched it make another mess on the ground. "Awww, it was very difficult to clean up the last mess!" He grabbed the broom and started sweeping as we exited the room.

"I should show you the mechanic room," the man said.

"Excellent idea" I responded So far the inspection was a good experience. The mood was becoming tense as we approached the mechanical room, but then again, I have had bad experiences with these types of rooms. We finally reached the mechanical room and everything appeared to be okay until I noticed a loose wire and we called some people up to fix it.

"Good thing you noticed that" the tour guide said.

"It is my job to make sure that things don't end up as fatal disasters," I said. "You're doing a good job"

"Why thank you."

I looked around the room some more and was about to give the room a check until a conveyor belt broke off and started whipping around and smacking the dry cement off the ground, breaking small bits of cement flying around the room.

"Ahhh!!!" I yelled, using my hand to block bits from flying in my face.

"Don't worry, we won't get injured," he said, turning off the machine.

"I'm sorry sir, the conveyor belt sometimes breaks off but it has never broken bits of cement off the ground before!"

I winced in pain and looked at the hand that I was using to block the pieces from my face and I saw that it had splinters all over it.

"I'm so sorry sir, we have to cut this inspection short and get your hand medical attention quick, go home, we will finish this inspection tomorrow morning."

I quickly headed out of the building and started walking home, keeping my eye on my hand. But about 10 blocks away, I felt the ground start to rumble and then…

Boom!!!

I blocked myself from where the blast came from, and then I realized… the Washburn A Mill had exploded.

Minneapolis, Minnesota, 1880

I lived in guilt in the 2 years after the explosion. I felt my job as inspector had failed because I let something as horrible as this happen.

When they reopened the new mill two years later, I promised myself that I would do a better job next time, even if it isn't my fault. I quickly realized that the new mill had a ventilation system so the air was much cleaner in here then the previous mill. There were also more safety precautions enforced into the mill to prevent deaths from happening. But the inspection went as well as they promised and I got home safely and went to bed.

The Mill On Fire

Historical Fiction

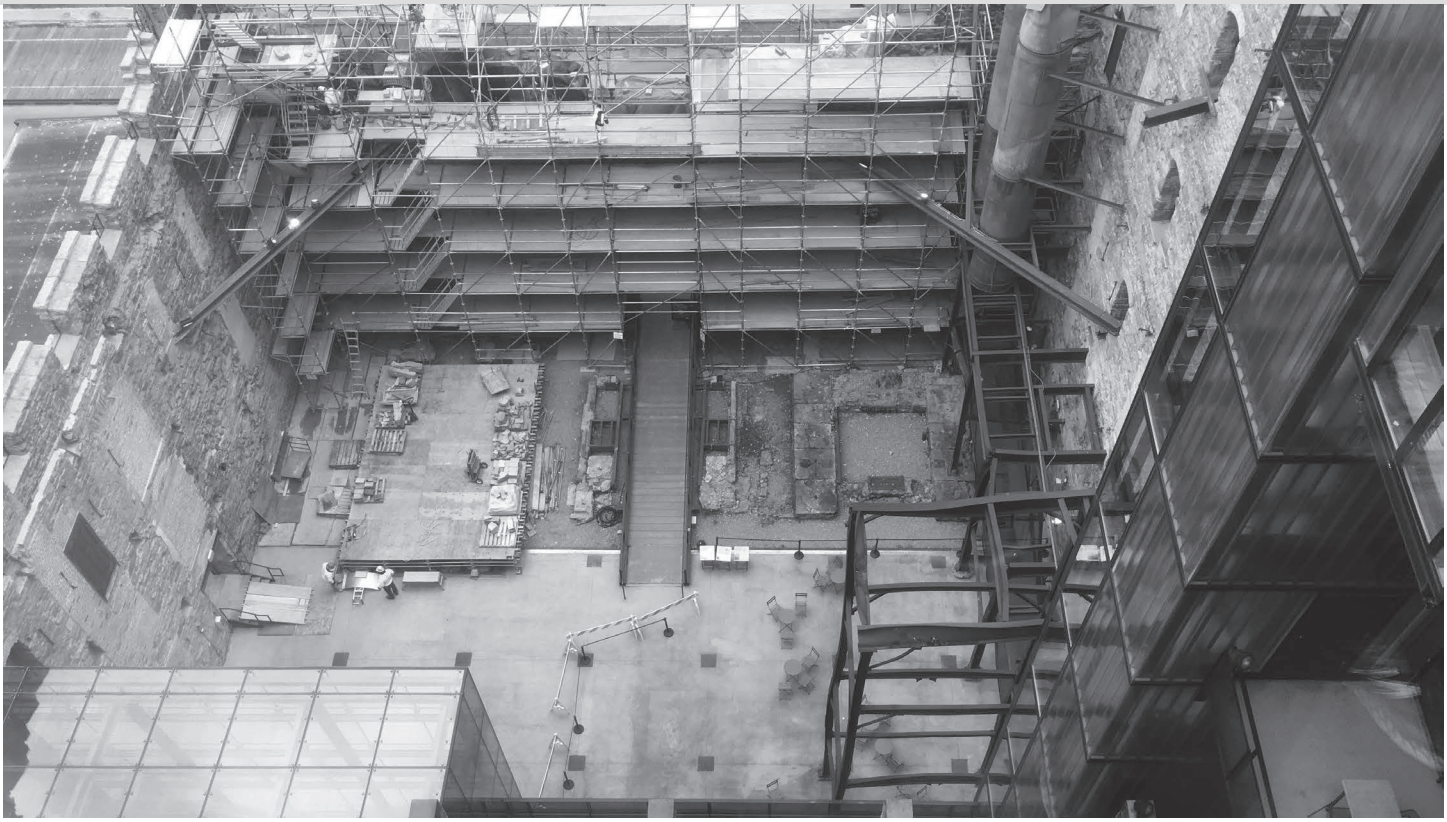
Calvin Defoster

My name is Charles, today was like any other day for me so far. I was wearing my favorite casual clothes that I wear along with a nice little top hat. I was walking my family's dog like I do everyday. As I walked past the mill by St Anthony falls, I couldn't help myself from stopping and looking at how big the mill was. It's the biggest flour mill in the whole world, which is amplified even more since this is already a very tall building. The amount of flour produced there everyday is something to be amazed about. I overheard from my friend John who works in the mill that they get enough flour every day to make 12 million loaves of bread a day. I continued walking since our dog was restless and wanted to keep going, so I went on. It was getting kinda late so I decided to head home.

I started walking towards rice park and heard the loudest sound I've ever heard in my life behind me, I quickly turned around to see where it was coming from. I saw the mill on fire and pieces of it flying through the air. I knew what had happened. I heard that a spark could set the flour dust on fire; causing it to explode. Since there's so much of it in the mill it would be a rather large explosion. Me and my dog ran as fast as we could from the explosion and didn't bother to look back. I knew for sure that I wasn't the only one in awe of what happened to the mill currently behind me. I saw a huge crowd of people looking at the mill with the same shocked expression on their face.

