

Honoring the Past with Technology of the Future:

NEC Projectors Create Outdoor Art Installation for Illinois Bicentennial

The Challenge:

- Create an immersive outdoor art installation combining video and audio to commemorate noteworthy Illinoisans during the state's bicentennial

Solution:

- Three [NP-Px1004UL](#) projectors and three [NP21ZL](#) lenses

Result:

- "Rooted in Greatness," a digital projection mapped onto trees outside a Chicago convention center that came together with the support and collaboration of numerous local businesses and civic figures



Illinois is taking its bicentennial seriously - in fact, an entire commission was created to plan events and projects to celebrate the state's 200th birthday.

One of those projects aimed to honor the numerous individuals across history who have left an indelible mark on the Land of Lincoln - but the commission didn't want an ordinary art installation or museum exhibit; it wanted something memorable, striking and symbolic, and that meant turning to digital technology.

The Project is Conceived

During the 2017 planning process, David Perlmutter, director of strategic partner development for the Illinois Bicentennial, introduced NEXT/NOW, a digital experiential agency, to Luma8, a nonprofit that strives to elevate Chicago as a focal point of artistic innovation through lighting installations.

"We had learned that the Bicentennial Commission was looking to highlight the history of Illinois in a way that would be spectacular," said Mark Matthews, marketing strategist for NEXT/NOW. "We reached out to David and expressed interest in working on a project, and he connected us with Luma8."

Luma8 and NEXT/NOW began brainstorming ways to create an eye-catching homage to the state's two hundred years of history that fit the bicentennial's theme: "Born, Built and Grown."

"We started thinking about using trees as metaphors for long-lasting presence," Lou Razin, chairman of Luma8 said. "That led us to the idea of using projections in trees as vestiges of each person's lasting legacy on the state."

The idea for "Rooted in Greatness" thus was born: a digital art installation that would project the faces of Illinoisans, past and present, onto trees while nearby speakers played voiceovers highlighting why each person matters to the state's history.

The Execution

With the idea in place, NEXT/NOW and Razin now had new challenges: creating the content and finding the technology.

Luma8 brought in TimeLine Theater Company, which specializes in producing plays that connect historical events to modern themes, to create the narrative, as well as audio and video. TimeLine and Razin worked with the Chicago History Museum and Illinois state historian Samuel Wheeler to come up with a list of notable Illinoisans to highlight in the project.

"We knew it would be a big challenge to narrow it down to just 40 people, because we had hundreds of names, but it came down to creating an interesting story that felt balanced and rounded out," said Nick Bowling, associate artistic director at TimeLine. "Time was challenging for us, too - we wanted it to be short enough that people would stay and watch the whole thing, so the goal was to get as many names and faces into 20 minutes that we could."

This entailed taking entire biographies and turning them into 20- to 30-second soundbites, getting down to the most important elements of a particular Illinoisan's life and how they were impacted by their home state (or, conversely, how their home state impacted them).

"We wanted a list of people as diverse and inclusive as the state itself," Bowling said. "We have artists, builders, social justice advocates, titans of industry, politicians, musicians, film stars, writers, and more, of all backgrounds, and from all over the state."

To produce this narrative and the subsequent voiceovers and projections, TimeLine worked with a number of acclaimed Chicago artists, including playwright Lydia Diamond; video designer Mike Tutaj, who mapped the projections; composer and sound designer Andre Pluess; dramaturg Maren Robinson; and voiceover artists Peter Sipla, Donna Steele, Ginneh Thomas and Jonah Winston. TimeLine Artistic Director PJ Powers and Bowling produced and directed.

While the TimeLine team labored over the content, NEXT/NOW, as technical director, was tasked with choosing a projector manufacturer.

