Santa Claus will have a new holiday exhibit to check out when he visits the Museum this year in addition to the model train displays he loves.

A new interactive holiday exhibit on the Don C Musick III Mezzanine of the Earl C. Lindburg Automobile Center will entertain those waiting to talk with Santa on a trolley just outside the Musick mezzanine door. “He’ll be on a Christmasey trolley for photo opportunities,” said Visitor Experience Manager Jessica Hood. “There will be cars that kids can play with while they wait for Santa.” The wait shouldn’t be too long, Hood predicted. “People usually spread out their visits.... Continued on page 20

Lightning crackles behind TNMOT’s Big Boy #4006 just a few days before the August visit from Big Boy #4014. For more photos of the big day that the #4014 stopped briefly at the Museum on its way across the country, see pages 16 and 17.

Photo by John Youngstrom
At a recent Museum Speaker Series presentation, Jason D. Stratman, Assistant Librarian – Reference, Missouri Historical Society, was our guest speaker discussing “Charles Lindbergh: the Man, the Myth, the Legend.” During the presentation, Jason talked about the aviation impact Lindbergh had on children around the world. In the reference library at the Missouri History Museum, they have a letter from a young Konrad to Lindbergh. Kabel wished Lindbergh luck on his flight, noted he’d be following his trip, and invited him to “come over for supper” when he returned.

As I listened to the program, I was struck by that reference as I wholeheartedly believe you never know the impact you have on a child or the spark you may ignite in learning. Next to my desk is posted the Museum’s Mission, Values, and Vision Statements, and our Goal. The overriding theme: We are preserving the past for the next generations.

Every day I see children running, interacting, pretending, and learning about our transportation heritage at The National Museum of Transportation. They see firsthand vehicles powered by steam, diesel, electric, horse, solar, and more. They pretend they are a pilot, a captain, an engineer, a motorman. They learn through play and exposure.

When my son Jack was in elementary school, I accompanied him on a field trip to the Museum. The fourth grade class was given replicas of early 1900s maps of the City of St. Louis from our extensive archival collection. On the activity page, they were asked to look for Busch Stadium and the Gateway Arch. The kids searched and searched the map for these two landmarks. There was a lot of lively discussion. Collectively the students came to the same conclusion and were anxious to report… “These maps have mistakes on them.” We forget our kids have never known a St. Louis without a Gateway Arch or Busch Stadium. It was rewarding to see that the Museum educator had the resources to show maps from different decades and talk about the progress and development made in our region specifically and our country generally while highlighting the significant role transportation played in that growth. I was in awe of the map collection the Museum retains in the Library and Archives.

While facilitated field trips remain on hiatus due to the pandemic, learning never stops. The Museum’s educational opportunities expanded and thrived this year for every age group. The “ALL Aboard” program distributed tickets to thousands of underserved children in our community. We offered Independent Field Trips for small groups, “The Think Tank” critical-thinking opportunities for families, Feature Fridays’ in-depth look at specific artifacts, and a robust Speaker Series. We added QR codes to expand historical content learning, improved artifact signage, and guided tours returned in earnest. Our volunteers continued to sand, paint, and restore historic artifacts with a collection dating back to the mid-1800s while our curatorial staff designed interpretive exhibits. The guest services staff provided miniature train and handcar rides, hosted events, and welcomed guests from 47 states and many foreign countries into The William R. and Laura Rand Orthwein Education & Visitor Center. The maintenance crew diligently maintained 42 acres and 11 buildings. And our landscape volunteers worked their magic in our gardens every day, which solicited an online review to note… “I loved the beautiful gardens as much as my husband appreciated the historic artifacts!” We know that what we do today will impact the Museum for decades to come.

I recently met six-year-old Mason in the cab of the Union Pacific Big Boy. He was going to “drive this thing for real” when he turned 13. We sparked an interest in the next generation! Charles Lindbergh did the same thing. Konrad Kabel went on to study aeronautics and served in the United States Army Air Force during World War II.

While I can thank you today for continuing to support The National Museum of Transportation, your commitment to preserving our world-class collection will be recognized, appreciated, and impactful to our children, our community, and our nation, 20, 30, 40 plus years from now.

Thank you.

With gratitude,

/ / 
Terri McEachern
Executive Director
The National Museum of Transportation

Next Issue:
Dr. Darryl Ross, President of The National Museum of Transportation Board of Directors, and Terri McEachern, Executive Director, discuss operating a 501(c)(3) Museum relying solely on the generosity of our community to continue preserving the past for future generations.
Photos from 15 amateur photographers were chosen as the best entries in the 2021 Pistons and Pixels contest.

The winning shots will appear in the 2022 National Museum of Transportation Highlights of the Collection Catalog, and photographers received Conductor Level memberships to the Museum. The photographs were taken between January 1, 2019, and July 31, 2021. Keep that camera/phone at the ready on your next Museum visit and watch for next year’s contest.

The 2021 winners are:

John Bauer
Benjamin Braun
Matthew Cone
Geneva Crowe
Aaron Ferguson
Colton E. Fisher
George John
Lynda Rosenthal
Robert Santiago
Chris Schmich
Charles Scrimpsher
Gary Strohmeier
Heather Tullock
Debbie Velten
Art Westphal
Maps can tell us a lot more than what route to take.

“I love a map,” said Teresa Militello, Curator, Library and Archives. “It’s a neat document that encapsulates what’s happening at that time.”

One of TNMOT’s most significant library pieces is a series of plat maps for a rail route from St. Louis to Pilot Knob, Missouri, the path to be taken by the Iron Mountain Railroad. “This is the only one in existence. Nobody else has this,” Militello said of the early 1850s map set. Different sections of the route were drawn by different draftsmen. “You can see their different styles,” Militello said. Some of the maps show buildings and property owners’ names along the Mississippi River bluffs, as well as military and other landmarks. As the route moves south and turns westward, the maps start to show the rising elevation.

