The Magazine for LEGO® Enthusiasts of All Ages!



Brick Journa

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THE MAGAZINE FOR LEGO® **ENTHUSIASTS OF ALL AGES!**

BRICKJOURNAL magazine (edited by Joe Meno) spotlights all aspects of the LEGO® Community, showcasing events, people, and models every issue, with contributions and how-to articles by top builders worldwide, new product intros, and more. Available in both print and digital form. Print subscribers VISA Mester sare DISCOVER PayPall

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BRICKJOURNAL #8

We go to the Middle Ages, with a look at the LEGO Group's CASTLE LINE, featuring an interview with the designer behind the first LEGO castle set, the YELLOW CASTLE. Also: we spotlight builders that have created their own large-scale version of the castle, and interview other castle builders, plus a report on BRICKWORLD in Chicago, ands still more instructions and building tips!

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BrickJournal looks at LEGO® DISNEY SETS, with features on the Disney LEGO sets of the past (MICKEY and MINNIE) and present (TOY STORY and PRINCE OF PERSIA)! We also present models built by LEGO fans, and a look at the newest Master Build model at WALT DISNEY WORLD, plus articles and instructions on building and customization, and more!

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BRICKJOURNAL #10

BrickJournal goes undersea with looks at the creation of LEGO's new 2010 ATLANTIS SETS, plus a spotlight on a fan-created underwater theme, THE SEA MONKEYS, with builder FELIX GRECO! Also, a report on the LEGO WORLD convention in the Netherlands, BUILDER SPOTLIGHTS, **INSTRUCTIONS** and ways to **CUSTOMIZE** MINIFIGURES, LEGO HISTORY, and more!

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www.lUGNET.com, www.Brickshelf.com, www.peeron.com, www.brickmodder.net www.rustyclank.com

About the Cover:

An Atlantis set cruises in the depths of the ocean, with a sub following. Art by Mark Stafford.

This issue is dedicated to Tokie Nakano Meno, otherwise known as the Editor's mother, who passed away in March of 2010. Rest in peace, Mom.





From the Editors:

This issue, I decided to step back for a moment to let the other half the of *BrickJournal* staff - the European Bureau.

Hello to all of our readers out there! I'm Megan Rothrock, the European Bureau Editor. Though not new to *BrickJournal*, as I have been a contributor since the online days, now thanks to Joe I get a chance to say hello to you all.

As this month's articles came in, I was fascinated to read the secrets behind the scenes of the development of LEGO® Atlantis, and as always dealing with LEGO has been a pleasure. We are working hard here to bring you more behind the scenes and exclusive interviews with LEGO employees; we hope you enjoy reading them as much as we enjoy writing them.

There is a lot going on out there in the rest of Europe though, and there's no way I can make it to every event or know every story that's happening, so

if you have an event report or a good story about the fan world, please e-mail them to me: megan@brickjournal.com. I can't promise they will make it into the magazine, but there's a lot of room on our new website and it's always nice to hear from our amazing community!

Joe Meno Editor Megan Rothrock European Editor

P.S. Have ideas or comments? Drop me a line at admin@brickjournal.com. 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! Twitter? Yep, there too - http://twitter.com/brickjournal. Facebook? Yup - http://www.facebook.com/group.php?gid=58728699914&ref=mf

Glossary

AFOL (Adult Fan of LEGO)

NLSO (Non-LEGO Significant Other)

MOC (My Own Creation)

TLG (The LEGO Group)

BURP (Big Ugly Rock Piece)

LURP (Little Ugly Rock Piece)

POOP (Pieces—that can be or should

be made—Of Other Pieces)

SNOT (Studs Not on Top)

LUG (LEGO Users Group)

LTC (LEGO Train Club)

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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.



An army waits for the order to attack.

Brick Adventure 2010

Article by Dan Siskind Photography by Dan Siskind and William Wong

Brick Adventure 2010 took place at the City University of Hong Kong from January 27th through February 12. The event organizers, consisting of a loose-knit group of adult builders calling themselves "Legend Bricks," planned to create Hong Kong's largest non-commercial public LEGO exhibition. The specific goal of the event was to promote the creative aspect of the LEGO brick through several large displays built by the event organizers and other invited participants.

The event was brought to my attention through friends on the various LEGO groups at Flickr.com. I was really intrigued by the idea of such an event in Hong Kong (of all places), and after a quick check of airfares (which were quite reasonable) I decided to go see it for myself. The event lasted a total of 17 days, but I choose to attend over the middle weekend in order to be there during the Hong Kong-wide meeting of LEGO enthusiasts.

My normal participation at big public LEGO events is running the GMLTC train layout or sitting behind a table selling Brickmania kits. On this trip I would strictly be an observer, and as an added benefit meeting and swapping techniques with some the most active and talented builders on the other side of the planet. Conversely, I found myself being treated like royalty by the event organizers who were excited to have their first American "pro builder" (their term, not mine) ever to come to Hong Kong for a fan event.

Hong Kong is a large port city located on the south coast of China, with a population of about 7 million people, inhabiting a space of less than 500 square miles (making it one of the most densely populated places on earth). A British colony until 1997, it is now a special autonomous region of mainland China with its own currency and local government. Due to its special status and history, visitors from the United States do not need a special visa to enter. English is a common second language in case you don't speak the local Cantonese.

The exhibition took place at the student activities center of the City University of Hong Kong. The school is located in the easily accessible Kowloon City District and is easy walking distance from the MTR station, Hong Kong's lightning fast commuter rail / subway system. Having access to a large and centrally located space was obtained by the principal event coordinator and tireless promoter John Ho, who is also a student at HK City University.





Above: A fountain outside of Erik Mok's Church. Right: The full church lit from within. Bottom Right: Schneider Cheung's sashimi sculpture.

> a restaurant for dinner with several other Brick Adventure organizers, including John Ho, Eric Mok,

William Wong, Leo Chu, and Antony Lau That night was my first experience of world famous Hong Kong hospitality and definitely set the standard of each day to come. I can't even begin to express how much effort the local builders made to make me feel welcome for the entire duration of my visit.

