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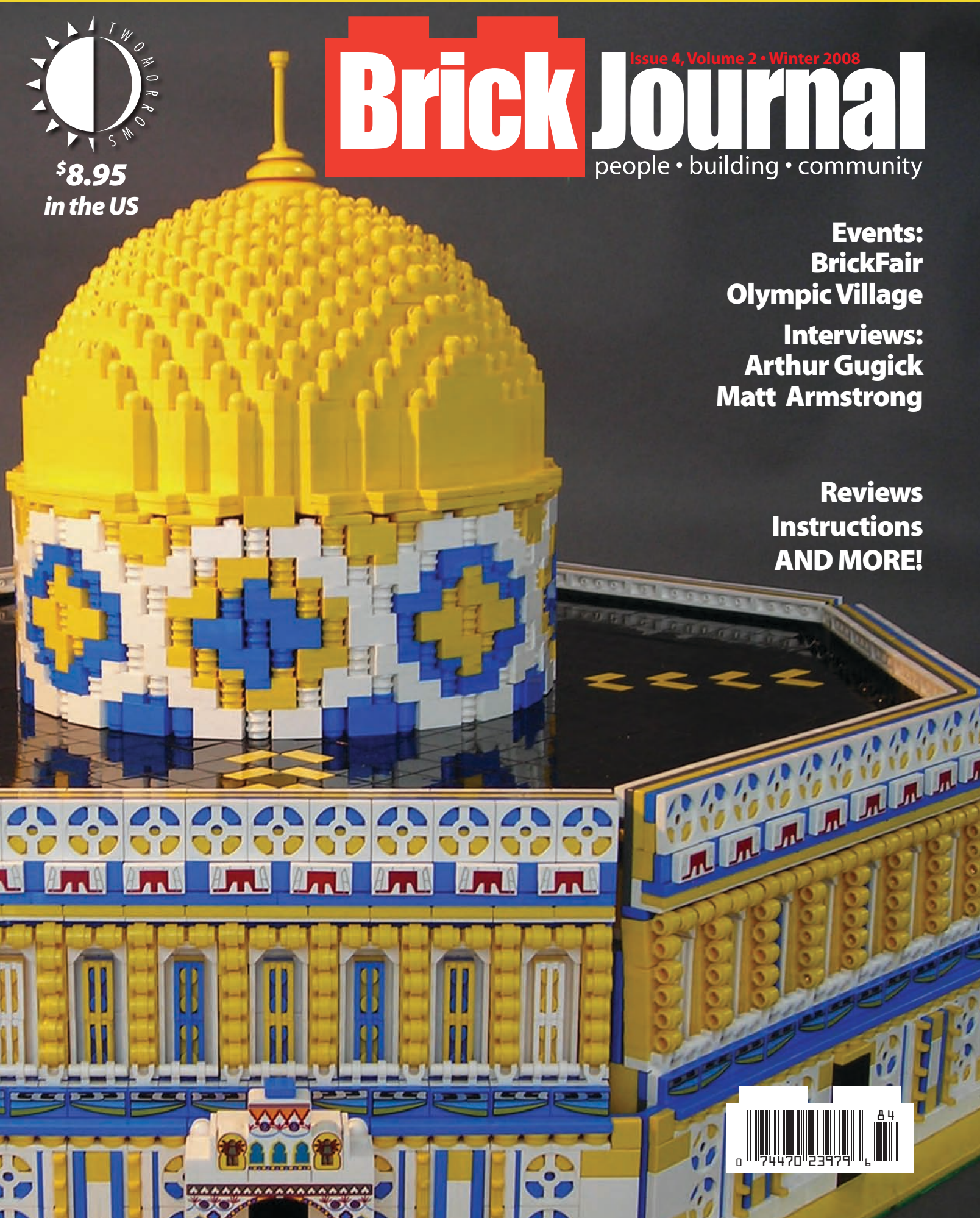

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BrickJournal

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Right: Arthur Gugick's Tower of Pisa.
Photo by Jerry Mann.

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Many thanks to the websites who have served as mirrors for *BrickJournal*:
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About the Cover:
One of Arthur Gugick's models. Photo by Jerry Mann.

From the Editor:

It's amazing what can happen here. Every issue's articles usually come in the space of two weeks, and for me it's always like Christmas at my e-mail box!

It's really surprising, though, when I start getting articles from the LEGO Group! Beginning this issue, there will be an article from the director of LEGO's Idea House about the long and rich history of the LEGO Group, including before the brick!

There's also an entire series of articles from Hong Kong - the largest single section devoted to any event printed in *BrickJournal*. I was expecting one story about the LEGO display that was shown to celebrate the Olympics, but got five! Each story talks about how a part of the layout was done, with some great photos!

We got a few other events, and a spotlight on Arthur Gugick this time. There's also the instructions and how-tos, so jump in an look around!

Joe Meno
Editor, *BrickJournal*

P.S. Have ideas or comments? Drop me a line at admin@brickjournal.com. Or go to www.lugnet.com and leave a comment on their forums! I'm open to suggestions and comments and will do my best to reply.

P.P.S.. Yes, *BrickJournal* has a website — www.brickjournal.com! You can check out the news there or look at the event calendar and see what is happening near you!

GLOSSARY

AFOL (Adult Fan Of LEGO)
NLSO (Non-LEGO Significant Other)
MOC (My Own Creation)
TLG (The LEGO Group)
BURP (Big Ugly Rock Pieces)
LURP (Little Ugly Rock Pieces)
POOP (Pieces—*that can or should be made*—Of Other Pieces)
SNOT (Studs Not On Top)
LUG (LEGO User Group)
LTC (LEGO Train Club)

BrickJournal *and its staff would like to thank the LDraw community for the software it makes available to the community, which we use for making all of the instructions and renderings in this magazine. We would especially like to thank Kevin Clague for his continued upgrades of the LPub tool that is a part of the LDraw suite. For more information, please visit http://www.ldraw.org.*

"Do You Still Want These?" or How I Became an AFOL at 33

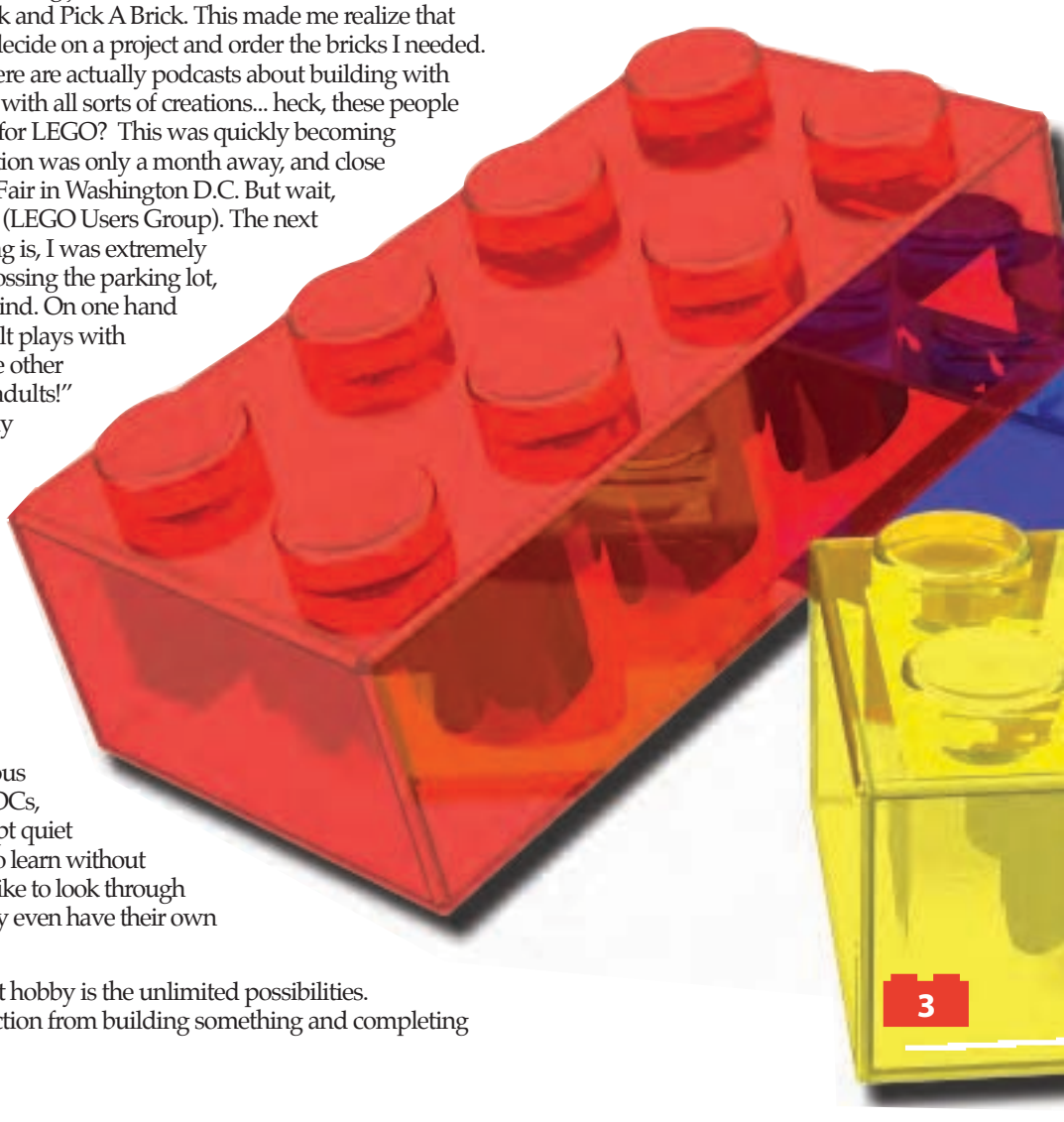
Essay and Photo by Brian Longtin
Illustration by Geoff Gray

I remember as a kid going to the mall and seeing the traveling LEGO displays of government buildings. I was one of many who encircled each display of the Capitol Building, White House, and many others, amazed at the size and detail. The only problem was, as a child I had no way of obtaining enough LEGO to ever dream of making something that size, let alone anywhere I could keep such a large project... but then.....

A few months ago, my mother, a schoolteacher, had cleaned out her class and brought home a box with all my old LEGO in it. "Do you still want these?" were the five words that I credit for bringing me out of my "dark age" - a term I would I would only later learn was used to describe the years of our lives NOT spent playing with LEGO. I took the box, and naturally, began to look online to find inspiration for something to build. About 3 minutes later I realized I had nowhere near enough bricks. The good part though, was I now had money to get some! I looked online at the new sets, and also brought up several pictures on Flickr, a website where many LEGO fans post their creations, or MOC's (My Own Creation). Suddenly excited as I used to be on Christmas morning, I jumped into my car and drove to the closest TRU (Toys R Us) and found the LEGO aisle. I devised a story in case someone asked me what I was looking for. "I need a gift for my nephew, he loves LEGO" was what I decided on. I decided on a LEGO creator set because I was interested in building realistic models of actual buildings. I later learned this made me a Townie, rather than a Pirate, Space, or Train fan. Apparently LEGO fans are somewhat divided by building preference too.

Soon, my main goal in life became obtaining more LEGO bricks.

After a few more days spent online, learning just how vast and varied the LEGO community was, I discovered Bricklink and Pick A Brick. This made me realize that now the next thing to do was simply decide on a project and order the bricks I needed. Searching the internet, I discovered there are actually podcasts about building with LEGO too! And blogs... lots of blogs... with all sorts of creations... heck, these people even have conventions! Conventions for LEGO? This was quickly becoming a serious hobby! The next big convention was only a month away, and close by! I immediately registered for BrickFair in Washington D.C. But wait, apparently there was also a local LUG (LEGO Users Group). The next meeting was a week away. Funny thing is, I was extremely hesitant, almost turning back while crossing the parking lot, because I had NO idea what I would find. On one hand thinking to myself, "What kind of adult plays with toys? Who will I see here?" and on the other hand saying "Hey, I AM one of those adults!" I wandered in and was greeted warmly by all the members. Most were sitting around a table busy building their latest MOC. Everyone was friendly, and guess what? Totally normal! My shyness quickly yielded to curiosity because some members brought in their latest MOCs to show the club. I began to circle the table checking out all the stuff they had! I was amazed! These guys are serious builders! They even had their own language. They were referring to various things like slopes, tiles, bricks, figs, MOCs, BURPs, LURPs, plates, and more. I kept quiet in hopes of picking up what I needed to learn without asking. One member asked if I would like to look through the latest *BrickJournal*. Imagine that, they even have their own magazine dedicated to LEGO.



I think what makes LEGO such a great hobby is the unlimited possibilities. As a contractor, I also get some satisfaction from building something and completing

Brian in his element.

a project. There is a certain satisfaction I feel as the last element is snapped into place. I think the bright colors somehow stimulate some corner of my brain as well, and the mere act of bringing order to the chaos of a bucket of bricks brings a sense of accomplishment. There has to be something special about it because I can sit down at my table at 8pm and before I know it, it's 2:30 in the morning. I cant think of anything else which can hold my attention for so long. Sometimes I don't even stop to eat. This fascinates me, and I imagine someone could do a study to see why this occurs. I literally enter a zone. I find myself hoping for rain on weekends so I have an excuse to stay in the house and play with LEGO rather than go out and do something.

Complementing this hobby are the numerous sources available to get what I call my "LEGO fix" if my bricks aren't close by. I can listen to LAML Radio on my iPod about building with LEGO, while reading my *BrickJournal* and looking online to find ideas for projects. I can play my LEGO video games, read LEGO blogs and occasionally find a great deal at a yard sale for someone's old box of LEGO.

When I first mention it to the few friends who know about my little secret hobby, they may laugh, but oddly enough, when they see what I have built, they pick up bricks and start building themselves. I really feel that if marketed correctly, LEGO would be outrageously popular with adults. At our club shows we see couples looking at our displays and you can almost read the guys mind as if he's wondering "I wonder what my girlfriend would say if I brought home a set and started building with LEGO?" Some others loudly exclaim "WOW!" and ask how to join us.

Years ago, video games began marketing themselves in men's magazines geared toward adults. Suddenly it was okay to be 30 years old and still have a Playstation. It was a normal thing to see one next to the television in a house where there were no children. I think the same could be achieved with LEGO. In fact, I will volunteer to head up the new LEGO Adult Fan Marketing Department! I am convinced that more people would love this hobby if someone simply one day asked "Do you still want these?"

Fun for a Cause at Enfield

Mito Walk and Family Fun Day at LEGO Systems, Inc.

Article by Mike Ripley
Photography by Mike Ripley and Bill Bourn as credited

Employees from LEGO Systems, Inc. in Enfield, CT opened their doors on Saturday September 27, 2008 to host a fundraising event entitled "Mito Walk and Family Fun Day" for the United Mitochondrial Disease Foundation. Over 300 people from around the region gathered to walk in a 5K Walk, support family and friends, and promote awareness of this crippling disease that inhibits the body from turning food into energy to sustain life. There are 14 regional chapters of UMDF, and LEGO employee Heidi Bailey is the regional director for the New England Chapter. As host for this event, LEGO Systems, Inc. provided indoor space for folks to gather and play. A building area for kids young and old was available, and a huge floor mural highlighting the word "HOPE" was adorned with - LEGO!

Members of the New England LEGO Users Group (NELUG) were asked to participate and provided three displays; a moonbase, a large castle complex, and an exhibition of several city MOCs. The moonbase was centered around Spacely Tower by Teddy Welsh, and featured two modules by Jonathan Dallas (a Sponge-Bob themed Sandy's Greenhouse and a Classic Spaceport), a Robot Museum module by Dave Gwon, and three modules by Mike Ripley (Crystal Hotel, Moonbase Cafe Corner, and Market Street Moonbase). Also included was the mainstay of any moonbase display - a monorail around the perimeter with a custom moon monorail train by Jonathan featuring a novel compartment design for the monorail engineer.

The castle display highlighted a large castle complex by Matt Mann, a castle and dragon scene by Dave Eaton, and the Jabberwock by Jason Wolfson. The castle complex was built using a modular castle wall design Matt created. In addition to the main castle, the complex was full of minifig scenes of medieval mayhem, including jousts, dragons, an automated BBQ pit with lights to animate the translucent flames, and a steampunk ship (that's right, steampunk!) attacking one corner of the complex. It is always fun to see one of Matt's castle displays as he always puts his extensive knight, skeleton, troll, goblin and dwarf minifig collection to good use. Dave Gwon provided the city MOCs that were displayed. A robotics demonstration by Bill Bourn was also provided. Several NELUG members also walked in the 5K Walk that followed a damp and swampy path around the LEGO complex.

Another LEGO highlight at the event was a replica of the German castle, Schloss Neuschwannstein, built in the mid-1800's by the Bavarian King Ludwig II. This model of the famous "Snow White" castle was created by Master Builder Erik Varszegi, is wonderfully detailed, and shows nicely how bigger is not necessarily better, as the entire castle is about 96 studs long by 64 studs wide. The model will be featured as part of the upcoming LEGO Castle Adventure, a traveling museum exhibition that opens January 31, 2009 at The Children's Museum of Indianapolis.

The fundraising event began with folks gathering at LEGO Systems, Inc. in an old manufacturing area behind the LEGO Brickyard Cafeteria. Tables staffed by LEGO and UMDF volunteers were in the dining area, where walkers and mito support teams, who are groups of friends and family supporting someone with the disease, registered for the walk. The LEGO displays from TLC and NELUG *Castle*

Display. Photo by M. Ripley.


Neuschwanstein by Erik Varszegi. Photo by M. Ripley.

Schloss Neuschwannstein and Reference Book. Photo by B. Bourn.


Jonathan Dallas and the Moonbase Display. Photo by B. Bourn.

Monorail Train and Moonbase Cafe Corner. Photo by B. Bourn.

were big hits with the kids. A raffle for a number of LEGO sets was done, as was the large floor mural. A skateboard demonstration by Theory Skateshop was also done.

Master Builder Dan Steiniger was the Master-of-Ceremonies for the closing event, where he orchestrated a human ring around the floor mural, with everyone lying on the floor! The local news media were present for video and lots of photos. A DJ provided music, and folks were free to build and play the entire time. An extra bonus to walkers and their families was a trip to the LEGO company store! After the walk, the company cafeteria was open for lunch, where participants gathered for a bite to eat. As a result of everyone's hard work, over $38,000 was raised.

As a special treat for NELUG, we were given a tour of the new work spaces for the Master Builders in Enfield. It was great to hang out with Erik, Dan and Steve Witt of the LEGO Community staff, and to be invited to participate in the event!

For more information about Mitochondrial Disease, please visit http://www.umdf.org. The website for this event is http://www.mitowhat.org. More pictures of the event from NELUG members who attended can be found at http://www.nelug.org/mediagallery/album.php?aid=365&page=1. LEGO Castle Adventure information is at http://www.childrensmuseum.org/traveling_exhibits/legocastleadventure/index.htm. Video coverage of the event from Channel 40 (ABC) news team can be found at http://www.wggb.com/Global/story.asp?s=9085094.


Dan Orchestrates Human Circle Around "HOPE." Photo by B. Bourn.


Adults Kay Lieblein, Dan the Master Builder and Peg Bailey Build Too! Photo by M. Ripley.

Scraping the Sky with LEGO Architecture

Article and Photography by Brittny Dziadula

Not many can say they helped contribute to such an iconic skyscraper, but a few more visitors to the Sears Tower can now boast that they helped to create a new permanent fixture in the 35 year old building. Instead of pointing out a piece of steel or glass they helped into place, these visitors can point out the 2x4 bricks they used to help create a 20 ft. tall Sears Tower replica in the lobby entrance to the Sears Tower SkyDeck.

While the real Sears Tower took three and a half years to build, it took Adam Reed Tucker and a host of volunteer builders two days on October 4 and October 5, 2008 to create the 50,000 piece replica. A former architect and founder of Brickstructures, Inc., Tucker launched LEGO architecture, a line of famous architectural site replica kits, earlier this year in partnership with The LEGO Group. This event and others similar will help to promote the new line of sets and share his philosophy that the Brick as a medium has far reaching potential than its traditional role as a toy.

"From a design perspective, the Sears Tower was an early inspiration for the LEGO Architecture line – it's an icon whose unique design defined architectural standards that set it apart from earlier skyscrapers," said Tucker. "When determining a site and building for the big build event, the Sears Tower was the obvious choice."

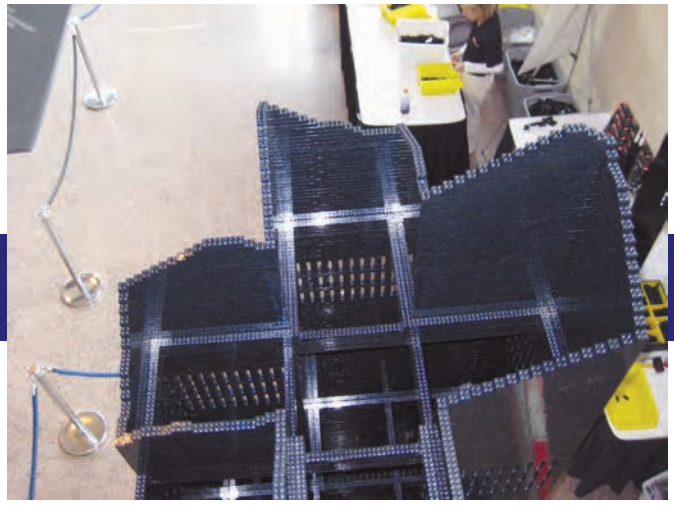
The goal of the event was not to simply recreate the Sears Tower out of LEGO, but to bring the ideas and principles of architecture, design and engineering into a concept that site visitors could understand and participate in. "I use LEGO Bricks to level the playing field and introduce people to architecture, engineering and construction in a new and unexpected way," said Tucker.

The replica was built in sections using brick segments constructed by visitors to the Sears Tower SkyDeck Lobby. While waiting in line or returning from the observatory on the 103rd flood of the 110 floor tower, children and adults jumped on the chance to help build the replica that would remain on permanent display for future visits to the SkyDeck – with "construction" bragging rights.

"Including the antennae, the tower was completed by creating 5 very large separate sections making up the distinct setbacks of the Sears Tower. Strategically, these sections also nested into each other for ease of mobility", Tucker said.

Not everyone can say they helped build a Sears Tower inside the Sears Tower, a helpful little hand was heard saying during the event.

Intended as a permanent installation, the model will be on display for years to come. So, next time you visit Chicago, stop in and check it out.



Showing the *Art of Architecture*

Following the big build event, the show traveled west to Rockford, Ill as Adam Reed Tucker debuted his first museum exhibit, *The Art of Architecture* at the Discovery Center Museum on October 11, a playful title drawn from his initials.

Using just the LEGO Brick as a medium, the exhibit features Tucker's scale models of celebrated architectural landmarks, each consisting of 15,000 to 50,000 LEGO bricks and measuring from 4 ft. to 11 ft. tall. His 17 ft. model of Burj Dubai was left behind due to the 12 ft. ceiling height.

Pieces displayed in the exhibition include the Sears Tower, John Hancock Center, Empire State Building, St. Louis Arch, Trump International Hotel and Tower, Marina City, Transamerica Pyramid, World Trade Center, 7 South Dearborn, Chicago Spire and the Jin Mao Tower.

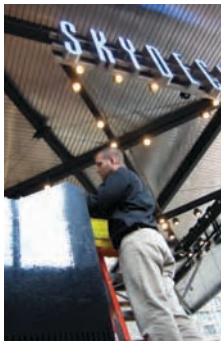
"With the Art of Architecture my goal is to honor the past, present, and future of architecture while combining the worlds of architecture, engineering, and construction using LEGO bricks," said Tucker. This is evidenced by uniquely designing one side open for internal examination of the structural system hidden within.

The opening day of the exhibit featured a "Loads of LEGO" event featuring a lecture from Tucker on the construction of the St. Louis Arch model and a smaller scale build event where families visiting the museum helped create a 10 ft. tall Sears Tower replica made from 2x4 bricks. The opening event drew over 650 visitors to the museum.

Exhibit visitors are also encouraged to put their building skills to the test, helping to create the "City of Tomorrow," a continually growing small scale cityscape. The city evolves as each visitor adds their own pieces and outlook on how the buildings and skylines of the future may look.

"Its important for children to see how their imaginative contributions can help a creation such as a city build and see its evolution as others aside from themselves participate," Tucker said. "It's possible that exposure to exhibits and activities like this will help to inspire the actual architects of the cities, buildings and businesses of tomorrow."

The Art of Architecture exhibit will be on display at the Discovery Center Museum through December 31, 2008.



Profiling Monsterbrick:

A Talk with Matt "Monsterbrick" Armstrong

Article by Joe Evangelista
Photography by Matt Armstrong

Some builders of the brick are hard to identify as they will mask their hobby quite well – "LEGO? No I'm much more interested in girls, cars, and did I mention girls?" Others however are much more apparent and excited – "Want to come over to my place and play with LEGO?!" But who would think to find one such builder in a vacation hotspot? San Diego happens to be just a stone's throw from the LEGOLAND park in Carlsbad and where many AFOLs call home. With LEGO pulling talent from every direction these days, one would expect to find such talent making the rounds at a LEGOLAND park. Indeed, that's where this spotlight builder can usually be found, but he doesn't work for the LEGO Group – he's just a fan.

Matt "Monster" Armstrong is a unique builder, not so much for the fact that his building environment comes complete with a Tiki Bar but more so because of what he can do with a bin of seemingly random and useless parts. Take for instance a bin of Bionicle parts that one LEGO builder couldn't try hard enough to get rid of. He finally found Matt who graciously accepted the free bin, and returned a couple weeks later to find Matt building a highly detailed arm, foot, and head of what will eventually become a 4-foot tall robot! One man's trash is indeed another man's treasure; and in San Diego there's a lot of generosity to go around!

Matt is perhaps a perfect example of the "fly by the seat of your pants" builder that many have been over the years. While some step into the world of tools and pre-planning, Matt simply takes the initiative and starts putting the bricks together (usually rebuilding sections again and again) until he has what he wants. It may take a little longer this way, but the extra time allows him to actually play with the brick and see firsthand what works as his creativity runs wild. When talking with *BrickJournal*, Matt commented that just about anything (a song, even a LEGO brick) can inspire him. He even jokes that he "can pull inspiration out of thin air"!

Above: Matt's rendition of Superman.
Left: A skull built from Bionicle parts.

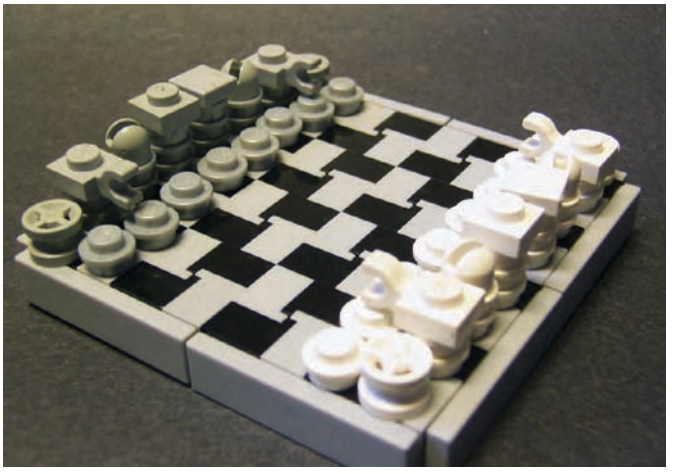
Like many adult fans, Matt has been busy displaying his creations at various public events, inspiring new fans young and old. If you're lucky you may see him at LEGOLAND with a pile of bricks building up a storm. In fact, he's a Lifetimer at LEGOLAND which allows him to go to the park anytime he feels the urge to build. Many times he tests out new building techniques at the park, returning home later that night to refine his models, improving upon his earlier designs that day as he rebuilds from memory.

One thing that the LEGO hobby allows fans to do is to recreate other hobbies and interests. In Matt's case, his chess hobby aligns perfectly with the LEGO brick (you'll recall that LEGO has released four chess sets filled with minifigs ready to wage war of one type or another). Matt has built chessboards and pieces from large to small and each one is incredibly detailed and playable. Oddly enough, unlike the official counterparts, there is not a minifig to be seen on any of the chess sets that Matt has designed. Instead, he lets the custom pieces and boards speak for themselves. I wouldn't be surprised if he has got plans to build a LEGO chess clock to match!