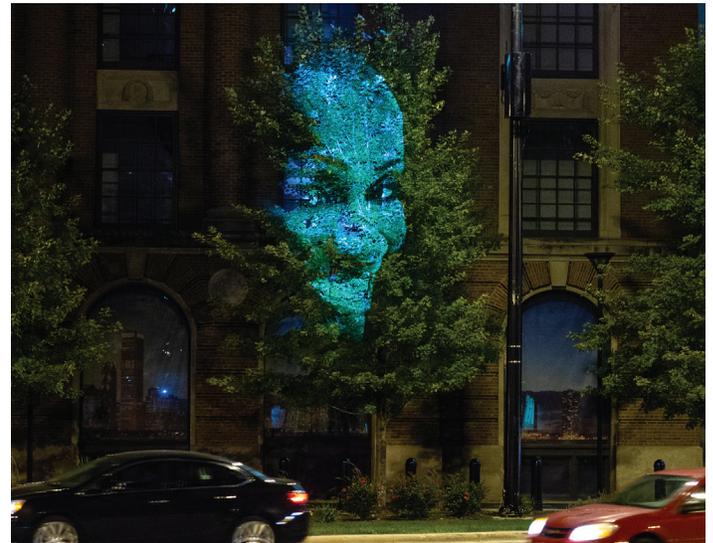
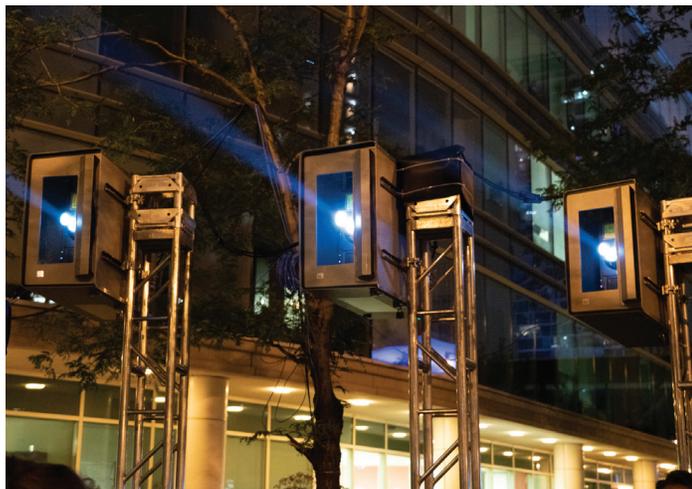
Searching for the Technology

Matthews said there was only manufacturer NEXT/NOW considered: NEC Display Solutions. "We've worked with NEC on a number of projects involving their projectors, large-screen monitors and touchscreen solutions, so we've had a steady partnership with them for years, and there's a real professionalism to the company and their products," Matthews said.

Matthews selected three NEC Display Solutions 10,000-lumen, 4K [NP-Px1004UL](#) laser projectors with long-throw [NP21ZL](#) lenses.

"There were several features of the products that were important here," he said. "The resolution was important for creating detail on people's faces, so they were recognizable; the laser was important because it creates a finer, more lucid image that pops; and the brightness was important because we needed something that would still be visible at night despite street lights, and because of the distance we had to shoot from."

The lenses, he added were the "perfect fit" to allow the image to travel across a wide expanse without losing any fidelity.



The Siting Challenge

In the project's early stages, the planning team saw it as a traveling installation: The projections would spend a few days at a time in parks all over Illinois, allowing local convention and tourism venues to use them to celebrate the bicentennial in their area.

This idea unraveled, however, when funding sources for the traveling exhibit fell through, and for a while it seemed that the project was stalled.

Then, in a serendipitous twist, Raizin boarded a flight to New York and happened to sit next to Lori Healey, CEO of the Metropolitan Pier and Exposition Authority, which owns and runs Chicago's Navy Pier and McCormick Place, the largest convention center in North America. Raizin and Healey got to discussing "Rooted in Greatness," and Healey offered McCormick Place to host the project. "Lori stepped up and became the major supporting entity for the project," Raizin said.

It was important that the project was situated in a venue with high visibility, Healey said.

"Three million people come to McCormick every year, and this project creatively draws attention to famous Illinoisans who have contributed to the growth of our state over 200 years," she said. "It's good not just for our visitors, but also for residents."

With a home for "Rooted in Greatness" secured, the team got to work on the installation.

The Installation

The installation was no easy feat, according to Bowling.

"We had to find a location at McCormick where the projection would be visible and look beautiful and where there were places to sit and listen to it, but also where it wouldn't disrupt too much of the world around it," he said. "It was a challenge in an area where there are so many hotels, businesses and residents."

Once they figured out a location, they had to select the appropriate trees onto which to project. "The trees were a constant challenge," Bowling said. "We had to find ones that were full enough, and then had to map each tree so the projections hit just where the leaves are, to ensure there wasn't too much excess light hitting the building."

At one point, he added, they considered only using one tree, and then settled on three trees with three projectors as the perfect combination.

"Using three trees helped overlap the stories, because historical figures who are connected can be brought together in the projections, which makes it more artistic and fun to watch," Bowling said. Mike Tutaj was instrumental in helping the image to look better on the uneven, fluid surface of the trees, Bowling added, by cleaning them up or adding more contrast or more light.

According to Matthews, ambient lighting also made positioning the projectors a challenge.

"Installation was a trial-and-error process," he said. "For example, during the day, I could get the projectors pointed in the right direction, but I couldn't gauge things like height, so I had to come back at night to adjust them. I had to use what I learned at night to fix things during the day."

Several local companies worked on the installation. AV Chicago provided weatherproof, vandal-proof housings and helped get the 100-pound projectors into the 100-pound housings; Show Sage provided the computer and software to drive the projectors as well as licensing for WATCHOUT, a multi-screen and mapping software for projections; OSA International installed hidden speakers in rocks for the narration; and McCormick Place provided electricians and engineers to support the installation.