The next day when I got home and read the newspaper, I saw that 14 people died and it took firefighters nearly all night and day to put out the huge fire in downtown. I learned that it caught onto the other mills right by it and just how dangerous it actually was to work in the mill because of all the moving equipment in the mill itself. It taught me how easy it was to have a accident in the mill due to how poor the working conditions in most of these buildings were.

The mill is still closed and doesn't seem to be opening again any time soon even a year after the explosion. The workers that once worked there are still looking for jobs and the flour business here in Minnesota really isn't doing good. We're gonna need some kind of mill to reopen soon or the milling industry might be out of business forever here in Minnesota.



The Grain

Historical Fiction

Marco Hernandez

I awake to my son running about. I can see my wife bustling around the kitchen on the wood burning stove making my breakfast. I quickly get out of bed and dress. Green flannel shirt and thick jeans. We have one lightbulb in the house and it is still dark outside. I eat quickly my breakfast of gruel and water and thank my wife and hug my boy then kiss them as I hurry out the door. I look back on our small two bedroom home with the brick exterior. It is a fine day in the year 1898. I see the mill looming in the distance. I buy a loaf of bread and an apple for the way there. I see a young boy riding one of those new bicycles. I get to work after a 10 minute walk. I look up at the mill and feel very happy and important to be working at such a fine institution.

I go inside and greet a couple folks and get to my post. "Good morning Marvin," I say, "Good morning John," he says back. I hurry up the elevator belt, in is a old clunky thing that creaks and shutters. I remember the first time I rode the elevator and after a minute or two I see my floor and get ready to step off. I step off and almost get my shoe stuck in the belt but it comes loose quickly. I walk to the big grain storage shaft. I start by sorting and picking out the rotten and moldy grain from the flour.

This is a very time consuming process, I hurry and begin getting sloppy. I crawl farther in the the container to speed up the process.

I slowly start slipping down the grain chute. I panic and try to call for help but the with a pang of shock remember that I came early and no one was one my level yet. I try to claw my way up but the more I move the faster I slide. I slide down in horror and and fall into the grain and thrash around. I start to flail my arms and legs around, but that only made me sink quicker. I soon cannot breathe. I think of my wife, my beautiful loving wife. My son, how he loved to play catch with the baseball. My lungs start to take in grain and feel like they are on fire. I thrash a little more, then……Black.

Elevator Shaft

Historical Fiction

Eva Benegas

My day was going completely normal. When I got out of bed this morning the sky was gray and cold. I put on my old brown shirt and walked into the kitchen. My kitchen was small but it was a big step up from my home in Germany. I sat down at the small wooden table in the middle of the kitchen. My wife Marjorie handed me a bowl of oatmeal. It was still hot off the stove. Marjorie smiled at me, gave me a kiss goodbye and went to go back to sleep. I put on my boots, they usually took a while to lace up. I grabbed my hat and coat and walked out the door.

The sky was still gray but I knew the sun would be rising soon. I worked at the A Mill but the walk was not far. "I have so much work to do," I thought to myself. I thought I had a long day ahead of me. I walked down the same path that I always took. It was icy and in some places the snow went up to my knees. My ears were red and the short brown hair was cold at the touch. I squinted my eyes against the harshness of the wind. Something felt wrong but I kept walking.

Once I got to the mill I could feel the energy and buzz inside. People seemed tired but happy to be employed. The mill was busy as usual. The air was full of smoke and noise from the machines. I worked on the top floor. I usually took the elevator up. So I did. I jumped on the small platform and grabbed the handle. I started to think of my mom. She died on the way to the US. I haven't been the same since. I'm expecting to get a letter from her sister soon. It's gonna be about the wonderful life she had.

I hope to see her someday, but for now she's only in my thoughts. Suddenly I turn around and I've just missed my stop. But I'm at the top floor, and now I feel myself starting to turn upside down. Oh no! I can feel air rushing against my face. I closed my eyes and the blood rushed to my head. I hear a loud noise, and that was the day I died.



The River Gorge

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Ford Lock and Dam: Mile 1501



Location Summary

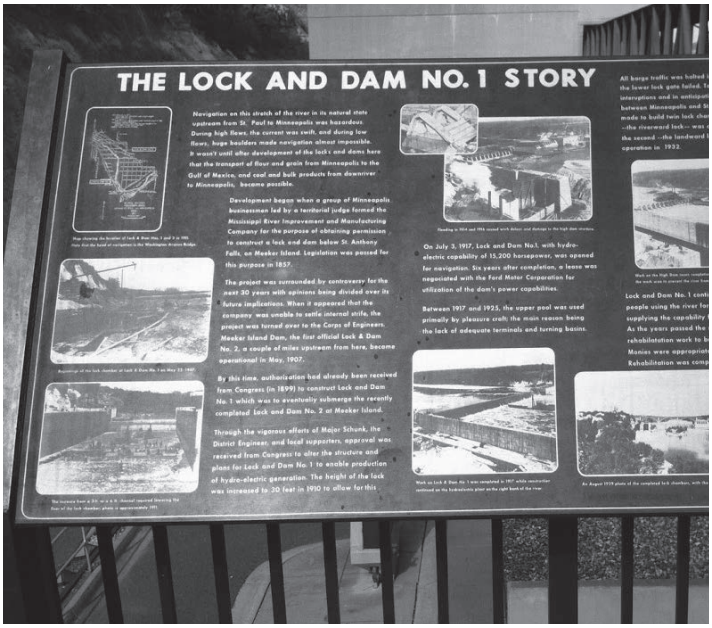
Liam Seath

Construction of the Ford Lock and Dam was completed in 1917 and it is located on mile 8479 of the Mississippi River, between Minneapolis and St.Paul. The Ford Lock and Dam is one of the 29 Locks on the river., which is 2,348 miles long.

On the structure is an observation deck for watching some of the many native Minnesotan birds. The seasonally opened Lock is connected to a dam that is used to generate electricity for the Twin Cities. The Dam allows boats and ships to travel on the Mississippi. The building is directed by the U.S. Army Corps of Engineers Mississippi Division. They allow you to boat, animal watch, and climb up the structure to the observation deck. The Dam was just repaired and will be stable for another 50 years.

Currently there's a growing debate about whether or not the Dam should be removed to restore Mississippi River to a more natural state. Removing the Lock would bring back strong rapids, which could increase tourism for kayakers.





Rushing Water

Sense of Place

Samantha O'Hara Graff

We arrived at Ford Lock and Dam on a sunny day in October. The first thing we saw when we got off the bus was a path that was surrounded by trees. At the end of the path there were stairs leading to a platform above the lock and dam. As we started to walk up the stairs we started to see how big this machine was. There was a walkway on the platform going right over the lock. Once we were in the middle we could see two big dividers in between the river, and in the center of the dividers there were two compartments of water. The compartment on the right had more water than the one on the left. On the platform where we were standing there was the panel of controls for the lock. On the panel they had over 60 controls for the lock. Once we started to walk down the stairs we got closer to the dam.