With plenty of other ideas running through his head, Matt has some great plans for his LEGO building. Throughout his twenty years of been building and collecting he has already been featured in the LEGO Magazine multiple times and now with this article in *BrickJournal* he is ready for the next step. Could it be winning the monthly Jr. Master Builder contest at LEGOLAND? Perhaps it's another fun idea he has to be a curator at a San Diego LEGO Museum, building entire worlds out of LEGO for people to enjoy! Whatever the future holds for Matt it's sure to be a very bright one as this talented builder can tackle anything thrown his way.

Pictures of Matt's latest creations can be seen at: http://www.flickr.com/photos/monsterbrick

Top left: Part of Matt's LEGO room.
Right and far left: Disney's Tinkerbell and Princess Aurora.
Below: A couple of the chess sets hat Mat has built.



Arthur Gugick: *LEGO Landmark Builder*

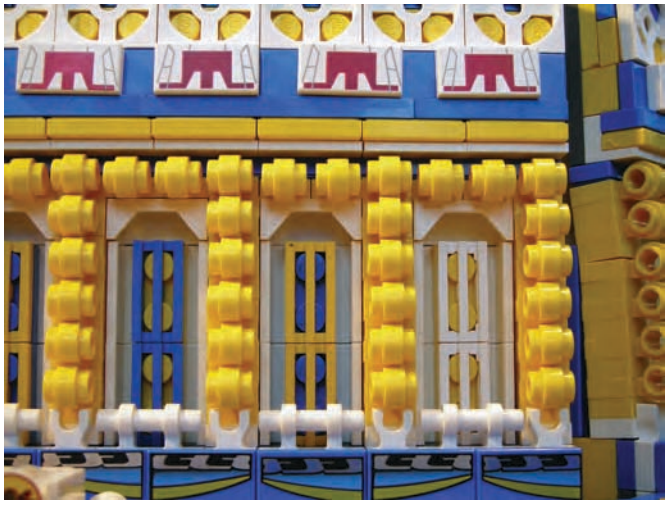
St. Peter's Basilica, one of Arthur's recent builds.

Article by Joe Meno
Photography by Arthur Gugick and Jerry Mann

Arthur Gugick builds landmarks. His portfolio includes a Mayan pyramid, the Flatiron Building in New York, the St. Louis Arch, the Roman Coliseum, the Notre Dame Cathedral, and many more. But his most well-known models are of the Taj Mahal. His versions of this Indian landmark have been seen online by thousands, and another version will be seen on film, so it could be said that the Taj Mahal is his landmark.

How does Arthur build? And why does he build? The story begins, fittingly enough, at a personal landmark of Arthur's – his home. In a phone conversation, Arthur reveals that his first architectural creation was in fact, his house. "In selling our previous house, we made a nice windfall, so while my wife bought exercise equipment, I bought all the sets in the then-new Star Wars LEGO theme. And after building all the sets, I was longing for something else to build."

He adds: " It turns out that at the same time that my son discovered a door in his bathroom to an attic that was secret. When exploring the room, we found the blueprints to the house, and I decided to build it." This turned out to be the start of Arthur's fascination with architectural building. "



Jerusalem's Dome of the Rock.

It wasn't an easy start, though. While Arthur never really stopped building from his childhood (he's in his late-40s), the amount of LEGO bricks and elements he had was not enough to complete anything as large as his house. At this time, he also wasn't aware of the LEGO community locally or online, so procuring parts was a real challenge. He recalls," I was going to my kid's play days to find parts to take home!" Fortunately, that didn't happen for long. It was a meeting with a well-known LEGO builder, Paul Janssen, where Arthur was introduced to the community and its online resources, including Bricklink, a LEGO online market for parts and sets.

After building his home, Arthur looked at his remaining parts and was trying to figure out what to build next. As he remembers, " I had a lot of white pieces, so I wanted to build a big white building so I built a Taj Mahal." The is was his first rendition of the model, and as he continues, "in retrospect, I don't think it was that spectacular. But I was getting such amazing feedback about it that it spurred me to make more and more landmarks."

The Taj Mahal would turn out to be a landmark in more ways than one for him.

When asked about why he builds almost exclusively landmarks, he answers: "There's a couple of reasons why I like landmarks. First of all, there's a ton of information out there, so I can either see pictures or blueprints or maybe even visit the place, which is a lot of fun. Another reason, which is maybe a little more egotistical, is that I like when people look at my work and they recognize what it is, and that really makes me feel really good, like "Oh, that's there! I've been to that" Or "That's Big Ben!" It's just sorta really nice."

He continues: "In a sense, too, for me it's more of a craftsmanship, the ability to see something and be able to mimic what I see as opposed to coming up with something brand new. Buildings really lend themselves to that. I'm not saying that I'm less creative or more creative, I'm differently creative than somebody who builds one of these amazing castles, for example out of their imagination, or even these amazing mechas that I see .I've tried to do stuff like that, and I have a difficult time doing what these other people do, building strictly from creativity and imagination."

Arthur has been a high school math teacher for almost 25 years, so his mathematical background has turned out to be his strongest asset in his building. He's used calculus in a couple of his models, for example, to figure out the exact size for his Coliseum. He also created a computer program that actually built domes for models. He's always using the math to try and build. As a result, Arthur has a unique take on building: "I typically look at my buildings as something as more of sort of an amazing math problem that's completely open ended. The only way to solve it is by being creative and imaginative. I look at my buildings as more an exercise in mathematics than necessarily and art form, which might be a little different of a take than other people do, or maybe it's the same… I don't know. For me it's a puzzle."

For Arthur, the process of building is more important

than the end product. It's nice that the end product looks nice, but for him it's the getting there. His building style is a build, then rebuild, sort of a two steps up, one step back approach, almost brute force. He plans out things modularly in a sense, so he can revise a section as opposed to an entire model, but for the most part he builds based on the parts inventory he has and past experience. While building, he tries new methods and evaluates the model and very rarely takes down a large part to revise. He usually builds more than one model at a time, so he can leapfrog from project to project as his part orders are made. It takes him three to four months to complete a model.

Since then, he has made over 40 landmarks, with a few in microscale. These were made two or three years ago and were made in response to some comments made by some kids at a display in New York. They were really impressed with the models he made, but realized they couldn't afford to make models on his scale! When he returned the next year, Arthur built seven micromodels which were much less expensive to prove to the kids (who didn't return, unfortunately) that realistic landmarks could be built for a lower price.

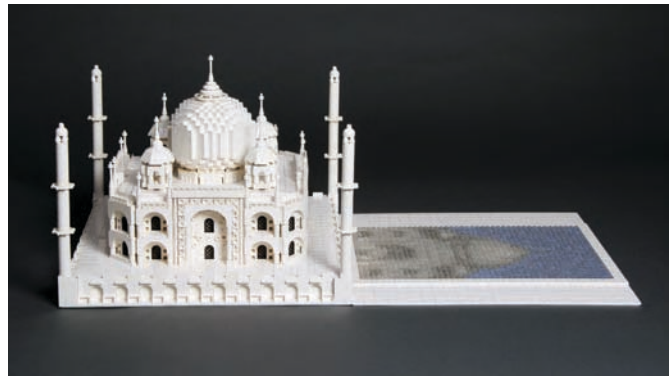
He's won awards too. Arthur's rendition of the Lyndhurst Castle in New York won an award from the National Trust for Historic Preservation in the Build the Trust contest, held in 2005 and judged at BrickFest in Washington DC that year. As a result, his model was displayed at the site and later purchased. This kept inspiring him to build more and more landmarks.

None of his models are to the same scale, much to the consternation of the train clubs that incorporate his landmarks in their layout — they look awkward. A couple of years ago, he switched from a large scale to a smaller scale to become more detail-oriented. " I wanted to cram as much detail as humanly possible per square inch that

Miniscale Cathedral of Notre Dame

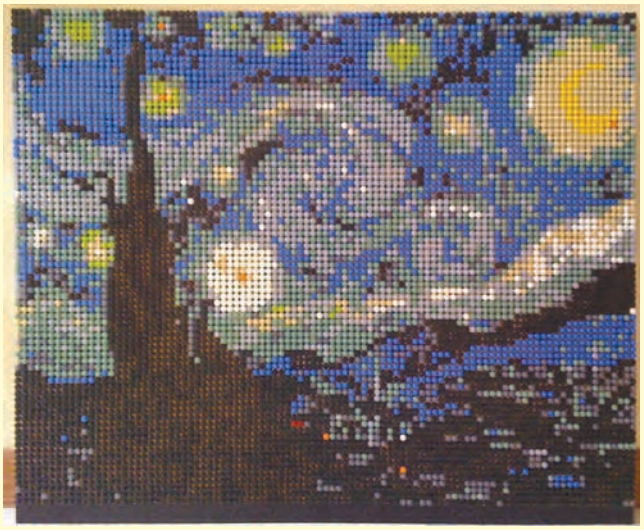
Hall of Supreme Harmony, Forbidden City, China

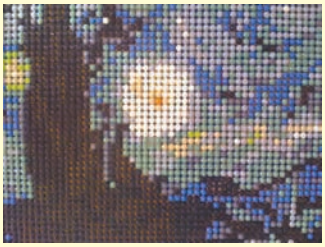
Flatiron Building, New York City



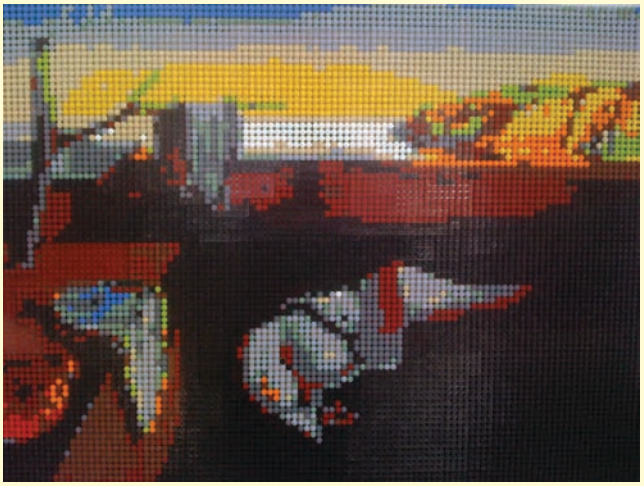
Miniscale Taj Mahal

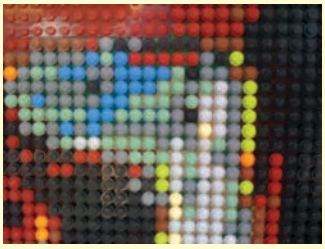
Arthur's newest interest is mosaics – but he does a different method of mosaic creation. Instead of just building on baseplates, he uses 1 x 1 round plates on top of colored plates to create a dithering effect. So far, he has built the Mona Lisa, Mickey Mouse, *A Starry Night* by Vincent Van Gogh, and most recently, *Persistence of Memory* by Salvadore Dali.





A Starry Night





Persistence of Memory

I could possibly see," he states. Examples of this scale include the Notre Dame Cathedral, the Florence Cathedral, and a smaller Taj Mahal, to name a few. Because of the feedback he has received, he is working at his scale, with models of the Milan Cathedral and Theed Palace from the first Star Wars trilogy next up to be built The palace will be 48 studs by 80 studs, almost two baseplates in size.

His biggest project to date, though, is the Taj Mahal.

About a year ago, Arthur got an e-mail from a person who was interested in purchasing one of his Taj Mahal models. By this time, there were two models built: a large model and a microscale version. It turned out that this guy is an independent film producer that's making a movie called *Taj.*

Taj is about a gentleman that has not seen his daughter since she was born about twelve or thirteen years ago, and his reconnecting with her. One of the ways they reconnect with each other happens at a garage sale when they find a huge bucket of LEGO pieces, happen to meet an architect, and decide to build a LEGO model of the Taj Mahal.

As he was being told this story, Arthur could swear that he was being pranked. He tells, "I'm going, come on! You must be B.S.'ing me! You're making a movie about a guy building a LEGO Taj Mahal?" It seems like it was such a bizarre story, so the first thing Arthur asked was how the producer found his name? The producer stated he went to Google, went to Google images, and typed in LEGO Taj Mahal, and Arthur's pictures came up first and second, so he figured that Arthur was the man to call. "So thank you Google!!" exclaims Arthur!

Fast forward to March. Discussions have been going for some months, and the producer has sent Arthur parts of the script so he can see how the model is going to be used. There's some scenes where the model gets tipped over as well as construction scenes. There's a problem though at a scene where the model can't fit through the door, as the model chosen was too small to get stuck! It turns out that the producer couldn't see the scale of the two models, so he mistook the microscale model as having the same size as the larger one. Something had to be done, either a rewrite or a rebuild, and so Arthur began to build another model.

Still, Arthur still didn't know if he was being pranked, so it wasn't until he got money sent online from the producer to buy parts that Arthur realized this was real. It took two or three months to build the new model, with the producer having creative control. This led to some revisions to fit the producer's vision, including raising the entire model three of four bricks to make it taller.

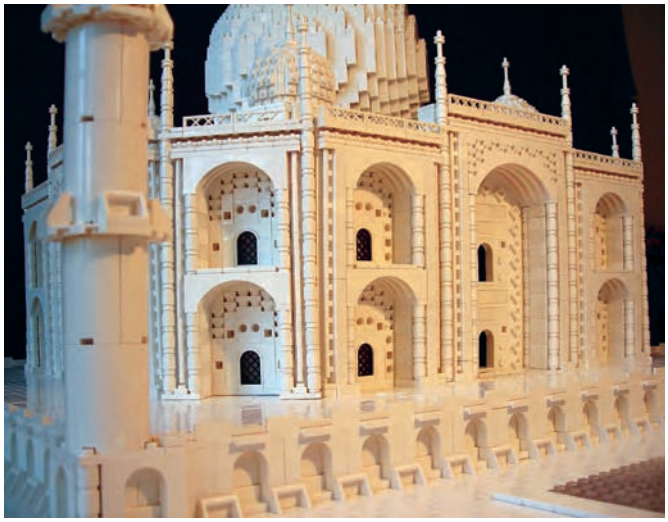
The model also had to be built so it could fall apart easily. There are a lot of parts of he model that break along predetermined fracture points, so to the layman, it looks like it broke apart, but for anyone that has built with LEGO long enough will say, Wait a sec! I can put that back together in a couple of seconds! This was done to make it easy to rebuild after a take.

At the end of the summer the plan was for Arthur to fly to Australia while on vacation to help with filming.

However, there have been delays, and presently, he will be going in December to help on the set. Part of the Arthur's tasks will be building, as the producer contacted the LEGO Group in Australia and got the parts to make another Taj Mahal. Arthur will be training a LEGO builder there on the model and also try to get the local train club to help out. There are other ideas too, such as building the duplicate Taj Mahal publicly, perhaps at a store window, with the finished model at one side and Arthur and a few LEGO builders feverishly trying to build the duplicate in 48 hours. The hope is that the two models there will be enough for production use.

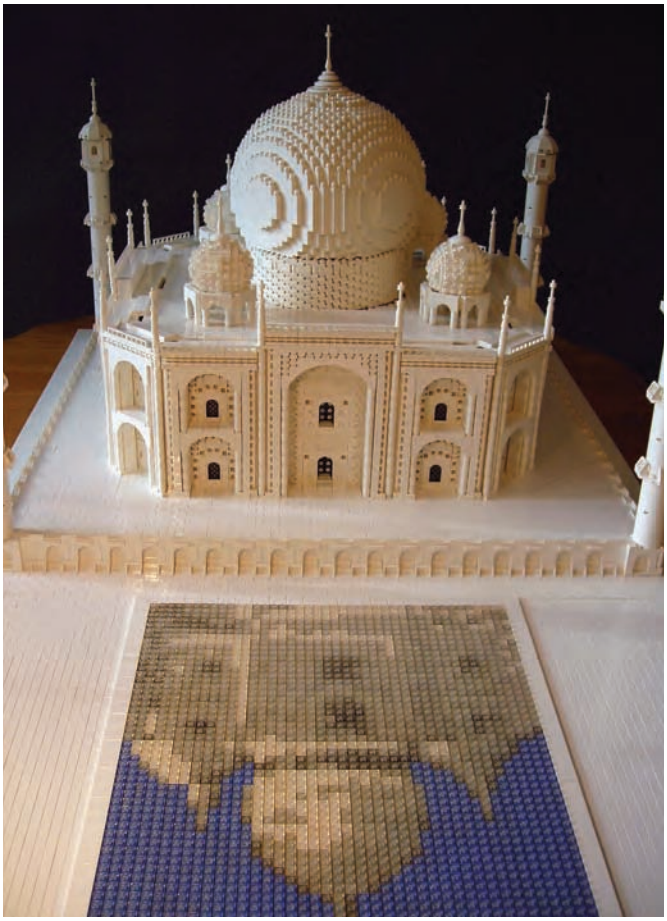
Arthur is looking forward to the trip and filming. He tells, "I can't wait for it. I haven't got the plane ticket yet, and things may be delayed or not happen, but I was paid for building a LEGO model. It's remarkable."

No, just another landmark.



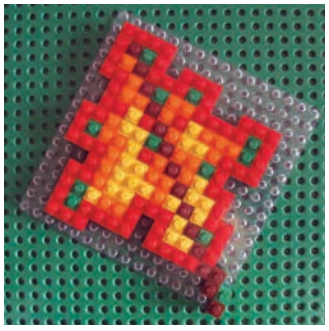
Arthur's second Taj Mahal model

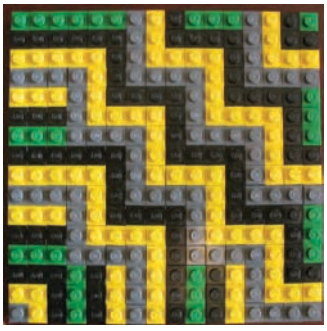
Arthur with his first Taj Mahal model

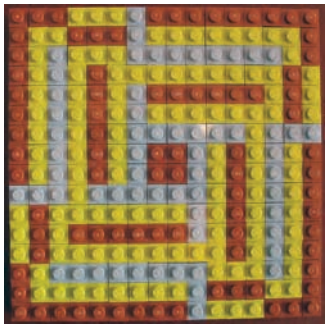


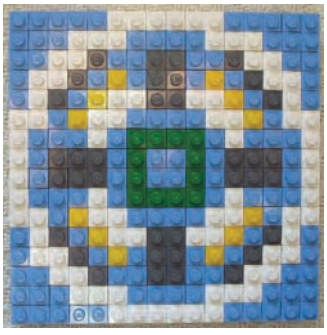
AFOLs
Adult Female Fans of LEGO

Amy Wright









Age: 36
Country: United States
Your hobbies:
Hiking, crosswords, Scrabble, choral singing
My Mocpages Page:
http://mocpages.com/home.php/10291

Age first started collecting/building LEGO?
I grew up the youngest of four, so the LEGO collection was already in place when I came along. When I was three years old, our parents carpeted the living room, and had narrowed it down to two color options: one green, one I don't even remember what. Mom asked my opinion and says I "pointed with a toe" at the green one. I distinctly remember thinking that would be the best color because then my LEGO towns would have "grass" all around them. Mom didn't know that was my reasoning at the time, but she did go with the green carpet. Mom considered the LEGO "mine" after we'd all grown and moved out, and recently shipped my childhood collection to me.

As a child, did you play and build with LEGO?
I grew up in a small town with a lot of cousins and other kids my age. LEGO was definitely a big part of playing with my cousins and with neighbor kids as well. I remember going to play with a neighbor boy who'd just gotten a new set that included trees *and* flowers. I was aching with jealousy! I started a LEGO fund (in an old jar I labeled "LEGO Fund") that put all of my allowance towards buying a new set. This involved a shopping trip out of town, as there were few shops in our small town.

What appealed to you as a little girl?
We had a lot of freedom growing up in the Midwest. Summers we went everywhere on our bicycles (usually to the pool!) and stayed outdoors until dark as often as we could. Being the youngest, I mostly just wanted to be allowed to play with the "big kids". Anything they were doing was what interested me.

What was your favorite theme as a child?
I definitely loved any activity that involved creativity and imagination. I had a Barbie phase. My mother had sewn several outfits for my older sister's doll collection, which I eventually inherited. The local library was always a favorite destination, especially in summer when it was one of the coolest ("air conditioning" not "hippest") places to be.

Why are you an AFOL?
I was lucky to have nephews who also loved LEGO, and a sister who was great at finding great garage sale "scores" so they had a huge collection. I got to get down on the floor and play with them and share in the love of LEGO with them. It's a timeless toy, and one that appeals to me both creatively and nostalgically. A fellow LEGO fan (who is a true collector with an impressive inventory and sorting method) recently gave me LEGO set 6163 A World of LEGO Mosaic and I literally came up with dozens of mosaics and even my first "Micro Iowa Farm" microscale. I eventually broke down and bought many more 6162 and 6163 mosaic sets, which comprises my entire collection at the moment.

How many hours do you spend building with LEGO?
LOL – that's hard to say. Once I start, the time slips away and I lose track. I'd say 3-4 hours at a time on the weekends.

What are your favorite building themes (both what LEGO produce and what you like to build yourself?)
I will always love "classic" LEGO. Mostly bricks with a

few specialty parts. Obviously right now I am enjoying the creativity of 1x1 bricks making mosaics and patterns. Some may call what I do "simple". I can't argue with that. But I enjoy it so much! I think I am a good argument for the notion that it doesn't take tons of LEGO to unleash one's creativity and have fun. (Not that I wouldn't mind having tons of LEGO.)

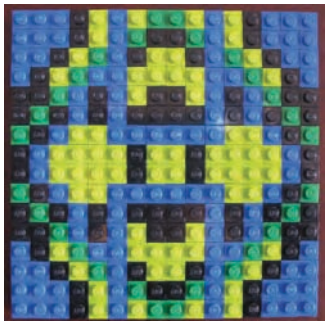
What do you like most about LEGO and their products?
Timelessness, creativity, and the fact that if you take a giant pile of LEGO and let people "play" it really does appeal to all types and age groups. When people see them in my apartment, they always want to get their hands on them.

What is it like to be as a female in the AFOL world, which is dominated mostly by men?
Gosh. I see LEGO as gender neutral. J When I have a date with someone new, often they will see my LEGO out (it rarely gets put away) and it always lends to interesting conversation. I also have had fun corresponding with the LEGO-heads out there regarding the creations I post online. I love having friends who know exactly what I mean by the term "LEGO thumb". (That sore spot I get when I have been playing with LEGO for hours on end.) I also get a kick out of seeing which of my posts get the most "hits" online.

Is LEGO doing enough to promote their products towards girls?
I don't know that I was a "typical" girl, so I don't have a lot of insight on this one. I never liked pink, and always thought that pink LEGO was somehow pandering. (Sorry that was some brutal honesty.) I'm sure lots of little girls love having pink as an option.

What would you like to see from LEGO in the future in relation to girls?
The same thing you do for boys, I suppose. Cross market it with things and themes that are "hot" with the target market.

Any other comments you would like to share?
When my mother went to a local department store back home to get a box large enough to ship my childhood collection to me, she said to the 20-something young man helping her find a box, "You'll never believe what this is for. I'm shipping my 30-something daughter her LEGO collection." He responded immediately and enthusiastically "I LOVE LEGO! I still have mine, too!"



AFFOLs
Adult Female Fans of LEGO

Daniela Drost

Age: (this will be left out if not answered) **41**

Country: France (since 14 years, before Germany)

Your hobbies: LEGO and svarowsky crystals pearls

Website:
http://www.brickshelf.com/cgi-bin/gallery.cgi?m=Dani-Sylv1
http://gallery.freelug.org/main.php/v/Daniela+et+Sylv1/

When you were a child, did you play or build with LEGO?
I never got LEGO when I was a child.

My favorite toys were little cars. I never really played with typical girl-toys.

I think LEGO first came in my life when my son was born. My husbands first gift to him was the set 2094 (Cozy duck). I really loved to spend my time to play with my son and he was happy when I was creating for him - and he destroying ;-(.

He is known in the whole family as a real LEGO fan and his supply of LEGO was growing quickly.

When he needed something, it was a real pleasure for me to look for it on the internet, and I think that at this moment I began to like LEGO myself.

In spring 2007, we had our first contact with FREELUG and I signed his admission-sheet directly at the exhibition. 2 months later, we went to the next exhibition (at 500 km away from home!). At this exhibition, they proposed to my son to participate at the next one. He was really excited to create his own MOC!

At this moment, I also wanted to create something, and the idea for my MOC was born some months since.

Why are you an AFOL?
I like to be creative and with LEGO, I can create nearly all I want.

It's also very fun to meet other AFOLs and I like to go to the different meetings.

I began to be an AFFOL when I was creating my first MOC for an exhibition in November 2007.

I wanted create a HAUSSMANN building, because I really like this architecture. The first LEGO that I bought for me was the set 4954 cause the colors of this set are what I wanted to use for my building.

How many hours do you spend building with LEGO?
That depends, I think not enough, sometimes in the evening but mostly at the weekend.

What are your favorite building themes (both what LEGO produce and what you like to build yourself?)
My favorite LEGO theme is City. My object for the end of summer is to create a town with all my son's friends and to organize a mini-exhibition for their parents. For this event, I even bought a train. I really want my town to seem real so I am creating gardens and playgrounds for the inhabitants.

What do you like most about LEGO and their products?
I appreciate the quality of LEGO products. The parts can be used in so much different ways - you just have to imagine…

My favorites are the new buildings like Café Corner, Market Street and the Green Grocer

5 parts you would love LEGO to produce:

1. Minifig-scale animals and food
2. More trees and plants elements in more different greens
3. More new hairpieces, to create more Minifigs
4. More different fences and gates for them
5. More printed bodies to create more Minifigs

What is it like to be as a female in the AFOL world, which is dominated mostly by men?
I don't care about this, but I remember my first meeting. When they have seen my building, they are very appreciative to see all the details on it and they were happy to get a new AFFOL at FREELUG.

What would you suggest to LEGO to make their products more popular for girls?
Continue with themes that can be used by girls and boys, like Indiana Jones and AGENTS. In both, you will find female Minifigs so sisters and brothers can play together.

Is LEGO doing enough to promote their products towards girls?
No, I think that they have to create more advertising with girls on it.

What would you like to see from LEGO in the future in relation to girls?
I think that they have to create a set with a house and many details (a Minifig-family inside, a car, pets, plants and trees and many items for the interior). Girls like to create towns and real scenes but actually, they can get it only with SCALA and BELVILLE. Therefore, they don't have any chance to play with their brothers because it's not at the same scale.

12 Questions

to Niels Milan Pedersen, LEGO Designer

Interview and Photography by Megan Rothrock

Galidor concepts and packaging.

1. How long have you worked for The LEGO Group as a LEGO Designer?

I have been a LEGO Designer for twenty-eight years.

2. Why did you want to be a LEGO Designer?

Actually, I didn't. I wanted to be an archeologist or a sailor of some sort, but a mere coincidence and some homemade lead toy-soldiers led me to Billund. I had in fact almost never played with LEGO as a child because my older brother didn't want me to make the few bricks we had dirty, which I actually might have done!

3. What do you enjoy most about working as a LEGO Designer?

That's difficult to say, but the 'brainstorming' before and after the development of new elements are quite fun. Building new models, well, yes that's fun too! And of course there are so many lovely and funny people involved that it is a sheer joy to go to work. Nowadays it is quite fun and a little odd to be told by new colleagues that their favorite toy as a child was in fact made by me! It makes me think a little!!

4. What themes (that you can tell us about) that you worked on are you most happy with?

The old Castle and Pirate-ships from the eighties and nineties, but that might rather be for sentimental reasons and a developing lack of memory because there have been a *lot* of fun themes!

5. Are there any themes that you think could have been presented better?

Indeed! Galidor (sigh!) I (and a few others) think this quite special theme was utterly lost because of a totally wrong sales strategy! The first Dino-theme also had a lot more potential then actually exploited!