The next morning John picked me up at my hotel and we were off to our first of many days spent at the exhibition. Public hours were from 11 AM to 9 PM day, and staffed completely by volunteers. The main exhibition took place in

an expansive room in the student activity center. They also had access to a second adjacent room which was used for the regional builders meeting, as well as room for future expansion (the HK City University administration has already given the green light for another run next year).

Upon entering the main exhibition hall, you are faced by a large town display all made up entirely of MOCs, including what I was told to be the first public fan-created display of LEGO trains in Hong Kong, which including two 9 volt loops and an old monorail (the organizers told me they had to beg, steal and borrow every piece of 9 volt track in Hong Kong in order to make their train layout). The most striking feature of the town layout was the section centered around the recreation of actual Japanese landmarks by Andy Bear. There are also European sections based on the "Cafe Corner" style modular buildings, plus some local Hong Kong landmarks recreated in LEGO.

Being my

first trip to Hong Kong, I didn't know what to expect going through customs. I brought only a few of my kits — mainly those requested in advance by people who knew I was coming - and a couple to donate to the exhibition or possibly sell if anyone was interested. Customs turned out to be no hassle at all and I wish I had brought more stuff with me. I later learned that the local retail prices for LEGO is about 20% more than in the U.S., and they generally get new releases months after we do. Packing my suitcases full of bricks would have been a nice gesture for the locals and something I definitely plan to do next time.

Although the airport is an easy train ride into the city, the organizers insisted on having someone meet me at the airport. After clearing customs, or more accurately, waiting in line to clear customs, I was greeted by local builders Antony Tam and Schneider Cheung. After a brief taxi ride into the city, we dumped off my stuff at the hotel and proceed to





Top and above: Models by Andy Bear. Right: AEuropean church by Schneider Cheung. Below: Calvin Choy's Hong Kong buses.









Above: Part of the city display was an airport. Left: A Greek temple, part of the castle and fantasy layout.

The second display consisted of a huge collaborative castle and fantasy layout, featuring multiple castles, an expansive village, an orc camp, Viking invasion and the mandatory display of hundreds of castle troops lined up for an impending battle. There were a lot of eye catching elements to the castle display, including Eric Mok's blinding white church (lit from the inside), Leo Chu's impressive medieval buildings, and lots of clever details like a horde of centaur warriors, and busy market scenes.

The third and final display consisted of a large ring of tables highlighting many of different MOCs and builders. John Ho organized a small sci-fi diorama based around his numerous Mecha. Antony Tam and Antony Lau formed the backbone of a large military display that featured both WW2 and modern vehicles. Other displays consisted of dozens of Star Wars minis, Neo Classic Space vehicles, a large collection of Hong Kong city buses and many more too numerous to list. My only complaint with the MOC tables were the lack of information cards (who built it, what it is, etc.) like you would normally see at a North American AFOL event. I suggested this to the organizers who seemed open to the idea.

During the week most of the Brick Adventure attendees were students and staff of the university. The weekend brought a lot more families and children and even some tourists from North America and Europe. The organizers plastered the school with posters and giant banners, and distributed posters at various Hong Kong toys stores. They also receive some positive coverage in the local



ohn Ho's mecha diorama,.



Antony Tam's modern military models made an appearance at the event. press, which surely accounted for some additional visitors. Average daily attendance was about 800 people and the overall event drew over 13,000.

The day of the big community meeting was definitely a high point of Brick Adventure bringing together a lot of builders and collectors from across Hong Kong. I was a little surprised when several people produced copies of my Blacksmith Shop and requested autographs. The head of LEGO Hong Kong also spent several hours just hanging out and talking with the community.

While Brick Adventure does not accept sponsorships, they were officially endorsed by The LEGO Group's Hong Kong division, who lent some large minifigs and allowed the use of the LEGO logo on the promotional posters. The strictly non-commercial aspect is a requirement of the university and part of the Legend Bricks philosophy of promoting creativity before marketing.

Those craving the big shopping opportunities of North American LEGO fan events will not be disappointed at Brick Adventure. While there are no vendors at the event, Hong Kong is littered with small independent toy and LEGO shops, including a large concentration on nearby Nathan Road (a legendary shopping district in its own right). These independent shops offer a huge variety of current and out of production LEGO sets and many sell individual minfigs and bricks.

Brick Adventure was definitely a unique and worthwhile LEGO fan event comparable to many North American LUG events. I'm planning to return next year with a lot more of my own MOCS and parts to help make the next display even better (including as much 9v track and motors as I can beg, steal or borrow)! Thanks for taking the time to read about my trip to Brick Adventure, and thanks to the organizers for their incredible hospitality on this trip.



Dan Siskind's Panzer model.



Go Go Lick LEGO Player Shop on Nathan Road.



Left to Right: Antony Tam, Antony Lau, Dan Siskind, Schneifer Cheung, Leo Chu, William Wong and John Ho

Event Report



This model of Fenway Park was one of the awesome kid-built creations on display in the kids model area.

Event Report: KidsFest 2009

Article and Photography by Cale Leiphart



Matt Hocker's stunning 1948 Tucker cruises down the street on PennLUG's train layout. The shiny bit from ChromeBricks.com give it extra gleam.

November 2009 saw the debut of a new type of LEGO event for the US. That event was LEGO KidsFest and it was held November 20th through the 22nd, 2009 at the Connecticut Convention Center in Hartford, Connecticut. What made the event different was that it was the first large-scale event in the US organized by and sponsored by the LEGO company. KidsFest is aimed as an event for the whole family and features as one of its main attractions a large display of MOCs created by AFOLs. Several LUGs participated including ParLUGment from Canada, PennLUG from Pennsylvania, and NELUG from New England as well as other AFOLs. Displays included two huge train layouts, a Great Ball Contraption display and individual creations spanning themes from Castle to Space and Sculptures to Games.

Other attractions included a large collection of LEGO sculptures from the LEGO Group's own model shops, a large build area filled with brick for kids to build and play with, building contests for kids, live stage demonstrations, interactive games and a sneak peek at the inner workings of LEGO's model shop. As a special bonus, LEGO Club members were allowed into an exclusive (closed to the public) area to view some of the upcoming sets from Prince of Persia, Toy Story, Ben 10, and the new Atlantis theme.