Later we started to walk to the dam itself. Once we got to the dam we looked down and you could see the water frothing at the bottom. Once we started to walk back you could see straight across the river and you could see how fast the river was moving because of the high water pressure.

The Ford Lock should be removed

Position Paper

Lily Weissman

Have you ever imagined a Mississippi River restored to how it was before humans altered it? Before locks and dams were installed, the river from Saint Anthony Falls down to Fort Snelling included fast-moving rapids instead of slow-moving tranquil pools.

There are 29 locks on the Mississippi River, and all of these locks have changed the river so much that there isn't even a natural current anymore. Lock and Dam #1, more commonly known as Ford Lock and Dam, is located just north of Minnehaha Falls below the Ford Parkway, and it has been around since 1917. By removing the Ford Lock, we could make important steps towards restoring the Mississippi River and improving the river gorges ecosystem.

"There is no faster and more efficient way to bring a river back to health than to remove a dam."

Removing the Ford Lock and Dam would restore the Mississippi River to something close to its original state. The Ford Lock and Dam alters the flow of the river water, changing it from rapids to slow, almost still water. If the dam was removed completely this section of the river would change back into rapids, according to Brian Graber. Graber, a dam removal specialist with American Rivers, says that "There is no faster and more efficient way to bring a river back to health than to remove a dam."

Along with bringing back the rapids, the removal would also bring species back to the river that haven't been there for decades. We would see the return of paddlefish, sturgeon, blue suckers, and mussels. Along with returning animal species we would also see many plant species come back to the river, and these plants would help improve water quality. With cleaner water, schools of fish, flocks of birds, and an abundance of plants the ecosystem around this river section would be restored to the oasis it once was.

By removing the Ford Lock and Dam, we would also create a natural barrier to Asian Carp. As the Ford Lock and Dam continues to operate, it is enabling the carp to travel upstream very easily. Mike Davis, a river ecologist with the DNR, said, "Everyone is worried about invasive species traveling upstream. The best way to stop invasive species is to clean up the river." If the rapids were to be restored the carp would be unable to swim through them as carp are very poor swimmers. Restoring the rapids would bring a barrier for carp without any physical dams.

In addition to providing a natural barrier for carp, species restoration would make life increasingly different for these invasive fish. Asian Carp can lay up to 2 million eggs a year, they can very quickly snuff out all other species in an area. By bringing paddlefish back to the river Asian Carp would finally have a natural predator, and we would see their presence start to dwindle. Restoring the river is the best way to keep invasive species out, because it keeps the river the way it should be, unlike river-altering walls, shock systems, and dams, all of which have been used to keep out the carp.

One of the main things holding many local politicians back is the multi-million dollar price tag on the Ford Lock and Dam removal. However, what these public figures failed to mention is that the government spends an average of two million dollars a year maintaining and staffing the facilities. The rapids would also become a budding tourism spot. They would make St. Paul the only major city in the US to have river rapids in it. These rapids would become a white-water-rafting hotspot and, according to Kate Clayton of The Friends of the Mississippi River, many people do see a potential economic benefit for the community. Also, Steven R. Greseth, an engineer, says that, "The restored river and falls could bring 900 million dollars to the twin cities annually." When these statistics are looked at, the 60 million dollars to remove the dam doesn't seem so ridiculous.

Removing Ford Lock and Dam would restore an important 8-mile long section of the river and improve the overall health of the Mississippi. While the costs seem high, the benefits of restoring the river's only natural gorge seem worth the trouble.

Minnehaha Falls: Mile 1502



Location Summary

Joseph Gorton

Minnehaha Falls is a natural falls within Minnehaha Regional Park. It leads into a stream that trails throughout the park and into the Mississippi River. The land was purchased in 1889 as a new state park.

Today the falls attract many visitors. A restaurant called Sea Salt is open during the summer with many sea food options. The paths down the stream are well maintained. The meeting point of the stream and the Mississippi is across the river from Hidden Falls Regional Park.

At Minnehaha our class went on a hike. We looked at many different rock formations. At the confluence we took pictures and looked at the difference between the waters of Minnehaha Creek and the Mississippi River.



A hike to the confluence

Fieldwork Recon

Issac Stender

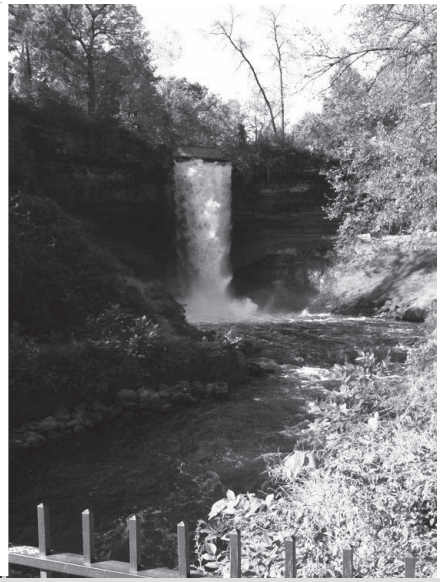
It was a wet day when we arrived at Minnehaha Falls. We all piled out of the buses and grouped up. Our first stop was the waterfall that everyone thinks of when they hear Minnehaha Falls. We headed toward the sound of crashing water, walking for a few minutes before reaching a bridge spanning the creek, which was flowing fast due to recent rainfall. Many of us took pictures, but most of us walked across the bridge and down some stairs to the base of the falls. Then, almost everybody took a picture of the falls in its entirety, noting the exposed rock layers. After everybody had had a chance to photograph the waterfall, we continued the walk downstream.

We arrived at a large field next to a spot where the creek widened. It was there we split into groups. Almost everyone chose to walk the full distance, to where Minnehaha Creek empties into the Mississippi River. That group began walking at a moderately fast speed to reach the end of the path before we had to leave, taking a few notes and pictures. There were a few spots of interest along the way, such as an out-of-place rock and several islands in the creek.

Finally, we reached the confluence. The creek had widened and slowed significantly at the end, and there was a beach on one side where it met the river. There was yellow rock in a cliff on the other side, with several large holes in it, one of which was large enough to stand in. We spotted another out-of-place rock, and took notes about the whole scene. Crossing a wooden bridge, we walked to the beach, which was littered with rocks and sticks, all of which were wet from rain. A large fallen tree free of bark was lying nearby, supported by it's larger branches. Many of us were sitting on or jumping off of it. The water reflected the image of the trees surrounding the creek and river. Looking upriver we could see a vehicle bridge and Lock and Dam #1, the Ford Lock and Dam, and downriver was all trees. After taking this all in, we took a few more pictures before returning to the trail to walk back to the bus.

The walk back was very similar to the way there. The only difference was that on the way back we walked on the other side of the creek, which gave only us a slightly different view because the creek is so narrow. We walked fairly quickly, and soon arrived at the field. After ascending a long flight of stairs up a hill, and walking a bit more, we arrived at the bus.





A Brief History - The Presidents visit

Isabel Benegas

On June 27, 1964 President Lyndon B. Johnson visited Minnehaha Falls as a stop in his campaign, accompanied by Senator Hubert H. Humphrey and Governor Karl Rolvaag. During this period Minneapolis was having a drought, causing the Mississippi's water levels to plummet. The park board decided to invest around $600 in opening up fire hydrants upstream from the falls to raise the water levels. To commemorate the visit, the President's footprints were set into concrete near a popular over look.