6. Could you please describe to our readers, the steps that you take to design a LEGO model as a product?

Think, imagine, feel, and get into the right mood.

When you can imagine what a child would want to play with, you can do the sketching, and sometimes a *lot* of sketching. Then follows the development of new elements and all the possibilities and restrictions this involves. The final building and decoration of the models themselves are a result of this and quite a lot of restrictions such as price and packaging.

7. How different is this to when you first began your career with The LEGO Group?

Oh yes; back in the eighties we would be working on a new launch for two or three years. As there were only three or four people developing Space, Castle, Pirates and whatever including all new decoration and elements, we were quite busy and had much more to say about how things were to be! None of us back then had any educational background regarding 'design' at all! But it was and still is fun!

8. Do you have any hobbies outside of work?

I build flying models of old airplanes (cant' fly them though, too slow reactions!)

I collect old radios and old Jazz music among a lot of other old stuff. Then there is also breeding of turtles, Archeology and such.

9. I hear that you are responsible for the LEGO horse and the mini-figure skeleton, any interesting history to them?

The first time I made and put a LEGO-figure skeleton in a LEGO Castle dungeon was in 1981. Godtfred (owner of the LEGO Group at that time) himself was very displeased! I got a regular dressing-down (scolding) because he certainly did *not* want the kids to see a dead LEGO-figure!!

We waited almost ten years before we dared show one again!!

Above: A sketch model of the Royal Knight's Castle (set 6090), released in 1995.
Below: Some of the animals designed by Niels.

Above: A procession of horses, from sketches to final.

The Horse is actually the wrong one!!

After making very many different prototype configurations of horses (we used wood and some sort of clay in those days) I had to choose between two. One of which had to go to the tool-maker (deadline almost passed as usual!) I chose, and put the chosen one on to my boss' table. I myself was going abroad on another mission and would be missing the delivery. How exactly this came about is a mystery but for some unknown reason, my boss overlooked the one I'd set on his table, and took and delivered the horse left on my table!!! I've still got the 'right' one, but I am happy with the other horse too.

10. What is your favorite moment during the design of a model, is it concept, final model seeing the result on the self, or seeing kids playing with it?

All moments are my favorite, besides seeing the result on the shelf in the stores, I almost never do!

11. Is there anything that you would really like to make, but have not had a chance to?

A kind of fantasy Jules Verne theme and I have proposed it perpetually over the years!

12. Out of all of the themes that you have worked on, what is the 'favorite' thing that you have made?

The Crocodile: I made just two sketches and everybody liked the second. The way that animal and the brick merged to a perfect LEGO animal!

The Octopus come a close second, that was quite a battle. But that is another story altogether!

Gary McIntire (left) and Scott Sternberg

LEGO Decor Goes to the Fore!

How does a LEGO Master Builder furnish and decorate a room? BrickJournal *finds out!*

Article from Joe Meno
Photography by Gary McIntire

Gary McIntire is a LEGO fan that is going places. In fact, he now works at LEGOLAND California as a LEGO Master Builder, building and maintaining the many models that populate the park. However, every so often, someone else calls on him… like Scott Sternberg of the Band of Outsiders clothing label.

Sternberg contacted the LEGO Group about a display space he was interested in building at a Hollywood (California) store, Opening Ceremony. Band of Outsiders was releasing clothes inspired by LEGO, and it seemed a natural fit that the room for the clothes be decorated with a LEGO motif. The LEGO Group was interested and contacted Gary, and that's where the fun started!

Gary recalls that he was contacted in late May 2008 "out of the blue — to work on the project and go to Los Angeles to work on the installation." The room was small, essentially an oversized walk-in closet, so he started brainstorming with Sternberg and both developed a want list of things to put in the room. From there, they worked with the LEGO office to figure what was feasible. Over the next two weeks, designs were discussed and afterwards, orders made. Altogether, about 65,000 elements were ordered.

Going from the planning stage to making orders for parts was a challenge. " It took another two weeks to figure what was needed… it was daunting to figure out what was needed in my head and estimating parts to order," Gary recalls., " I tried to err on having enough parts, as opposed to running out." He also started building some prototypes for the room to evaluate his designs.

During the next three weeks, pallets and more pallets showed up at Gary's place, eventually filling his living room, dining room and LEGO building room. New challenge cropped up: sorting the parts for building, and preparing the parts for transport, as Gary was going to build onsite.

Above and right: The room in progress.
Far right: The completed room.

The design of the room itself was pretty straightforward: cover the walls with large baseplates, then covering the baseplates with plates. Gary is familiar with building in this way, as he built another "LEGO room" in Utah using black plates to cover the ceiling and make a starfield, with a LEGO-built solar system coming from the ceiling.

This time, however, the demands were different. In a retail environment, there had to be display space, so Gary made large boxes of different sizes to display shirts and other merchandise. The back wall was going to be black but covered with minifigures, except for the middle, which had a window. The entrance wall was to have a road layout, with road baseplates on the wall. The shelf wall and its opposite wall were done in a LEGO colored scheme, using LEGO primary color bands.

Building this room was done during store hours over the period of four days in the middle of August 2008, of which there were a few mishaps and complications… like minifigs. Gary remembers: "I ordered 1100 minifig with the hope that they would send me 110 types of minifigs in lots of 10, but I got, instead, 11 types of 100 each!" Panicked, he turned to the local LEGO clubs in San Diego and Los Angeles and traded his minifigures for what ended up being on the wall!

Above: The 'roadway' wall.

That same wall also had a window. To keep with the LEGO theme, Gary built a pane of 'glass' completely of 1 stud by 2 stud LEGO bricks. The result was a beautiful wall of bricks that, unfortunately, shattered when it was dropped during installation. The force of the collapse wasn't noticed until Gary found a brick that stuck in his ear! Reassembly was quick, though, and this time, installation was successful.

During the installation, Gary had the help of some interns from Band of Outsiders to place the baseplates on the walls and ceiling. The plates were attached to the wall by heavy-duty double stick tape, "$300 to $400 worth… it was expensive tape," Gary explains and continues, " The boxes were built and glued in sections, so they could be attached to the wall and secured by screws. The sections were done so a series of small screws could be used, as opposed to one long screw for a side."

The wall opposite the box shelves was banded, and there were plans to cover the bands with elements and special parts matching the band colors to create a relief effect. However, after building the shelves and all the walls, it was determined that the added parts would only serve to make the room look smaller, so the wall was left alone. The wall with the roadway was built by covering the wall with road baseplates, then attaching cars on the road surfaces with double stick tape and securing minifigs and trees on the plates. This became a playful accent to the room.

Working in Hollywood was much like any other job for Gary, except for some of the shoppers that dropped by Opening Ceremony. "Christina Ricci, Kanye West, and Lindsay Lohan shopped when I was there," Gary points out.

After the installation, Gary returned to LEGOLAND California Resort, where he continues to build for the park and the newly opened Sea Life Center Aquarium. There are always new models, and new projects. And between commissioned projects and his work at LEGOLAND, one thing is for sure:

Gary's going places.

The Lost Exo-Force Set!

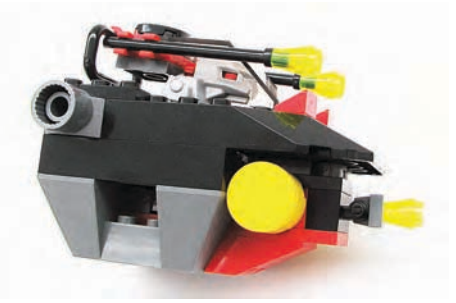
This was to be Exo-Force set 8116.

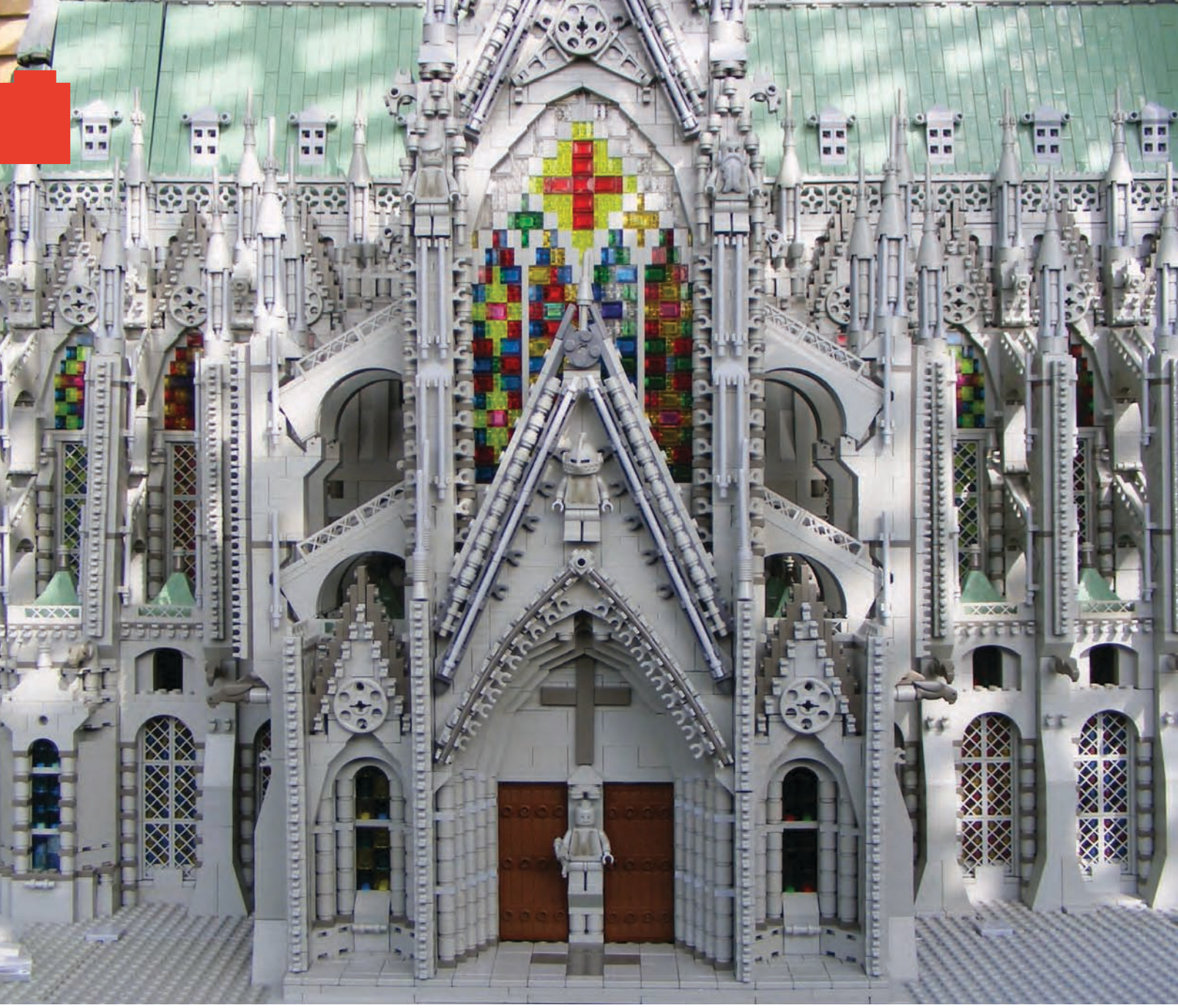
A name was never decided on, as the set was cancelled as the decision to stop Exo-Force had been made and as part of the wind down one of the Battle Machines was cut.

There are no color changes, so if you have a big enough collection you might be able to reproduce it. The stickers are preliminary and are printed on paper and stuck on (hence the number is shown as 8115!).

This, the only surviving copy in the world, lives on the designer's desk!

Prototype Model





From a Church to a Cathedral

Article by Romão Santos
Photography by Romão Santos and Luís Baixinho

This model began with a project to build a LEGO replica of Mêlée Town, a wonderfully atmospheric location from the classic video game, *The Secret of Monkey Island*, of which I'm a big fan. This was my very first LEGO project. The final showdown in the game took place in Mêlée's small church, making it one of its most iconic landmarks in the game and a building I absolutely had to get right! However, when the time came to actually start building it, I realized how plain and boxy the church really was and that a small "upgrade" wouldn't really hurt the overall look of the project. Thus was born the first version of the church, considerably larger than what was presented in the game, with a twin tower façade crowned by those Sand Green Harry Potter steep roof pieces. The church itself never got a roof and the nave only got half of its projected overall length. Looking back at it now, it didn't really look good and there never was a clear aesthetic order.

Then, my decades-old fascination with Gothic architecture took over and I decided to set my ambitions higher and upgrade the church even further,

fulfilling a lifelong dream of building a Gothic cathedral of my own design. At that time, rebuilding the façade (which I never really was satisfied with) seemed like an overwhelming prospect, so I decided instead to rebuild the existing nave (main hall/central approach to the high altar) in a style more coherent with my uniformed impressions of what Gothic architecture should be. Thus, the nave windows were enlarged, filled with stained glass (well, obviously not glass) and flying buttresses were added all around the body of the nave (at first, with a series of a single row of flying buttresses for each pillar, which were doubled later on in order to achieve aesthetic balance with the growing height of the nave and to give it a feeling of "sturdy weightiness"). Soon enough, the project grew in such a way that it became irreconcilable with the conclusion of the rest of Mêlée Town, a project which ultimately had to be abandoned.

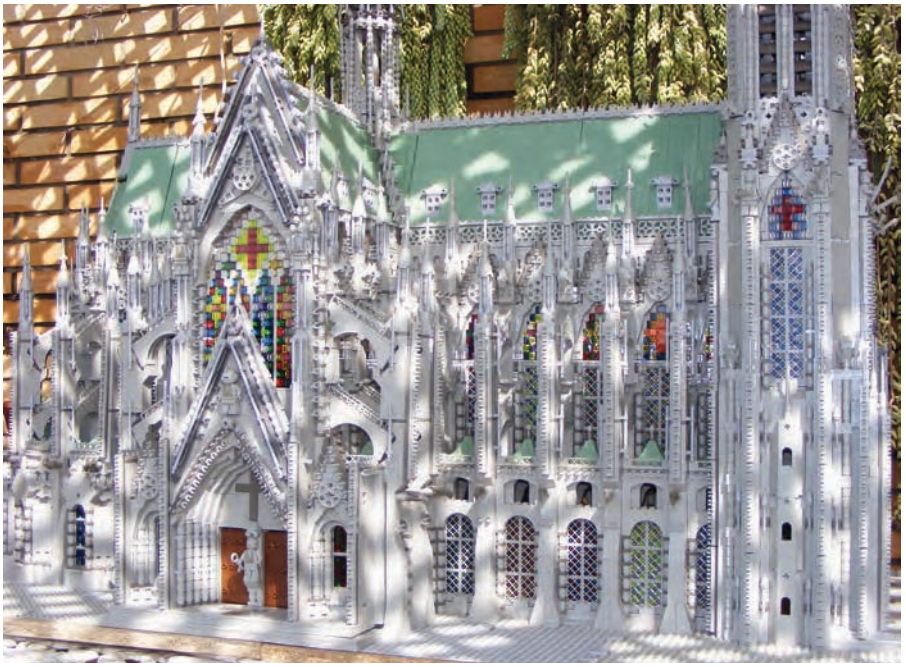
The nave was finally enclosed on the apse (the rounded chamber opposite the main steeples) by a series of seven radiating chapels, which proved to be quite a challenge in order to achieve the desired shape (since its ground plan consisted of two half-decagons parallel to one another, being that one of them has twice the perimeter of the other, with rows of flying buttresses joining the corresponding vertices). A lot a prototyping and horribly bent hinges later, a satisfactory result was achieved.

At that point, I could not tolerate any longer the clashing styles of the nave and the untouched façade, so I reluctantly decided to bring it down completely and rebuilt it as a traditional three portal Gothic front. The towers were widened and the portals became much more dominant. It's curious to see how in many ways the cathedral grew in a similar fashion to several notable cathedrals throughout Europe. An older, simpler and smaller building (frequently, a Romanic church damaged by fire, lightning or earthquakes) gave way to a much more ambitious undertaking, which nevertheless had to somehow accommodate the foundations of its predecessor. In fact, exactly twelve pieces of the original façade can still be seen in the completed building. Its original width greatly restricted the length of the rebuilt façade, which had to fit in a 48x48 baseplate in order to maintain the desired proportions and vertical thrust of the façade, without reaching an unpractical height. I became progressively more and more interested in Gothic Architecture and consulted tens of books on the subject, trying as hard as I could to understand the reasoning behind its aesthetics. More than the finished model itself, the whole process was worth it for the all encompassing plunge in the subject it caused, which was endlessly rewarding.

The construction stalled when the towers reached approximately one third of their projected height, as I moved into the UK for eight months to work for the LEGO Company Customer Service and was logistically unable to take the cathedral with me. Even then, the parallels with the construction of real cathedrals were very curious. Once I got back to my country, the nave was finally covered with a vaulted ceiling, using a considerable amount of inverted slopes. The exterior roof was entirely covered with thousands of sand green tiles, a perfect chromatic

Building beyond the game:

What became the cathedral was originally inspired by The Secret of Monkey Island (below) but expanded (right) and then completely redone (bottom)!



emulator of the unmistakable green bronze roofs of so many cathedrals. However, it took dozens of Bricklink orders to accumulate all the necessary tiles, which had become considerably scarce by then.

As the towers continued to grow in height, it became apparent that the nave seemed too short, giving the whole building a “stumpy” look. I decided to add three more rows of arcades to the nave (two being in the apse) which turned out to be an extremely hazardous task (to expand a building from the middle), and some bricks have sweat and blood marks to prove it.

The last two stages of the towers were done completely in SNOT and their octagonal shape makes them considerably fragile. The spires themselves have an inner support framework built around several Boat Ship’s Wheels and are particularly exhausting to build and accident prone.

The cathedral was built with an almost absolute disregard for modularity and mobility, which makes it extremely cumbersome to transport. I live in the 6th floor and the model is simply too large to fit in the elevator. The rare moments when the model is taken somewhere are always filled with dread and trepidation.

The cathedral was rushed in completion in time for the 0937 Community, Club Meeting 08 in Viana do Castelo, meaning some elements are probably not final, namely the tower on the crossing and the half-decagonal pyramid that encloses the roof on the apse (which frankly looks awful). The project was started just before the whole Old Grey/New Grey color shift and was completed almost exclusively using Old Grey, which made the entire model significantly more expensive.

The interiors are still not 100% complete, still missing the altar and the crystal tombs for some incorruptible saints. I hope to have finished in two weeks time as I write this article, as the model will graciously be blessed by the local priest.

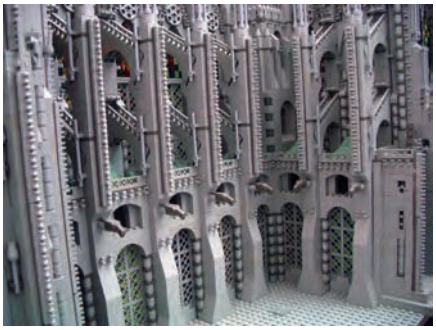
As the cathedral was built within several constrains set by the previous model, it is far from being an

ideal finished result. But it has nevertheless been a precious ally in the pursuit of my dream of working in Cultural Heritage, as a token of enthusiasm and love for the subject.

Technical Facts

- 120 individual stained glass windows comprised of nearly 7500 transparent LEGO elements.
- 52 flying buttresses (or 26 double row flying buttresses)
- Approximately 80.000 pieces in total

Dimensions:
Height: 127 cm
Length: 110 cm
Width: 63.5 cm



Building Olympic City with LEGO Bricks

Article by Hot

LEGO, Beijing & The Olympic Games
In order to celebrate the Chinese hosts of the 2008 Summer Olympic Games, the Hong Kong LEGO Users Group (HKLUG) built a big LEGO town, "Big Fans of Mini Sports City". This event was sponsored by Sun Hung Kei Property Limited (SHKP) and staged at Grand Century Place in Hong Kong from July 14 to August 31, 2008. The showcase sized 12 x 32 base plates with 32 x 32 studs each. That corresponded to 1024 x 384 studs or 3 x 8 meters. The city was made up of 300,000 pieces of LEGO bricks and 4500 mini-figures. All the LEGO modules were created by 7 designers and 20 builders.

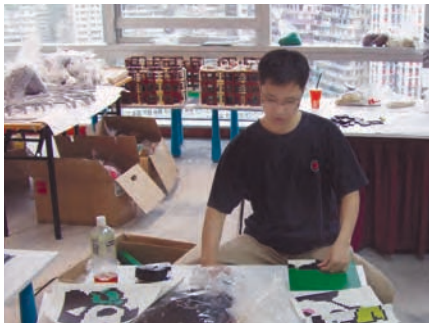
The Challenge
Since January of 2007, HKLUG members discussed what components were needed for a Sports City. It should boast a Beijing National Aquatics Center (Water Cube), Beijing National Stadium (Bird's Nest), Olympic Village, Equestrianism, Ancient Greek, and many sport games. 7 HKLUG designers volunteered to handle each project.

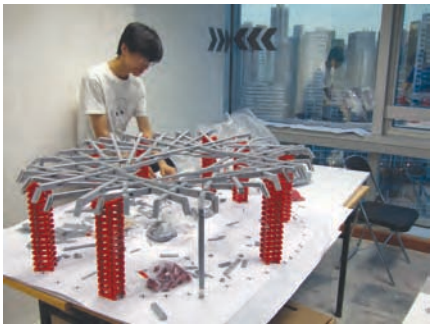
Research was the first challenge to the designers because of limited information available. Few conceptual drawings were found by HKLUG members, so designers had to design the LEGO modules layout with their own experience and creativity.

As LEGO bricks and showcases were sponsored by SHKP, HKLUG members were required to finalize inventory orders. Designers reviewed parts of their models to examine alternative designs by structure and appearance. After they had decided the building technique, types and total number of bricks required for their modules were estimated. The sizes of their modules were also defined so the layout of the Sports City could be planned. The inventory orders were then passed to SHKP to order materials from LEGO Company Limited.

A nearby workshop was prepared by SHKP. The room allowed the designers to work together for 2 months, where they discussed building techniques and ideas. They suggested solutions when problems cropped up and shared the fun of creating LEGO modules. For sure, the friendship between the members had improved. Also, a major advantage of the workshop was to minimize the damage during transportation.

Mini Sports City was made up of 300,000 pieces of LEGO bricks and 4500 mini-figures, and was created by 7 designers and 20 builders!





Building Sports City.

Successful Brick Show
Big Fans of Mini Sports City ran from July 14 to August 31, lasting for 49 days. People were welcome to visit, as admission was free. The show attracted more than 143,000 visitors. A lot of positive feedback was received during the exhibition.

The Bird's Nest model was constructed with professional techniques very similar to the real one. Water Cube was the most attractive because of the internal lighting decoration. The Olympic Village contained many creative and funny mini-scenes. The Resident Buildings presented the traditional Chinese style. All visitors were awed when they explored the Sports City showcase.

The Participants of Big Fans of Mini Sport City

Hot – Project coordinator

Ming –Designer - Bird's Nest

Vincent Cheung –
Designer - Water Cube

Chiukeung –
Designer - Olympic Village

Andy Bear –
Designer - Residents Buildings

Hudson –
Designer - Equestrianism

Ethan-Leung –
Designer - Ancient Greek

Simon – City Layout Planner

over 20 HKLUG members and helpers.

About HKLUG
HKLUG which stands for Hong Kong LEGO Users Group, was founded by a group of Adult Fans of LEGO (AFOL) based in Hong Kong, China since 2007. HKLUG members believe that creations are not limited by resources but idea in mind, techniques on hands and persist in hearts. "Promote Hong Kong by LEGO; promote LEGO to Hong Kong" is the main objective of the group.

Homepage:
http://www.hklug.hk

Blog: http://www.hklug.hk/blog

Brickshelf gallery:
http://www.brickshelf.com/cgi-bin/gallery.cgi?m=hklug

Discussion Forum:
http://www.hklug.hk/phpBB3

Contact Us: admin@hklug.hk

Making the Residential Buildings

Article and photography by Andy Bear (ANDYBEAR)

During the preparation of Olympic City, apart from the Bird's Nest Stadium, Water Cube and the Olympic Village, the main landmarks of the city, ANDYBEAR already had a rough idea regarding the rest of the design. We saw the Olympics as a grand world occasion. The Bird's Nest Stadium, Water Cube and Olympic Village symbolize China as the host of the 2008 Olympics. In the architectural design, both traditional Chinese architecture and western architecture were proposed so as to demonstrate the integration of Chinese and Western cultures. Along the coast area of the exhibition, you will find a windmill in European design and European-style downtown. In contrast to the western architectures, on the other end of the exhibition, you will see a Chinese gate tower, Hutongs and an important aspect of Beijing's architectural heritage - Siheyuan. These historical buildings are most commonly associated with China, as they are important cultural elements of Beijing City.

Siheyuan

Siheyuan is very special and important in the rich and historical culture of Beijing. It is a historical type of residence that was commonly found throughout China, with a long history of more than 3000 years. Siheyuan exist all across China and the Beijing Siheyuan is the most typical specimen of its kind. The architectural structures and patterns of the courtyard signify hierarchy and prosperity. The courtyard dwellings were built according to the traditional concepts of the five elements that were believed to compose the universe and the eight diagrams of divination. Hence, its structure reflects the Chinese emphasis on the importance of the family at the whole. Beijing Siheyuan not only serves as a residence, but also reflects the cultural traditions of old China.

"The Creation of Siheyuan is a really new challenge," as said by ANDYBEAR. It's difficult for ANDYBEAR to discard the European architecture creation,

including the vaulted ceiling, roundheaded window and brownish black bricks. On the contrary, instead of discarding, he is substituting European architecture with traditional Chinese architectural design, for examples: curved roof, heavy platform, red and grey bricks. In order to enhance the savor of traditional Chinese culture, ANDYBEAR has put additional focuses on the design of courtyard and decorations such as, red lantern and Chinese pattern drawings. This extra detail received extra attention, praise and feedback which surprised ANDYBEAR.

Chinese gate tower

The Chinese gate tower and plaza are the other two Chinese-style creations of ANDYBEAR. The gate tower is indispensable to the Ancient China's architecture. Today, most gate towers have become historic monuments and a meeting place for residents. In LEGO City, a remodeling of LEGO SET 7419 was used to construct the Gate tower. Using the color and pattern of LEGO SET 7419 as a reference plus referring to Chinese costume drama set design inspired ANDYBEAR in the creation of his design. The winding corridor, staircase, hallway, enclosure and the four Chinese-style pavilions are all part of one of the landmarks of Olympic City.

Dutch Windmill

Along the coast in the windsurfing area, there is an islet nearby. A Dutch windmill is found in the islet, creating a sense of romance and relaxation. This windmill was another challenge to ANDYBEAR. The pieces were issued in Feb, 2008 and spent more than half a year in completing the creations. By using the SNOT (studs not on top) building method, a realistic hexagonal windmill with fine layers was built. To further complicate things, the blade is driven by a motor to allow the windmill to rotate. A European-style bridge connects the windmill islet and downtown, in which the islet is filled with plenty of flowers and flagging as an embellishment.

European Downtown

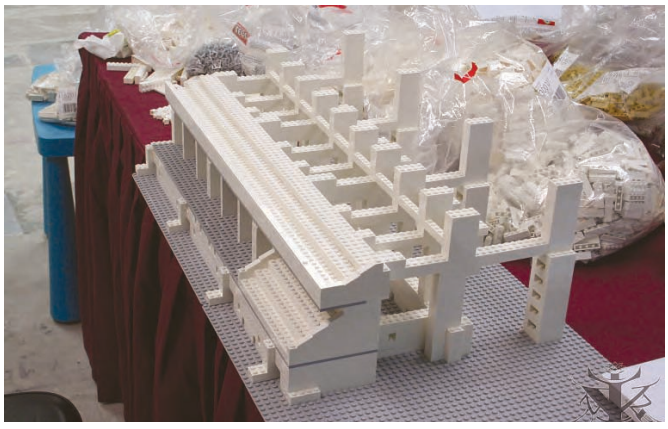
Another Western architecture creation, the downtown area is crowded with rows of European buildings. In the heart of the plaza, you will see an athlete lighting the Olympic cauldron. The plaza is located exactly at the entrance of the Olympic City, which is the very first scene that a visitor would notice and take the lead in experiencing the Olympic atmosphere. Next to the station, all those European architectures found in the plaza are designed by ANDYBEAR (three of them are by Hudson, another club member). Among ANDYBEAR's designs, most of them are residential district buildings and stores. Besides the apartment, bar, coffee shop, café, bakery and hotel, it includes well-known stores such as Louis Vuitton, Haagen-Daz and H&M. However, these "brands" are protected by the copyright, hence the labels have to be slightly modified. Yet according to the similarity of the color, appearances and the logos, visitor could easily identify and recognize the stores. Moreover, ANDYBEAR would like to take this opportunity to thank "HOT" for his over planning and the settings of the lighting system that strengthens the visual effect.