Vincent Rubino was the main man behind the event and took the time to talk with us and answer a few questions.

What was your role in planning LEGO KidsFest and how did you become involved with the event?

Vincent Rubino: I was the primary person responsible for managing this event for LEGO Systems, Inc. As Manager of Event Marketing, it is my role to oversee Brand activities and consumer events. We had established a new concept to partner with external organizations to collaborate with and fund LEGO events since we do not have the personnel to do these types of events ourselves. We chose to partner with Life Marketing and Events (LM&E) who have experience in running large scale events in the Connecticut marketplace.



Mythical Master Builder Dan Steininger gives the kids a peek at what it's like to work in the LEGO Model Shop.

Where did the idea for KidsFest come from and what were the goals of organizing this event?

We had a meeting with Michael Guinan from LM&E a couple of years ago for another potential project that never panned out. During those discussions, the idea of a KidsFest arose and as we began to discuss in more detail, the genesis of a plan began to evolve. The idea was to create a family-friendly event that could be organized in cities across the country with activities evolving around the LEGO Brand. There would be other activities as well but LEGO events would be the overarching component.

How long did it take to plan and set up the event and what was the reason for choosing Hartford, Connecticut to host?

We worked on the development for close to 2 years. Since this was going to be the pilot event and a learning experience for us as to how we can improve for future venues in other cities, we decided to do the first one close to home. Hartford is a nice city with some venues that lend themselves well to family events. Also since our corporate HQ is just 15 miles up the road, it is good for us to be able to do something positive in our community.

What were the major challenges in putting the event together?

- Finding the right balance between LEGO and non-LEGO activities (since this would be for the whole family we needed multiple types of entertainment for boys and girls and younger and older kids)
- Securing other corporate sponsors to get involved
- Finding the right venue to house the event



Nathaniel Brill's 12v Amusement Park Train proved to be a more thrilling experience than all the other rides in the park combined.



Jonathan and Linda Dallas show off their impressive Carcassone board game model.

Several AFOLs and LEGO Clubs came to display their MOCs for the event. Was this planned from the start or did the idea come later as the event took shape and what were your expectations?

This idea was pretty much there from the beginning. We as a company are trying to find ways to work more closely with the fan community. I have had many discussions with Tormod Askildsen (Senior Director, LEGO Community Engagement and Communications) and Steve Witt (LEGO Community Development Lead Coordinator) on how I could do this. The Kids Fest seemed to me like a natural fit for this and gratefully, the AFOL community was happy to get involved too.

Did the AFOL and Club participation meet or exceed your expectations and are there any plans to expand on AFOL participation for future events?

Although I have been around the company for many years and have had some interaction with the AFOL teams, I really didn't know what to expect. What I can say is that it was absolutely awesome!! The displays were great and the people who came to the event were great. I had to learn a lot on how you guys set your displays and there were a few hiccups along the way. Fortunately, the AFOL's were pretty easy on me and helped me learn from my mistakes. This will only make it easier the next time! And yes, we do hope there are many more next times. We would love to involve more groups as we bring this concept across the country.

What do you think were some of the highlight of the AFOL displays?

Of course it is hard to choose what was best as it is often sometimes a matter of personal taste. All of the displays were awesome. I guess you would have to say that the cityscapes are the most popular because of the sheer scale of these and all the movement included...really cool eye candy!

However, I think it is important to not overlook the MOC's that showcase the versatility and creativity inherent in LEGO bricks....a big glass of milk and a giant cookie?? How cool is that?



Obviously this event shows that families are looking for a good event for fun, wholesome family entertainment. The LEGO Brand is so strong right now and very trusted by families that once they see a LEGO event they are clamoring to go.

What did you learn from the event? What will you do differently for future KidsFests?

What we learned from the event is that IT WORKS!! We also learned that the people coming are really only interested in one thing...all things LEGO! We had a variety of other activities for younger kids, girls and even vendors there to "entertain" the parents. We really don't need that and in future probably won't include them.

What we will do differently is to increase the size of the floor to accommodate more people and to include more LEGO activities and experiences (and that hopefully means more AFOL exhibits!)

With the success of LEGO Kids Fest where do you plan to go next?

We are looking to anniversarize the Hartford event in November 2010. We are also looking to add 2 more venues in 2010 (Boston area and NY/NJ area) those are still TBD. Moving forward, the hope is to have several of these across the country in several major cities. That is a bit down the road though so stay tuned.

If there is anything else you might like to add?

The last thing I would like to add is recognition of the awesome and tireless work of all the AFOL's who participated. Their enthusiasm and dedication were very much appreciated. Obviously, the fans that came to the event saw these displays as one of the big hits. People were lined up 5 deep at times and I saw many kids on their dad's shoulders trying to get a better look. And of course all the smiles were too numerous to count. A really great partnership was developed and one that I hope will continue for years to come.



Event Report



The author with his award winning zombie harvester.

Tommy Williamson: My First Convention

Article by Tommy Williamson Photography by Joe Meno and Tommy Williamson There are several stages in a typical AFOL's descent into brick obsession. Most of us start our fascination as children, kludging together towers in DUPLO, graduating to smaller sets and eventually begging for the super sets like the Death Star every holiday season. Some build only sets, some build creations from their imagination and some are content to just put bricks together. The collection grows and moves to ever-growing boxes and crates. Eventually, in most cases, our interests move on and our LEGO collections are relegated to a box in the attic or (gasp!) sold in a garage sale. While we're busy trying to garner the attention of the opposite sex and keep acne at bay the bricks collect dust and are mostly forgotten. This time is usually known as the Dark Ages.

Then one day, we "wake up" and rediscover just how satisfying it is to click little bricks together and gradually see our imagination come into being in three dimensions. For some, this becomes just a side activity to enjoy with their children and pass the time creatively. For others it becomes more of a hobby, buying quite a few sets a year and even buying or ordering Pick-A-Brick at the LEGO store or online to stock up on special pieces.

For a select few, it becomes a passion. We build nearly daily, continually expanding our collections and pushing our skills to the limit with new techniques. No matter what your level of enthusiasm, eventually the notion of visiting a LEGO convention crosses your mind. If you are lucky enough to live close to one you may even act on that notion. Or if you're like me, you won't let a little thing like distance get in your way.