Falls not working? Just add water

Historical Fiction

Gabriel Kennedy

It was a Monday morning and only my second week in charge of the Minneapolis parks. As if there was not already enough paperwork in my office, a call from the mayor informing me the president of the United States was visiting Minnehaha Park was not what I needed. Not only was he visiting the park, but he was due to arrive in a few hours. I quickly got all available rangers to start cleaning the park. The rangers only had a few hours to clean before I arrived to check their work.

At first glance all looked great, the garbage was picked up and the river was clean. But then I saw the falls for the first time today and my mouth dropped. I looked at the ranger in charge of the cleaning crew and said "What the heck! Why didn't you tell me about this?"

"Sir, it hasn't rained in a month, I can't control the weather," the ranger answered.

I looked back at the waterfall. It looked as dry as a desert, and barely a trickle of water flowed over the falls. With no idea what to do I called the mayor for advice. Within minutes I was rushing back to City Hall for an emergency meeting.

"It looked as dry as a desert, and barely a trickle of water flowed over the falls."

The room was in chaos as the mayor stepped up and said "Quiet, the President of the United States will be here in any moment. We need to fix the falls so they look healthy quickly, I need ideas."

All eyes fell on me. It didn't matter that I only had a week of experience under my belt, they expected me to fix the problem. I sat down and tried to think of a way to turn a trickle of water into a raging river.

Historical Fiction

Sophia Windingstad

I heard a knock on my office door, great, I was just about done with my paperwork. I shouted for them to come in, and to my surprise, it was my boss. Super great. I took my hand off my computer mouse and looked up, trying to seem interested to hear what Benedict Contreras had to say. He walks over to my desk and started fiddling with my triangular metal name plate that says "Sarah-Louise Carlson"

He stares at my nameplate and says "listen Sarah, president Johnson is coming to Minnehaha next week;" he stares into my face "So I need you to make sure that everything is ready for everyone to arrive, okay?"

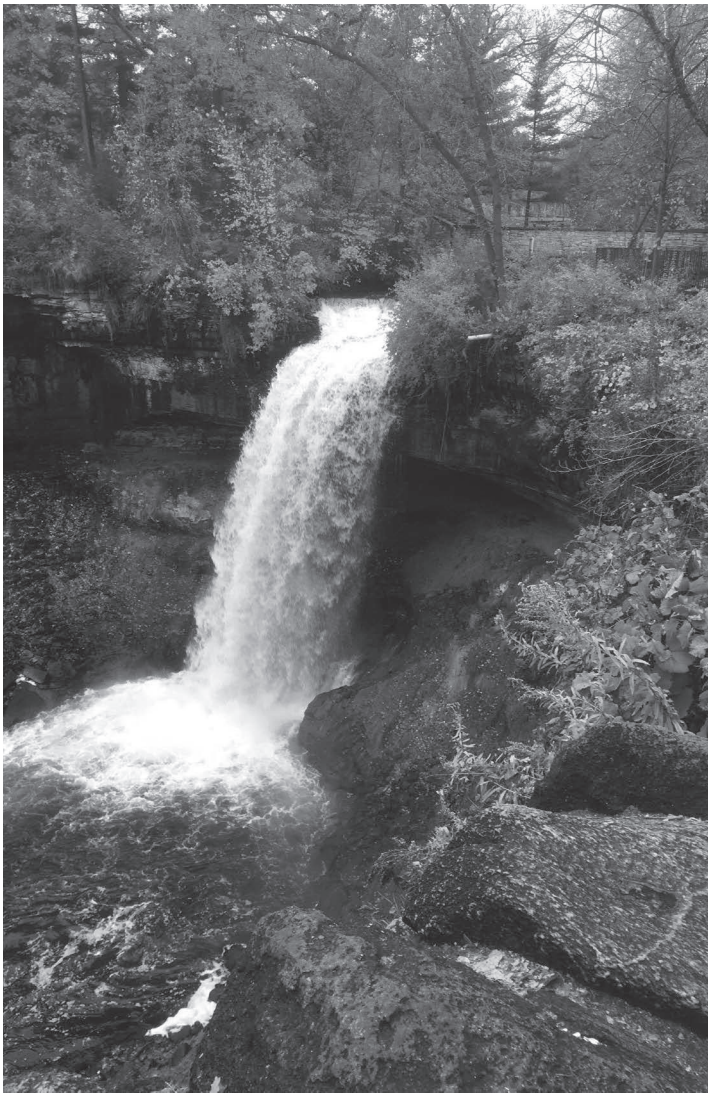
"Really?!? President Johnson is coming?! That's wonderful!" I never thought that anyone slightly important would come to the falls but I guess I was wrong, this definitely was very good news and the opposite of what I was expecting.

"Yeah, it really is great," he smiles and sighs "I never thought that the falls were so important, my wife freaked out when she heard the news." His Wife Rhonda is the town reporter, I'm kinda jealous on how important both their jobs are, my husband Marty is only a bus driver. "Anyway, I've gotta get back to work, so can you get the falls ready?"

"Absolutely Boss, I'll get to that right now" I said and scooted back in my desk chair and my boss left my office. I finished up my work and went out to check the falls.

I started walking around the falls, picking up trash and making the place look nicer. I'll probably want to do this everyday until the president comes next week. As I was walking around the park, I felt a drop of water land on my arm, I looked up to the sky and saw the gray clouds that covered the sky, Then I felt more drops splat one by one of my face and before I knew it, I was being soaked by the tremendous amount of rain that was drenching my brand new jacket. I started to walk quickly back to my office. Right as I sit the door behind me in my office, a large roar of thunder rolled across the top of my office building.

The next day as I was walking around Minnehaha I went over to the actual falls and saw that there wasn't actually much water that was coming down it. My first thought was that obviously we can't the president see this pathetic amount waterfall. I walked over to the bridge that runs across the top of the fall and studies



some more when my boss walked up behind me.

"How is everything looking Sarah?" He asked and looked at behind me, probably watching some visitors walk around the park.

"'But don't worry boss, I have an idea on how to fix this.'"

"Well, I just noticed that the falls doesn't have much water coming out of it." I said and we walked over to get a better view of the falls. "See…" I gestured over to the falls and he took a long stare at it.

"Yeah, that's not good. We can't let President Johnson see the falls like this."

"That's exactly what I was thinking. But don't worry boss, I have an idea on how to fix this."

Historical Fiction

Orathai Hang

6:30 AM…

Tick…. Tock…. Tick… I fidgeted with a pack of cigars. Opening the lid and closing it. Sitting on my desk was boring. I stared at the pack of cigarettes in my hands, and I took only 1 cigar out.

Chhhk! I lit the cigar. The thick grey puffs of smoke filled the room corner to corner. My paperwork slowly vanished into the dark grey smoke. Golly! The burning the smell is killing me. Oh, Gosh! I rapidly swat the smoke away. I got up and open the window. Just a little bit. I leaned against the back of the chair to get comfortable.