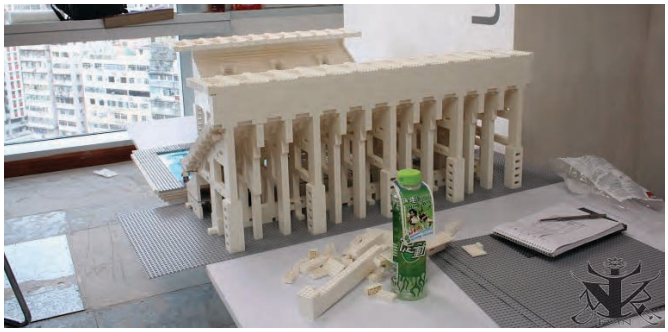
The downtown area is surrounded by a canal and is paved with pedestrian paths, which enhance the Western ambience. The city promotes the integration of Chinese and Western architectural cultures, symbolizes the spirit of Olympic Games: "One World, One Dream."

The Beach
Several Olympic sport events took place in the coastal beach area, including the triathlon and beach volleyball. A tennis court is also located in this area. In November 2007, ANDYBEAR built his creation < BEACH of Europe>. European-style building with the use of large quantities of tan plate and an irregular building method formed this realistic beach. It received very good responses and positive feedback in Brickshow2007 which was organized by HKLUG. In the Olympic City exhibition, ANDYBEAR rebuilt the beach area. The original buildings such as the pizza store and the beach station were moved backwards, substituted with the volleyball court and triathlon lanes, then became one of the many landmarks of the Olympic City.

The Making of the Water Cube

Article and Photography by Vincent Cheung





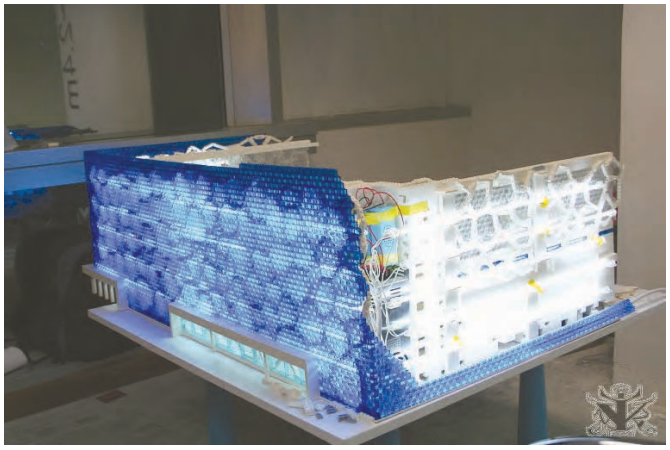
Above: The decks in progress

The Water Cube took Vincent Cheung (a fellow member of the HKLUG) over 50,000 bricks and 120 hours to build. To achieve the desired lighting effects, 32 electric light tubes, which consume a total of 300W power, are embedded in the Water Cube.

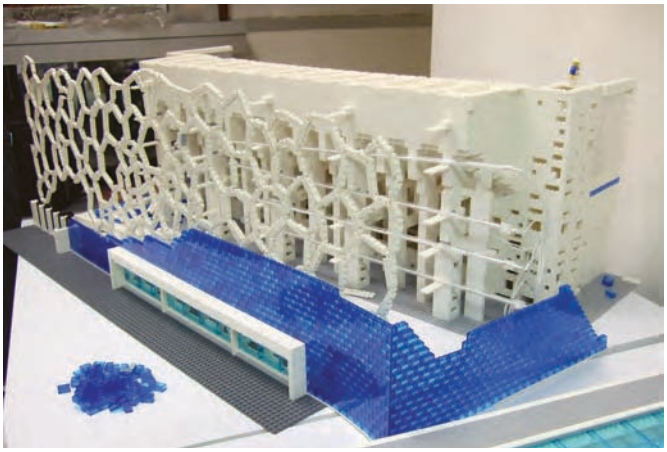
To enable the visitors to view the interior design of the Water Cube, Vincent cut out a corner of the Water Cube. "In fact, this created a fun view yet was much more challenging. Obviously, the interior had be designed with great details, which takes me much more time under a deadline; but more seriously, the building of the Water Cube ceiling faced a big problem due to the fact that supports could not be built on top of the swimming pools", said Vincent.

The major scheme to support the sized 1.1m x 1.1m transparent blue ceiling was on the design of the decks for the observers. "The decks took me two days to build, with the first trail failing to support the weight of my arm, while the final design could allow a child to sit on it", Vincent mentioned.

Other than the design for the interior of the Water Cube, **the greatest challenge of this work is probably** the **out-walls' lighting effects, which involves 3 steps (on opposite page):**



1. The installation of the light tubes and electrical wirings.



2. The construction of the water-drop-shape layers.

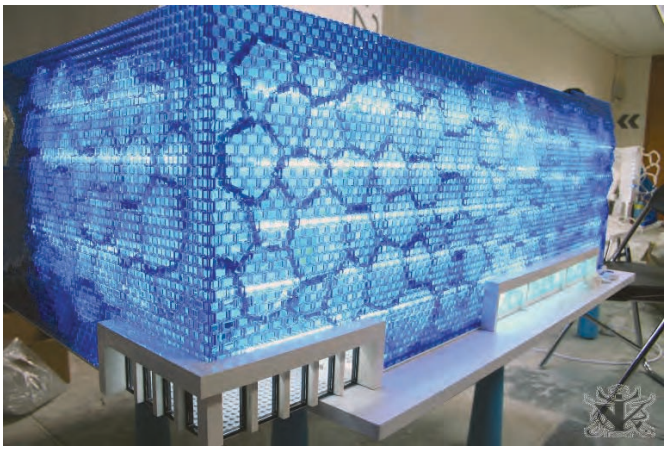
"The lighting of the interior of the Water Cube was not easier than that of the outside walls at all", as reported by Vincent. In fact, Vincent took several measures to ensure the interior is lighted up enough for views:

1. The decks were designed with a number of exits where the lights are out, this helps light up the interior of the Water Cube.

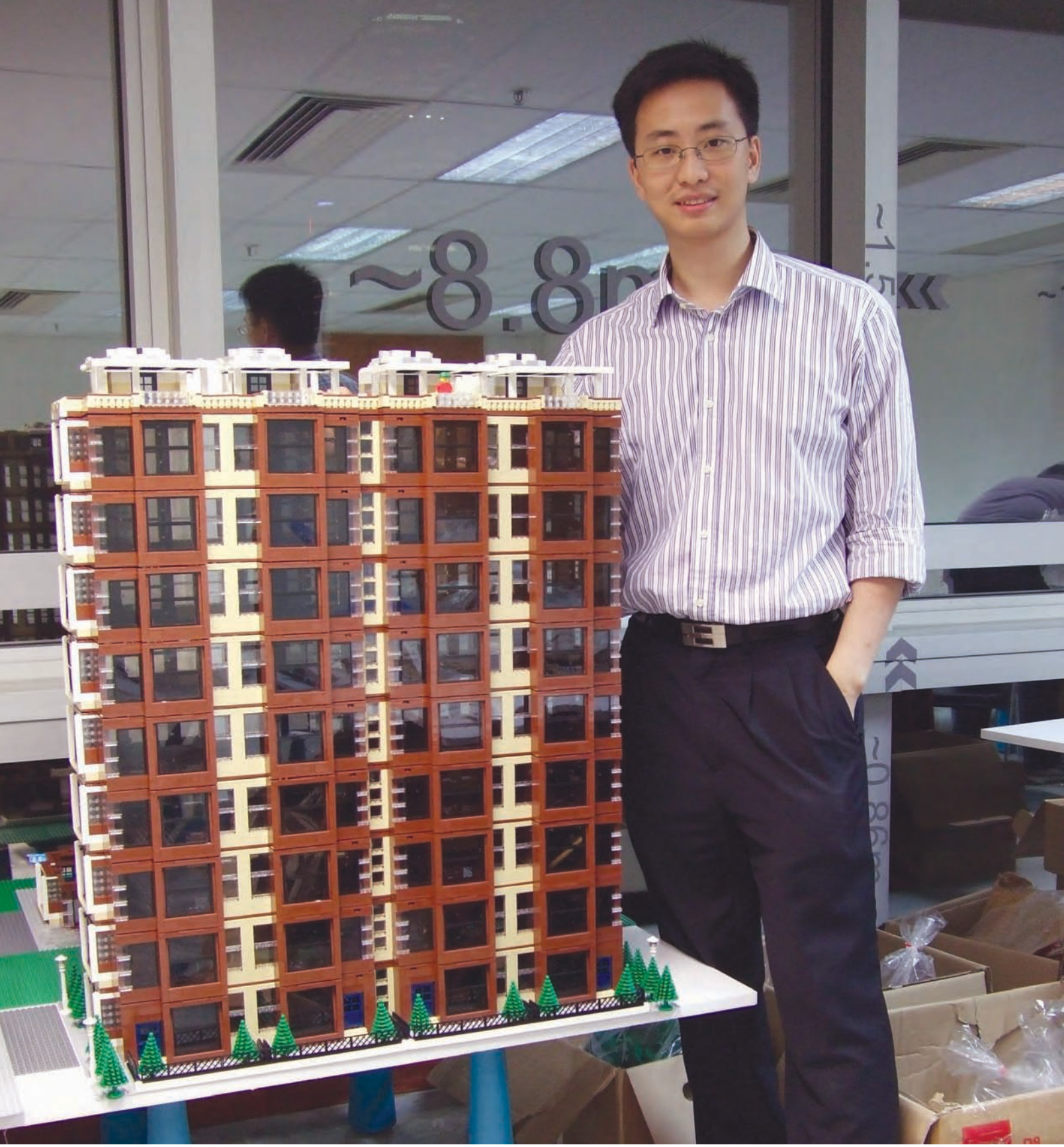
2. Two walls were built with transparent clear bricks to maximize the lights to enter the Water Cube.

3. Lastly, the ceiling was made up with transparent clear bricks so that the swimming pools were sure to be lit up.

"The overall result was amazing to everyone in the team", said Vincent happily.

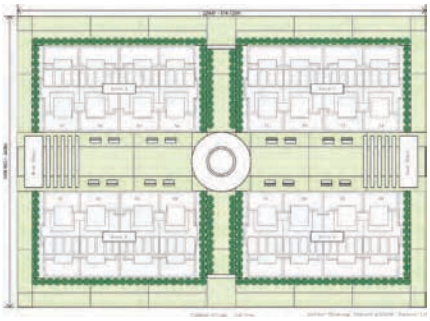


3. Finally, the construction of the transparent-blue walls



Making Olympic Village

Photos by Chiukeung



Building Olympic Village was a challenge, as the information available was sparse. Using architectural renderings, a set of plans was drawn up (top). Decisions on overall size and detail was determined at this step, as well as color for estimating parts.

From the ground plan, the buildings were started (left). Since there were four buildings, construction was a process of duplication. Some of the floors were repeated also.

After completion, the buildings were placed on baseplates and decorated. More photos of the complex, including some detail shots are on the following page.

Top: An overhead view of the Village complex, with courtyard.

Left: Another view of the complex showing more of the courtyard.

Above: Roof detail showing the different directions of stud building used.

The Making of Equestrian Stadium

Article by Hudson

About Myself
My LEGO life starts from Fabuland when I was a child. It brought me lots of happiness in childhood. When I was ten, I was impressed by a gift sent by my father, which was a small set of City series. Since then, I collected different types of series such as Classic Space, City, and Train in '80s. My hobby developed into collecting some sets of Star Wars, Batman. By 2005, I was building my own models looking for a breakthrough in creation. Recently, I have focused on creating modular houses and mosaics.

Introduction
Talking about MOCs, this was my second time I have displayed my MOC creation to the public. Being inspired by the horse visit last summer, I decided to make my creation based on equestrianism. To trace back, I went to a carnival held in Sha Tin Racecourse last summer. What impressed me most during the visit was the spectacular stable and different training equipment for the 2008 Olympic equestrian events in Hong Kong. Yet the Grandstand was in construction at that moment. However, the visit seriously influenced my MOC creation in equestrianism.

Terminology
The Olympic equestrian events are made up of three totally separate disciplines - Dressage, Jumping and Eventing. Having a belief that LEGO can show its vividness, I mainly focused on Jumping in my creation. In case I was asked to make a creation on eventing, I suppose a bigger showcase would have been needed to show its attractiveness for visitors.

Since the horse and rider are required to jump a course of movable fences without knocking any rails in jumping, I especially designed different styles of fences which

were the base made by plate. To reflect the real environment of the event, I placed the fences irregularly. Moreover, in order to give a full picture of equestrianism, I added other subtle things such as a judgement stand, emergency station, tuck shop and even a powder room. Hopefully, all these made the creation looked vivid and authentic.

Another specialty of my design was using modularity to build the roof so that it can be partly opened. I also made use of lights to lighten the detail inside the stable. During the process of building, I considered that visitors may be curious about the detail inside the stable. Hence, I set the lights inside the stable so that visitors can see through it clearly.

A challenge to me was the grandstand.. Even though I spent a lot of time to research it from the web, there wasn't enough information, not to mention photos, for reference. As a result, I had to imagine what the stand would look like.

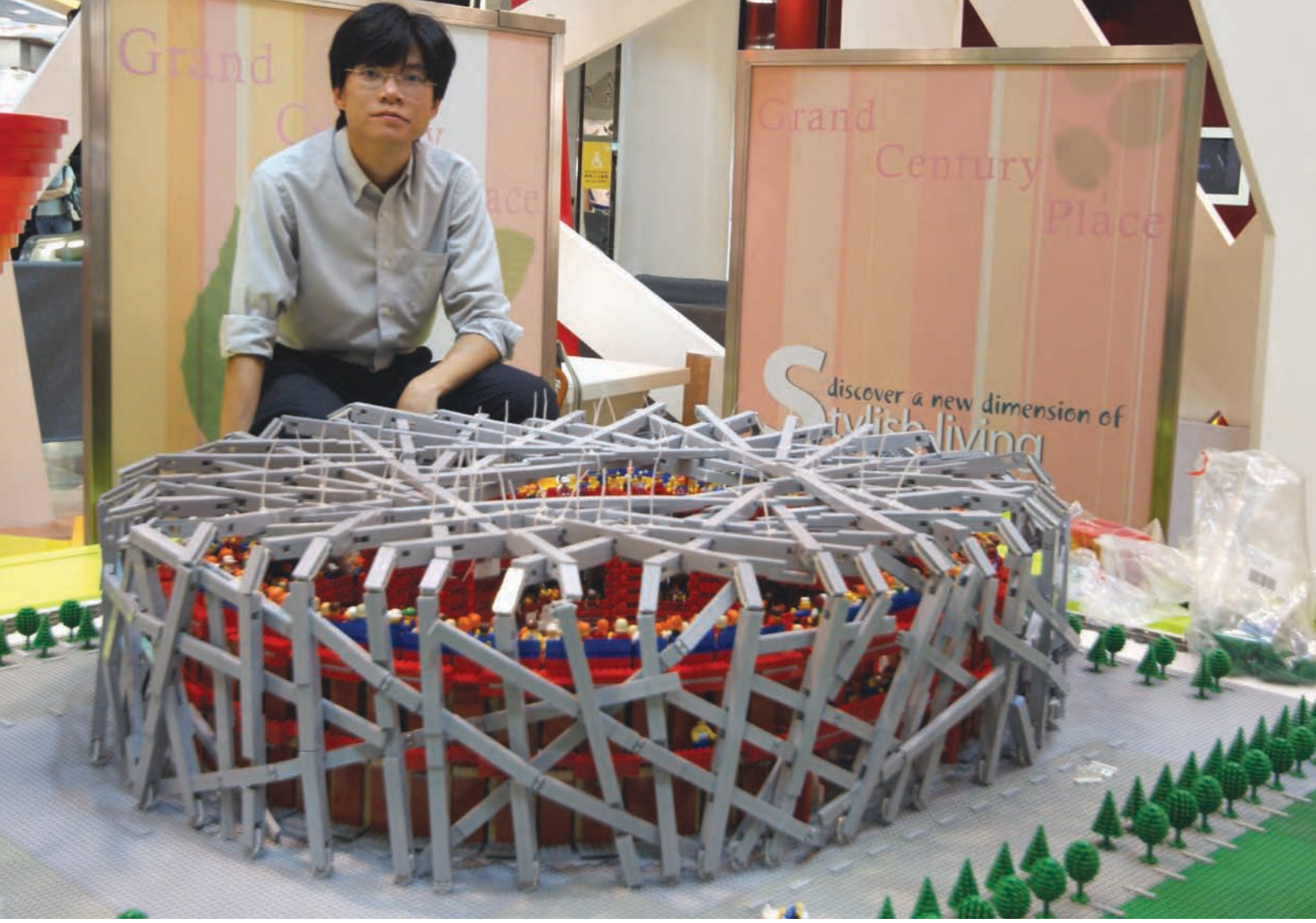
After working for more than 100 hours (including weekdays after day-time job), with using over 7,000 pieces, I finally completed the building.

Conclusion

To look back those days during creation, I felt that it was a bit hard but enjoyable. Though I encountered various difficulties as mentioned, I combatted the problems with repeated trial and error, which motivated me for making progress.

In order to make it perfectly, I spent a lot of time deep in thought in designing and managing all the sizes of my creation. I especially felt delighted when I saw it was ready for exhibition. It's a breakthrough in my building skills.

Many thanks to my team members and friends for their assistance and support.



The Making of Bird's Nest

Article by Ming

Forming the 'Nest 'cover was the greatest challenge in building the Nest Stadium. What makes the Nest famous is that the long-span shell of the Nest can support itself without central columns and without any support from the grandstand. There are also no conventional perpendicular columns to the ground.

Technic system beams were considered at a very early stage, trying to take advantage of the ease of connection and stiffness of the Technic system when cross bracings were formed. However, the size of Technic bricks also made it difficult to form numerous small connections with a light feeling, which made the designer turned to use plates for the Nest.

Information

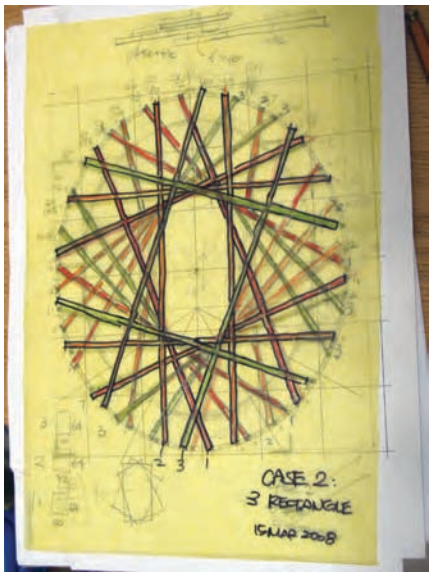
Several tests were made before coming to a shape that was similar to the final product. The first few test versions were built without detail studies to the Nest and they were made just to follow the shape. However, imitating the shape without considering structural characteristics made the LEGO Nest look too fake. I then started to look for information from the web to see if there were any hints to develop further.

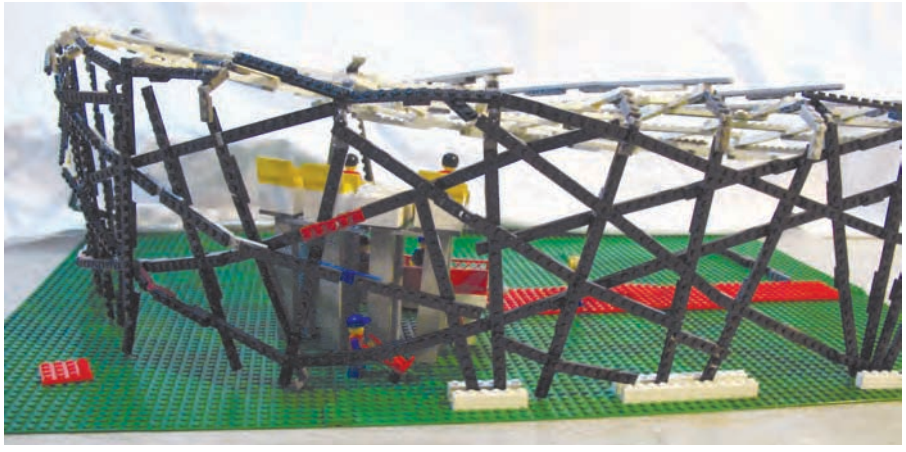
I got dozens of photos on web easily but found that most of them were only side views, which were no help in studying the top and overall structural characteristics of the Bird's Nest.

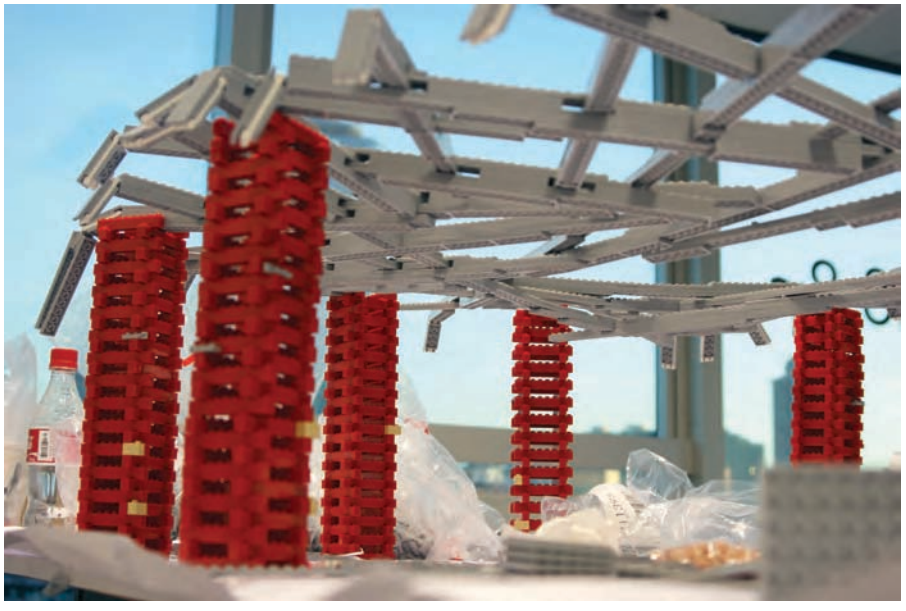
Finally, after days of researching from structural studies, computer renderings and models of the Nest, I came up with a group of basic lines running across top layer of the Nest. I simplified the lines and made them "Lego-buildable".

You may imagine that the cover of Bird's Nest as a net, supporting forces from external column ring transfer to central part through numerous nodes. More supporting points shall allow lesser pulling forces from each point. The only difference is that the beams in Bird's Nest gives both pulling and pushing forces that

Building the Cover







make the Nest stands alone without collapsing to the center.

Tests
Further study models were made to test the feasibility of 1) forming the great span by LEGO and sharing of the load by combined action of crossing beams, and 2) use of cross bracing to tie the sloped columns to make them function as supporting surfaces. I also drew computer drawings to study the circular grandstand and to also help estimate number of parts required.

Construction
I had to complete the Nest within 1 month, but was free to work on it only after work and on holidays. I finally spent over 100 hours in the construction, excluding the time for putting it into the Olympic City and landscaping.

There were 4 main steps in building the Bird's Nest :

1. Build the Nest cover (i.e. the top part)

2. Form the field and tracks, build the grandstand and feed in minifigs

3. Combine the cover and grandstand

4. Complete the side supports, make the cover detach from the grandstand

Cover Building
Soon after starting the cover, I faced the problem that there were not many connection points that fit the beam angle and the LEGO studs. I kept developing the connection system, for example: originally connections were made only by 2x2 turntables. Later I just made the tiled members cross through each other without fixing with studs, but forces can still spread along those crossings.

When the cover was 70% completed, he started to lift it up by giving temporary supports – similar to what have been done to the real one. This step was to identify the weak points and reinforce them when the cover was supported on its periphery.

Grandstanding

It was time to work on the grandstand, as no one can get inside the Nest once the sides of the covering shell completed.

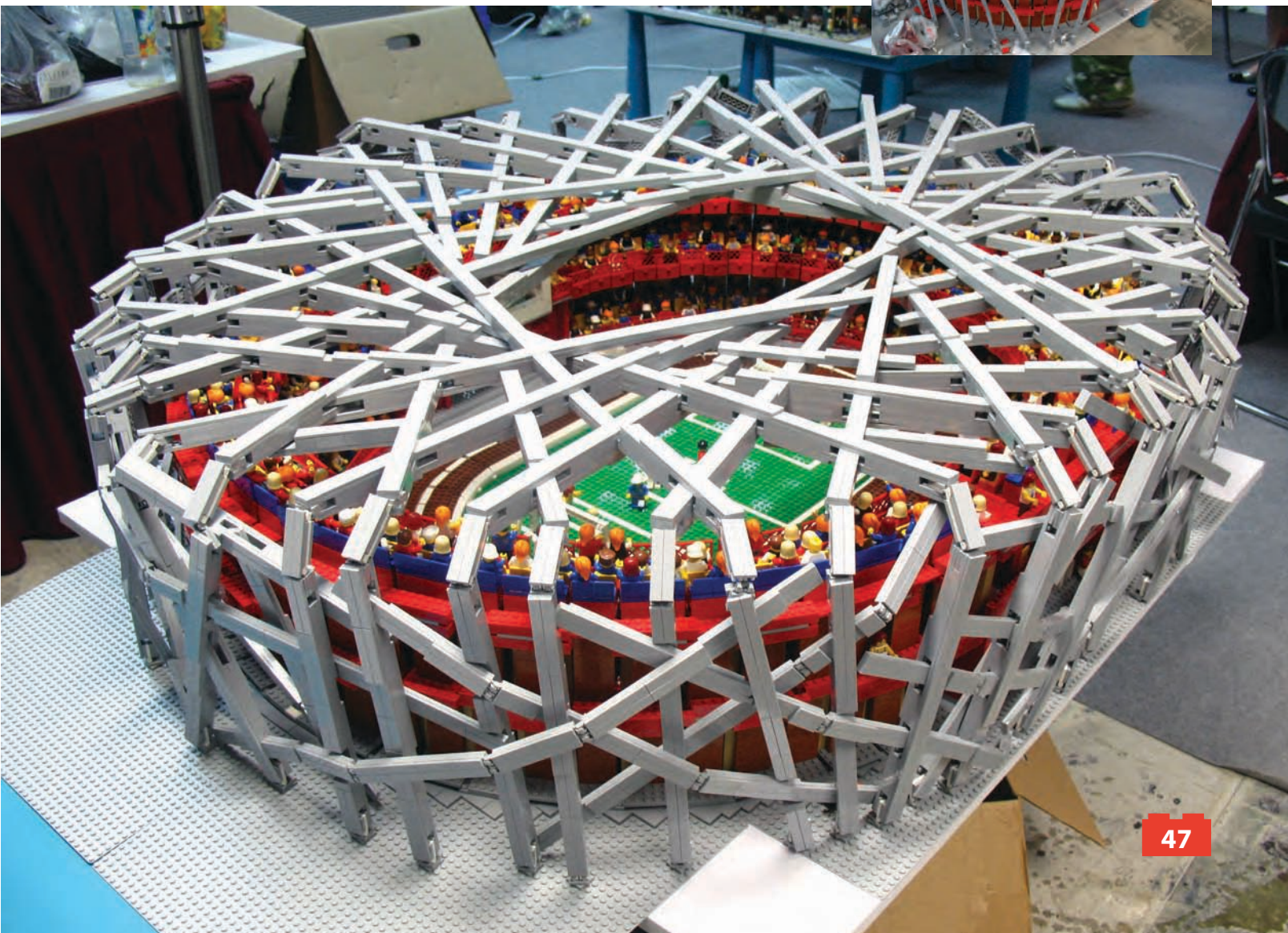
There was only a tiny football field and 2 tracks. The circular grandstand was just duplicates of standard modules according to design sketches, and it was completed within 2 days without difficulties with the aid of HKLUG members. A few days were spent on designing and building the central grandstand.