The plat maps are among many pieces that came to TNMOT in the 1960s in a collection from a Missouri Pacific Railroad museum in MOPAC’s building in downtown St. Louis. Many maps have come to the Museum via corporate or institutional sources, others from generous individuals, and some maps’ donors are a mystery.

Another source for several maps at TNMOT is the Terminal Railroad Association collection. “They’re really amazing little testaments to how things have changed,” Militello said of the maps. A Wiggins Ferry map of “St. Louis and East St. Louis Railway Terminals” not only shows rail tracks and terminals on both sides of the Mississippi River but also points to the importance and power of the Wiggins Ferry Company in the region in the 1800s.

John Gardiner’s 1817 “Map of the Northern Part of Missouri” is the oldest map at TNMOT; it is available at other institutions and online too. Among its features are Military Bounty Lands, which was land offered to men in exchange for their military service.

Place names have changed over the years, and maps obviously reflect that. The Iron Mountain Railroad plat map for downtown St. Louis, for example, says “St. Louis Co.,” as it was drawn more than 20 years before “the Great Divorce” that separated St. Louis City from St. Louis County. Pre-World War I maps show an area called Luxembourg that was changed to Lemay during the war, as were the German names of various St. Louis streets.

A 1928 map highlights the recently completed William Clark bridge across the Mississippi River and Meriwether Lewis bridge across the Missouri River, near the site of Fort Bellefontaine, the first U.S. military installation west of the Mississippi.

This 1927 map shows Bixby Smith Inc.’s Osage Hills development east of TNMOT, which included country club grounds. Greenbriar Hills Country Club is there today. “Economic conditions during the depression of the 1930s were the reasons for the formation of Greenbriar Hills to succeed Osage Hills,” says Greenbriar’s website.
Maps must be critically evaluated. “You always have to consider the primary source of the map,” Militello said. “How reliable is this map? Who drew this map? Why did they draw this map?” Sometimes a map leaves things out, such as native residents of the land, because of the map’s purpose, such as convincing the government to let someone build there. An 1870 map entitled “St. Louis and Environs” mentions that it accompanies the work St. Louis, the Future Great City of the World, by L.U. Reavis, a leader of the movement to move the United States capital to St. Louis (or, later, to anywhere in the West). A realty company’s 1909 map touts St. Louis as “The Coming Giant of America.” Always keep in mind the map’s purpose.

Researchers come to TNMOT with all kinds of questions, and sometimes maps are the resources to provide the answers, Militello said. A Ph.D. student sought maps that had something to do with vice or crime, such as people getting mugged, prostitution, pickpockets. Something about his thesis was focused on transit, on streetcars and train depots, Militello said. She also recalled an author working on a book about ballparks in St. Louis who found useful maps from the 1800s. “She was just thrilled because we were able to pinpoint how long baseball had been played at Grand and Dodier.” Turns out they were playing ball at that corner decades before construction of Sportsman’s Park (aka Busch I).

Maps for motorists boomed in the 20th century, of course. Gas/oil companies published them, no doubt with a goal of increasing their business by encouraging car trips. State governments provided them to encourage tourism. Restaurants, hotels, and other businesses produced maps that pinpointed their locations, like their mobile apps do today. TNMOT has several such commercial maps, as well as streetcar and bus route maps, all combining to capture a snapshot of the community or region at the time the map was made.

Vehicles at TNMOT tell us countless stories about our predecessors, and so do the maps that their planners, drivers, and passengers followed.
WANT TO HELP YOUR CHILDREN BUILD A FOUNDATION FOR CRITICAL THINKING?

Learning to think critically may be one of the most important skills that today’s children will need for the future. In today’s rapidly changing world, children need to be able to do much more than repeat a list of facts; they need to be critical thinkers who can make sense of information, analyze, compare, contrast, make inferences, and generate higher-order thinking skills.

Building critical-thinking skills happens through day-to-day interactions as you talk with your child, ask open-ended questions, and allow your child to experiment and solve problems.

Here are some tips and ideas to help children build a foundation for critical thinking:

- **Provide opportunities for play.** Building with blocks, acting out roles with friends, or playing board games all build children's critical thinking.
- **Pause and wait.** Offering your child ample time to think, attempt a task, or generate a response is critical. This gives your child a chance to reflect on their response and perhaps refine it, rather than responding with their very first gut reaction.
- **Don’t intervene immediately.** Kids need challenges to grow. Wait and watch before you jump in to solve a problem.
- **Ask open-ended questions.** Rather than automatically giving answers to the questions your child raises, help them think critically by asking questions in return: “What ideas do you have? What do you think is happening here?” Respect their responses whether you view them as correct or not. You could say, “That is interesting. Tell me why you think that.”
- **Help children develop hypotheses.** Taking a moment to form hypotheses during play is a critical-thinking exercise that helps develop skills. Try asking your child, “If we do this, what do you think will happen?” or “Let’s predict what we think will happen next.”
- **Encourage thinking in new and different ways.** By allowing children to think differently, you’re helping them hone their creative problem-solving skills. Ask questions like, “What other ideas could we try?” or encourage your child to generate options by saying, “Let’s think of all the possible solutions.”

Of course, situations arise where you as a parent need to step in. At these times, it is helpful to model your own critical thinking. As you work through a decision-making process, verbalize what is happening inside your mind. Children learn from observing how you think. Taking time to allow your child to navigate problems is integral to developing your child’s critical-thinking skills in the long run.

*From article on brighthorizons.com*

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Have you ever been to a drive-in theater?
What movie would you like to see at a drive-in?
Why do you think we don’t have as many drive-in theaters anymore?
Do you think a drive-in movie would be fun? Why or why not?

Would you like to travel on this towboat in the Mississippi River?
What would you see along the way?
Would you rather travel on this boat or on an airplane? Why?
**“THINK TANK” QUESTIONS BUILD THINKING SKILLS**

“The Think Tank” is a learning tool for families visiting the Museum. When guests see “The Think Tank” logo, they know they will have to put on their thinking caps to answer the questions.