I'm on my way to BrickCon in Seattle and also displaying for the first time. I have been building for months for this event. My Miniland scale reproduction of the set from Comedy Central's *The Colbert Report* has been slowly taking shape in my living room (to the growing irritation of my wife) for over a year. I posted pictures of it online and the reaction was overwhelming. I've been flooded with e-mail, with praise and requests to blog it. I also created a couple of vehicles for the community build sponsored by LEGO fan blog The Brothers Brick, the Zombie Apocalypse! To say I've been looking forward to this is a bit of an understatement.

What I hope to do with this article is inspire you AFOLs (and those interested in becoming AFOLs) to take the plunge and attend your first convention. I have a pretty good idea what to expect, having perused multiple websites and Flickr galleries. But I am a total noob (newcomer) and I suspect I'll be bumbling my way through the next 4 days. Regardless, it's going to be a blast.

Day One: First Contact

After arriving in Seattle, I made my way to baggage claim with a sense of foreboding. While I packed my creations as carefully as I could in a trunk bought specifically for this trip, I've seen first-hand the destructive capabilities of the airlines. I'm happy to report United did not destroy my trunk. After a less-thansmooth Alamo car rental pickup I went to my hotel. Checking in, I headed off to drop off my trunk at the convention hall. As I wandered in, I noticed the hall was buzzing with activity.

I had no idea where to put my stuff, where to set up my creations, where to get my badge, nothing. With some kind help of other attendees, though, I got myself situated. Then it was time to open the trunk. Sure *it* was intact, actually almost unmarred, but there were fragile LEGO models inside: what was left of them? My *Colbert Report* model made the trip



Tommy's Colbert Report model.

remarkably well, with just a couple of repairs needed. I had the forethought to individually bag every component making repair easy. My camper and vignette models also made the trip with very little trauma, setting up in just a few seconds. My harvester, however, was a horror show. It was in a few large pieces, with dozens of loose parts floating around in the bag. It took half an hour to put back together.

Once my stuff was safely reconstructed and displayed, I took some time to wander and look at some of the stuff that was already set up. There are some absolutely stunning creations here, leaving me in awe of the talent. I also got to meet several people I've only communicated with online. I eventually met up with one of the event organizers and The Brothers Brick (TBB) zombie-in-chief, Andrew Becraft. He introduced me to the rest of the TBB crew and invited me to dinner. After dinner we made our way back to the hall. I spent a little more time gawking at the incredible work but decided I was tired, smelled bad and probably looked worse. It was time to call it a night on my first day of BrickCon.

Day Two: It Begins

Day two began early. I have no idea why but I awoke at 5:30, up before the sun. I took this time to read the show schedule and go through my goodie bag — yay! Free Brickarms (minifigure compatible weapons)! After getting a quick breakfast at the hotel I headed off for the convention center. I wandered around a bit and was surprised to see yet more MOCs had appeared (they have a way of doing that). A bit later I met up with Iain Heath (flickr name Ochre Jelly) and we relocated my Colbert Report and organized his "characters" display. I then hooked up with BrickJournal's very own Joe Meno. While Joe and I have been conferring for months online, we had never had the opportunity to meet face to face. Joe's an excellent guy who shares a lot of interests with me (to an almost creepy level actually) and we enjoyed a long chat while he broke out and assembled his MOCs. Then LEGO opened pick-a-brick sales so me and 100 of my closest new friends filled our bags with LEGO bricks and elements to buy. Afterwards, everyone was very happy.

After lunch, I was back in the hall for an advanced techniques book roundtable meeting. We all had a great discussion about how the fan community could work together on a collaborative book project. I'm sure you'll be hearing more



A...battle bug.

about this fascinating project in the coming months. After taking (and failing) the LEGO Super Quiz - a tongue-in-cheek trivia quiz, I returned to the apocalypse table to help out with setup. By now most of the creations were present and it was time to get organized so we could arrange the zombie chaos. With a layout established, everyone pitched in to get all the baseplates and buildings in



Another group layout was a World war II battleground.



Steampunk made a strong appearance at Brickcon.

CubeDudes line up for display.



place. As the #7636 Harvester set was introduced this year everyone knew there was going to be a few at the convention, including mine, but *seven*? It was beginning to look like we were going to be a bit harvesteriffic until it was suggested we have them all in the same area, corralling zombies to the center square of town. It was a brilliant notion and we quickly had all of them in position. In a couple of hours, the layout was complete and looking fantastic. We packed up and headed out for a quick dinner before opening ceremonies.

At this point I was really starting to feel like one of the community. Everyone was so nice and welcoming and I was learning a lot. Being on a bit of a deserted LEGO island on the central coast of California, I've never been exposed to the jargon with the exception of what I've read. Silly little things like pronouncing MOC like "mock" never occurred to me.

Opening ceremonies was a blast, and everyone was fired up. Wayne Hussey (Brickcon Coordinator), Sean Forbes (Opening Ceremonies emcee) and Matthew Ashton (Playthemes Head, the LEGO Group) took the stage, made several announcements and gave away a ton of LEGO sets and door prizes. Steve Witt, another LEGO staffer, got us even more fired up with the announcement of the new #10210 Imperial Flagship (stunning, and out now!). After that we all went to a local mall where the LEGO store was having a special event sale! It was a bit chaotic and the LEGO staff worked hard to keep everything running smooth, but with 300 or so excited LEGO enthusiasts all chomping at the bit for some sale bricks, it was just going to be like herding cats. I ended up getting back to my room at 1:30 and not to sleep until after 3:00. It was a LONG day.

Day Three: The Show is On

Saturday dawned early. Really, it seemed like I closed my eyes and then my alarm was going off. I arrived at the hall shortly after opening and was impressed with the amount of activity already started. I immediately returned to the apocalypse display. There was a lot of fine-tuning to do so the zombie wranglers and I got busy adding details and humor to the scene. I took a break a little after 9:00 to sit in on a discussion of *LEGO Universe*, an upcoming Massive Multiplayer Online Roleplaying Game in development. It was very cool to have developers truly listen and make notes about what we desire and expect from the game. After the meeting I took some time to visit the vendors along the side wall of the hall setting up. Most were doing a fair amount of business from the attendees.