Building of the Nest cover did not stop during construction of modular grandstand. When the cover was about 90% completed, Ming started to plan for the next step: lifting the entire cover over the grandstand.

To allow even support to the cover (too uneven support would lead to collapse of the cover), temporary walls were built all around the grandstand. The cover rested on those walls until side columns were added as supports.

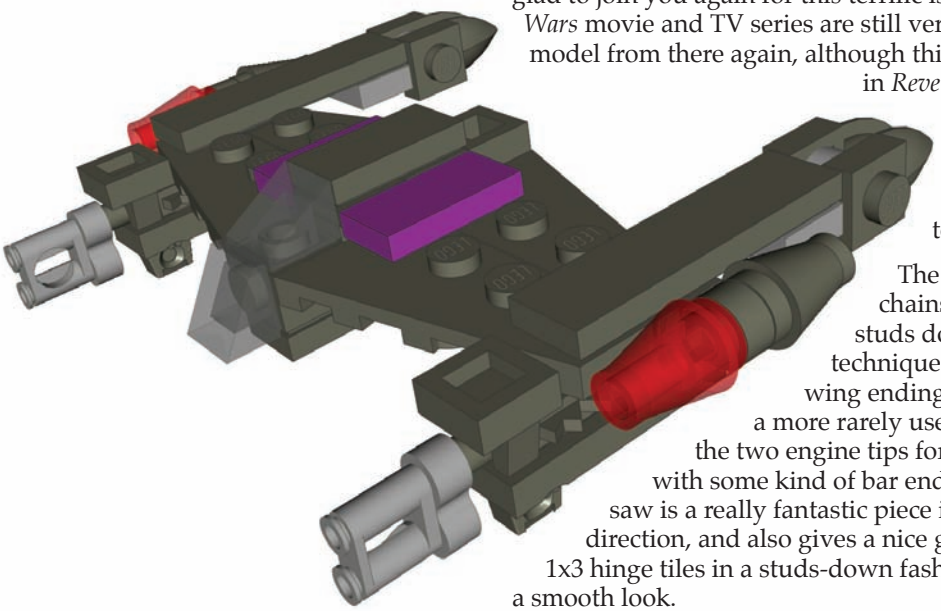
The cover was still quite weak that time and the designer prepared to take hours to repair it after moving it. But the lifting was unexpectedly smooth: it was completed by only 2 persons with 4 bare hands, simply by grabbing 4 major groups of nodes and lifting it. The success made the designer feel more confident in smooth completion of the Bird's Nest as it proved the practicality of spreading the force through the nodes.

Construction of the peripheral columns was a relatively simple task compared with cover construction: all that was needed was being attentive to the height of columns to avoid too uneven force distribution. After fixing the columns to the baseplates, the designer found that the cover could already stand by itself, and the diagonal bracings were more like aesthetic considerations rather than structural needs.



You Can Build It:

MINI Magna Guard Starfighter (P-38)



Hello and welcome back to our ongoing series of mini modelling. I'm certainly glad to join you again for this terrific issue of *BrickJournal*. As the new *Clone Wars* movie and TV series are still very popular, I'd like to present to you a model from there again, although this particular one can also been spotted in *Revenge of the Sith*. It's the Porax-38 (P-38) starfighter, also known as "Magna Guard Starfighter" since the release of the model as a LEGO playset. Thus, the colour scheme of the model is oriented towards the LEGO set.

The lesson to learn from this model is about chainsaws. It is a mixture of studs up and studs down. But besides the headlight brick technique which is used in the cockpit area, the wing endings are the really tricky part and feature a more rarely used technique. As I really wanted to realize the two engine tips for each wing, I searched for a flat piece with some kind of bar ending – a chain saw! Besides that, the chain saw is a really fantastic piece if you have to perform a change in stud direction, and also gives a nice greebling effect. The possibility to add 1x3 hinge tiles in a studs-down fashion then gives the construction a smooth look.

Happy building and see you next time!

Yours, Christopher

Article and Instructions by Christopher Deck

Numb.	Color	Part	Description
4	Dark-Gray	4070.dat	Brick 1 x 1 with Headlight
2	Dark-Gray	4589.dat	Cone 1 x 1
2	Trans-Red	4589.dat	Cone 1 x 1
2	Dark-Gray	44300.dat	Hinge Tile 1 x 3 Locking with Single Finger on Top
2	Light-Gray	30162.dat	Minifig Tool Binoculars Town
2	Dark-Gray	6117.dat	Minifig Tool Chainsaw Blade
1	Dark-Gray	3024.dat	Plate 1 x 1
2	Light-Gray	4081b.dat	Plate 1 x 1 with Clip Light Type 2
2	Dark-Gray	4081b.dat	Plate 1 x 1 with Clip Light Type 2
4	Dark-Gray	49668.dat	Plate 1 x 1 with Tooth
2	Dark-Gray	3023.dat	Plate 1 x 2
1	Dark-Gray	3623.dat	Plate 1 x 3
2	Trans-Black	54200.dat	Slope Brick 45 1 x 1 x 2/3
2	Dark-Gray	2555.dat	Tile 1 x 1 with Clip
2	Dark-Gray	3069b.dat	Tile 1 x 2 with Groove
2	Purple	3069b.dat	Tile 1 x 2 with Groove
2	Dark-Gray	2431.dat	Tile 1 x 4
1	Dark-Gray	43723.dat	Wing 2 x 3 Left
1	Dark-Gray	43722.dat	Wing 2 x 3 Right
1	Dark-Gray	41770.dat	Wing 2 x 4 Left
1	Dark-Gray	41769.dat	Wing 2 x 4 Right

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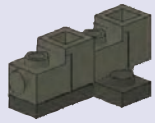

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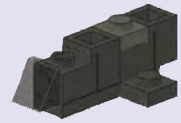

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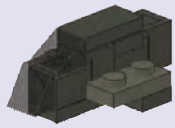

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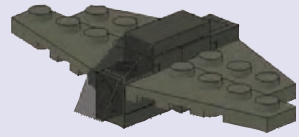

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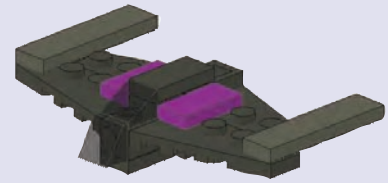

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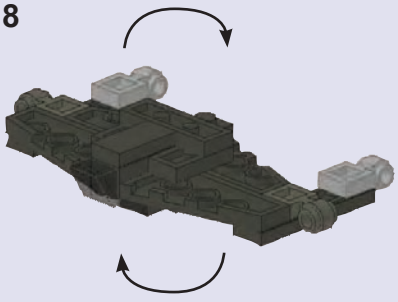

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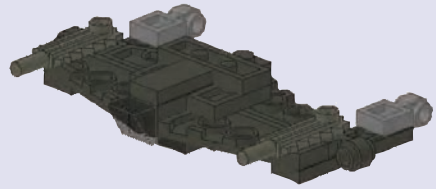

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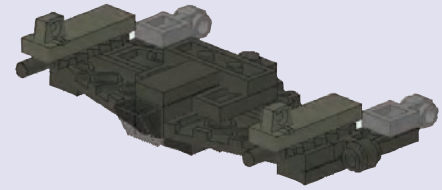

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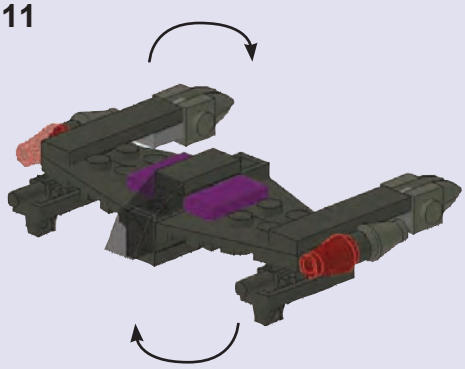

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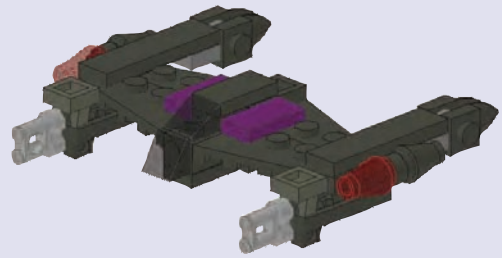

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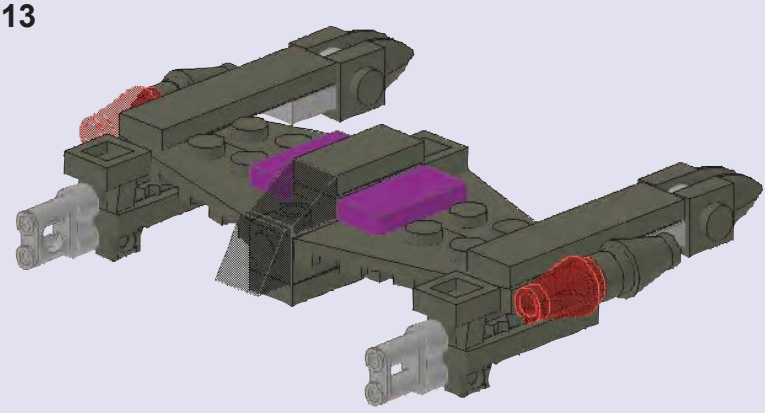


You Can Build It:

Christmas Morning Vignette

Model, Instructions, and Art by Mariann Asanuma

Come and Cozy up by the Fire!

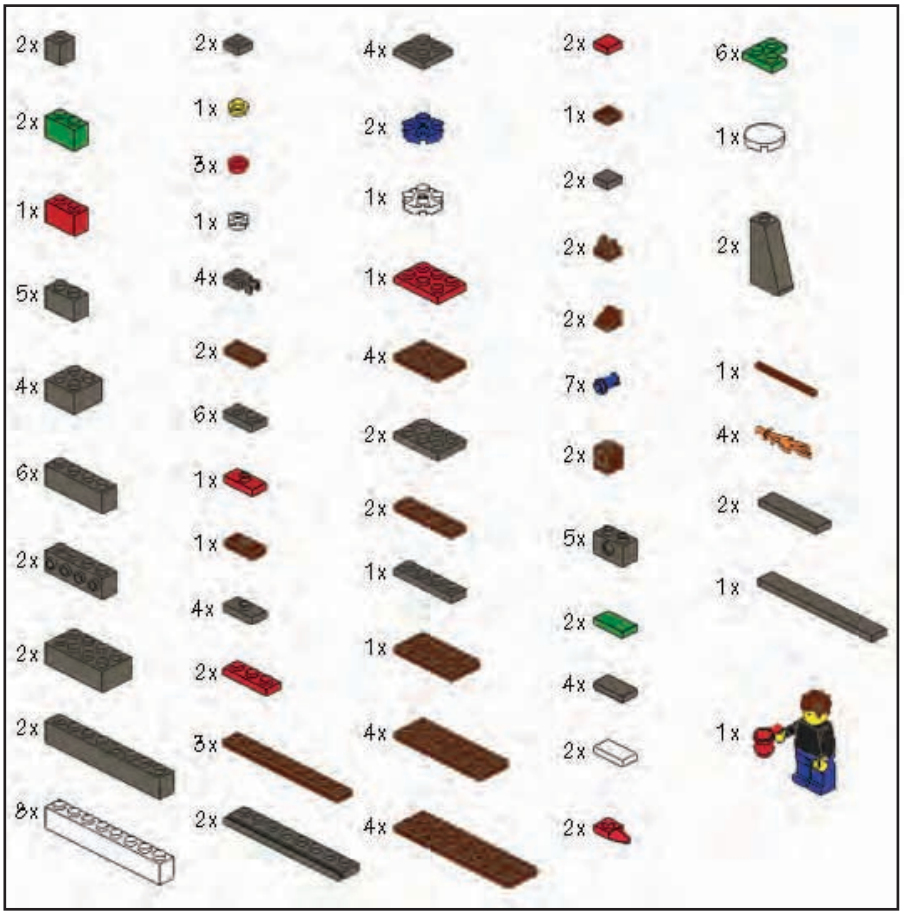
The stockings are hung, the hearth is decorated, and the clock ticks down to Christmas morning. So warm your hands by the roaring fire, sip hot chocolate with marshmallows, and maybe unwrap a present or two.

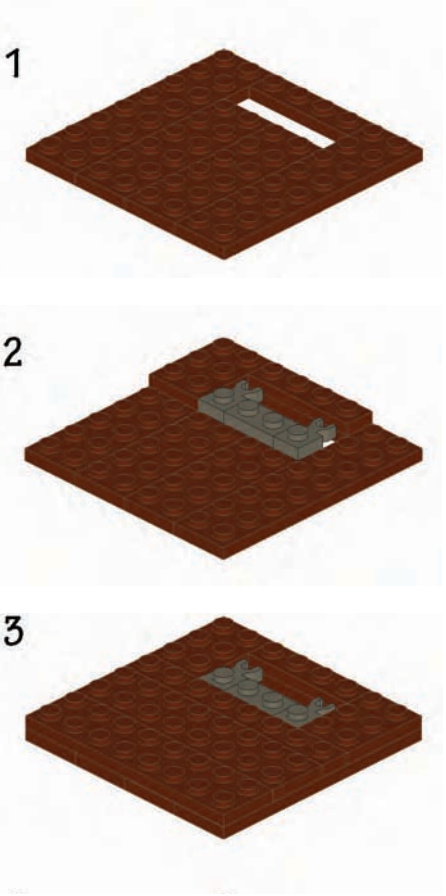
Hi all, Merry Christmas! For this issue of *Brickjournal* I wanted to make something seasonal so I designed this Christmas fireplace vignette. My inspiration for this model was the mini Christmas stockings. I designed those first and then built the fireplace around them.

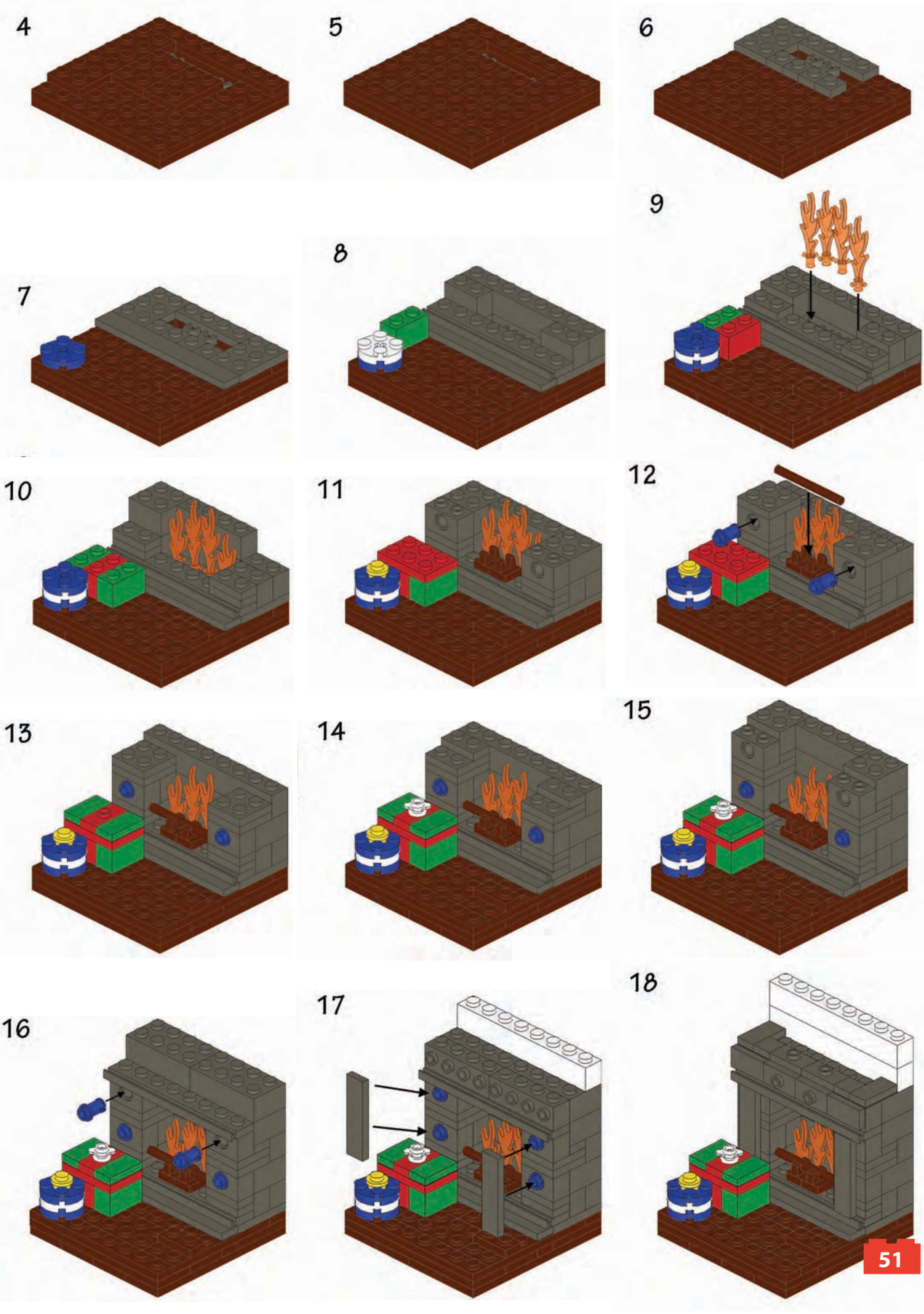
Build the model as is or incorporate it into a larger scene. If you don't have the decorated clock tile, use whatever 2x2 tile you like. You can add more presents and stockings or even make yourself in Minifig form.

So break out those bricks and start building. Merry Christmas and Happy New Year!

Mariann



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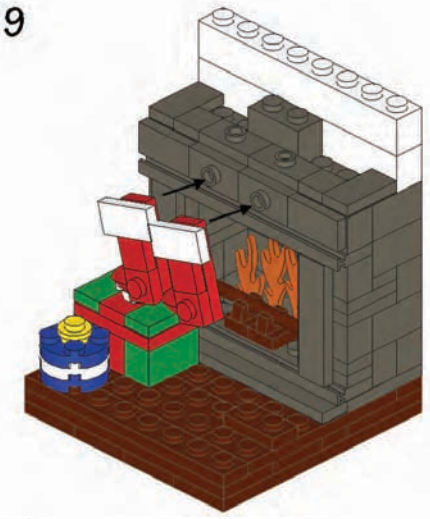

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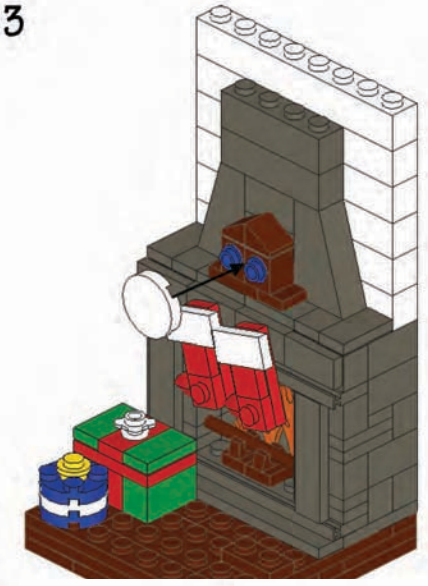

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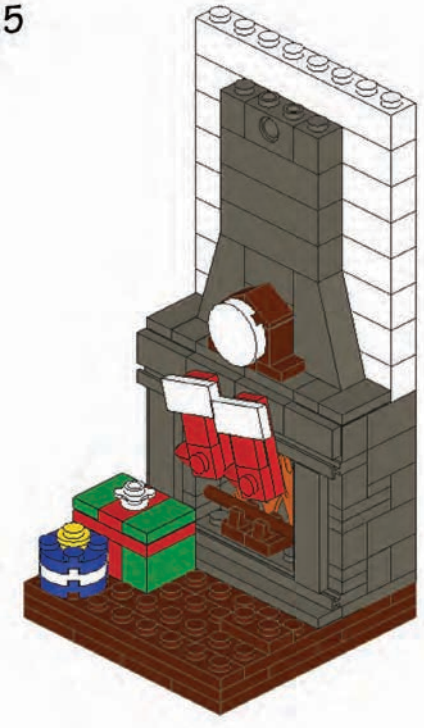

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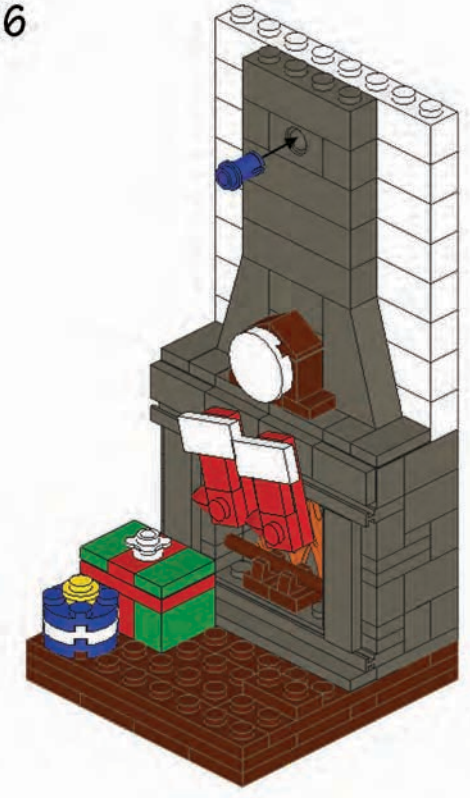


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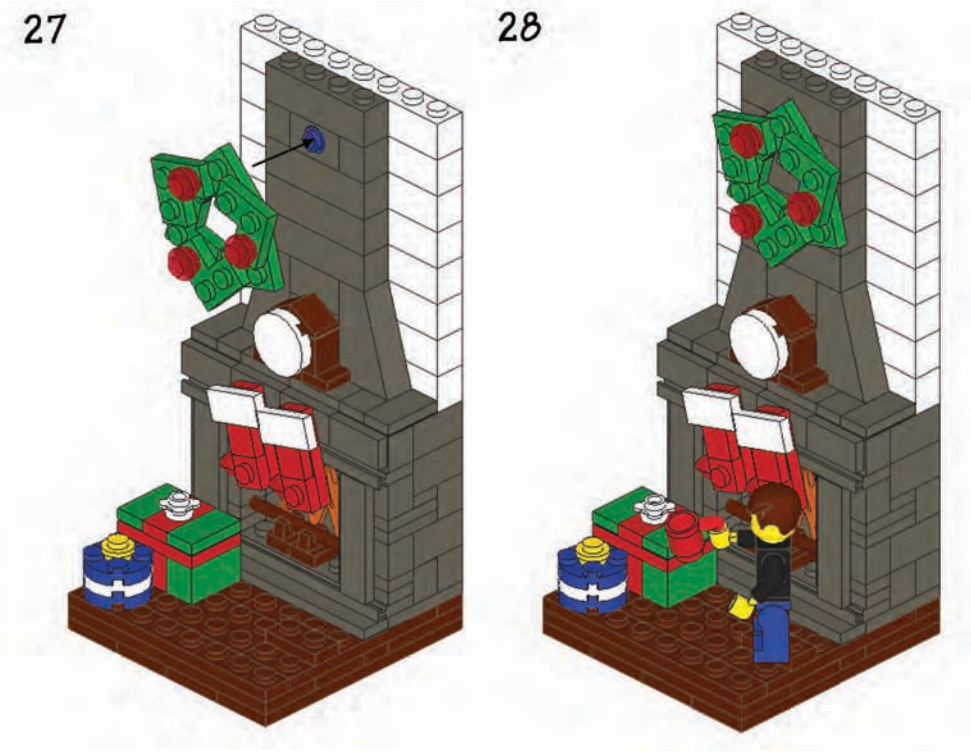
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Minifig Customization 101

Creating Silicon Rubber Molds

Article by Jared K. Burks
Photographs by Jared and Amber Burks

Welcome back to the Minifig Customization series. This installment presents information on creating silicon rubber molds to replicate your custom created elements. Recall the articles on creating custom elements in clay (*BrickJournal* V. 2, I. 1) and element modifications (*BrickJournal* V. 1, I. 7); with the information in these articles you will be able to copy these custom elements with a silicon mold and cast them in more durable resin plastic. As you will be using chemicals in not only the creation, but also the use of silicon rubber molds, please READ all safety information for all the products you use. The creation and use of silicon rubber molds by younger readers will require adult supervision.

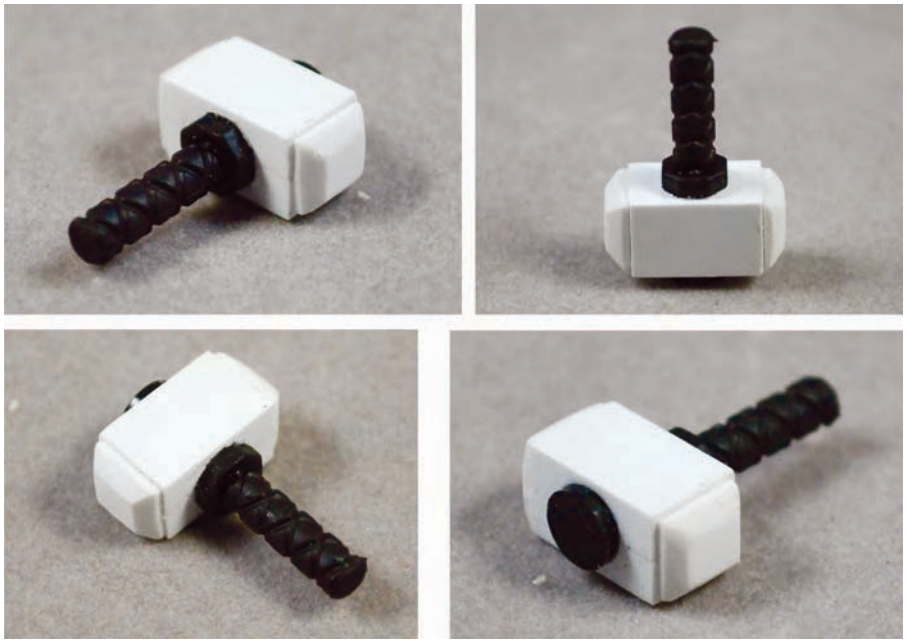


Figure 1. Custom prototype element for molding created with sheet styrene.

Since you have created a custom element, which will now be referred to as a prototype part or prototype, you may wish to either copy it or simply make it more durable. Silicon rubber molds are really the best option to accomplish either of these means. There are many manufactures of silicon rubber for molding including; Smooth-On, Alumilite, MicroMark, and others too numerous to list. When making a silicon rubber mold two compounds, silicon rubber and catalyst, are mixed in a proper ratio to start a chemical reaction causing the silicon rubber to cure to a solid state. Many brands mix by a weight ratio, meaning a large amount of silicon mixed with a tiny amount of catalyst. These require the use of a gram scale to accurately recreate this complex mix ratio. However, the Smooth-On brand features a convenient 1:1 mix ratio, eliminating the need for very accurate weight measurements as they are mixed by volume.

Silicon Rubber Characteristics

Now that we understand the differences in brands and mix ratios we need to discuss the differences in the many types of silicon products. These different types allow for the creation of molds with different features. Therefore it is important to understand what each type of silicon is for and it's weakness and strengths. There are four key features to understand about silicon rubbers; elongation at break, tear strength, pot life, and demold time. The first two and last two characteristics are related.