Artifacts featuring the logo will have on the exhibit sign and/or QR code some open-ended questions or story-starters to encourage critical thinking, which is an essential life skill. The excitement and interest generated by Museum artifacts can be used to foster critical thinking when paired with a few intentional questions.

“We can have signs printed all day about our artifacts noting size and scope. We want ‘The Think Tank’ program to highlight the ‘why’ of artifacts for young learners,” stated Terri McEachern, Executive Director. “I want children who see our H.T. Pott Towboat to think about, Would I like traveling on this boat in the Mississippi River? What would I see along the way? Would I rather travel on this boat or an airplane? Why?”

Look for “The Think Tank” logo on your next Museum visit and read more about helping children develop critical thinking on page 6.

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**ALL ABOARD**

The ALL Aboard program provides children in our community the opportunity to experience our legacy in motion regardless of their ability to pay. ALL Aboard provides field trips to underserved populations, children in foster care, and those receiving ongoing medical care.

2021 participating organizations include:

- Boys and Girls Club of Greater St. Louis
- Variety the Children’s Charity of St. Louis
- Confluence Academy
- Ferguson-Florissant School District
- St. Louis City Public Schools
- St. Louis Catholic Academy
- St. Cecelia School and Academy

Those wishing to sponsor a child’s visit for $8.50 may visit tnmot.org/product/sponsor-a-child/or

Mail checks made payable to TNMOT
Memorandum: ALL Aboard
2967 Barrett Station Road
St. Louis, MO 63122
A solar-powered car on loan from Principia College in Elsah, Illinois, recently joined the display at the Earl C. Lindburg Automobile Center. Principia, with less than 500 students, has competed against much bigger schools well-known for their engineering such as Missouri University of Science and Technology and Massachusetts Institute of Technology and has managed to place in the competitions, said Museum Curator Coby Ellison. The video showing next to the car at TNMOT is of a race in the Australian Outback, in which Principia’s model RA 7 participated.

Mass production and purchases of electric cars and trucks are well underway in 2021. But cars running on electric batteries have been around since the 1800s. In 1900, a third of the cars on the road ran on lead batteries. TNMOT has two electric vehicles from 1980, the Comuta-Car and the Bradley GTE II. The Comuta-Car, as its name suggests, was strictly for tooling around town at 40 mph or less. The Bradley GTE II could go 75 mph and was an electric version of the Bradley GTII, designed by John Chun, better known for his design of Shelby Mustangs.

Steam was another source of power for early automobiles. At the turn of the 20th century, external combustion engines running on steam were more prevalent than internal ones running on gas. The 1923 Stanley Steamer on display at TNMOT is a 740B touring car. One drawback to it is a 20-minute starting time, though. The 1904 A.L Dyck Steam Car was built from a kit. Neither steam car runs.

Anything combustible could be fuel to heat up the steam for cars, a trait shared with another alternative fuel vehicle, the Chrysler Turbine. Several websites quote Chrysler executive George Huebner as recounting that when the Turbine went on a global tour in the 1960s, the President of Mexico asked if it could run on tequila. It could and did for the President’s test drive. That led to rumors that in Paris they used Chanel No. 5 in it. Today, TNMOT’s car is the only Turbine on public display that runs. The engine is started every six weeks or so, Ellison said. But not with tequila.
Artifacts’ Stories
Just a Click Away

Listening to a brief story about your favorite TNMOT attraction will soon be as easy as pointing your phone and clicking.

QR codes are coming to the Museum. In fact, they are already in place on signs by some pieces, such as in the cab of Big Boy #4006, whose new QR code was accessed more than 140 times on Big Boy weekend in August. The number of people who listened to fun facts about Big Boy is even higher, because often one person in a party would scan the QR code and let others listen via their phone’s speaker.

“What a lot of people like to hear is a story,” said board member Lee Rottmann, who has been working with Museum members and staff to create short recordings that visitors connect to via QR codes. “Short” is a key part. “It has to stay at about two minutes,” Rottmann said. “You go much more than two minutes and you lose them no matter how interesting your story...You want to give it a quick punch. Reel them in with the first paragraph so they listen to the story.”

Take the Produce Huckster Truck, for example, Rottmann said. “Sure, the sign said it was built in whatever year; it hauled vegetables. Well, that’s great, but she [the narrator] made it more of a story with a little boy riding on it. He loved riding it and giving out the vegetables.”

The narrator for the C-47 airplane actually piloted that plane. The McDonnell Aircraft narrator is someone who worked there talking about his mother’s experiences working there. In addition to the narration, the recordings often have background noises appropriate to the artifact. The C-47 has the sound of a jet engine; the Silver Spoon dining car has the faint sound of dishes rattling “to give it a little more flavor.”

“It’s for entertainment and education,” Rottmann said. “We want the Museum to be even more fun, more enjoyable.” He has enjoyed QR codes at other museums, including the Louvre. “We saw the Mona Lisa, and they’ve got a QR code there.”

Sometimes the story the code links to will come from a narrator who has an object in a Museum display, as with three men whose model cars will be part of a Fisher Body Craftsman’s Guild exhibit. “They all wrote and recorded a story about how they got involved with it, what they were able to do. It was really very interesting,” Rottmann said of their recording session.

The details of accessing the QR codes vary according to one’s phone. Some phones require a QR reading app, which can be downloaded for free. Others have the function built in through the phone’s camera. Scanning the code brings up a link to click on and be taken to the recording. Then the visitor enters the world of the artifact.

“We’re going to get people very interested,” Rottmann said. “They’re going to listen to one and then think, ‘I can’t wait to get to this next steam engine and hear a story about that.’ Anyway, time will tell.”

The vision is to cover every artifact eventually, but the Museum is starting with a couple of dozen. The audio files can be changed at any time as needed.

Rottmann sees the use of technology as key to the Museum being relevant and continuing to grow in popularity. “It makes the visit more enjoyable to the point that someone may say, ‘Hey, I’ve been out there and I heard all these stories. You know, you really need to get out there.’
Volunteer trolley driver and tour guide John Crowley remembers a young teen visitor who could not understand why he would work at the Museum for free. “I told him, ‘young man, you’ll learn that there are things in life that’ll give you more self-satisfaction than a paycheck,’” Crowley said. Outside of his wife and family, nothing has brought him more joy than his Museum work.