The sudden knock at the door scared me right up. "Yes?" I responded. Trying my hardest to act as if I weren't startled. I looked up, creeek… My office door slowly creek open. The dark grey smoke flowed out of my office in a hurry.

My friend John walked in. His face scrunched up and he coughs hard. As if he's never been in this much smoke before. "Well Finn, The President is coming to see the falls. He said he'll come around 7:30am." I gazed at him. Lost in my thoughts of happiness.

I abruptly jumped up from my chair. "R-really?! We need to make sure the falls is at its best!" I exclaimed. I threw my cigarette on the ground and stepped on it, twisting my feet a couple of times to make sure the fire on the cigar died out.

6:35 AM…

I got out of my office. John and I walked out to see the condition of the Falls. "C'mon, we don't have much time," I said making a swinging motion with my arms. John followed with a nod. Showing his understanding of my rushing excitement.

But when we got to the falls… Oh no! It's not full enough! It's like individual streams of water, and barely falling. It's thin like transparent sheets of paper... sheets of paper that had been cut up into strips! This week has been a pain with the drought, but I kinda knew the Falls wouldn't be as well. Minnesota has not had enough rain this week, and it's been so dry.

"What should we do now John?" I asked. I couldn't help but have a look of disappointment.

John looked at me sheepishly. "There's fire hydrants just down the falls…" He said shrugging with doubt. His idea was like a light bulb had lit up; as bright as 1 million fireflies.



Historical Fiction

Isabel Benegas

We arrived at the fire station and ran to the entrance as quickly as possible. At the front desk was a young woman looking through a various folders. She looked up sharply at the sound the sound of our footsteps. I was surprised to see that she wasn't smoking. She probably believed the rumors that smoking was unhealthy. We asked to see the fire department's chief from and showed her our badges. After she alerted him, we ran up the stairs to a small office and knocked on the door. The stout old man opened the door and gave us a cheeky grin.

"What a PLEASANT surprise!" The fire chief said practically dragging us into his office.

"We are here to talk about a very important matter, but we don't have a lot of ti-" Anderson was cut off by the fire chief mid sentence.

"Uh, Uh, Uh!" He said waving his pipe centimeters from Anderson's face.

"I haven't seen you two since '62. We need to catch up before we proceed. That's an order." For the next 25 minutes, we were lectured about varying unimportant topics. I was beginning to get impatient.

"...and that is how to make chicken soup," he finished. I sprung at the chance to speak.

"'What a day,' I repeated."

"So Chief, we came here to talk about a problem we are having down at the Minnehaha Falls."

"We were wondering if you would let us use the nearby fire hydrants to increase the flow of the falls. We would only need them open for a short period of time," added Anderson.

"Alright," he said flatly.

I looked over at Anderson and tilted my head in confusion. The chief opened his mouth to say something but Anderson immediately jumped to his feet, shook his hand and ushered me out of the building. The truck engine sprung to life as Anderson and I shared a good laugh over what had just taken place.

As soon as we arrived to the park, it was chaos. Every single person, staff or otherwise, was preparing for the president's arrival. We wasted no time running up to the main building and calling the fire station for more information. Because of our haste, we forgot to form a plan. The same woman that we had spoken to at the fire station answered the phone.

"This is Suzan from the Saint Paul Fire Department. With what may I assist you with today?"

"Good Afternoon Suzan. We are the two men who came to meet with the chief earlier today. We need some verification about the fire hydrants," Anderson said calmly.

"Oh yes. My boss told me about your plan. You will need to meet with one of staff to verify the specific region of fire hydrants and the correct time."

"Thank you so much Suzan. One of us will be there soon," I said hanging up.

"Wilson, I'll go. Can you stay here and make sure everything is going according to plan?" Anderson said in his most serious tone. I was astonished that he was saving me from the surely tedious task. I straightened up and lowered my voice for my response.

"Of course. Thank you."

Afterwards, everything happened quickly. I helped in every way possible; holding babies, picking up garbage, cutting the grass, lighting cigarettes and even combing my captain's hair. Anderson came back after only an hour looking thoroughly exhausted so I sent him to sit for a while on a nearby bench. I took one last glance at the falls and noticed it looking at least 15 times fuller than this morning before spinning around and seeing a long shiny car drive up our gravel road.

President Lyndon B. Johnson stepped out of his vehicle and walked up to meet my beaming captain, with two massive bodyguards standing inches behind him. He was wearing a suit that looked more expensive than my entire house. I couldn't believe it was him, and even so soon after President Kennedy being assassinated. Anderson and I glanced at each other after he gave us a slight nod and proceeded on the path to view the river. I couldn't hear their conversation but it seemed as though the president was more interested in the cameras than the river. It didn't matter. We saved the park employees, and I made a new friend all for a little time, energy and stress.

The president left as soon as he came, bringing the crowd with him. I turned to Anderson who was taking off the top layer of his uniform and asked if he wanted to go grab a beer.

"I'd like that. I mean-" he paused to let out the swirling smoke from his mouth "- what a day."

"What a day," I repeated.



Photo courtesy of Pioneer Press archives



The Confluence

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Fort Snelling State Park: Mile 1503



Location Summary

Mi Paw

Fort Snelling State Park and the surrounding area has lots of history. The fort was located at the confluence of the Minnesota and Mississippi River before the Twin Cities existed. Before the Europeans came, it was a sacred place for the Dakota people, and the waterways around the area were a major trade route before there were any roads. Fort Snelling was originally built in the early 1820s as an army frontier post. Fort Snelling State Park was established in 1962.

Today, Fort Snelling is close by Minnehaha Falls and the Minneapolis St. Paul airport. A lot of schools go on field trips there and it's a great place to hike, bike, ski, canoe, play golf or swim. Fort Snelling is also a place to honor the Dakota people. We went to Fort Snelling on a chilly fall day in October. Rebecca led a geology hike, Brian Goodspeed from the National Parks Service led a natural history walk, and Leo took students on a tour of the Dakota Memorial.

A Brief History - Dakota Memorial

Historcal Background

Isa Benegas

Did you know that a concentration camp used to be right here in St. Paul, Minnesota? On a rainy November morning, the 8th grade class visited Fort Snelling and learned about the devastation from the camp. We saw the fort itself, a great historical and patriotic site. We then went to the Native American memorial and the visitor center and learned about the concentration camp. I remember walking along a trail and watching the dead leaves fall from the trees in harmony with the rain. I could only imagine how it must have been for the hundreds of Native American people who walked a similar trail, but to a different destination.