Elongation at break is just as it sounds; how much will the rubber stretch before it breaks. This measure is typically presented as a percentage. A low percent stretch is about 250% and a high percent of stretch is 1000%. These percents are not arbitrary, low percent means the mold is more firm and high percent are less firm. Think

of this like jelly versus Jell-O. Producing multiple part molds with a high percent stretch is very difficult as it will emphasize part lines in the mold. Part lines are where multiple part molds join together. These are emphasized as the edges of the mold curl slightly due to the firmness issues. Tear strength is an indication of the force required to tear the rubber, it is measured in pounds per linear inch (pli). The higher the tear strength value the stronger the rubber. Typically higher tear strengths go hand in hand with greater elongation at break percentages. So the same issues that plague multiple part molds with higher elongations at break do so with higher tear strength rubbers.

Pot life is the duration you have to mix the two reagents, silicon rubber and catalyst, together and pour the mixture into the mold box. The mold box is the container that holds your part while you are creating the mold. The shorter the pot life the faster the silicon starts to set. Typically a 20-30 minute pot life silicon is preferred. This gives plenty of time to completely mix the silicon (which is key to achieving the proper elongation at break and tear strength) and to pour the silicon into the mold box in a **slow** and **controlled** manner. The demold time is the duration that it takes for the silicon to completely cure or set. It is important to wait this duration before disassembling the mold box and proceeding to the next step, be it molding a second part of the multiple part mold or using the mold to cast the a new part in resin.

Mold Design

Now that we have an understanding of the characteristics of the different types of silicon rubber we can begin a discussion of creating molds. I refer to this process as sculpting the mold and it takes almost as much creativity and effort as creating the prototype part in the first place. A properly designed and created mold will yield many great parts; a poorly designed and created mold might not yield even one.

The first issue to consider when creating a mold is how to remove the prototype or cast element from the mold? Typically, removal is the decider for a one, two, or many part mold. Once you have decided this issue the other key factors can be consider; mold box size, holding the prototype while pouring the silicon, part line locations, properly designed air vents and fill holes, and pour speed and technique. Mold boxes are easy; we already have a perfect product to create a mold box of any size, LEGO bricks. It is best to allow $^{3}/16$ to ½ inch (~1.25 cm) or more of silicon to surround the prototype to give the mold the proper strength and rigidity. Therefore when laying out the mold box plan in LEGO bricks allow this much space around the prototype. Once your mold box is complete you need to measure its length, width, and height in centimeters (cm). When you multiple the three numbers together you will have a measurement in cubic centimeters which is equal to milliliters (mls). Milliliters is a volumetric measure, when you divide this number in ½ you will know how much of each part of the 2 part silicon to use.

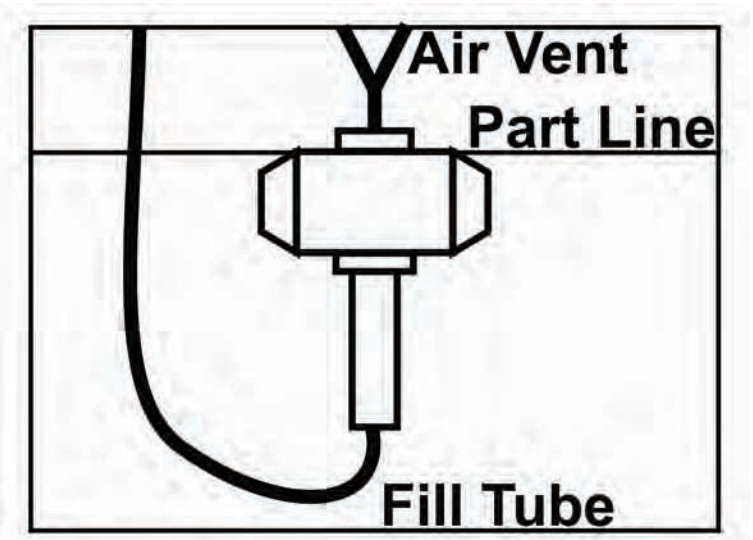


Figure 2. Proper planning includes sketching mold design to include part lines, air vents, and fill hole.

The next issue is suspending the prototype in the box. Most molds for these types of custom created elements are at least 2 parts. Therefore the prototype will be suspended and the first half of the mold will be created, then the first half will retain the prototype while the second half of the mold is created. Typically the prototype is embedded in clay to retain it while the mold is poured. Not just any clay, but a non-drying clay like Klean Klay. When the prototype is embedded in Klean Klay this will create a part line, the line formed between the two halves of the mold. So place the clay along a line in the prototype to hide the part line so it is less visible on the final cast element. Closely examine LEGO elements; part lines are visible under close scrutiny. The Klean Klay is also used to create keys in the two mold halves so they "lock" or register together. These are critical to proper mold alignment.

Properly designed air vents and fill holes for a mold are the most critical factors

in creating a functional mold. Air vents and fill holes are where air trapped in the mold escapes as it is filled with the resin plastic. These need to be placed such that they can be trimmed and not affect the appearance of the finished cast element. Typically the mold is filled from its lowest spot and vented from its highest. Designing good molds take time and practice as well as 3-dimensional thinking. The way a prototype is held can affect the air vents and fill holes so consider this when embedding the prototype in Klean Klay. When I create a mold I use small diameter styrene rods to create the air vents and fill holes in the mold while it cures. When the mold has cured the rod is removed and the voids serve as vents and/or fill holes. Many suggest cutting these into the mold after it has been created, I do not prefer this as it creates irregular vents that can trap air. Trapped air in the mold in the void left by the prototype when casting a part is the worst issue as it will result in a poorly created part.

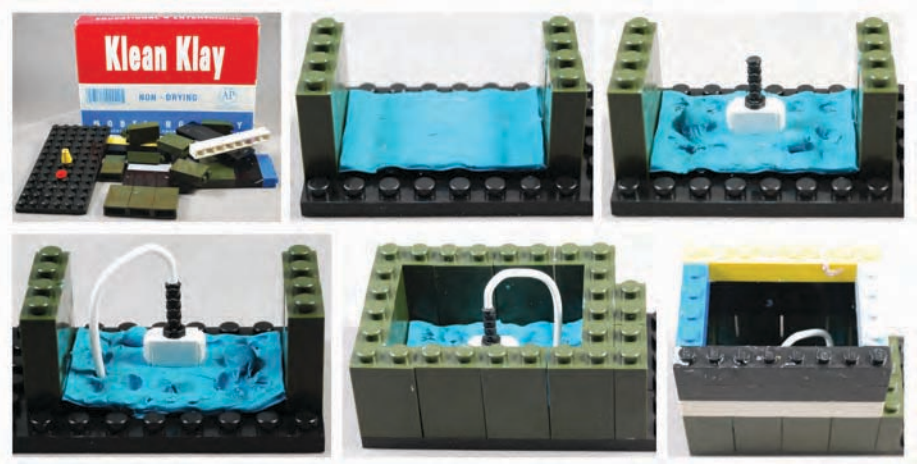


Figure 3. Mold box set up with Klean Klay used for part suspension and lock and key design for mold registration.

Pouring the Mold

The final things to consider when pouring a mold are actually mixing and pouring the silicon for the mold. When mixing the two parts, pour part 1 and 2 into a mixing container (I prefer paper or plastic cups) in the proper ratio. Mixing with a metal or glass rod will reduce the amount of air introduced into the silicon, which is ideal. Many molding and casting kits come with broad wooden sticks; these will whip in more air, which could cause problems. When completely mixed pour the mixture into a new container and continue to mix. Properly mixed silicon is critical in yielding a mold with the elongation at break and tear strength indicated by the packaging. Improper mixing can result in weak spots in the mold and result in a short mold life or poor part production. A properly mixed and cared for mold should be able to produce 25-200 parts, depending on the type of silicon. Remember to keep an eye on the clock as the silicon will start to set as you approach the pot life duration and you have yet to pour the silicon into the mold box.

Once the silicon has been completely mixed it is time to pour it into the mold box. Pour technique can help reduce air bubbles in your mold, which can weaken and reduce the mold's functional life. When pouring from a paper or plastic cup you can pinch the edge forcing it to form a V shape. Then when pouring very slowly in a thin stream any air bubbles in the silicon will pop. This is because the air bubbles are stretched as they fall out of the cup in a fine stream. Remember to allow 3/16 to ½ inch (~1.25 cm) or more of silicon on top and bottom of the part as well as to each of the sides.

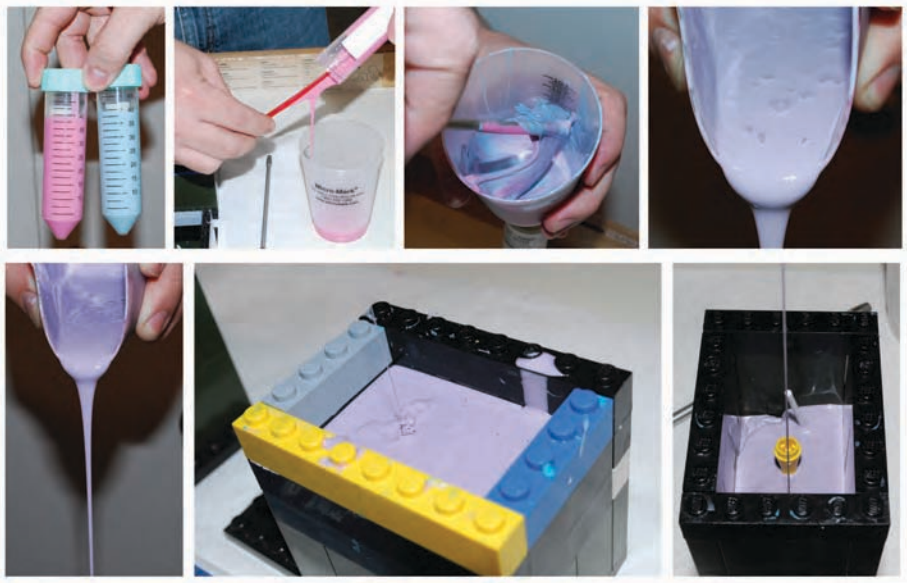


Figure 4. Pour technique using the "V" shape and slow pour rate to remove air whipped into the silicon resulting from mixing the two parts together.

If your prototype requires a multiple part mold be sure to coat the area where the first and second mold parts meet with silicon to silicon mold release. If you do not the two mold portions will bond and you will NOT be able to separate them from one another. With proper application of the mold release (silicon to silicon, there are other types) the two parts will easily come apart allowing the prototype or cast

Figure 5. Disassemble the mold box for Klean Klay clean up. Reassemble the mold box. Coat the top with rubber to rubber mold release and pour the second half of the mold.

element to be removed. When you are pouring the second part, exhibit care to not disturb or remove the prototype from the first half.

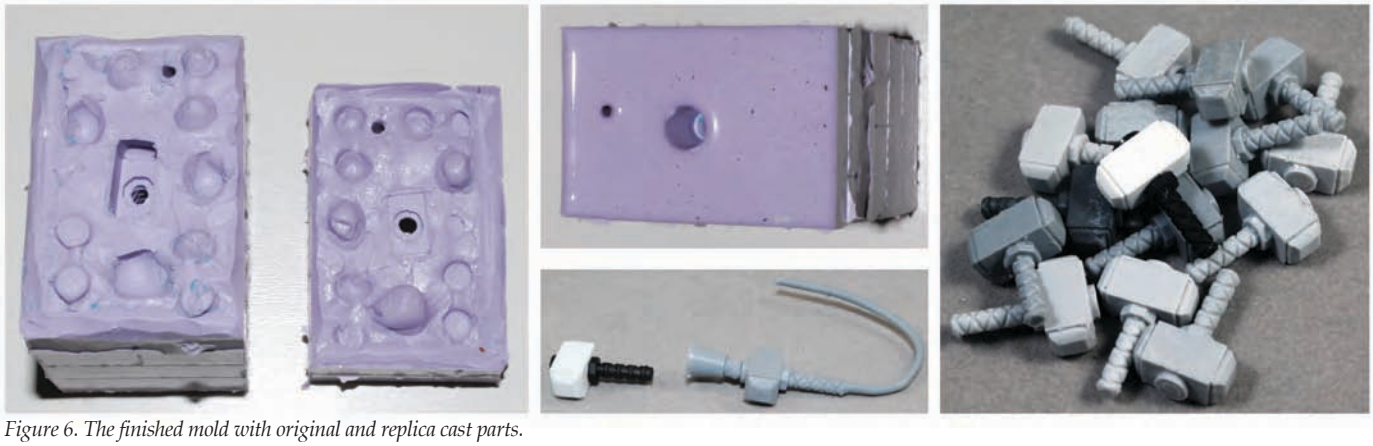


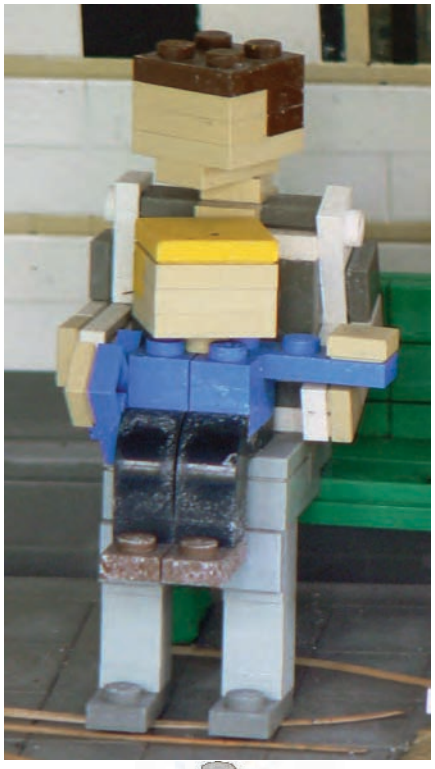
Figure 6. The finished mold with original and replica cast parts.

Following the above instructions you will be able to easily create a mold of one of your custom sculpted elements. Two part water thin plastic resins used in casting cure by an exothermic reaction (releasing heat). This heat slowly wears the mold. Be cautious not to cast too many elements at one time as you could lower the life of your mold. Let it cool between castings. To get the longest life from your mold it should be stored in a cool dry place. Happy Molding!

Next Time:
Minifig Customization 101 – Presenting Custom Figures with Digital Backgrounds – Photoshop Effect

You Can Build It: Miniland Figures

Article, photography and art by Didier Enjary



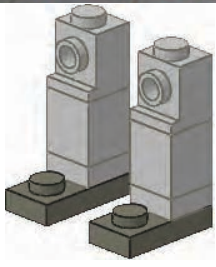
Father and Son

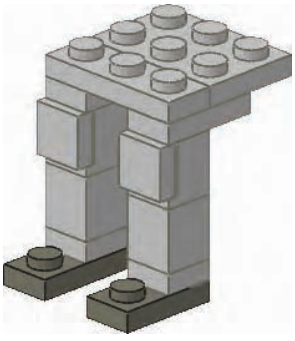
It's time now for our fourth Miniland's people design presentation. Today, we are going to check out more complex building, featuring not only one but two figures: a man and his son sitting on his knees.

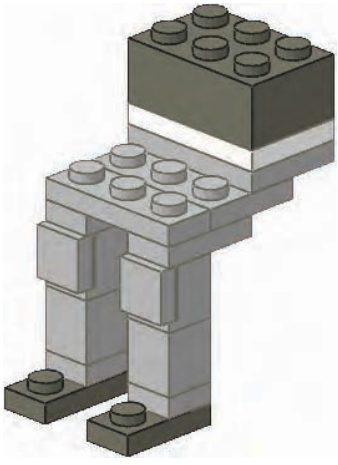
You may consider this as being two separate designs - the child and the adult. Actually, Miniland designers accentuate this by using contrasted colors and patterns. You could also consider the construction as a whole but we will see it would make things a bit trickier.

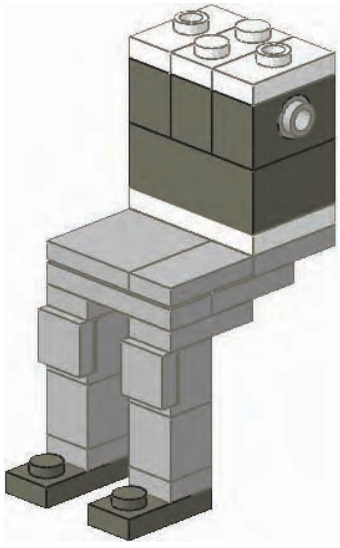
Let's start with the man. The building instructions are very close to the ones you have seen in the first *BrickJournal* issue: stacked bricks for the legs, 1x2 TECHNIC bricks with half pins for the shoulders, stacked plates for the head.

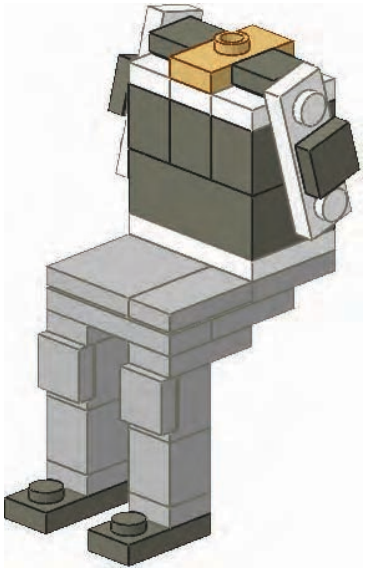
The main difference lies in the hip design, legs and body being offset thanks to the help of plates. This change makes the figure looking as it was seating on a chair or a bench.

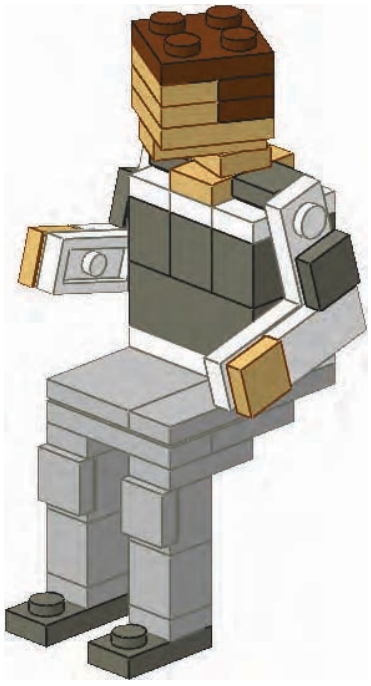


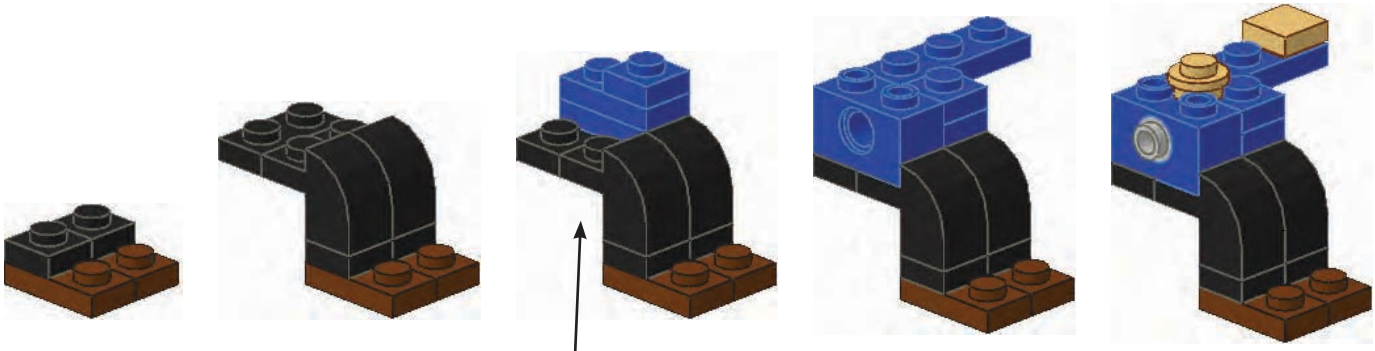










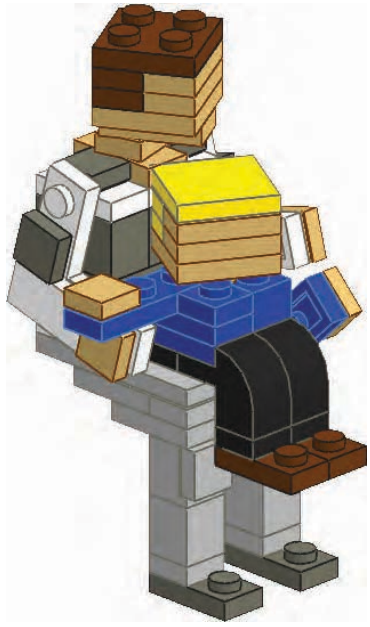


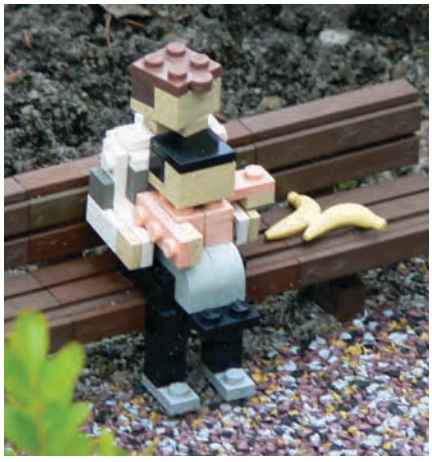
The design for the child is, of course, more compact. But designers have in their LEGO toolboxes some versatile parts to achieve their goals at small scale. The brick with curved top is, at Miniland size, a perfect knee, and the corner plate is an ideal bent arm.

Unlike his dad who is 3 studs wide, the son is 2 studs wide. We could have used the now famous jumper plates to center the kid on his father's lap, but, due to the prominent knee-caps, we should have then had a double shift. The solution is to simply put the kid up on tiles.

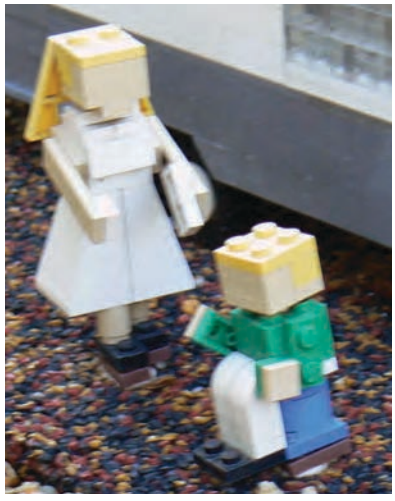
As you can see on the pictures, the kid's design can also be used alone, placed on a bench or a stool, or preparing to slide on a toboggan run. See what you can do with these figures!

See you next time!





An alternate model - see if you can spot the differences.



TECHNIC Set Review

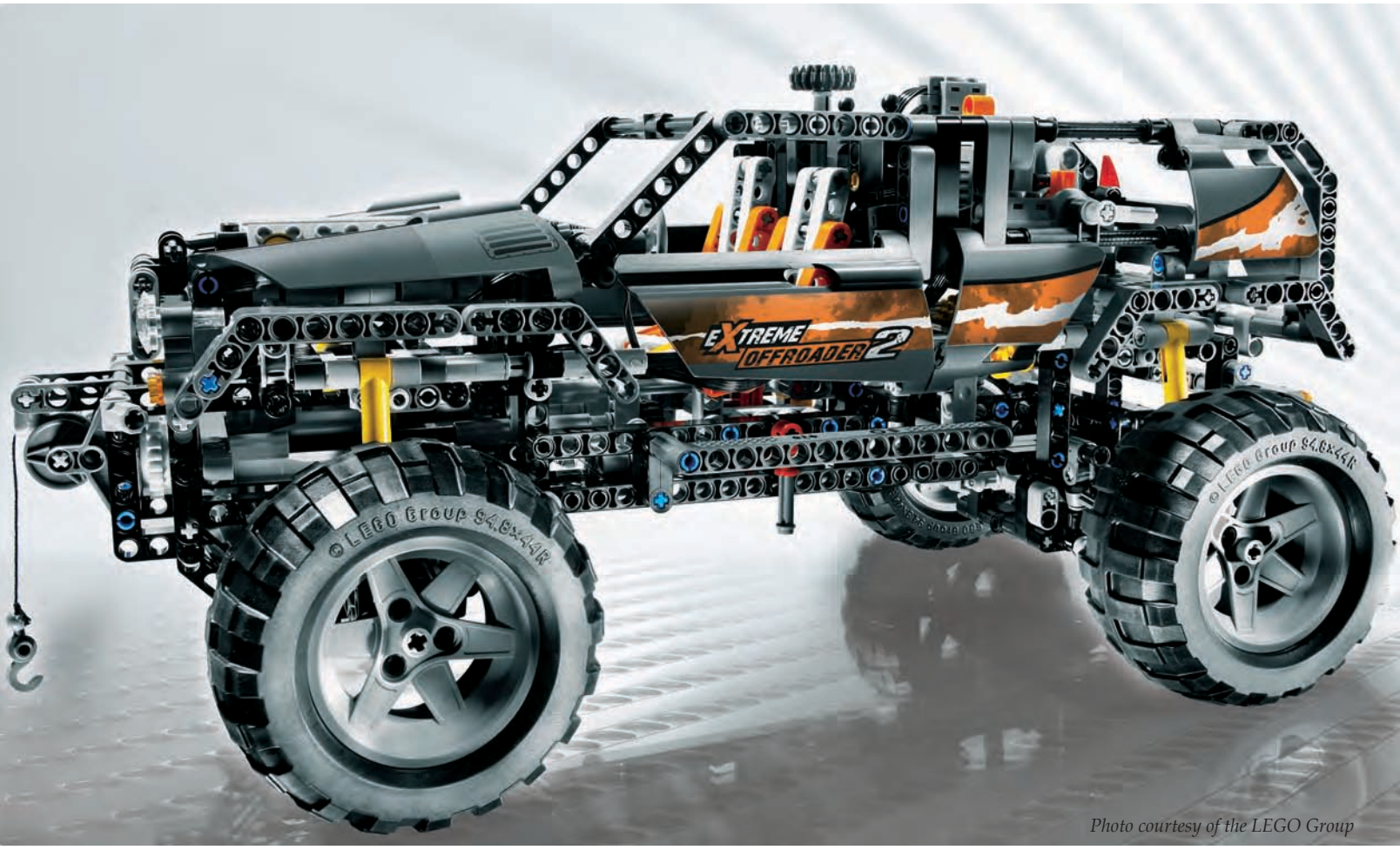


Photo courtesy of the LEGO Group

8297
Off Roader

Item #: **8297**

Released: **2008**

Piece Count: **1097**

Retail US Price: **$119.99**

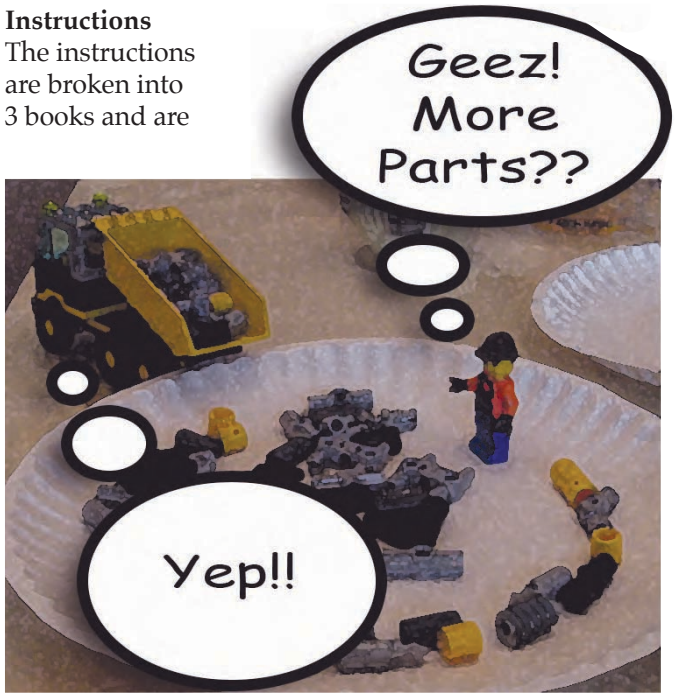
Ages: **11-16**

Article by
Geoff Gray

I recently had a chance to build and review the new LEGO TECHNIC set, 8297 "Off Roader." This set continues a long line of larger and more complex kits which include 8457 Power Puller; 8466 4x4 Off Roader; 8448 Super Street Sensation; and many more. It is a fun build and a well designed kit which not only gives you a fun model, but also teaches you some good building techniques for making your own custom sets. It comes with instructions for an alternate model. I did not build the alternate model since I liked the main model so much. The set can be purchased in several retail stores as well as Shop@Home. The retail price is $119.95 in the USA.