Crowley and his wife, Johanne, came to the Museum through a display at a rail safety day at the Kirkwood train station. Meg Wilson told them she’d ask someone to contact them about being tour guides. “Sure enough, Phil Hellwege called and asked us to come out.” Crowley took the tour guide script he was given and highlighted parts of special interest.

“I consider the Museum to be a time portal to the past.”
~JOHN CROWLEY

“One thing I learned is to not try to cover everything because you’re going to lose your audience if you do. I selected the artifacts I thought were appealing and then I started doing research.”

Perhaps not surprisingly, career postal worker Crowley took a deep dive into the story of the Chicago, Burlington and Quincy #1942 Railway Post Office car. He emailed a postal historian, who gave him links to resources, “and one thing led to another. It was fascinating because I never knew any of this.” He’d love to see the #1942 restored and used as an interactive exhibit in which guests sort mail.

“I consider the Museum to be a time portal to the past. When our guests come out and enter the Museum grounds, I would like to think they’re leaving reality behind them for a couple of hours. You’re walking through a point into a time in our past that will never happen again, and there’s a story behind everything the Museum has on display.”

A few years into his tour guide volunteering, which began in 2008, Crowley was at the Museum on a Sunday when the trolley was not going to be able to run because only one volunteer had come in. Crowley pinch hit as the second crew member and then decided to be trained as a trolley volunteer. He’s in his seventh year now of trolley work, and he can share with visitors his own experiences of riding streetcars in St. Louis, including riding the Hodiamont streetcar to the Wellston Loop, down the right-of-way, past people’s backyards where they hung out their laundry to dry and put out their trash cans. “Then the inevitable came, May 21, 1966, when the last Hodiamont car left 12th and Olive for Suburban Garden. And that was it,” Crowley sighed. “That’s why I have such a passion for this.”

Working with the native plants at TNMOT has proven to be a continuous learning experience, volunteer Betty Struckhoff said.

A Master Gardener who grew up around gardens and wildflowers, Struckhoff credits the past 13 years of volunteering with teaching her even more about the wonders of nature. “I told a friend who is taking a Master Gardener class, which is pretty rigorous, ‘you’re really going to learn when you start volunteering.’”

A mailing lured Struckhoff to a planting event at the Museum in 2008. “I live two miles from here, and I’m really into native plants, so I said, ‘Oh, I’ll go check this out.’ And, of course, the rest is history,” she said.

When Struckhoff first volunteered, St. Louis County took care of the Museum grounds, “so it was a group of volunteers plus some County parks people. I loved working with all of them,” Struckhoff said. “And then when the Museum made the transition to taking care of things themselves, that’s when April [Anderson, Curator, Native and Sustainable Gardens] came along, and she has been super fun to work with.”

In addition to the humans she works with, Struckhoff enjoys the animals she comes across. “Another thing I really like about volunteering and working with native plants is the critters. You just see so many interesting bees, butterflies. In the rain garden there are always damsel flies. In the fall there are a lot of Monarchs down there. There are interesting birds.”

And Anderson teaches about the critters as well as about plants. “April is a naturalist,” Struckhoff said. “She can tell us what just about any insect is….She’s always teaching us more.”

Struckhoff herself is a teacher through places such as St. Louis Community College and the Master Gardener Speakers Bureau. “A lot of what I’ve learned out here goes into those talks,” she said. At home, Struckhoff uses native plants, even though her yard is extremely shady. “You can do wonderful natives in the shade too.” She has earned the Platinum recognition from the Bring Conservation Home program of the St. Louis Audubon Society and is involved with the St. Louis chapter of Wild Ones Native Landscapers, which has seen its membership triple in the last two or three years to around 300 now. Native plants are soaring in popularity.

For Struckhoff, natives are a return to her childhood. “I grew up on a farm near Augusta, and I remember running through the woods and seeing the spring wildflowers.”
ORGANIZING EFFORTS ENABLE A HOST OF POSSIBILITIES

Whether the challenge is boxes and shelves of books in the Museum’s library or how to strengthen nearly 200 volunteers’ connection to the Museum, organization is the key.

And the Veltens know how to organize.

Barb and Ken Velten moved back to St. Louis in 2013 after 20 years in Long Beach, California. Before McDonnell Douglas sent Ken to California, the couple lived here and volunteered as family and job commitments allowed. After retirement in the late 1990s, they looked for opportunities to serve in Long Beach.

Barb’s first experience with museum work was at Rancho Los Cerritos, a restored adobe ranch house from the mid-1800s that was once home to a key figure in Long Beach’s history. The museum posted a notice about needing help with the inventory of their library, and Barb, who had worked in the library at Maryville University in St. Louis, responded.

Ken, with his interest in airplanes, started volunteering as a tour guide at Long Beach Airport, which “has a lot of history to it, but it was all piled in boxes on the concrete floor of the terminal,” Ken said. “They asked, ‘Know anybody who could help us organize that?’”

Enter Barb. “She did a great job with it,” Ken said. Yet even great organization cannot solve all history mysteries. Barb recalled someone wanting to know what color the terminal was before it was painted in camouflage for World War II. The pre-War photographs were all in black and white. “I found all these letters back and forth to Washington after the War, asking if they could paint it back in original colors, but they never said in the letters what those colors were. We kind of figured it out, but no one was quite sure.”

The Veltens moved back to St. Louis to be close to one of their daughters and to Ken’s brother and wife. Ken describes brother Rich, who died in December 2019, as “a real train nut. He spent a lot of time out at the railroad gates.

When Teresa Militello came on board as Curator for the Library and Archives, Ken asked her if she needed any help. “She said yes, so I volunteered Barb….Her thing is organization. She’s just really good at it.”