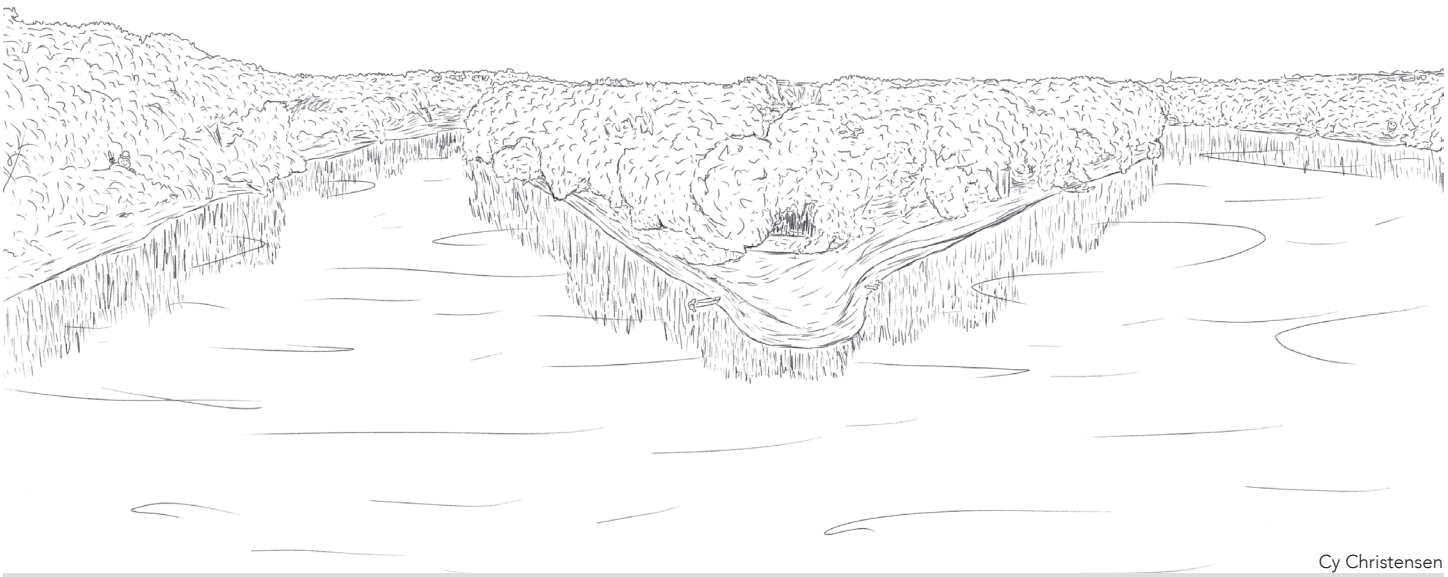
In November of 1862, around 1,700 Dakota people(mostly women and children) were removed from the Lower Agency and taken on a 6 day journey to the concentration camp at Fort Snelling. The journey was led by Lt. Col. William R. Marshall.

In the town of Henderson, Minnesota groups of armed men, women, and children rushed upon the group of Dakota people and succeeded in beating many of them. One woman in particular snatched a nursing baby from their mother's breast and threw them violently to the ground, killing the baby. They finally arrived and set up the first of four "Indian Camps" on November 14, 1862.

Around 1,600 Dakota people lived at the camp. It was only 2 or 3 acres with a 12 foot wall ensuring that no one would escape. In the first winter it is estimated that between 130 and 300 Dakota people died because of diseases and harsh weather conditions. The concentration camp wasn't a death camp but it was part of a larger genocide through the United States and Canada.



Clarice Timm



Cy Christensen

A Brief History - Voyageurs

Historical Background

Hazel Carroll

Around 200 years ago voyageurs landed at Fort Snelling. Voyageurs were men employed by boating companies to help collect animal furs by canoeing trappers around the wilderness. They also moved furs to trading posts. Large birch bark canoes were the mark of a voyageur. They also wore strange stocking cap like hats and sashes to prevent hernias because the loads they carried were famously heavy. When the voyageurs arrived at the fort, they met with the Native American tribe that lived there, namely the Dakota. This started the fur trade. This was the trade of luxuries like glass beads or a kettle, for beaver pelts. The voyageurs would send these pelts back to France to be made into expensive hats.



The Roar of the Falls

Historical Fiction

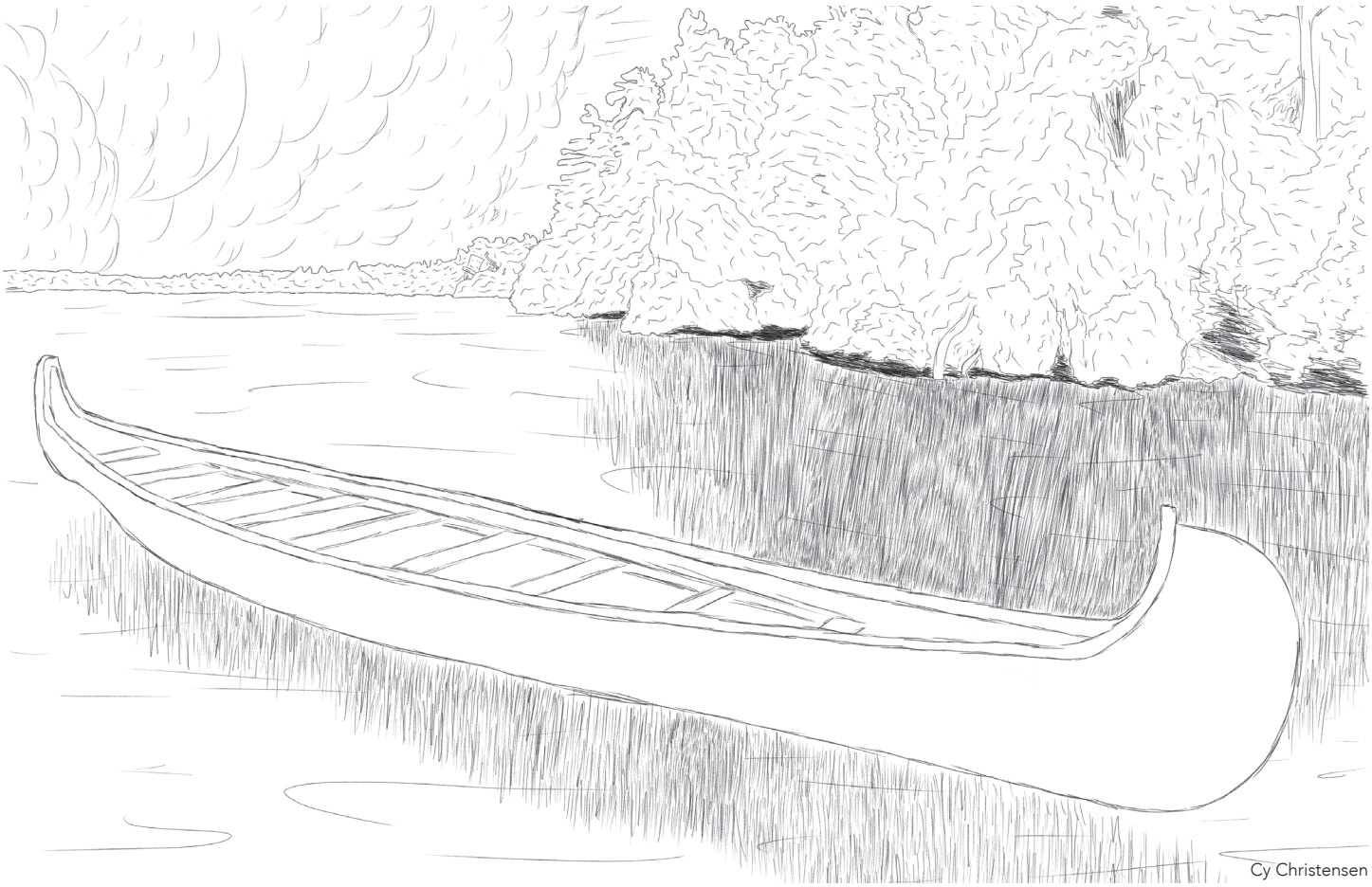
Moe Reh

"Breakfast!" Yelled Eduardo. It is 1801 and this is our 5th day in the journey. We were camping beside the falls and you could hear it roaring. Today we had to paddle down the Mississippi River to Fort Snelling with our bundle of goods to trade.