As the morning progressed, you could feel the energy in the room rising in anticipation of the public viewing. I peeked outside and was surprised to see a line was already forming. I headed back to make sure my *Colbert* model was ready for display and then joined in the final tweaks of the apocalypse and making the room ready for the public.

One of the things I was surprised by and rather enjoyed was the self-made nature of the convention. After a ceremony, we would all rearrange the chairs and tables ourselves. Just before they opened the doors I found myself draping tablecloths over some tables and grabbing some random trash off the floor. It felt good and just simply "right" that we all just worked together to make it happen.

At 11:00 the doors opened and the public came pouring in. A fair amount of the younger guests made a rather brisk beeline for the Brickarms booth —the kids LOVE the minifigure accessories they sell. I took a seat inside the tables to do a little

people watching and minor crowd control.

Over the next hour, something like 3500 people flooded into the building. It was great to see people's reactions to all our hard work, to see all the kids building in the play area, and to hear the squeals of delight and laughter. As I understand it, there are quite a few attendees who don't really care for the public hours but I can't understand why, it's positively electric and captivating.

Once the public hours had concluded we all spent some time cleaning up and reorganizing a bit. I spent some more time chatting with Joe Meno and shooting some stereoscopic MOC pictures with my iPhone. Then it was time for the blind and build-in-bag competitions. I signed up for both and was happy to hear I was selected for the build-in-bag build. But despite having some experience with this I still came in third, but only by about 30 seconds.

I watched the contestants of the blind build for a while then went to get a snack before the draft. A parts draft is where everyone brings a predetermined set and breaks it down into groups of its individual pieces. Then everyone draws a number and in order they get to select a pile of pieces. This draft was with #5972 Space Truck Getaway and there were quite a few interesting pieces in there. Some of the larger lots were then broken down into multiple lots to keep it fair. Then we drew numbers. I could not believe my luck when I drew number 1. We all formed a circle around the table in order of our numbers and then we started picking up pieces. I got to go first and went for the bin of large transparent flames. I had no idea why, but I wanted them. Then we went around the table several times, with everyone grabbing their chosen bins until everything was gone.

Shortly after, it was time for the keynote address. We all gathered at the stage area and got a number of door prizes (and got pelted with a quite a few more). We got a great preview of DesignByMe, the next version of LEGO Digital Designer, and had a Q&A with the development team. I was shocked and very pleased my harvester won Best Apocafied vehicle for the Zombie Apocalypse. I couldn't believe I was taking home one of the trophies I was taking pictures of the day before. After the ceremony ended it was time to start the team build, master build, and Dirty Brickster. I found out on Friday night that it was likely that contestants in the team build and the master build would likely not be able to participate in the Dirty Brickster so I opted to sign up only for the Dirty Brickster.

The Dirty Brickster is a gift giving event where participants bring a set or LEGO item valued between \$10 and \$20 and take turns either opening a new gift, or stealing one from another participant (to the chant of "dirty brickster"). About 35 of us formed a giant circle around a table with all our gifts on it. The person with the closest birthday was chosen to start and we made our way around the circle, opening and stealing as we went. I started with a LEGOLAND Billund mug, which was stolen, then a dump truck, which was stolen, and finally ended up with a spaceship MOC that I later gave away. After watching some of the team build and cleaning up after the master build it was closing time, the end of another very long day. That night I packed up all my LEGO purchases and convention swag. It was clear I was going home with quite a bit more stuff. I was also a bit sad, because I wasn't nearly ready for it to be over and packing was just making it very clear that BrickCon 2009 was coming to an end.



Event attendees not only display, but have fun. Above, the attendees line up for an exclusive LEGO Store event. Below, selected attendees take part in a blind build, where they are not allowed to see the LEGO parts as they build a set model. Bottom, attendees take part in the alternate model build, where builders use the parts from a group of sets to build something based on a theme given by the contest host.





Day Four: The Show Ends

When I awoke Sunday I realized how tired I was. It had been a remarkably fun, short, jam-packed and eventful weekend and it was starting to catch up with me. After showering and getting ready I packed up all of my stuff and loaded it all in my rental car. Then I headed off to the hall to enjoy the last few hours of the convention. As I wandered



One of the award-winning models was a rendition of Volton.



One of the popular displays was the Zombie Apocalypse.

into the hall and put down my stuff I noticed something was amiss. There were little pink LEGO flowers everywhere, and I mean EVERYWHERE. They were all over the apocalypse, the robots, the town and train stuff, everywhere. Stephen Colbert even had some on his desk and one on his head. This is a practical joke tradition called invading (or invasion) and was totally unexpected and amusing to me. We had not taken pictures of the full apocalypse spread yet so we needed to remove them all. We ended up with a one gallon Ziploc full of flowers (this was a well-funded prankster!)

After that, I spent some more time taking pictures of models and some of the people of BrickCon. I had a feeling I had forged some long lasting friendships during this event-filled weekend. I wanted to take pictures of what were mostly strangers that I can look back on someday and say "well there's so-and-so, I didn't even really know him back then". Before I knew it, though, the public was flooding back in.

The crowd was even bigger on the second day. I spent the next two hours wandering around people watching and hanging around my creations to see reactions. Then it was time to pack up, *sigh*. I broke down *The Colbert Report* and bagged up all the pieces, then carefully packed them in the trunk. Then I went over to the apocalypse display and retrieved my harvester and camper. To the horror of some of the public, I began busting the models up and dumping them into a large Ziploc bag. There were a couple of boys watching, I'm guessing brothers about 9 years old. I took a couple of the minifigures off the harvester and said "here you go dudes, genuine zombie slayers" They beamed. That's what this weekend and event was all about for me, sharing. I snapped a couple pictures of my trophy in case it was dismantled in transit and put it in a bag as well.

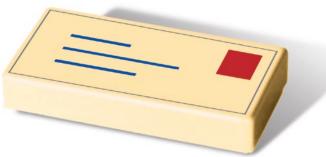
I wasn't ready for it to be over, there were two more hours of public exhibition left and the rest of the day I was going to miss. But I had a flight to catch and it was time to go.