About that same time, when the Museum was transitioning away from the St. Louis County Parks Department, Ken went to Executive Director Terni MeEachern with ideas about the volunteer program. In the Veltens’ experience on the West Coast, they found that one group had a great system in place for volunteers; one did not.

“One of the big differences was keeping all the volunteers together, connected in some way,” Barb said. Ken agreed: “You’ve got to make people feel they’re part of the organization.”

One change at TNMOT was to recognize volunteers for the number of hours they served with jewels on their name tags. Another was to establish regular Saturday sessions called Team Talks “just to bring the volunteers together,” Ken said. Volunteers can know all about their niche of the Museum without knowing about the whole. “The first year [of Team Talks] featured all the different areas of the Museum.” One time an academic made a presentation about the importance of railroads, how they built the country. “We try to have a variety of presentations. It’s been a lot of fun,” Ken said.

Some volunteers started crossing over to new areas. “My brother and I became trolley drivers. Other people became involved in new, different things,” Ken said.

Regular email to all volunteers was another way of strengthening connections, supplementing the communication already taking place within the volunteer areas: Tour Guides, Restoration, Garden and Landscape, Model Railroad, Trolley, Library and Archives. “In all the organizations we’ve been involved in, we’ve seen that the more you communicate, the better,” Ken said.

While Ken’s been able to continue in his tour guide and trolley work during the pandemic, Barb and other library and archives volunteers just started back in the early Fall. And Barb’s glad to be back at it, as the books didn’t catalog themselves in her absence. “What we were doing before Covid was cataloging. We had lots of books that had not been cataloged. We were looking up the books on the Library of Congress website, cataloging them, putting labels on them.”

And more donations come in all the time, Barb said. “We get some really old books; some are probably one of a kind….On some, we’ll look the book up and there may be only one or two other libraries that have that same book.”

“I know there are other volunteers who are working to get other kinds of artifacts in order,” Barb said. “A lot of volunteers are digitizing things….There’s so much stuff that still needs to be cataloged and put into the computer.”

Ken’s emails go out to 176 addresses, but there is always room for more. As tour guides and trolley drivers interact with guests, they stay on the lookout for interest in volunteering. “If you get someone really interested in asking questions, you might mention to them the idea of volunteering,” Ken said.

Barb said helping people find the best spot is important. “You find out what it is they really like to do and get them steered into the right area.”

“We had a tour guide who heard about restoration in a conversation and said, ‘that’s what I’d really like to do,’” Ken said. “And that’s great.”

Enabling such connections—between researchers and library sources, Museum guests and new knowledge, volunteers and their best fit at the Museum—is a good reason to get organized.
The last surviving MKT (Katy-built) steam engine is well on its way to reclaiming its post-WWII appearance thanks to TNMOT volunteers and rail enthusiasts from other states who have worked across the miles the last three years to cosmetically restore it.

“It’s just like an exquisite jewel,” said volunteer Ray George. “It’s just going to be so beautiful, everybody, I think, is going to be happy.”

In August, George and other volunteers installed the headlight and headlight bracket in the center of the MKT #311’s smokebox. Ray Davis, from California, created engineering drawings for the bracket, and Brad Libich fabricated and painted it. George had earlier restored a prototypically correct Pyle-National headlight from TNMOT’s collection.

In 2019, the #311 got back its stunning slotted steel pilot. The project was, of course, a group effort. Davis took measurements of the engine, George shared photos, and Bruce Blalock, from Texas, shared a sketch of the pilot on his custom-built O-scale model of the #311 as well as detail photos he had taken in 1985 of the engine at TNMOT. Once Davis, using all that information, finished his design, Gene Linder went to work on the fabrication of the pilot and pilot steps at Linder’s Welding, Inc. in Stilwell, Kansas. Jeff Linder and Willis Miller helped. In July 2019 they were installed, primed, and painted.

Several parts of the #311, such as the steel pilot, are having to be reconstructed partly because the train was presented to the Museum in 1952 as a mockup of an 1870s wood-burning engine numbered 200, the engine’s number when built by Baldwin Locomotive in 1890. But a 1925 overhaul by MKT actually left little of the original, George said. Yet the Museum displayed the mockup version for three years before restoring the 4-4-0 engine, in 1955, as much as possible to its 1912 appearance, when it was first numbered 311.

There was talk in the mid-1980s of restoring the #311 to running condition and operating it at the Museum. But the report after a 1987 examination of the train by the St. Louis Steam Train Association, with its estimates of money and volunteer hours needed, served to squelch the talk, and focus turned instead to restoring the Frisco 4-8-2 No. 1522.

Some components removed during the 1987 examination have never been found, though some were located at the Museum’s Tyson storage facility with the help of Phil Berra, Al Weber, and Museum Curator Coby Ellison, among others. Still missing are steam gauges from the cab and MKT shields. The #311’s non-slip tread steel walkway steps were removed during the 1955 work, and have not been found, so fabricating and installing them are what’s next on the restoration agenda. Davis already has designed them.

The St. Louis chapter of the National Railway Historical Society has given TNMOT a $3,000 grant for cosmetic restoration of the MKT #311, and volunteers have kicked in their own money. “To see the #311 presented as it should be is going to be a wonderful thing,” George said.

Much information taken from Ray George, “M-K-T 4-4-0 No. 311: A Work in Progress,” The Katy Flyer, 41, no. 4 (December 2019): 10-16.
Moving milk from the cows in the country to the people in the cities fell largely to trains in the first half of the 20th century, and TNMOT’s representative from that period, the Milk Tank Car #1057, is getting a facelift.

The National Railway Historical Society awarded TNMOT a Heritage Grant for $4,540 for the project. “It was in pretty good shape,” Museum Curator Coby Ellison said. However, the paint used to update it 10 years ago had failed and was coming off. “The surface was fine. Just a matter of priming and painting it.” Unlike many restoration projects, there was not much body work to be done. “They were able to just paint it and go,” Ellison said.