Instructions

The instructions are broken into 3 books and are very typical of kits of this type. One thing that instructions for these sets contain (that is not in all sets) is a list of parts for each step. This is a key part since you may be prone to miss a few pieces. If you have the pieces set aside, you'll know if you missed something since you should never have any pieces left over after each step. Another nice feature is shown on page 74 of Book 1. The diagram showing the connection of the outer knuckles to the outer axle shaft includes a callout mentioning you should push the pieces together until you hear an audible click.



While the instructions are quite clear, there is one thing that I would love to see added to instructions involving longer axle pieces. On page 6 of Book 3, there is a diagram for connecting 2 axles (length 10) to two half width lift arms. This diagram is a 1:1 scale orthographic view (overhead) that allows you to see exactly how far to slide the lift arms onto the axles. On page 51 of Book 1, there is a step which adds a 12 tooth gear to an axle (length 12) which is the typical isometric view. You can make a good guess as to the placement of the gear, but it may be off a bit. There are several items added to the axle over the next few steps and if you got the placement wrong, it could be a bit tough to slide everything to the right place. I'd love to see steps like this shown the same way as the step on page 6 of Book 3.

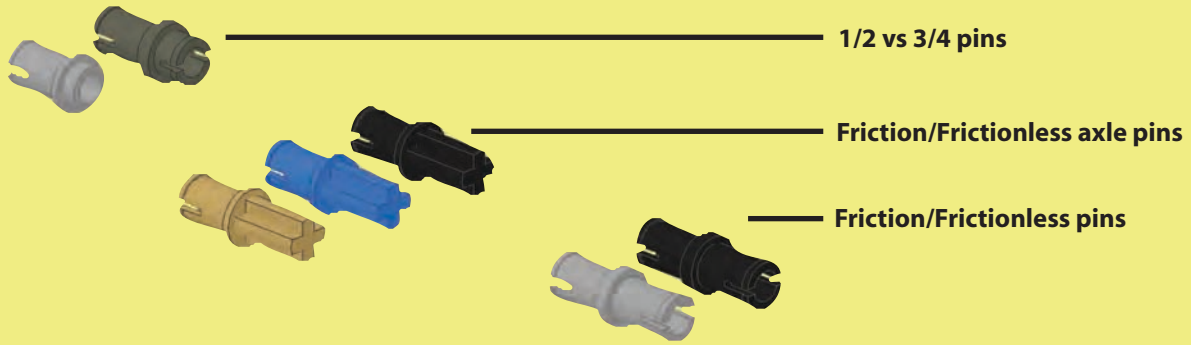
The Build

It took me about 4 hours to build the entire set. I did it in a few sessions and managed to get it right while watching TV with my wife. I tend to build by pouring each bag of elements onto a separate paper plate, which I find makes it easier to find the elements needed for each step (figure 1). I often get asked how the designers come up with the build order used, and I have to confess; I don't know. I suppose there are some standards for the order of assembly, but it always amazes me when I look at a certain step and realize that this step was made possible by a piece added 20 or 30 steps earlier. I never come up with steps this clean in my builds. This might be a cool discussion for a future article.

Figure 1 - Ready to build

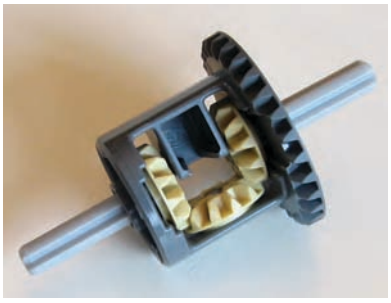
Note to new builders:
For those of you not familiar with building TECHNIC models, there are a couple of things to consider as you build this set (I learned these the hard way when I started building with TECHNIC elements. First, the color of pins makes a difference. The difference with the black and the light stone pins is the amount of friction they provide. The black pins are friction pins while the light stone pins allow for almost completely frictionless rotation. The same is true for the axle pins. The light stone and tan pins are frictionless, while the blue on has friction. Second, note the difference between the half-pin and the 3/4-pin. These are different sizes, but if you are not used to them, you could easily grab one when you need the other. Generally, if you see a smaller pin, choose the right one based off the color. Half pins come in a few colors like light stone, white, blue, etc, but the 3/4- pin only comes in medium stone. *(NOTE to the LEGO Group: Please do not change this).*

Features
This set introduces a few new elements (that are being released in a couple of different sets) to the TECHNIC line of elements. The ones I found in this set are great additions in my opinion.



There is a new TECHNIC 2L Beam that uses a pin hole and an axle hole. There has been a perpendicular axle joiner for years, but not one that is parallel.

Another really nice change is to the TECHNIC differential. The change in the newest one is minor, but it makes a big difference in assembly. The new differential contains a shim in the middle that holds the side gears in place and prevents the side axles from sticking in too far.



The kit uses the new Power Functions line of electronics, which were introduced in 2007 and offer a wide variety of features that can be used in creations. Although the Power Functions line itself has been in several kits to date, the Off Roader kit introduces two new items to this line. One is the light kit, and I can see this showing up in a lot of my future creations. I like this light better than the 1x2 light brick made famous in many of the LEGO 9V train kits since it is more compact and can be used more easily for accent lighting in town and micro layouts.

The other is a pole reversal switch which allows you to change the direction of the motor with the flip of a lever. This is an extremely useful part.

The model also contains one of the small electric motors which is used to either raise/lower the winch on the front or to change the chassis height. The kit contains elements from the TECHNIC transmission group (which has been around since the original Super Car [set # 8880] released in 1994). This ingenious set of parts allows you to shift from one set of gears to another just like a manual transmission in a real car. It uses the same principal of lock collars sliding into free spinning gears to drive different gear sets that can either drive the same output at different speeds or drive totally separate outputs. In this case, the transmission assembly switches between the drive axle for the winch and the drive train for the chassis height.

Modifications

Please note that the components I used in this modification are NOT included with this set. I used parts from other sets to make these changes.

After building the model, I felt compelled to make

some modifications. I wanted to be able to use another Power Functions feature (the IR Remote Control) to drive and steer the car. I added a small PF motor to the steering axle coming up behind the seats (figure 3) and a large PF motor assembly to the rear differential (figure 4). I connected these to the PF IR Receiver (figure 3). I then drove the

unit with a thumbstick controller made from the PF IR controller and instructions I found online for modifications. The instructions are included with this article ("TECHNIC for thought" on the following page).

While these were simple modifications and could be made a lot better as an integral part instead of an afterthought, it still shows how you can enhance these TECHNIC sets and gain even more pleasure from them.

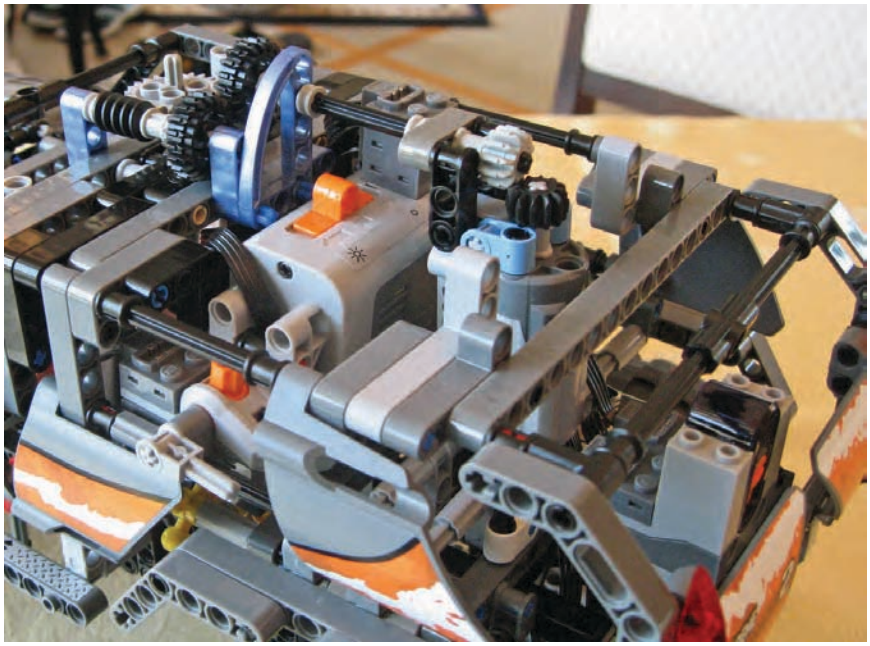


Figure 3 Steering mod and IR Receiver

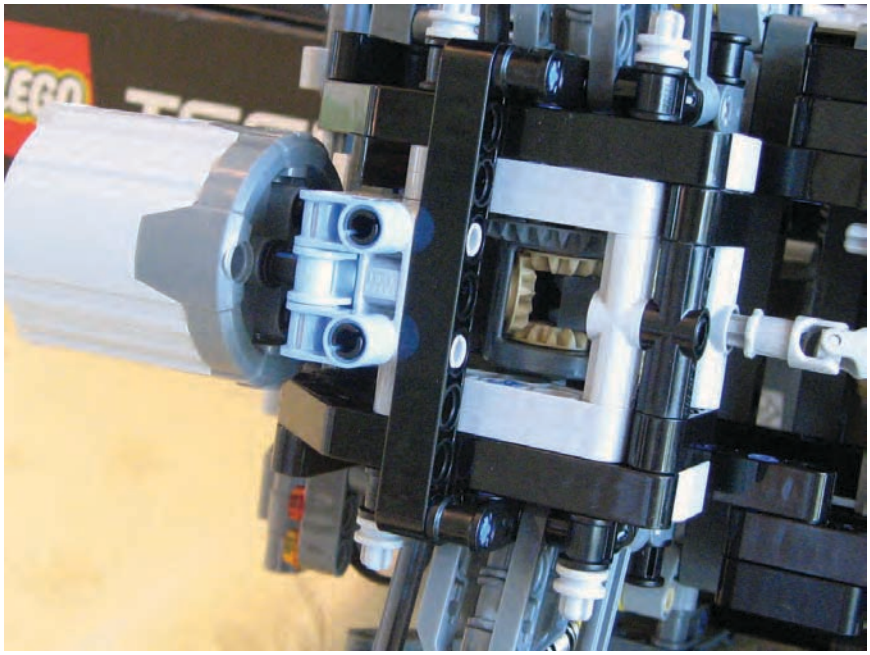
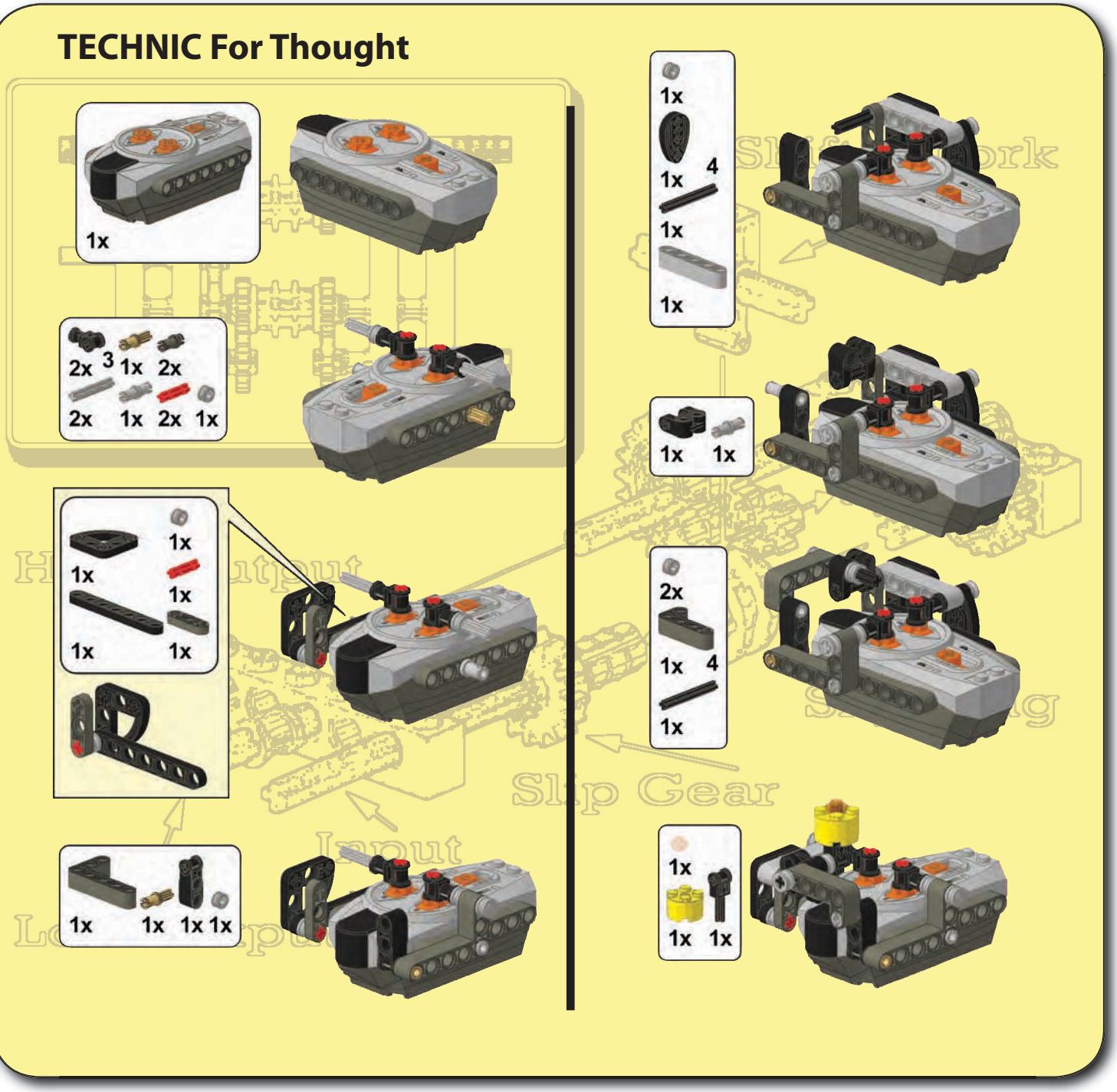


Figure 4 Drive motor assembly mod

TECHNIC Kit #8880

TECHNIC For Thought



TECHNIC Kit #8448

TECHNIC Kit #8466

Final Thoughts

As with most of the TECHNIC sets I have built, I really enjoyed this set. The build, the final product, the knowledge learned during the build and the amazement of what can be accomplished with a plastic construction kit met all of my expectations for a larger kit. I remember building set 8466 [4x4 Off Roader] when it first came out, and since it is no longer available, I am glad to see a similar set released so the next generation of builders can experience the same type of set. At the same time, those of you who do own 8466 will still enjoy this set as there are enough differences to make it unique.

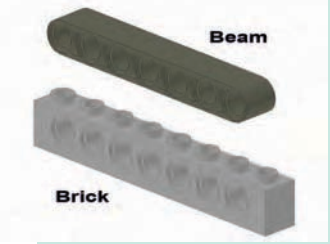
My completed model of the TECHNIC Kit #8297

TECHNIC Kit #8850

TECHNIC Kit #8421

A Brief History of the TECHNIC line

The first TECHNIC elements were introduced in 1977 as the EXPERT BUILDER series. In 1984 the line was renamed to TECHNIC. In 2000, the line shifted from the standard TECHNIC Brick to primarily using TECHNIC Beams. This mode of building took a little bit of getting used to for those of us who were accustomed to the "studded" brick method (for instance, beams are an odd number of studs in length while bricks are even stud lengths), but it opened up a whole new series of construction techniques and also allowed for more sleek and realistic designs (demonstrated in the comparison of sets 8880 and 8448). TECHNIC elements also started finding their way into other LEGO sets (town, castle, space, etc) and also found themselves getting more advanced with the introduction of motors, complex and bevel gears, pneumatics, transmission and differential elements, etc. The kits started introducing real world concepts to children, like the transmission and differential in 8880 to the wishbone suspension in 8458 Silver Champion. Sets like 956 Auto Chassis (released in 1977) illustrated the concept of rack and pinion steering. In 2005, the set 8421 Mobile Crane was released and demonstrated the concept of cable driven telescoping booms for cranes. The concept of a crankshaft internal combustion drive train was first introduced in 1990 with the set 8850 Rally Support Truck.



Not only has the official TECHNIC line of sets introduced a number of cool concepts, but the LEGO community has seen its share of outrageously cool and complex designs, from the very large (http://www.philohome.com/bridge/bridge.htm) to the very small, like the precession drive featured in *BrickJournal* Volume 2 Issue 2.

TECHNIC Kit #0956

A Look at the Medieval Town

Review by Joe Meno
Photography by the LEGO Group and Joe Meno

Medieval Town
#10193
1601 pieces
$99.99 USD

The Medieval Town set (set# 10193) was announced at Brickcon and overseas at the same time, and after seeing the set on display, fans are anxiously awaiting its release. It's looks great on display, but how does it build?? *BrickJournal* received a copy of the set for review and paid a visit to the Medieval Town.

From the box, the set looks very appealing. With the age group being 12+, expect some complex building. There's a lot of parts, and when the box is opened, a lot of bags! 17 bags make up the entire set, along with two books and a small sticker sheet. And be ready to have a large space to build, because most of the bags are opened in the beginning steps. It was a little annoying to not have numbered bags like some other large models, but having everything opened and sorted on a table made building faster.

A nice variety of minifigures are in the set –seven figures, including two girls! There's also two soldiers and a boy, who has the short molded legs (stubbies). The printing on the figures are nicely detailed – the women have decorated dresses and the soldiers have uniforms The other citizens have their own details printed too, such as money bags and rope belts. The same printed torso is used three times, but thanks to the different head and legs, the similarities aren't easily noticed.

There's also some new animals – there are two cows! Reddish brown and with hecks that can move up and down, they also have new horns, that are inserted in the head. There's also new fish that can be held by minifigures. The cutest animals by far, though, are the built birds. A hen, a rooster, and a duck are part of the scene with designs that are based on the penguins in the Batman sets. And one sorta - animal that has not been seen in a very long time returns in this set – the cooked turkey!

All of these minifigures, animals, and small models are built in the first steps – basically the props are being built for the set before hand. By the time the builder is done with the introductory steps, there's enough for the minifigures to adventure on their own, with a horse-drawn cart and a street market. The soldiers have a small armory and are ready to patrol, and there is a meal waiting to be eaten.

The largest model built in these steps is a built tree. Using slopes, arches and leaf elements, a nice organic-looking tree was created – the best touch to this model are the flowers that are added to bloom the tree.

However, this only is part of the set – the buildings have yet to be built. And they are great examples of form and function.

Both buildings are two floors high, with Tudor styling on the upper floor. The first building in the instructions has a stable and blacksmith on the bottom. The stable has two stalls with opening gates, but it's the blacksmith's shop that is clever! On the outer side of the shop is a water mill that has an axle that runs through the wall to a propeller inside the shop. While this sounds odd, the prop, when turned, pushes up and drops a hammer on a sword on an anvil – it pushes up and self-releases, which is a really nice touch! The stable has room for two horses.

The upper floors to the smith's shop and stable are pretty open, as some of the props built beforehand are furnishings. One of the rooms has a stove with opening door, and both have portraits hanging on the walls. Constructing this building was interesting because of the some of the techniques that were used in the design. The biggest challenge in building in the Tudor style is that each color is a different element, so framing

structures have to be made to stabilize the walls. The end result is a building that opens and closes to reveal the interior.

The same building technique is used on the second building, which is a bar on the ground floor and a bedroom and dressing room. I say dressing room because the smaller room has a vanity and a dresser on the wall. Accessories for the room include a perfume bottle and brush. The bedroom has a fireplace and a made bed, which are both built and look great!

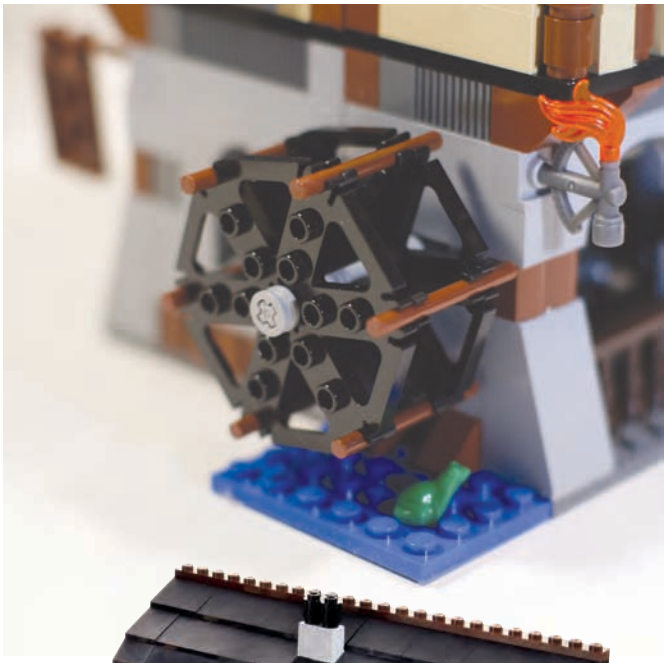
The lower floor has a bar with counter (and goblets) and a place for a keg – which was built earlier. This is another fine detail that might be passed younger builders, but definitely will be noticed by the adult LEGO Fan. This building also opens and closes to show the interior, like the first one.

There's not much to say against the set. The tan 1 by 4 arch is tough to place on an arched window, so it takes some effort to fit them together. Also, even with the support framing the buildings, closing them is difficult initially as the pin used to keep the sides together doesn't snap easily. These are minor complaints to the set, though.

Altogether, this set is a great example of playability and design and is highly recommended. The level of detail and accessories make this a set for all castle fans, and an excellent starting point for beginners! For more experienced builders, this is a great set to learn some tricks about building color into buildings and also building in functionality. For those wanting to add to their castle layouts, there is another aspect of the set that is appealing: the building facades close to small portable buildings.

The good: The set has seven minifigures, including two girls! There are new parts and animals, and a nice selection of parts. Good price point.

The bad: A couple of parts are difficult to put together. Closing the buildings isn't as easy as it appears.



Touring the LEGO Idea House

Article by Jette Orduna
Photography by Joe Meno

Ole Kirk Kristiansen's motto, "Only the best is good enough," is on a wood sign that was in the old LEGO wood factory.

The LEGO Idea House

A few months back, Jesus Diaz, a journalist at gizmodo.com, visited the LEGO Idea House and his report was an emotional description of what often happens when people visit the LEGO Idea House.

"It really only takes a reminder – the little image, story, piece of video, whatever it is – to send people back to the thing that makes LEGO unique to every child who plays with it: the hardwire connectivity it has to the heart and emotions. LEGO is the raw material that represents every carefree hope and dream of every child."

Some of the feedback from the article was: "It makes me remember a simpler, happier time". "It takes me back to my youth". "It makes me teary". "I had forgotten about LEGO and didn't care anymore until I read your post".

The LEGO Idea

For the LEGO Group, however, the primary target group of the Idea House is their employees. They must know the very special LEGO culture, its unique story, and that, in combination with a strong brand (the brick) that the LEGO Group has long been a value-driven company, even before it became fashionable.

"Our idea has been to create a toy that prepares the child for life – appealing to its imagination and developing the creative urge and joy of creation that are the driving force in every human being" — Godtfred Kirk Christiansen, 1955

The story of the LEGO Idea House goes back to the late '80s, where Godtfred Kirk Christiansen (GKC) saw a need for a place to tell the story of the LEGO past, present and future, the product concept and philosophy, and LEGO attitudes and values. He and his son Kjeld Kirk Kristiansen made sure that an Idea House was integrated into LEGO Center, a building that now belongs to the Hotel LEGOLAND.

Because of the sale of LEGOLAND Billund to Merlin Entertainments in 2004 the LEGO Idea House became homeless, but as it happened not for long!

Kjeld and the LEGO Foundation offered a new home for the LEGO Idea House and what a perfect place; the home of the LEGO Idea and the home of the LEGO founder Ole Kirk Kristiansen.

That turned out to be a challenge. We had to create a new, exciting and relevant LEGO Idea House in buildings where the story actually took place, in buildings that for many years had been LEGO Group offices, but also in buildings that were built for a very different purpose. We had to create a unique universe that would inspire our LEGO employees and guests to understand the LEGO idea and culture.

In January 2005, the LEGO Idea House moved into three connected buildings. Ole Kirk's House on Hovedgaden (Main Street). The house dates from 1924, and was the family's home and office during the early years of the LEGO Group. The wooden-toy factory was built in 1942 after a fire, and wooden toys were made here until

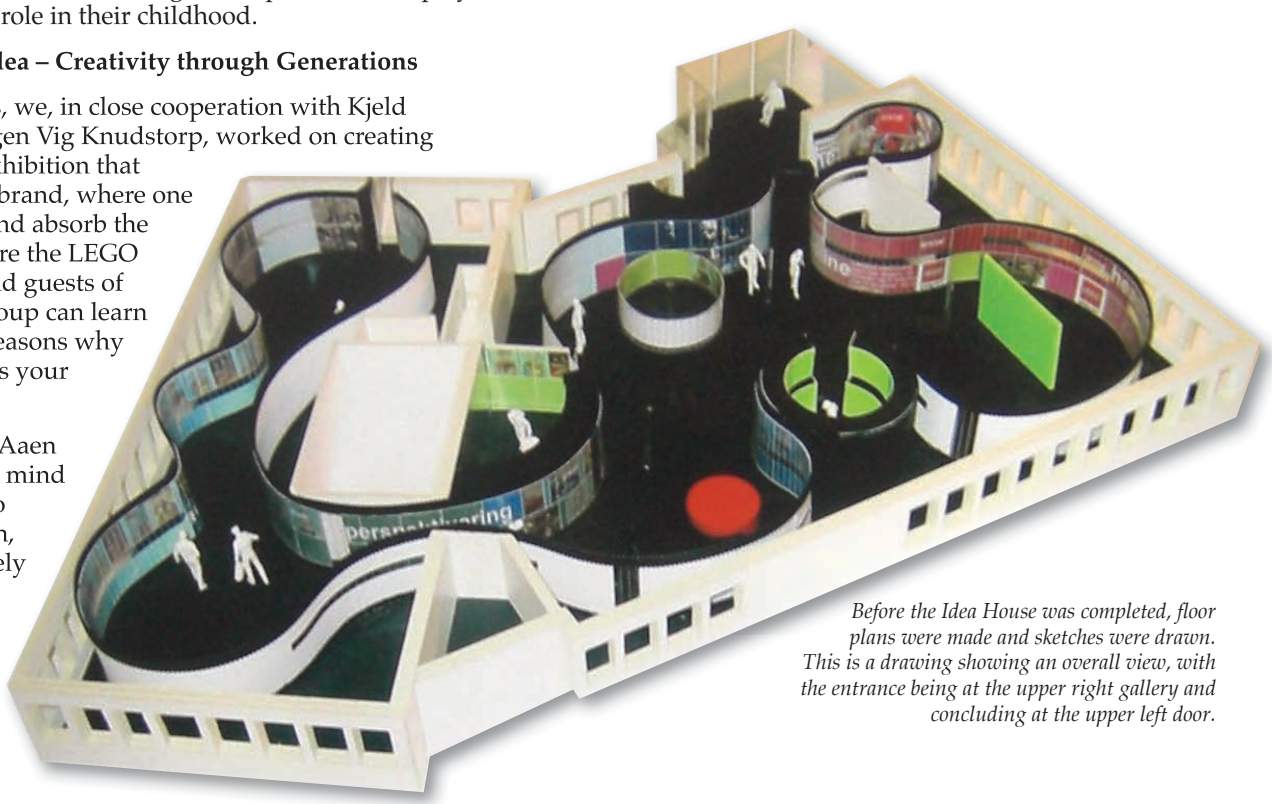
production of LEGO wooden toys was discontinued in 1960. System House was built in 1958 and extended towards Hovedgaden in 1963. The building was a meeting point "for sales of the LEGO System in all countries – the place where LEGO employees come for inspiration and guidance, where ideas are collected and coordinated." (GKC 1959).