During my drive back to the airport I reflected on the last 4 days. I learned some lessons this time around:

- First, get there early, the day before if you can, so you can get prime real estate and get your bearings early.
- Second, include your nicknames from online on your badge so people that only know you online can recognize you.
- Third, meet everyone and do everything, make every second count because it will be over before you know it. Fourth, stay the entire time, I hated leaving early and next time I won't.
- And lastly, bring some extra space to get everything home, you're going to need it.

As I sat at the gate I had a total mixture of feelings, happiness from such a great experience, sadness from it being already over, giddiness from such great reactions to my creations, fired up for building my next creation and lastly fondness, for all the excellent men and women I met during my first convention. Thanks to every one of you for making it such a wonderful time for me. As I told Wayne Hussey (Event Coordinator of Brickcon) on day three, "I'm hooked, I'll be back next year."





Letters to Indiana Jones™

Written by Sylvain Lelarge Photos by Sylvain Lelarge

"No way!" That was my answer and it was clear enough. Now that my son Martin had begun collecting LEGO City, he would stick to it. I was not even going to think about buying him this fancy figure he was asking for—Indiana Jones. Why not Mickey Mouse? I could see it already. It begins with 'a little box' and before you know it, you find yourself spending a lot of money for the whole line. It was all just a sneaky marketing ploy, nothing more. No, no Indiana Jones LEGO sets. Plain, 'normal' LEGO City would have to do.

This happened last spring when Martin was 6. After my refusal, he didn't speak about it any longer and I began to have mixed feelings. On the one hand, I was pretty satisfied, even a little proud, of my firm resolve. But on the other, I kept asking myself if my reaction had not been too harsh, as my wife was suggesting.

About week later, I came into Martin's room to tuck him in only to find him already deeply asleep. I felt something hard under my foot. "Another Lego piece," I grumbled to myself as I picked it up. But it was not quite a LEGO piece. I had in my hand a self-made Indy—an ordinary LEGO mini-figure that Martin had adorned with a hat and a whip he had made from modeling clay. My wife and I were both touched.



The following night, I slipped into Martin's dark bedroom and replaced his customized Indy with a real Indiana Jones mini figure. I had bought the cheapest Indian Jones LEGO set I could find (the one with the sidecar). The next morning, Martin came into our room totally excited with the little Indy in his hand. "How could this happen?" he asked. We both said that we knew nothing about it. But then my wife remembered that she thought she had heard something, or somebody, in his room last night. She had been half asleep and had told herself that it was just Martin going to the bathroom and promptly fell back asleep. Now here was the evidence in Martin's hand, but who had brought him Indy?

For Martin the answer was crystal clear. Indy himself, **the real Indy**, had done it. That same day, Martin built a house for his new Indy mini figure and asked me to write a thank you letter to Indy. Martin wanted to see if the true Indy would visit him again. The letter was written and posted.

The next morning, beside the letterbox of Indy's new house, there was a tiny letter to Martin addressed from Indy himself. The letter was not much bigger than a stamp, but it marked the beginning of a very special relationship. In the following three months, Martin and Indy would write to each other every day. Initially I helped Martin, but soon I refused to write Martin's letters myself. Martin began to write his own letters without my help. Every evening he

signed off his letters to Indy the same way: 'Your best friend, Martin'. Every night I replied to Martin's letters, not as a father would write to his son, but as a best friend would. After some days, Martin dared to ask Indy for some Indiana Jones LEGO. Every day afterwards, he would find two or three bricks from the side-car set.





My wife and I found this arrangement to be wonderful. Martin was writing and reading—both which he was not previously inclined to do. And, most importantly, he was learning to be patient. My wife and I were certainly happy with Indiana Jones's educational assistance. But when we discovered that the little boy was getting out of his bed around 5 o'clock every morning to read Indy's letter and play with the new bricks, and that he was consequently getting tired and prickly, guidance was required.

So Indiana Jones made a deal with Martin: Every night Indy would bring some elements of *IJ's* treasure truck in an envelope along with his daily letter, but only if Martin would promise not to get out of bed before 7:00am, whereupon he would be expected to dress and finish his breakfast before 8:00am. Martin thought about the deal thoroughly, discussed some of the conditions, made a counterproposal and finally agreed on very much the same terms. And he kept his word. We were in awe. We, as simple parents, would never have achieved such results.

Nevertheless, after a while, we started worrying about Martin's daily 'secret' correspondence with IJ. We were afraid that it would result in bad habits in writing and spelling. But what could we do? Correcting his spontaneous letters was not an option and *IJ* himself was not feeling like playing teacher. Still, Indy found a way. On a Sunday morning, Martin ran into our room (much too early, indeed) with a letter in one hand and a little red plastic frog in the other. II had written to him that he had noticed that Martin did not always know how to write correctly and that he had kindly decided to loan him a magic frog that had helped him to master the art of writing when he was a child. This frog, which looked like a little plastic toy, was in fact alive because it would change its color every time Martin would put it on a beautiful letter he had written. Of course, since it was only a tiny, shy frog, it would need to be left alone for five minutes in order to accomplish its color transformation.

Martin was so excited by Indy's frog that he immediately started writing. Half an hour later, the frog was sitting on the kitchen table on a jewel of a letter and Martin was counting the minutes with his mother in his room. I happened to have thirty different frogs in a secret drawer so that when

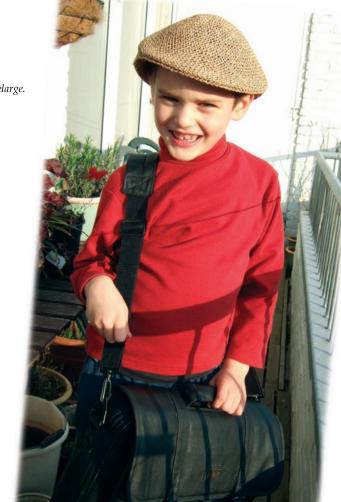
Martin rushed into the kitchen some minutes later, the magic frog had turned turquoise green. Martin was ecstatic. And writing had

become an art.

