2nd Anniversary of LEGO Millyard Project Completion Celebrated with Spruce-Up Event

Article by Mike Ripley
Courtesy of NELUG

On October 25, 2008 the major contributors to the building of the LEGO Millyard Project gathered at the SEE Science Center in Manchester, NH to "spruce-up" the display. Over 20 members from the New England LEGO Users Group (NELUG), Steve Gerling, Steve Witt and Megan Halpenny from The LEGO Group (TLG), Douglas Heuser and Adele Maurier from SEE, and über community volunteer Dan Faiella participated in the day long event, which was comprised of three major activities - cleaning and repairing the buildings, structures, and minifig vignettes that make up the display, building new content to add to the display to enhance the look (trees, wagons, etc.), and overhauling the train/camera system to ensure its continued operation. Much progress was made on all of these activities, providing the public with a cleaner, more enhanced display.

The LEGO Millyard Project began in 2001, when SEE Science Center benefactor Dean Kamen (inventor of the Segway PT) and TLG owner Kjeld Kristensen agreed to sponsor a project to recreate out of LEGO bricks a scale model of the Amoskeag Millyard complex built along the Merrimack River in Manchester, NH as a permanent display in the SEE Science Center. Through the generosity of the museum's board of directors, space in the mill building where SEE is located was secured, renovated and a 22'x95' (6.7m x 29.2m) deck was built on which the layout was built. The deck includes three different levels to simulate the slope of the land along the river, and a running water system where the canals and river are. TLG donated the brick for the project, and time for two master builders to work on the project.

As was immediately apparent to Steve Gerling and Erik Varsegi, the two LEGO Master Builders assigned to the project, in order to fill over 2000 sq. ft. (over 195m^3) with LEGO buildings, structures and vignettes, they would

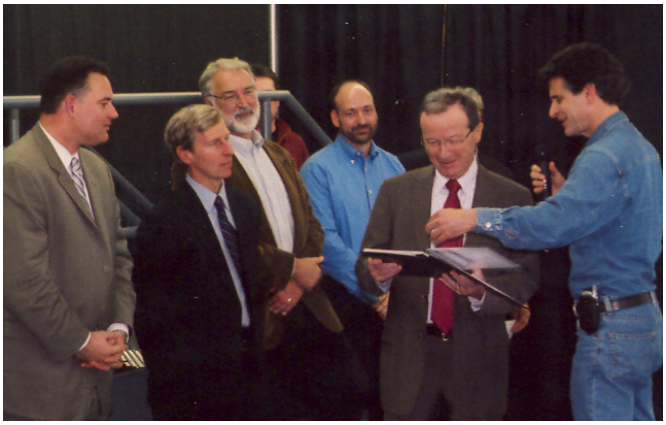
need to work the project full time for years (which was not possible as they needed to maintain their full time jobs in Enfield), or tons of help was needed. The museum offered to call on the public for community volunteers to help, but some LEGO expertise was still needed to oversee and guide the building of the mill buildings. And, for more complicated buildings and structures, running trains, and minifig vignettes, people who do that kind of thing were really needed. Perhaps some AFOLs, or a LUG that has built city/train layouts... and that's where NELUG - the local AFOL group with a long history of doing large LEGO train/town layouts in the greater Boston area - came in.

In 2002 NELUG was approached by Erik and Steve to see if there was interest in the project. Steve and Erik were not sure if this was going to work, as the size, complexity and duration of the project necessitated a major commitment on the part of NELUG members. They even brought small LEGO sets to hand out at the initial meeting as a gesture of goodwill. The members, of course, saw it differently - who wouldn't jump at the chance to build with two master builders on a major project sponsored by TLG?

So on the weekend of October 16-17, 2004 Phase I of the LEGO Millyard Project was held. Steve and Erik did the basic building design, with input from NELUG. The mill buildings were designed so they could be mass assembled using sub-assemblies that were built by volunteers. Having sections of the mill buildings already built greatly sped up the assembly of a mill building, and allowed the less experienced volunteers to contribute in a very meaningful way. During the public building events, NELUG members oversaw the creation of mill buildings, helped organize volunteers for the sub-assemblies, and worked on more complicated non-mill buildings and structures for the layout.