"Everyone worked together in a very short timeframe, which required incredibly good timing and collaboration," Bowling said. "A big part of the success were the NEC projectors - they're what makes it come to life. We're happy we got the high-quality projectors we did."

The Results

As the sun sets each night, three trees outside McCormick Place come alive with the images and stories of noteworthy Illinoisans such as Presidents Abraham Lincoln, Ulysses S. Grant, Ronald Reagan and Barack Obama; cultural giants like Walt Disney and Oprah Winfrey; leaders like Ida B. Wells and Jane Addams; artists and writers Carl Sandburg and Muddy Waters; and sports icons like Ernie Banks and Michael Jordan.

As videos of their faces are projected into the trees at the corner of East Cermak Road and South Calumet Avenue in Chicago, accompanying audio shares a brief bio of each individual. Visitors and residents alike have been wowed by the installation, Raizin said.

"To me, the most meaningful and rewarding experience was seeing an area resident who had heard the poet Gwendolyn Brooks' story, and had a tear in her eye," he said. "She said it was one of the most powerful things she'd ever seen, and she was coming back with her daughter the next day to show her."

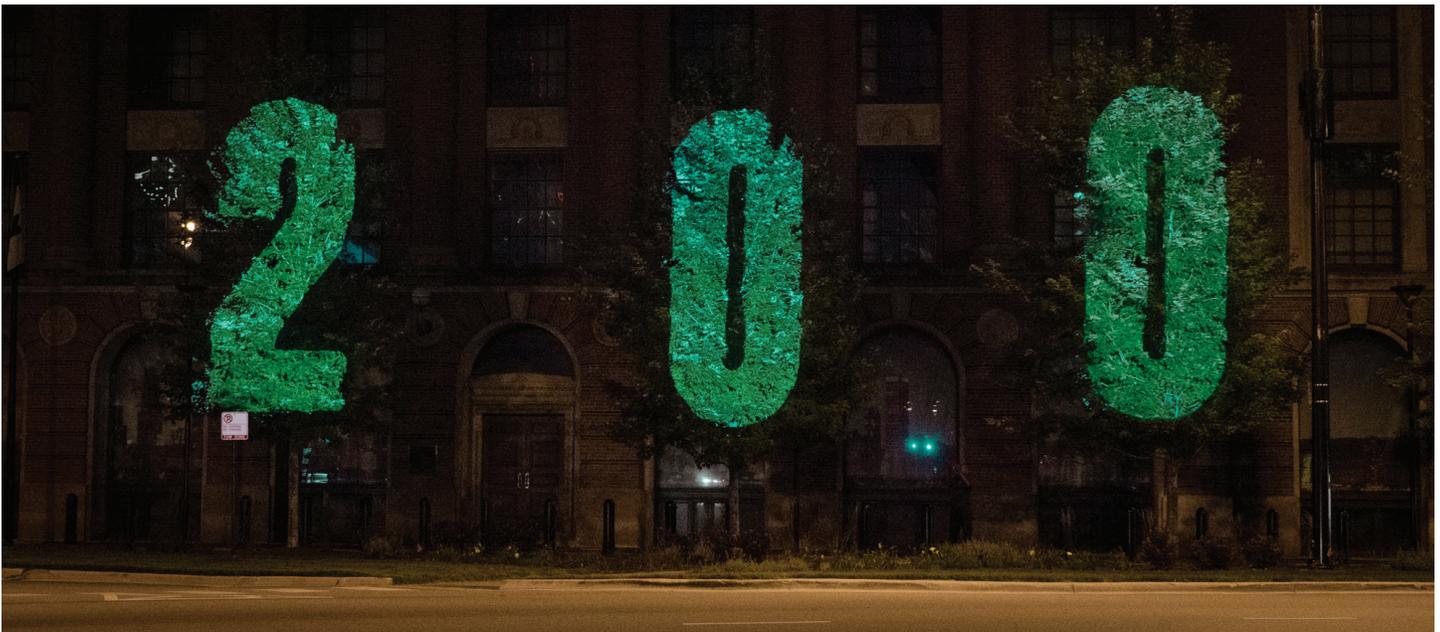
The stories are intended to amaze and surprise viewers, Raizin added, and the projections amplify the effects of the powerful narratives.

"You see the wind sail through the branches as these images are projected onto the trees, and it's like you see the people breathe," he said. "You get this feeling that these trees are alive and the people on them are part of this tree. You forget you're actually looking at a tree as you watch the 20-minute projection."

Healey added that McCormick Place plans to install more outdoor digital signage art in the future, as this project has enlivened the street alongside the convention center.

"The team that put this together was outstanding, and we're thrilled to be the home for this incredibly creative digital art project," she said. "It's been a unique addition to our campus."

The project went live on August 15, 2018. The installation will remain there until February 15, 2019, at which point it will move to its permanent home at the Chicago History Museum.



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