Summer came and

with it the holidays. We had a new problem. During the extensive travelling we were planning to do throughout Europe, Indiana Jones would be a too time-consuming co-traveler. He would have to disappear for a while. My wife Kati and I decided to send Indy to South America. To make a sound choice over the precise destination, I visited a specialized shop for stamp collectors and bought the cheapest stamps I could find from South America. They happened to be from Paraguay. Two weeks before our summer vacation, Indy notified Martin that he would be leaving for a while in search of a treasure in an ancient temple in a Paraguayan jungle. To Martin, who had become really used to Indy's nightly visit, this great news came not as a surprise. He had already thought that IJ would soon have to go on an adventure. We hadn't shown Martin the Indiana Jones films, which are for many children the stepping stones for dreaming up further Indy adventures. Martin had only had the artwork on the LEGO boxes as inspiration. Even so, he still had a pretty clear image of Indy's adventurous life.

So we looked at the big world map that hung on the corridor wall together and started to talk about Paraguay, its capital Asuncion, the local Aymara Indians, the fact that Spanish was the official language, and so on. Geography, sociology and politics had naturally appeared in our Big *IJ* Educational Program. A little while later Economics was also introduced, since Martin's response to Indy's first long letter from Paraguay included a request to his Best Friend for a part of the treasure. But when I suggested that the treasure could very well be the little toe of a Mayan Mummy, he was totally happy to just hope for a little more LEGO after the summer.



Martin Lelarge.

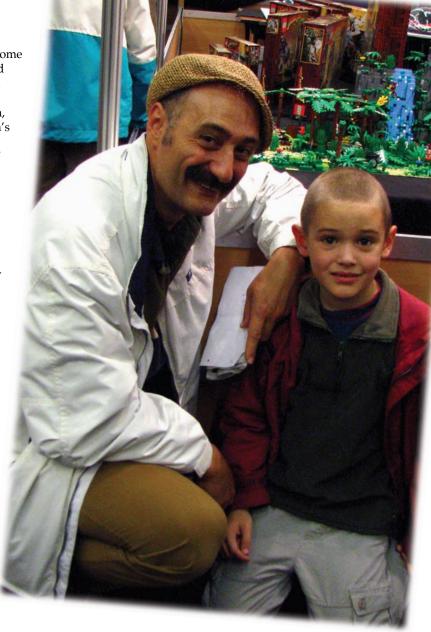
After we had returned from our vacation (and after some more letters had been exchanged between Martin and Indy), Martin got the 'LEGO Agents' virus and could only speak about the 'Missions'. But *IJ* stayed his intimate friend. The correspondence started again, not daily, but following the natural rhythm of Martin's frog-writing, which helped him to express himself about the many events, discoveries and challenges of his daily life.

IJ still regularly brings Martin pieces of his own first LEGO, which he was given when he was a child (the real sources are Martin's older brothers). The newold elements, which naturally come without any instructions, strongly stimulate Martin's creativity. Now every time Martin experiences something really new, he makes it in LEGO and he has started to dream about becoming a LEGO Designer someday. Only the future will tell.

Some friends of ours wonder how Martin will react when he realizes that it was me, his father, who wrote all of Indy's letters. My guess is that Martin already knows this in some way, but has the wonderful quality that all children have to live in parallel worlds. When the time comes, Martin will simply be happy that his father cared so much about him.

And what about Indy? He will smile.





Father and son.



UK and have been working with the LEGO Group for 5 years, currently as a Design Manager.

Niels Milan Pedersen: I am Danish and I have worked as a Designer and sculptor at the company for over 29 years.

Betina Herskind: I'm 40 years old and I live with my husband

October 2008. My job involves a lot of brain shakes, research, concept generation, new element design and model building.

Tim Ainley: I'm from Manchester, England. I've been at the company for 4 years working in the Playthemes design team. I worked on EXO-Force, Mars Mission, Power Miners, Space



Police and Atlantis. Before, I studied design for around 7 years and then started working for the LEGO Group straight out of University. Outside the office you will find me mostly running around in a cape and falling over.

Harry Botterill: I am from London, England. I am a Product designer working in LEGO Playthemes. I have been with the company for two and a half years.

Kjeld Walther Sørensen: I have been at the LEGO Group for some years now. Now I make graphics for different projects and that include all decorations and labels. But

earlier in my career I also built models and made new elements.

Raphael Pretesacque: I am 32 and come from Paris, France. I joined the LEGO Group about 7 years ago and I work as a Product Designer. During those years I had the pleasure to create a lot of sets for multiple themes (Spiderman 2, City, Aqua Raiders, Indiana Jones, Agents, Pirates, LEGO Direct and Atlantis).



More early sketch models by the Design Team. Right: Graphics by Kjeld Walther Sørensen.



Kjeld: I am so old that the only specific theme at that time was the first "City" models! No I did not always wanted to be a LEGO Designer. But I got the opportunity to get a job here and was lucky that it went out to be one of the most creative jobs I could have dreamed about. That's why I am still around after 20 years.

Raphael: As a kid, I went through a lot of different themes like castle, police, space and later LEGO Technic. I have great memories of the space sets and the stories that they were offering to my imagination. I stopped playing with LEGO bricks when I was 12 but came back to it on some occasions for heavy building sessions. Bricks have always been an amazing way to express my creativity. As a kid LEGO building made me want to be an Architect but reality brought me to business studies. Life circumstances then led me to Billund were I first worked as a French teacher before joining the LEGO Group. The first feeling working for the company is still there: pride. Quite a long way to get to the LEGO Group but definitely worth it!

The LEGO Group has made underwater exploration themes many times in the past, why do you think it is so popular with new generations of children?

Mel: The exploration of the unknown mysteries and surprises Color variations of an early Typhoon Sub model, — these were used to nail down the final color scheme of the explorer's vehicles.

of the deep sea fascinates us all. The endless possibilities of adventure, exploration, treasure hunts, discovery of new aquatic species, mythical creatures, sunken cities, lost civilisations... Flawless.

Will: Underwater universes are so huge and varied that the children can make up amazing stories, creatures, vehicles and adventures with a great amount of freedom. There are also many exciting treasures to be found and battles to be fought in finding it so it offers all of the ingredients boys need when role-playing with LEGO sets.

Tim: I think some themes just work and can be rotated every few years. Underwater is obviously a great theme, as kids love the idea of exploring the deep sea and unknown places.