Because the real mill buildings were all built using bricks and mortar, that effect was needed in the LEGO mill buildings. In order to get this effect, both old and new brown bricks were mixed together to build the mills. In order to mix such a large quantity of brick, Erik and Steve ended up dumping them all together on the floor and walking through the pile until they were mixed! The difference in shades makes for a nice brick-like look. An interesting coincidence of the overall timing of this project is the fact that had the project occurred 5 years earlier or 5 years later, not enough brick of both colors would have been available to do this.

For the layout itself, it was decided to pick around 1900 as the time period to model. This was before the decline of the textile industry in New England, trains had already been invented and were in heavy use to support the industry, but cars and trucks were not, allowing for horses and wagons to make the layout more interesting. In order to be as historic and accurate as feasible, scale models of the buildings were built and properly spaced on the deck. Extensive research was done to ensure the look of the LEGO Millyard was as accurate as possible. The Millyard Museum (located in the same mill building as SEE) was frequently used to depict the buildings and vignettes as true to the time period as possible. A plan of the Amoskeag mill complex from this time period was found, which formed the basis of the layout. Buildings that still exist were measured and photographed, and each was built according to these resources. Old photos were found for the buildings that have been torn down and were used for the rest.



Building from Pictures

Because the time period chosen was around 1900, several important buildings that were part of the Manchester landscape of the time no longer exist. In those cases, buildings were created using old photos and postcards. Two buildings in particular, the old Manchester Train Station and the Franklin St. Church, were built using only historical references. The builders of the train station had many pictures and postcards to go from, and were able to create an exquisite replica. The builders of the Franklin St. Church only had one picture go to by, so several 'artistic liberties' were taken to create the final product.

At the time, 9V trains were still alive and well. The trains and track are therefore all 9V. But soon after the project began, the museum expressed a desire to put cameras in the trains so a live picture could be transmitted to a screen for visitors to see. It was a great idea but added immensely to the complexity of the trains. First, a decent camera and wireless transmitter system was needed. Since the model train hobby had been doing this for years, this was not a major problem. Also, several NELUG members had already built trains to do this for our layouts, so there was some knowledge about the cameras and building them into a LEGO train. Next, enough and consistent power was needed throughout the track to keep the trains going and the cameras on. Tests revealed that standard 9V transformers and power connectors were just not designed for this type of application. The museum is open 8 hours a day, 7 days a week, and the trains/camera run continuously during this time. Thanks to the electrical engineering expertise of several NELUG members, a custom power system was designed and installed. Time period locomotives were built with cameras and wireless transmitters installed, using custom connectors to standard 9V motors. The design also allows for museum personnel to swap out 9V motors when they wear out.

As the mill buildings began to populate the front section of the layout, it was realized that both some variety was needed to make the display more interesting, and something was needed to draw people to the back of the layout. Even though out of place with where it really is in relation to the Amoskeag mill complex, several iconic features of Manchester were built and placed on the layout. This proved to be a special bonus for the members of NELUG, because due to the wide variety of parts needed; the buildings for downtown could only be built in Enfield! This necessitated several building sessions in CT and then transporting the final products to Manchester.

First, a model of downtown Manchester itself was built, including the town hall, library, cigar building, Franklin St. Church, and a vibrant farmers' market. Next, Pine Island Park was recreated, which was a favorite place to enjoy Sunday with the family, including the old wooden roller coaster and swimming pond. Although not built until 1937, the iconic Notre Dame Bridge that spanned the Merrimack was also built, using all sand green elements to represent the original green steel structure. Lastly, the old Manchester train station was built using pictures from old postcards. Pine Island Park, the Notre Dame Bridge and the old train station no longer exist, but several times during the project older visitors to the museum exclaimed in joy at seeing the old structures from their childhood.

[Joe - if you want, this paragraph could be done as a sidebar. A picture of Steve unpacking the coaster and it on the deck are the "side2-xxx" pictures.]

Despite wanting to add more and more to the layout, eventually it became time to end the project. The dedication was held on Nov. 29, 2006 and was attended by Dean Kamen, Kjeld Kristensen, the governor of NH, the mayor of Manchester, Steve, Erik and many TLG employees from Enfield and Billund, most of the NELUG participants, SEE Science Center staff and board members, several AFOLs (including our very own Joe Meno!), and many of the community volunteers who helped. NELUG, Erik and Steve were presented mementos from SEE, and NELUG

presented Kjeld, Steve and Erik with official NELUG shirts. But the highlight of the event was all of the excitement and praise given to us by Kjeld himself. He truly loved the layout and marveled at all of the buildings, structures, trains and vignettes that were created.