We ate our breakfast of pemmican and bean soup, which should fill me up until dinner. After we ate we loaded canoe and pushed it back into the river. We all got settled into the canoe and started rowing down the Mississippi. We started singing our folk song so we could all row at the same time. As we neared the falls it roared louder and louder, then there was the falls and we were about to go down it. All of a sudden a huge wave of water flew above us and before I knew it we were all soaked wet. Turns out we hit a rock and it nearly flipped our canoe before we even got near the falls.

Now I could hear the thundering falls loud and clear. We decided to row the canoe to the edge of the river and walk our way down beside the fall on the huge rocks that were scattered everywhere. I got the duty to help Carry the canoe down the falls with four of my crew. We were walking extra carefully because we could not risk damaging the canoe. All of a sudden one of our crew slipped on one of the rocks and twisted his ankle. It was so painful that he could barely walk so we had to get a crew member that was carrying the bundle good to trade places carrying the canoe. We made our way down the fall and place the canoe back in the river along with the bundle goods.

The rest of the way to Fort Snelling we got caught in a couple of rapids but it was pretty peaceful. When we arrived at Fort Snelling I saw the native people carrying their fur and most of them seemed to be beaver pelts. After we got our boat on land we unloaded our goods, we had cooking utensils, Some weapons along with gunpowder, food, and a lot more. We also got Paul medical help for his twisted ankle. After we traded more we walked up to the Fort to get some rest on an actual bed because tomorrow it was time to go back.



Cy Christensen

Let's do this!

Historical Fiction

Grey Pratt

It was 3:00am, and I was tired, hungry and cold. I had been up twenty minutes, but I had just lain in the flipped over canoe, because I hadn't wanted to wake my crew mates up. When finally, a few more people had woken up from their sleep, we flipped over the canoe. We were using our canoe as a shelter to keep us warm and dry. I wrapped myself up with some fur that we traded with the Native Americans a few months back. Then I went to the warm coals from the previous night's fire we managed to revive.

"I was tired, hungry and cold. I had been up twenty minutes."

It was a misty and cold morning so standing next to the warm coals felt like heaven. It was still a little too chilly, so I put on my capote and I woke up the other voyageurs. I wanted to get an extra early start to the long canoe ride we had in front of us. I let the rest of our crew wake up while I loaded up the 65 packages we were delivering to fort Snelling. On my 65th package I put it in the canoe and I looked at the top of the package, it said "To be delivered by March 11th 1745." This made me a little worried. If I had been keeping the right track of my days these last 5 weeks, it should have been March 10th. I had been on the river so long that I had totally forgotten what day it was but I was pretty sure it was March 10th. I pushed the long canoe halfway into the river and got the voyageurs into the canoe. I then hopped into the canoe and pushed us off the shore with my long paddle. We were off.

The first 30 minutes went pretty smoothly considering weather conditions. There was just a light sprinkle. We sang French songs to help keep a rhythm of how often we paddled. We paddled around 45 times a minute which got very very tiring after a little while. We could handle this though, because we were very strong. I was waiting and waiting for the rapids coming up ahead because I knew that would mean we were almost at Fort Snelling. The rapids were the most challenging part that I remembered from the previous trip. I had been on this river route one time before and the rapids were 3 pipes away from Fort Snelling. We would measure lengths as pipes because every time we had a break we smoked pipes and so it was kind of like measuring breaks. At pipes we usually talk about retour à la maison or in English, back home. We all missed our families on those big, long trips but we had to make money somehow.

Around twenty minutes later, I saw the rapids up ahead. I got a little worried but didn't show it so the other voyageurs wouldn't think I was weak. At the front of the canoe I heard a voyageur say "faisons cela!" That means "let's do this!" in English. Our crew started singing a faster rhythm French song so we would paddle faster and harder. We hit the rapids, water was splashing in all of our faces. It felt like little cold bites as each drop hit our faces. We hit a rock and the force flipped the big canoe with all of our supplies in it. Two other voyageurs and I flipped the canoe back and threw the paddles in the canoe. I got back into the canoe and grabbed everything they threw at me and put it back in the canoe. The soaking wet voyageurs hopped back into the canoe and quickly kept paddling. I saw two packages stuck on a log around 20 feet back but it was too late as the current was pushing us forward. We kept paddling hard and fast and finally we reached the end of the rapids.

For the next 30 minutes I was lightly paddling and drying off my stuff and checking damage on our valuables. I looked up and I saw some lights in the distance. I knew it was Fort Snelling, so I yelled "Regardez!" which means "look!" in English. The crew stuck our paddles into the grainy sand of the Mississippi River and we stopped the boat. Raphael, a fellow voyageur and I got out of the boat and pulled it to shore while the other three men held on to the stuff. We all took a quick pipe break where we dried off and got ready for the short walk we had in front of us.

I was first on carrying the canoe, along with one other person, and by the time I was tired, we had already arrived. I saw huge walls with hundreds of people inside, along with the amazing smell of fresh bacon being cooked in the distance. We all unloaded the packages full of trade goods and gave them to the Native Americans who gave us vessels laden with furs. The five of us split up for a while while we met others and ate bacon and corn. We slept the night there comfortably. But we knew our job wasn't done. We started to pack for the long journey back.

Les chutes, les chutes!

Historical Fiction

Daniel Meekin

I woke up from all of the water stored on the canoe being dumped onto our stomachs. The other voyageurs groaned as they opened their eyes, the past three days had been raining nonstop and our only protection at night was our canoe. We had been traveling for the last two weeks to bring fur from the Mississippi to Fort Snelling. Inside of the canoe looked dark black and as I slid out from under it my eyes adjusted to the starlight. As we pushed off onto the river I looked up at the sky and could still see the moon; I then looked toward the left and saw a star shooting across the night sky. We paddled through the weeds and lily pads in the dark for an hour. At one point a giant toad leaped into our boat and almost made me capsize the canoe trying to get it out. After I finally got the toad out I heard André shout out, "Les chutes! Les chutes!" "The falls! The falls!"