Milk Tank Car #1057’s 6,000-gallon tank is stainless steel, insulated with two inches of cork (not glass-lined steel, as earlier tanks had been). The large amount of milk did not change temperature quickly, and the milk runs were on express trains, so no refrigeration or insulating with ice was needed. In fact, in a test run from Wisconsin to Florida (about 20 hours), the temperature of the milk transported rose by only one degree. The milk-loading hose went through the small sliding door above the entry door, and the tank was emptied from the bottom through pipes routed out the large door.

All that’s left to do on the car’s latest update is lettering, Ellison said.

FRISCO #1621 WAS ONCE HEADED TO RUSSIA

Restoration will soon begin on the Frisco #1621, whose builder plate in Cyrillic letters points to the train’s international backstory.

Built originally by Baldwin Locomotive for the Imperial Russian State Railways during World War I, the Eagle-Picher/St. Louis-San Francisco Railway #1621 instead stayed in the United States when the 1917 Bolshevik Revolution canceled the train’s delivery. The engine was one of 200 that never joined the hundreds of trains Russia purchased earlier in the war. It had to be modified to be usable here, though. It was built for a 5-foot gauge railway, and the U.S. standard gauge is 4 feet 8.5 inches. So the tires (bands of steel surrounding the wheels) were adjusted, and the decapods (referring to the engines’ 10 drive wheels) ran various railroads’ routes for more than 30 years. The #1621 was one of five trains Frisco Railroad sold in the early 1950s to Eagle-Picher, which used them to haul metal from their mines in southeastern Oklahoma, later donating the #1621 to TNMOT in 1961.

Burlington Northern Santa Fe (BNSF) has given an $8,000 grant to TNMOT for the restoration. “They have historic grants that they offer, so we applied and got it,” Museum Curator Coby Ellison said. “Overall the locomotive is in not too bad of shape.”

Restoration volunteers will see if they need to patch anything, will sand the engine, and spot prime it or prime it, Ellison said. Then a professional contractor will do the painting and lettering, according to the grant application. It’s hard to know how extensive any patching will be until the workers get into it as they seek to preserve the TNMOT artifact tied to the demise of Czar Nicholas II.
See and hear the stories of St. Louis’s prominence in the auto industry while you walk around the room looking at the actual historic vehicles.

New video projection tools in the St. Louis Room of the Earl C. Lindburg Automobile Center enable just that. With a wall as the big screen and excellent sound, the tales of “Rigs That Run” in the early 1900s and “Fun on Wheels” Corvettes from the 1950s through ’70s permeate the space.

“I think in today’s world, whether you’re 3 years old or 90 years old, having visual effects, visual information, is important to you. People are just used to that,” said TNMOT Board of Directors President Darryl Ross. “The whole world is used to video conferencing and to documentaries, something that will move you, that will tell a story.”

And it’s quite a story.

“Most people have no idea,” volunteer John Hartmann said of visitors’ familiarity, or the lack thereof, with St. Louis’s rich auto legacy. Dozens of St. Louis entrepreneurs gave the fledgling automobile industry a try in the early 20th century, with varying degrees of success.

St. Louis Motor Carriage Company touted their “Rigs That Run” as the first successful automobile business west of the Mississippi River. One of its founders, George Dorris, then started his own company, which produced coveted cars for several years. Moon Motor Car Company was another success story, and “Automobile Row” along Locust Avenue featured dealerships from Detroit’s manufacturers as well as St. Louis’s.

“There are so many twists and turns in the story,” Hartmann said. “This guy bought out that one. This one cheated that one. All the drama that goes with it is just fascinating.”

Perhaps Hartmann’s favorite character in the St. Louis auto story is A. L. Dyke. “He had the first auto supply company in the country,” Hartmann said. “It was right here in St. Louis. He made a large contribution to the automotive field, and no one knows his name. He just kind of went by the wayside.”

Dyke manufactured and sold automobile kits for the DIY enthusiasts of the early 1900s, though he also sold assembled models. He wrote several manuals, including his Dyke’s Automobile and Gasoline Engine Encyclopedia.

“Cars were very, very labor intensive then,” Hartmann said. “A lot of these cars required maintenance every 500 miles. You either had to do it yourself or pay somebody to do it.” Or, if you were rich enough, have your chauffeur do it, he added.

Hartmann enjoys introducing TNMOT visitors to Dyke and other St. Louis automotive pioneers when he volunteers at the Lindburg Center. In the future his presentation on Dyke, Dorris, and others may be shown with the new projection equipment. Right now a Living St. Louis feature on the St. Louis auto story from Channel 9 is running. Visitors are enjoying it, Hartmann said.

“They put some chairs in there, and a number of times I’ve seen people sitting and enjoying the movie going on,” Hartmann said.

The new projection equipment was made possible by a generous gift from Dr. and Mrs. Darryl Ross.

FEATURE FRIDAY

Guests gather on Feature Friday as Mike Eberhardt and John Hartmann give a close-up look at the Chrysler Turbine Car.
The trolley track extension at TNMOT is moving down the line toward completion.

The engineering and elevation drawings are done, said Museum Curator Coby Ellison. The rail work is expected to go out for bid in early December, with completion by Spring 2022.

The extension will take the line down to a stop at the Earl C. Lindburg Automobile Center. Currently the trolley’s line starts by the Roberts Pavilion and ends near the entrance to Barretts Tunnel.

The project includes extensive barricade fencing along the Lindburg Building retaining wall, a new gate at Barretts Tunnel, and ADA compliant handrails at the Abbott Pavilion. It is funded by Emerson Charitable Foundation. Mark Birchler’s work on the engineering and elevation drawings was done pro bono.

Trolley rides are a popular Museum attraction. They give those who once rode the streetcar rails a trip down memory lane while younger visitors have a chance to experience the dominant form of mass transit of the first half of the 20th century. Volunteers operate the trolley and give riders fun facts and stories about streetcars.

John Crowley, a Museum volunteer since 2008 in his seventh year as a trolley operator likes to emphasize to guests how important streetcars were. “A lot of people look at the streetcars as just another means of transportation without giving much though as to just how important they were. Before the automobile, and even after the automobile started to appear, the streetcar was the only transportation a lot of people had,” Crowley said.