All in all, the project took 9 phases at the SEE Science Center and several more in Enfield to complete over the course of 2.5 years, and used between 2-3 million pieces. Most of the NELUG membership participated at some point in the project, as well as family members and numerous community volunteers. Erik and Steve stayed with it the whole time, and Douglas and Adele were gracious hosts throughout. The LEGO Millyard is the largest minifig scale display in North America, and is listed by the City of Manchester Dept. of Tourism as one of the major points of interest for visitors to the city.

Two years later, it felt like we never stopped. Everybody who helped with the spruce-up had a great time working on the layout again. With Erik, Steve, Douglas, Adele and all the members of NELUG there, it hardly felt like two years had gone by. The only real visible sign of time was the dust, and how much Dan Faiella (now 16) had grown. For the members of NELUG, it was the experience of a lifetime - and we even impressed Kjeld!!

For general information about the SEE Science Center please visit: http://www.see-sciencecenter.org/

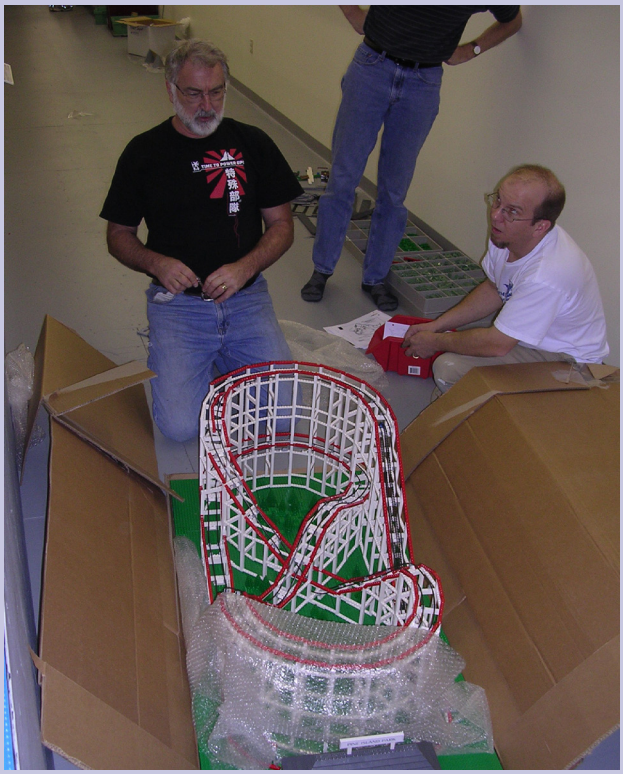
For information about the Amoskeag Millyard please visit the Manchester Historic Association at: http://www.manchesterhistoric.org/

Videos from the trains traveling through the LEGO Millyard can be found at: http://www.youtube.com/user/IkVar77

For pictures and stories about the LEGO Millyard Project please visit: http://www.nelug.org/article.php?story=20061130213415274 and http://www.nelug.org/mediagallery/album.php?aid=254&page=1

For general information about the New England LEGO Users Group please visit: http://www.nelug.org

We also recommend that you search on-line for 'LEGO Millyard' to find many other resources about the display.



While all of the LEGO structures have stories about their creation, the wooden roller coaster is particularly interesting. When the LEGO Millyard Project began, Jamie Berard was an AFOL, and as a NELUG member, volunteered for several of the building phases. After being hired by TLG and moving to Billund, Jamie monitored the progress of the project in the NELUG member forums, and when he saw that planning was underway to recreate Pine Island Park, he volunteered to build the roller coaster (note – Jamie is a huge roller coaster fan!). He coordinated the size and scale on-line, built the roller coaster in Billund, and arranged to have it flown over to the USA with Kjeld Kristensen when Kjeld came for the dedication ceremony. A custom made box arrived at the SEE Science Center 2 days before the dedication, and after carefully opening the box the completed roller coaster (with very minimal damage that Steve Gerling repaired) was placed on the deck and ready to go!