Today, the complex is home to an exhibition of the LEGO idea, values, product, and corporate history and also houses product portfolio exhibitions, meeting rooms and a (by now) pretty famous vault called *Memory Lane*. *Memory Lane*, at first glimpse, looks like a plain archive containing LEGO products from 1958 till tomorrow, but here you often find fans reliving their childhood and happy memories when seeing all the products that played an important role in their childhood.

The entrance to the Idea House.

The LEGO Idea – Creativity through Generations

For two years, we, in close cooperation with Kjeld and CEO Jørgen Vig Knudstorp, worked on creating a historical exhibition that matched our brand, where one can explore and absorb the past and where the LEGO employees and guests of the LEGO Group can learn some of the reasons why "LEGO makes your heart smile."


Before the Idea House was completed, floor plans were made and sketches were drawn. This is a drawing showing an overall view, with the entrance being at the upper right gallery and concluding at the upper left door.

Curator Inge Aaen really put her mind and heart into this exhibition, working closely with first, Danish architects Smith, Hammer & Lassen, who outlined the concept and second, Kvorning Design & Kommunikation, who transformed the concept into reality.

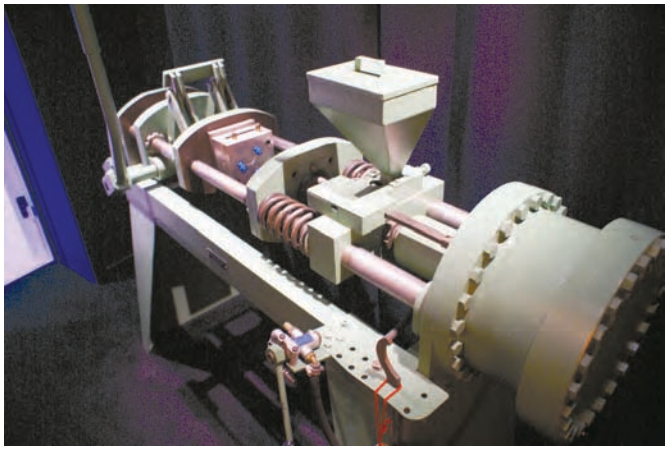
Using Søren Kirkegaards philosophy: *Life can only be understood backwards but it must be lived forward,* we created an exhibition where you move backwards in time starting with where the LEGO Group is now.

The historical exhibition, *The LEGO Idea - creativity for generations*, is divided into three sections, each representing one generation of owners and his contribution to the dynamic continuity and showing how they build on each others' foundation. It starts with Kjeld and how he has expanded the LEGO brand, then continues on to GKC and his focus on the unique product idea and its inherent possibilities, and finishes by walking into Ole Kirks House, experiencing Ole Kirk's main drive; the perfection of quality craftsmanship.

Ole Kirk Kristiansen's home.

Right: One of the many wooden toys produced by Ole Kirk Kristiansen's wood factory.

Below: A panorama of one of the rooms in the Idea House, showing the open displays, sculptures and graphics that show the history of the LEGO Group.



Top: One of Ole Kirk's wood toys.

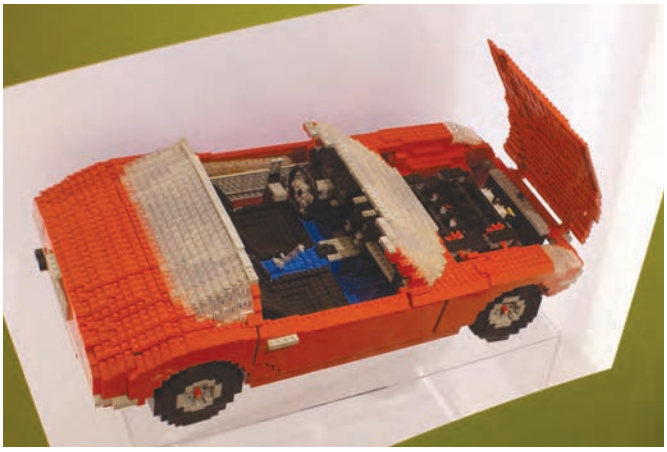
Above: A selection of the plastic cars that were produced by the company as they began selling LEGO bricks.

Top: A shadow box of photos and film shows the early history of the Kristiansen wood factory.

Above and right: One of the first injection molders purchased for the company, with molds of teddy bears in place.

The historical exhibition ends when Ole Kirk's life in the '30s took a dramatic change. 1932 would prove to be a testing period, combining general economic depression, unemployment, impending bankruptcy and deep personal loss. Ole Kirk was forced to find another mode of income and chose the wooden toy business using the motto "Only the best is good enough".

Page: Some of the sets and models that can be seen at the Idea House. The car model was designed by Kjeld Kirk Kristiansen, now the owner of the LEGO Group.



The driving force behind Ole Kirk's work was primarily to run his company in accordance with Christian faith. Values such as integrity, humility, care, humor and respect for the individual shone through when employees described their time at the factory.

The main focus in the exhibition is the product and shows how it has evolved from 1932 till now – an evolution that can be traced from the time Ole Kirk named the company LEGO, from the Danish words LEg GOdt (play well), until now where the company objective still is to inspire and develop children through good play.

The LEGO Idea House is now an active culture house for LEGO employees and guests of the LEGO Group. Because of its role as an ongoing archive of the company, the Idea House is not open to the public.

Jette Orduna is the Head of the LEGO Idea and Values Centre and will be writing more about LEGO's history in upcoming issues of BrickJournal.

Event Report:
0937 em Viana

Comunidade 0937's First Club Meeting!

Article by Luís Baixinho
Photography
by members of Comunidade 0937

On the 5, 6 and 7th of September, Comunidade 0937 (the Portuguese LEGO Users Group) gathered in Viana do Castelo to meet in a new format for the group, a Club Meeting. The event included a small exhibition hall, several activities for the members and the distinction of being held in a Youth Hostel where the members stayed overnight. It was also the first time a LEGO® employee dedicated to the AFOL communities attended an event in Portugal.

The exhibition was open to the public during Saturday and Sunday afternoon, receiving about 1000 visitors. Sunday afternoon registered the biggest attendance due in part to an article in a national newspaper.

The exhibition had a city display with about 7 square meters full of everyday scenes besides the traditional electric trains, a western diorama including Indians and cowboys and also a richly detailed medieval scene, garnering great attention from visitors. It also had a "gadget" dedicated area with an assembly of a Great Ball Contraption (GBC) composed of 9 modules from various members of the Community, Technic and Model Team groups.

There was also an area dedicated to the 50th anniversary of the LEGO brick prepared by Comunidade 0937.

The most popular attractions were Romão's Cathedral, the medieval display (with works from Tânia Baixinho, José Proença - ztp, Luís Santos - Lumiosa and Ivan Pacheco - Bacvs), Pedro Agnelo's Demag crane and GBC with modules from Aníbal Pinto (Nine), Luís Baixinho, Rui Almeida and Pedro Agnelo.

Making its first European public appearance, the 10189 Taj Mahal LEGO model also received a lot of attention from visitors.

The Community saw a lot of growth in the Medieval and City displays when compared to the version shown in Tomar, only three months before. The group is in development, and planning community displays is going very well. GBC's première, although relatively small comparing to those in other international events, revealed lots of imagination and has inspired other members to join in.

The main activities of the event were reserved for the members of the Community. On Friday after dinner, Luís Baixinho presented 10189 Taj Mahal, also making a small review. This presentation marked this set's European début. On Saturday before dinner, two presentations and reviews of the 8297 Off Roader II by Pedro Agnelo and 4993 Cool Convertible by Ricardo Prates (Biczzz) took place. Another great moment was the auction on Saturday morning, with help from Jan Beyer and his department and LEGO Iberia, and conducted by Tânia Baixinho and Marisa Silva. The success was huge, with only a few members not bidding at least once.

During Saturday afternoon was the first Trial 0937 Challenge, with four participants at start, and the winner being Pedro Agnelo with its impressive eight wheel Tatra. Right after there was one of the event's funniest moments, the Water Quest! Taking advantage of Rio

Lima's proximity, the good weather and LEGO water guns (851877 Barraki Pump Action Water Gun and 851955 Aqua Raider Water Blaster) more than a dozen AFOLs took part in a authentic water war. After half an hour all were wet, tired and completely exhilarated from so much fun! During Sunday afternoon, two speed building challenges took place, the first with two teams of three building 10190 Market Street in the fastest time. Romão, José Carlos Carvalho and Bruno Silva defeated Pedro Silva (El Gordo), Alex and André Teixeira´s (Dedezani) team by mere seconds. The second speed building contest consisted of building a 8148 EZ-Roadster inside its bag. 7 AFOLs participated and the winner was Luís Baixinho.

There was still time for a small meeting between Tânia Baixinho (Community's LEGO Ambassador), Jan Beyer (Community, Education, and Direct, LEGO) and Paulo Alcobia (representing Tomar City Hall) in order to begin the preparations for the 2nd TomarLEGO. The first event had unprecedented attendance and the expectations for the second event are high. The plans are taking shape and are heading for a great LEGO event!

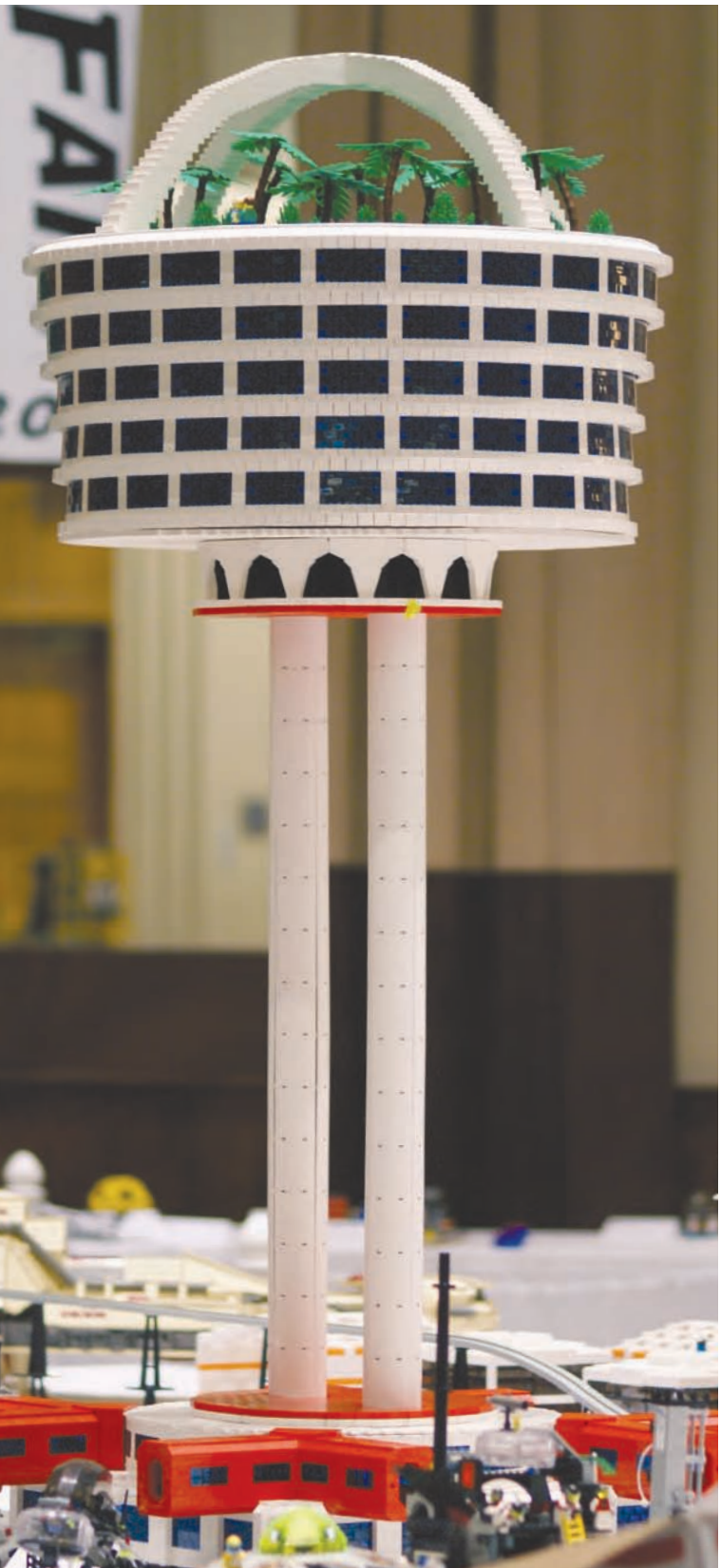
Besides all LEGO related activities, there was also time and place for recreation, and many members took time out with their families.

During the night, the diehards had the chance to know the nightlife of this Portuguese city. The place to be was always the same terrace near the river, where fun was guaranteed until 4 a.m.

By late Sunday, the fun of the event was showing on all the faces of the members that were present. It was a very full three-day period with lots of fun. In that respect, the event was successful and the biggest in headcount thus far, with the presence of about 30 AFOLs.

Event Report:
BrickFair 2008
Beginning a New Tradition

Article by Joe Evangelista
Photography by Joe Meno



What do you get when you cross large amounts of LEGO, twisting lines more than 500 people long, large budgets, and a small stampede? No, it's not the newest daycare center; it's BrickFair, a new LEGO convention that made its debut this past August. East Coast LEGO fans rejoiced and basked in the comfort of the Tysons Corner Sheraton Hotel from August 28th – 31st. The event was the brainchild of a newcomer to the adult LEGO fan scene, Todd Webb, who saw a need for an event on the East Coast of the United States. After attending another convention and becoming active in WAMALUG (a LEGO Users Group based out of the Washington, D.C. area) he gathered a group of people together who shared his vision.

BrickJournal has covered many conventions, and after doing so many, it's understandable if parts of the events ((LEGO, fans, roundtable discussions, lots of building, good times with friends, etc.) start blurring together. That being said, I would like to present a list of things that stood out on about BrickFair.

• **Hanging around the convention late Sunday night having a drink with 40 of your closest friends.** While it sounds silly, there's definitely an advantage to having an event at a hotel. Yes, you guessed it; drinks are on the house… or, *in* the house as the case may be. While most people might be thinking of leaving town, as the room started to empty of LEGO a small crowd started to build in the far corner – fans determined to live every minute of the convention to its fullest. Jokes, laughter, card tricks (we had a magician on hand!), and good friends (some new, some old). This is one of those rare moments that you can't plan, can't anticipate, and can't do anything but hold on and enjoy the ride when it comes along.

• **I24, B8… BINGO!** If someone ever tells you that Bingo is a dead game, being mainly kept alive by churchgoers and folks who lived through the '40s and '50s, then they obviously haven't been to BrickFair. When the clock rang 4pm the majority of the attendees could be seen rushing

(LEGO Bingo boards in hand) into the main ballroom – tackling chairs and overwhelming those running the event – in an attempt to win free prizes. It's amazing what some people will do for free LEGO.

• **4 hours of BrickFilms each day in the theater downstairs, showing to standing room only crowds.** Sometimes nothing is better than sitting around and being able to relax at a convention. BrickFair certainly delivered by providing a theater in the basement of the hotel with LEGO stop-motion animation films being

played throughout the public hours. This was perhaps the most fun for me since I was running the films and talking with numerous public visitors who had taken quite an interest. So much so in fact that there were kids and adults sitting in the aisle, sitting in front of the screen (just like kids up close in front of the television set at home), and standing along any small piece of wall they could find! While some of the films featured a more mature nature than most were anticipating, the showing of *Star Wars: The Great Disturbance* gave everyone a warm and fuzzy feeling inside. BrickFair is already promising more films next year with an expanded schedule, with an exclusive viewing for convention attendees.

• **600 people standing in line outside the hotel waiting to see LEGO displays.** This stands out simply because of the incredible underestimation by *everyone* as to how popular the event would be. While the last LEGO event run at the same location was two years ago, it was hard to gauge how well a similar event would do after such a long absence. Apparently, though, that didn't seem to matter, as both days were full of people so hungry for LEGO you'd think there was free LEGO being given away! Actually, the "Free Build" for the kids had many parents confused, as did the directions for how to navigate and walk through the event. A number of adult fans attending the event volunteered to steer pedestrian traffic in a preset direction, but there's only so much that one can do against a stampede. By the end of the event, though many were a little tired, everyone was still fine and the public had a great

time. The hotel even ran out of beverages and sandwiches that they were selling at a small improvised lunch stand. It should thus come as no surprise that they're eager to have BrickFair return!

• **Raising money for charity.** One of the more recent things to become common is for conventions to raise money towards a charity. BrickFair wasted no time in making this a priority in their approach to the weekend. Through public visitors, a silent auction and charity pin sales BrickFair was able to raise $8,717 for SladeChild Foundation. The foundation was on hand during Saturday's ceremonies to say a few words and thank everyone for their donations. They also held a roundtable discussion to talk about their charity and answer questions from attendees. The best part about this particular charity is that every dollar that is donated to the group is sent to those in need, nothing is kept by those running it.

No matter how much planning goes into an event, no matter how much LEGO there is on site, no matter how many fans there are; there is no way to determine whether or not an event will be successful. That BrickFair was able to deliver on what most fans were hungry for is a good sign that the event be around for a while to come. By the end of the weekend the reaction from adult fans was clear – *we want more!* Todd Webb wasted no time at all — the website for the 2009 event, being held in the same place as 2008, is already up and running. Volunteers too are eager to return and make the second BrickFair even better than the first. If you're going to be anywhere in late August next year and have some fun with some LEGO fans, you better be at the newest LEGO convention – BrickFair!

Star Trek® and Battlestar Galactica® Minimates

There's More to Space Than Star Wars!

It's time for another edition of "Not Quite LEGO" —the column that takes a look at some of the other toys out there that are "not quite LEGO." No, we're not talking about Mega Bloks, but rather about other toys that are sometimes similar to LEGO, or may be of interest to LEGO fans in general!

Article and photography by Greg Hyland

Fans of LEGO's licensed lines are always debating about what licenses might, or should, be picked up next. At first, when we had just *Star Wars* and *Harry Potter*, it looked like LEGO only sought out top-line licenses. Lines like *Batman, Indiana Jones* and *SpongeBob Squarepants* show that to still be true, but other lines like *Avatar, Speed Racer* and *Galidor* also show that maybe sometimes "*anything goes!*"

Two potential licenses that are often talked about are *Star Trek* and *Battlestar Galactica*. Now, I would find it extremely unlikely that LEGO would ever pick up these licenses, as these shows are primarily aimed at an adult audience. However, Art Asylum's line of MiniMate block figures offer LEGO fans the next best thing; lines of both *Star Trek* and *Battlestar Galactica* MiniMates!

Star Trek

Star Trek was one of the first licenses that Art Asylum acquired for their MiniMates line in 2002. This original line, which used larger 3-inch bodies, consisted of Kirk, Spock, McCoy, Khan, the Gorn and (my personal favorite) the Mugatu. While a second line was announced and previewed, they were cancelled, and it looked like no more *Star Trek*.

However, in 2007, the MiniMates *Star Trek* line was revived, using the now standard 2-inch figure, as seen in the various Marvel and DC lines. This time the figures came in two-packs and each line had a (dreaded) chase-figure. So far the line seems to be focusing on the original Star Trek series, but it had been revealed that this line will start mixing in figures from the *Star Trek* movies (such as Decker and Ilia), *Star Trek: The Next Generation* (Picard and a Borg) and *Star Trek: Deep Space Nine* (Sisko and Gul Dukat). Also, a *"Mirror, Mirror"* boxed set, featuring the "alternate dimension" versions of Kirk, Spock, Uhura, Sulu and Marlena Moreau, as seen in the popular *"Mirror, Mirror"* episode, has recently come out.

The first line, which came out in summer 2007, consisted of the expected original series characters, like Kirk, Spock, McCoy and Scotty, but also included Captain Pike (the original Captain of the Enterprise) and Vina (the green dancing girl seen the original Star Trek pilot). The second line, released later in 2007, rounds out the "Bridge Crew" with Uhura, Sulu and Checkov.

These figures come with some nice accessories, such as phasers, communicators and tricorders. The tricorder design is interesting as the shoulder strap is removable, allowing the figures to either hold the tricorder in their hands, or wear it with the strap, as often seen on the show. Other accessories include the phaser rifle, which comes with Captain Kirk, and an older type phaser pistol, which comes with Captain Pike. The Spock figures also come with an interchangeable "Live Long and Prosper" hand.

These figures also have, what MiniMates collectors call, "C3 feet." This means that there are holes in the bottoms of the feet, which allowed figures to attach to the studs of a C3 brick, which (as I think we all know) is exactly the same size as a LEGO stud. I'm surprised that I don't see more people incorporating MiniMates figures into LEGO dioramas. I'd love to see a LEGO *Enterprise* bridge set populated with the MiniMates bridge crew! (In fact, if you have done this, send us the pictures and we'll run them in a








future NQL article! Send photos to admin@brickjournal.com.)

Battlestar Galactica

In 2005, Art Asylum announced that it had acquired the licenses for both the classic and modern *Battlestar Galactica* series. Concept art was shown of the various figures, and included plans for Vipers and Cylon Raider vehicles. The interesting thing about these vehicles were that you had to put them together. While these sets did seem to involve C3-type (LEGO knock-off) bricks, the designers seem to have learned from the disastrous C3 *Batman* line. The completed model would not have a typical block-toy look (with studs showing), but the outsides of the ships would have a finished molded look. I thought this was a great idea, and I couldn't wait for these sets to some out.

However, they never did. It seemed that plans for this line were scrapped. Until 2007, when double figure sets started coming out.

There have been four modern Galactica lines to come out, plus an exclusive two-pack and a box set with characters from the "Razor" movie. There have also been boxed sets containing nothing but Cylons, because who doesn't love Cylons? Original series fans can get two different boxed sets of figures, one Colonial "good guy" set and one Cylon "bad guy" set .

The first series of modern Galactica figures came out in early 2007, and consisted of Lieutenant Dualla, Captain Apollo, Admiral Cain, Lieutenant Starbuck, Six and a Cylon Centurion. The second series, which premiered at the 2007 San Diego Comic-Con, had Admiral Adama, Colonel Tigh, the Cylon Cannon Centurion, Lieutenant Boomer, Vice President Baltar and Caprica Six. The third series had Commander Lee Adama, CAG Kara Thrace, Number Three D'Anna Biers, Number Eight Sharon Valerii, Lieutenant Helo and Deck Chief Galen Tyrol. And the most recent, and seemingly final series, had President Roslin, Tom Zarek, Lieutenant Gaeta, Specialist Cally Tyrol, Doctor Baltar and Doc Cattle. The Razor boxed set contains Kendra Shaw, Gina Inviere, a younger William "Husker" Adama (from the movies flashback sequences) and two very nifty flashback Cylons, which more closely resemble "classic" Cylons.

One of the design elements on these figures, which comes off as both good and bad, is that several figures have a sort of "vest" piece on their torsos. On the various superhero lines, this sort of thing is called the "power house chest," making characters like the Hulk look more muscley. On figures like Apollo or Starbuck, it's used as a flak jacket, which looks good on the figure. However, on characters like Adama or Tigh, it's used as their uniform jacket, which makes the characters just look bulky.

Another hit and miss part of this line are the extra accessories that come with the figures. The "soldier" characters, like Apollo, Starbuck, Boomer and Helo come with guns (and a nice leg holster) and Viper helmets, which all look great. However, many of the other characters come with some pretty weak accessories, like books and framed pictures. *Framed pictures?* How fun! Also, the microscopic pictures on these frames are actual photos of real people and things from the show not "MiniMate-ized" versions of things that these pictures could be of. These are just lazy accessories! However some of the funnier accessories come with Colonel Tigh and CAG Kara Thrace. Tigh comes with booze! A bottle *and* a flask! That's one thirsty toy. Kara comes with a unique MiniMate hand holding a cigar.

All in all, these are pretty good figures, if you're a fan of the show. I don't think they would have much appeal to anyone else. They'll look nice standing on your shelf, but I don't think you'll be playing with them too much.

If you are interested in picking up any of these figures, either *Star Trek* or *Battlestar Galactica*, check your local comic store or specialty toy store. The two-packs should be between $6-$10 USD, however seeing that each wave in both lines came with a chase figure, expect to see those with a higher jacked up price. There are also several on-line retailers that carry MiniMates and, of course, there's eBay. The original 3-inch *Star Trek line* can still be found on eBay for reasonable prices.

You can get a checklist of the Star Trek *and* Battlestar Galactica *minimates at the BrickJournal website.*

Last Word

Wow, did it get cramped in here or what?

One of the first things that happened when *BrickJournal* went to print was the page limitation. 80 pages. That's it. And I lost pages to ads and the contents page, so the number of pages I have to play with is even smaller.

What this really means is that I have to choose what makes it in each issue. I no longer can put everything in like I used to when I was only online. There has been articles pushed since we went to print, and sometimes it's frustrating.

The good thing is that the backlog is becoming a library of material for the next issue. The pushed stories also get to have a little more attention, too.

There's also another good part to this, but I will let y'all figure it out.

There's some events that didn't get to this issue, but will be in next, but there's a note I do have to pass on. This year has been the anniversary to many things in LEGO, but one has passed without too many people knowing.

Tormod Askildsen celebrated his 25th anniversary with the LEGO Group this year. He's had a long career, and his history could easily take up a book of its own. But the most important thing is how much he has contributed to the community.

If it weren't for him, there would not have been a FIRST LEGO League. LEGO's involvement with conventions and fan events has a lot to do with him, and most importantly, his efforts with the community has resulted in LEGO Factory and its fan-designed sets.

Most importantly, if it weren't for him, this magazine would not be in your hands. His support has taken *BrickJournal* to a level I didn't think possible until it happened.

So from all of us - the staff of *BrickJournal* and the readers- congratulations, Tormod!

And Happy Holidays!

Joe Meno
Editor


BLEH! LOOK A THESE NEW CLONE WARS SETS. I THINK LEGO'S MADE A BIG MISTAKE WITH THESE.
WHY?


WELL, LOOK AT THIS. THEY'VE DONE NOTHING BUT BIG EXPENSIVE SETS! THREE OF THEM OVER A HUNDRED DOLLARS! HOW CAN ANYONE AFFORD ALL OF THEM? AND THESE NEW ANIMATED STYLE FACES? HORRIBLE! THEY WON'T FIT IN WITH ALL MY REGULAR STAR WARS MINI-FIGURES.
LEGO
STAR WARS


WELL, IF YOU DON'T LIKE THEM, I SUPPOSE YOU COULD JUST NOT BUY THEM. AND MAYBE IF ENOUGH PEOPLE DON'T BUY THEM, IT'LL SHOW LEGO THEY MADE A MISTAKE WITH THESE SETS.


OH, NO-- I'M BUYING THEM ALL! I'M JUST REALLY, REALLY GOING TO COMPLAIN ABOUT IT A LOT ON-LINE!
(besides, have you seen this V-19 Torrent? That's one awesome ship!)

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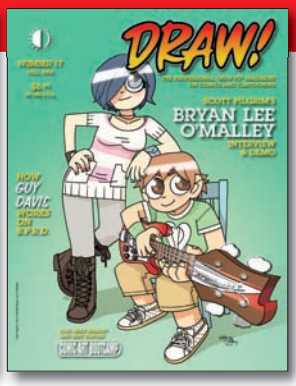

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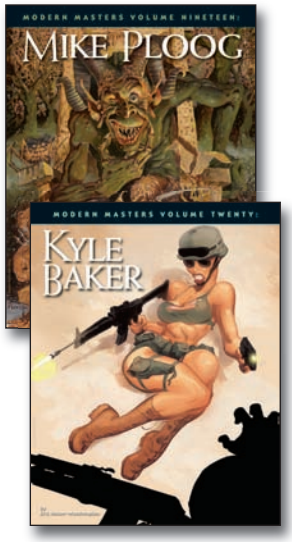

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