The St. Louis Waterworks Railway #10 is one of the restored streetcars that runs. “It was the last wooden-body streetcar to run in St. Louis,” Crowley said. The trolley volunteer group turned it over to restoration volunteers in the mid-1990s. “They restored, repaired, replaced, whatever needed to be done….In May 2001 it made its first run at the Museum, and we’ve been running it ever since.”

The popular St. Louis Public Service Co. #1743 is awaiting a repair part, Crowley said. It is another car that “the volunteer restoration crew worked their magic on. Fifty years to the day that the last streetcar ran in St. Louis—May 21, 2016—we made the inaugural run of the #1743.”

Trolley crews look forward to the completion of the extension. “One thing people like about the plan is that they won’t have to walk up the hill anymore,” Crowley said. “Just go to the auto building, up to the mezzanine, out the back door, and we’ll come down to pick you up.”

SET IN STONE

The plaque commemorating The Barretts Tunnels’ being listed on the National Register of Historic Railroad Landmarks has been mounted on a beautiful stone befitting the tunnels’ status and placed near the entrance to the west tunnel, as part of the site work for the trolley extension project. The National Railway Historical Society plaque praises the Pacific Railroad workers who “used picks, chisels, shovels, blasting powder, and much physical toil to construct the first two railroad tunnels west of the Mississippi River.”
Big Boy #4014 Makes Memorable Stop at Museum

Everything about the train’s visit was big

Big excitement. Big crowds. Big thrill when the engineer stopped and disembarked briefly. And Big Boy himself, all 1.2 million pounds of Union Pacific #4014, sounding a hello to his brother #4006, who lives at TNMOT.

The Union Pacific Big Boy #4014 rolled through Museum grounds August 30 to the cheers of train lovers gathered (some from as far away as Maine) for the opportunity to see the huge engine running. Those rail aficionados received a special treat when the train stopped, and Ed Dickens, Senior Manager-Union Pacific Heritage Operations and Operating Engineer, disembarked to greet Museum guests.

Union Pacific Railroad had 25 Big Boys built, delivered in 1941 and 1944. They had a 4-8-8-4 wheel arrangement, which meant they had four wheels on the leading set of “pilot” wheels that guided the engine, two sets of eight drivers, and four wheels following that supported the rear of the locomotive. The frames of the 132-foot locomotives were “hinged,” or articulated, to allow them to negotiate curves. They usually ran between Ogden, Utah, and Cheyenne, Wyoming.

Besides the operational #4014 and TNMOT’s #4006, six Big Boys are on static display in Dallas, Texas; Omaha, Nebraska; Denver, Colorado; Scranton, Pennsylvania; Green Bay, Wisconsin; and Cheyenne, Wyoming.

DID YOU KNOW?

Our own Big Boy #4006 loaned a part to assist #4014 in its cross-country trip. The Union Pacific mechanic crew traveling with #4014 visited TNMOT on Sunday, August 29 to pick up the piece. After all, Big Boys help each other.
Ed Dickens, Senior Manager-Union Pacific Heritage Operations and Operating Engineer, disembarked to greet Museum guests.
Awesome Autumn Activities Bring Out Artists, Car and Music Lovers, Trick or Trackers, and More
Continued from page 1

So Santa gets to spend a little more time with each kid, which is really nice." Bring your own camera for photos.

A couple of Santa’s reindeer will visit on a few days, and Mrs. Claus will accompany the big guy. Santa will arrive via helicopter at 10 a.m. Saturday, November 27, weather permitting. See page 19 for his and the reindeer’s full schedules.

A fun part of the new holiday village exhibit is the opportunity to “buy” a shop or house in the village to decorate (or have custom decorated) as the buyer wishes for $350. The building will have signage noting who the “owner” is. Families or individuals can buy the buildings as surprise gifts or in honor of someone, or a business might buy one and invite its employees/clients to a grand opening. “If I want to buy, say, Tim the Tool Man’s Woodshop, I can purchase it for $350 and become part of the holiday display,” Hood explained.

The ever-popular E. Desmond Lee Model Train Display and the former Famous-Barr/Macy’s train display from the downtown store will return to the William R. and Laura Rand Orthwein Education & Visitor Center for generations of train lovers to enjoy, from toddlers who love Thomas to visitors who remember taking a streetcar downtown to see stores’ holiday window displays.
Christmas Holiday Events Schedule

Friday, November 26, 2021 – Sunday, January 2, 2022

MUSEUM HOURS
Wednesday – Sunday: 9:00 am – 4:00 pm
PLUS: Dec. 20, 21, 27 and 28
Closed Thanksgiving Day, Christmas Eve, Christmas Day, New Year’s Eve, New Year’s Day

ADMISSION: $15 Adults | $12 Seniors & First Responders | $5 Children 3-11
(extra fees may apply for some activities)

The E. Desmond Lee Holiday Train Exhibit
(included with admission)
The region’s largest indoor holiday train display!
The Famous-Barr/Macy’s Holiday Train Display
NEW this year – Holiday Town!

Miniature Train Rides* | $5
*weather permitting
Nov. 1 – 30
Wednesday – Friday: 9:20 am - 1:20 pm
Saturdays & Sundays
& Nov. 26: 9:20 am – 3:20 pm
Dec. 1 - 31
Saturdays & Sundays & Dec. 20, 21, 22, 23, 27, 28, 29, 30: 11:00 am – 3:00 pm

Museum Tours
Visit the entire Museum!
Wednesday – Sunday: 10:00 am

Santa Arrives by Helicopter*
*weather permitting
Nov. 27: 10:00 am

Santa Claus Visits
(included with admission)
Nov. 26, 27: 11:00 am – 2:00 pm
Nov. 28: 11:00 am – 1:00 pm
Dec. 4, 11: 11:00 am – 2:00 pm
Dec. 18, 19: 11:00 am – 1:00 pm

Live Reindeer
(included with admission)
Nov. 26: 11:00 am – 1:00 pm
Dec. 4: 12:00 pm – 2:00 pm
Dec. 11, 18: 10:00 am – 12:00 pm

Boxcar Boutique Gift Shop
Dec. 3 & 10
50% off one item of your choice
30% off everything in the store
(Cannot be combined with any other offers)

Ride the Holly, Jolly Trolley*
*weather permitting
(included with admission)
Nov. 26, 27, 28: 9:00 am – 3:20 pm
Saturdays & Sundays: 9:00 am - 3:20 pm
Consider Including Museum’s Mission in Season of Giving Plans

Giving Tuesday, November 30, brings the opportunity to support important community organizations, including The National Museum of Transportation.