We stopped at the top of the falls for a breakfast of pork, beans, and a single cold biscuit. We looked down at the falls and had to determine whether to risk the hitting the jagged rocks when we paddles down, or the slippery rocks on the portage. Our final decision was to take the portage and be careful on the rocks.

For the first couple minutes everything was fine, until Charles', one of the newest voyageur's, legs gave out from the pressure of the two 90lb bags he was carrying and he slipped. As he fell he took down Antoine and Théo, and they all landed sprawled out on the ground. Even though they were injured we couldn't stop, we were to close to the fort and that was the closest place to seek medical attention of any kind. The time we spent paddling might've as well been 10 years, the entire time I could hear my men groaning with every stroke, but they never gave up even through the rapids after the falls.

We arrived at the fort close to dinner. Before we got the attention for the wounded we needed to haul up the packs. If you ask anyone in my group they will tell you the same thing... that day I carried seven packs for half a mile up to the fort and never stopped until I was inside. We got a nights sleep on an actual bed and woke up the next morning feeling sore, but great. After a week at the fort cataloguing the furs and trading techniques and travel tips with the Native Americans, we took our bags and canoes and headed down to the water. I looked back at the fort and forward at the falls and then, we pushed off into the water.

Crosby Farm Regional Park: Mile 1505



Location Summary

Hazel Carroll

Crosby Farm Regional Park originated as a 160 acre plot of land that was farmed by Thomas Crosby. The land continued to be inhabited by a farm until the early 1960s, when it was bought by the Saint Paul Port Authority and then leased by the City of Saint Paul. The area is now a 736 acre regional park with around 6.7 miles of trails, owned by the city. There are many activities you can enjoy at the park, including: walking and biking, having picnics, fishing, and much more.

Crosby Farm is also a floodplain. A floodplain is an area of land that is flooded often due to close proximity to the river.

Replacing the Lost Ash Trees

Feature Story

Hazel Carroll

You look around as you walk down a trail. To your right you see a forest of trees, orange, yellow, and red leaves cover the ground. To your left you see the river, rising and falling as it laps against the bank. This is the view from one of Crosby Farm Regional Park's many trails.

On a chilly morning in October, the 8th grade class of 2023 went to Crosby Park to plant cottonwood trees. The first thing we did was dig a small hole to put the tree sapling in, then once the tree was planted we put a plastic cover around the tree to protect it from deer. We repeated this process until our group had planted over 30 cottonwoods.

One of the most prominent trees in the Crosby ecosystem are ash trees. But these trees are in danger from the Emerald Ash Borer, an invasive insect that burrows deep into ash trees and feeds off of the tree's nutrients.

This is why the park has started to hire volunteers to plant cottonwood trees to help replace the ash trees that are dying. There are several reasons why Crosby is planting cottonwood trees.

"They are a great choice for replacing lost ash trees and adapting to changing climate conditions like increased severity of flooding," says Mary Hammes, volunteer coordinator for the Mississippi Parks connection.

Other reasons include: bee protection, good habitats for fish, and increases water quality.

Thank you to the National Parks Service, the Minnesota Science Museum, and Mississippi Park Connection for making the 8th grade fieldwork to plant trees at Crosby Farm Regional Park.



Planting Trees on the Farm

Fieldwork Recon

Leo Mousseaux

At Crosby Farm, there are many different things to look at, and many different things we did. We walked along a dirt path with a lake on the side, with some parts of this path being flooded by the lake, due to the recent raining. After walking along this path, we talked with some staff and went over what we would be working on.

We walked into a part of the forest, and found a suitable digging spot. We dug into the ground, and planted some saplings inside support tubes to keep them growing in the right direction. However, these tubes weren't sealed yet, so we had to tie them shut ourselves. After that, we put away our equipment and walked along the same path to the other end of the park.









Jackson Square, New Orleans: Mile 0



Location Summary

Hazel Carroll

I looked out over the wide body of water. There were riverboats designed like 19th century steamboats, and barges moving at surprising speeds. It seems unreal that just 8 months ago I was looking at the same river, but at its very beginning. It was just a small stream that could easily be crossed with a little help from some rocks or a footbridge. The water was clear and cold, and you could see small minnows dart around your feet as you stand in the water.

All this year the 8th graders have been studying the Mississippi River. We learn about the geologic history of the river (and Minnesota) in Science and learn how to write historical fiction pieces about it in English. But the biggest part of the expedition is traveling to the headwaters at Lake Itasca, and crossing the river.

I was lucky enough to not only cross the river at its start, but be able to see where it ends, in the Gulf of Mexico. Let me tell you, it's quite the shock. It feels strange to be looking at this wide expanse of water (nearly two miles according to a quick google search) and even consider that it could be the same body of water as that tiny stream in Northern Minnesota.

However, if you stop and think about it, the Mississippi connects many people in our nation. It passes through 13 different states, and hundreds of different rivers drain into it along the way. One sign I found of this drainage was how high the river was. This wasn't because New Orleans had any particular big rainfall, it was because of flooding all the way up in Nebraska and Iowa. In addition, Pesticides and fertilizers washed into the river in Minneapolis can affect shrimp farmers in New Orleans (this is an actual thing, look up the dead zone). And of cours locks and dams, all 29 of them, dramatically affect the flow of the river throughout the whole course of its life.

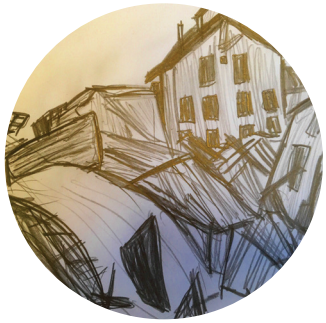
Parting shot



The 2019 river book design team pores over the latest print out of their document. The group spent over 30 hours transforming a google folder full of documets into an aesthtecally pleasing magazine. Hazel and Veronica excelled at page design. Joe was our jack of all trades -- editing, producing content, fact checking, etc. Cy served as our chief artist and DJ.



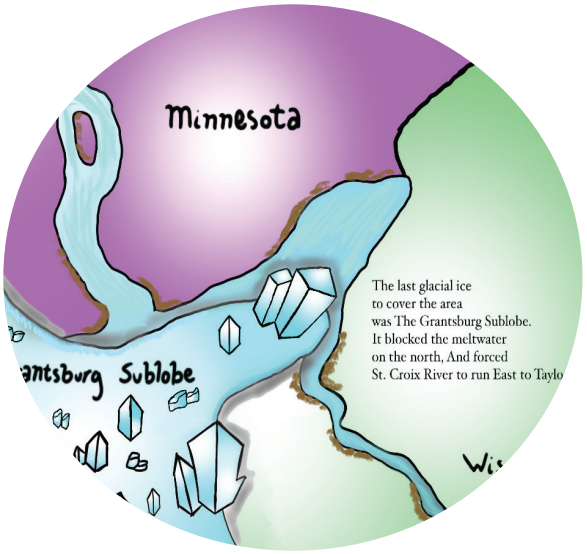











Minnesota
The last glacial ice
to cover the area
was The Grantsburg Sublobe.
It blocked the meltwater
on the north, And forced
St. Croix River to run East to Taylo
Sublobe