Please consider giving what you can to the effort to preserve the history of our transportation heritage for the next generations. Special funds include:

- **ALL Aboard**: Provide children in our community the opportunity to experience our legacy in motion regardless of their ability to pay. Every $8.50 donation provides admission and a train ride for one child. (See page 7 for more details.)

- **Jupiter Miniature Train**: Help TNMOT buy a miniature train replica of The Jupiter, Central Pacific Railroad’s steam locomotive that stood at the Golden Spike ceremony in 1869. Become a member of the Track Crew with a gift of $18.69, a Railroad Spike donor for $186.90, Bronze Spike for $1,869, Silver Spike for $8,690, or Golden Spike for $18,690.

- **Restoration Fund**: Support the restoration of the Museum’s world-class collection.

- **Daniel Nason Fund**: Fund the Museum’s greatest needs.

Donations may be made online at https://tnmot.org/giving-landing/ or mailed using the enclosed envelope.

**MUSEUM GIFT IDEAS**

Give fun experiences to your family and friends this holiday season and support the work of the Museum at the same time.

- **1944 Club—Lifetime Museum Membership**: Give someone (including yourself) a lifetime membership to the Museum for $1,500, and in the future get a behind-the-scenes preview of the E. Desmond Lee and Famous Barr/Macy’s holiday train displays as they are being put up. Only 20 memberships are available annually.

- **Annual Museum Membership**: For the basic $68 Coachman membership, the recipient and up to five guests per visit will enjoy free admission, 10% off all gift shop purchases, and birthday party and facility rental discounts. Tickets for Miniature Train rides and Creation Station access come with other levels of membership.

- **Unique Museum opportunities**: Who on your list would enjoy driving the Chrysler Turbine or a trolley or photographing the Museum at night? Go to tnmot.org and search for “Moving Opportunities” for details.

- **A Building in the new Holiday Village**: Name and decorate a shop or house in the Museum’s new Holiday Village.

See tnmot.org or email museum@tnmot.org for more details.
I hereby nominate and appoint Charley Taylor, John Brophy, and Lindley James as my attorneys, or proxies, and each of them, with full power to act without the others, to represent me and cast my vote by proxy at The National Museum of Transportation Annual Meeting of the Membership, Tuesday, November 30, 2021, or at any adjournment thereof, as fully and with the same effect as I might or could do personally present at such meeting, thereby ratifying and confirming his/her vote on the matters to be presented at said meeting. Without limiting the general authorization and power hereby given, said proxies are specifically directed to vote for the following, except as indicated on this reply form, on the election of Directors to be submitted at the meeting:

Term Expiring - December 31, 2024 Nominated for a First Term: Nicole A. McPherson

Term Expiring - December 31, 2024 Nominated for a Subsequent Term:
Frank Cunetto, Lee Rottmann, Dr. Darryl A. Ross

I have read the 2021 TNMOT Proxy Statement. I accept the Proxy as stated YES NO

Additions/Exceptions to the 2021 TNMOT Proxy Statement: 

Member Name: 

Member Signature: 

I plan to attend the 2021 Annual Meeting of the Membership on November 30, 2021 YES NO
The National Museum of Transportation will be the leader in protecting and interpreting North American transportation heritage. As stewards of our heritage, we will provide engaging education programs, interactive and interpretive exhibits, and conserve transportation history for the next generations.

**MISSION**

The National Museum of Transportation will be the leader in protecting and interpreting North American transportation heritage. As stewards of our heritage, we will provide engaging education programs, interactive and interpretive exhibits, and conserve transportation history for the next generations.

**VISION**

The Museum’s successful operation depends on eight equally important units known as our ‘drive wheel’: Education • Exhibits Interpretation • Grounds & Facilities • People • Events & Outreach • Guest Services • Restoration & Preservation • Library & Archives The unified force of the ‘drive wheel’ successfully moves the Museum forward.

**VALUES**

What we value is reflected in one word: **Respect.** We respect the people, artifacts, campus, and stewardship that preserve the transportation past for future generations. **People.** We respect our fellow volunteers, staff, guests, and stakeholders. We will share knowledge and collaborate, as well as be considerate and supportive of those with different and differing ideas. **Artifacts.** We will respect the history and historical significance of artifacts entrusted to us to protect and preserve. Objectivity, accuracy, and integrity will prevail. **Campus.** We will respect the grounds, buildings, and equipment by keeping these clean, orderly, and in working condition. We will be a good steward of our environment by emphasizing pollinator and native plants to our campus to foster not only attractive, but also sustainable, landscaping. **Stewardship.** We will respect the significance of our treasured collection, acknowledge our role in preserving it, and remain accountable for the gifts we receive.

**GOAL**

We preserve and protect our transportation heritage enabling us to teach our children and our children’s children about the significant role transportation played in the development of our Country. We actively preserve history every day for the next generations!

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**THE NATIONAL MUSEUM OF TRANSPORTATION BOARD OF DIRECTORS**

**Dr. Darryl A. Ross**  
**President of the Board**

**Charles Taylor**  
**Vice President of the Board**

**Lee Rottmann**  
**Secretary of the Board**

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**Executive Director**

Terri McEachern

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The National Museum of Transportation is a 501(c)(3) relying solely on the generosity of donors to preserve the past for future generations.