Niels: Maybe because most of the surface of our planet consists of water of which most is as good as unexplored? That's where the last great mysteries might be found!

Bettina: I think kids like it because the ocean is a very special place, there can be strange creatures and hidden treasures, it demands special boats and submarines to get down there and explore. A little like going out into space, but more reachable.

Harry: It's a world that everyone understands yet at the same time is shrouded in so much mystery. There is much about the deepest parts of the world's oceans that is not known. The story of Atlantis is the ultimate underwater mystery and the perfect setting for a new LEGO Playtheme.









Kjeld: I think it's a mix between the cool models you can make of different creatures and vehicles and a nice storyline about the mysterious deep where everything can happen and will, plus that you always have the opportunity to find a treasure around the next lump of seaweed.

Raphael: Underwater is a very attractive theme for several reasons. Underwater is very mysterious and dangerous. Lots of books (Jules Verne's "Twenty Thousand Leagues Under The Sea", Hergé "The Secret of the Unicorn and Red Rackham's Treasure", etc.) talk about advanced machines to get down into the abyss. There is always an idea of going somewhere where nobody went before like the first adventurers. Underwater is always related to secrets (treasure, ruins, sunken ships, giant squid and strange animals).

Which models were you Set Designer on, and are they your models from scratch or are they based on sketch models by another Set Designer?

Will: Annoyingly I find I don't have the time to do this anymore.

Tim: Guardian of the Deep and Shadow Snapper. The shark developed from four different sketch models and the turtle came from my own sketch model. We were testing different creatures with kids and I decided to make a turtle with spikes all over its back. Kids love spikes!

Harry: The models I worked on were 8057 Wreck Raider and 8060 Typhoon Turbo Sub. The wreck raider was built from scratch and the Typhoon Turbo Sub was built from a very early sketch model.

Raphael: For Atlantis, I worked on the "Squid Temple". I took over several concept models and had to synthesize them into one. Some of the concept models were used as reference for the general look and style of the model and others for the functions.

Mel: We are the Atlantis Design team! So everyone deserves the credit; Will, Tim, Harry, Mark, Raphael, Søren, Kurt, Kjeld, Niels, and Bettina.

Kjeld, you worked on the graphics for Atlantis, where did you find your inspiration for the vehicle and creature stickers and are the new minifigure faces specific to the theme or do you just have a series of heads you want to make?

Kjeld: For the vehicles I got most of the inspiration from submarines and old cars (the linework/pinstripes), and regarding the creatures it's a cross between animal patterns and old Aztec and Inca patterns.

Regarding new minifig heads it isn't that we have a finished line up we use from, for product lines such as this we normally make new figures that fit into their "roles". But of course we also from time to time use already made heads.

Bettina, what is 'project support' and how difficult was Atlantis to support?

Bettina: As I mentioned I'm a Project Supporter, that means that I'm not very creative, but I'm very good with master data, so when the Designers make a new model I'm helping by putting it into our systems, so I can tell them if the model is on price, if the elements are available, ordering new elements, new colors. Making sure that we are keeping up with our deadlines on our cool new models, and a million other things!

How did you come up with the unique look of the models, with the strong vertical motif? Was this a result of testing with kids or a decision by the designers of the sets?

Will: This was a combination of the two things. Firstly we needed to make the Atlantis submarines differentiated from older LEGO themes and any other toys on the market so looked for a way to do this. The vertical shape came from much experimentation and was something that the design team liked but were not sure if boys would still see that the models were submarines. However, we found that the boys loved the look because they knew what it was and what the subs could do but had not seen anything like it before.

Raphael: It is always a compromise between the results of testing and our interpretation, but for this theme, a lot of tests gave us a clear idea of the kid's trigger points.



Tim: It was a mix of both as far as I can remember. It was a style we all liked because it gave the models a fresh look that was different to Aqua Raiders.

Harry: The overall design style was developed through testing and the desire to create a unique look that differentiated it from previous underwater themes. Once decided, all the models were built to fit into this design style.

Mel: It was a combination of the two! We made A LOT of sketch models which we took to A LOT of kid-tests. Eventually we found something that made everyone happy.

There are a lot of new parts in Atlantis; the fish-people, the helmets, the cockpit, how did you decide which parts to make and who designed them?

Mel: We make aesthetic or structural elements that we (through an extensive trial and error process) decide are essential to the design direction of the playtheme.

Will: Part of making a playtheme attractive to the boys is creating a believable and iconic universe. To do that we look at what icons can really add to a theme and if we don't already have something then we need to develop elements for this purpose. We do a lot of testing with boys to find out what elements work for them and what they expect to see in a theme and are often surprised at the results.

Tim: We go through a design process of prototyping new parts, testing them with kids and eliminating the unnecessary ones due to cost. They are all designed by different designers. I designed the Squid warrior but it was sculpted by Niels.

Harry: Working with parts-designers and sculptors I was responsible for the design of the diving helmet and the Manta-Man.

The Squid-Warrior (not the Space Police 'Squidman') seems to have a very strong family link to the original Octopus, how intentional was this? Is the original Octopus Designer involved in anyway?

Will: Niels was indeed involved! We wanted to make sure that the characters had a LEGO look and feel to them and as such we looked at the original octopus to keep the styling similar and in family.

More sketch models by the Design Team of the Seabed Scavenger (below) and the Turtle Guardian (right).



Niels: I sculpted the parts for the new Squid Warrior and I designed and sculpted the old Octopus and as there seemed to be a common agreement on a design link to the old one — that's how it ended up!

Niels, last time you spoke to *BrickJournal* you were very cryptic about the creation of the original LEGO Octopus, what's the story?

Niels: Well, to make it short: after deciding on the design I had to make a prototype in 5:1 scale for the toolmakers and back in the '80's that was done in wood and plastic padding but the tentacles wouldn't come out right whatever I did (they were tricky to do in wood!). So I ended up making a mould and casting them as straight bars in pure lead which I was then able to bend into shape.

As I was not allowed to cast or use lead at work and I lived in a small apartment with a tiny garden I had to make a fire and do



the smelting outdoors, which went quite well until it started raining! Hot lead and cold rain does not blend very well!

But now the octopus is still out there and if you look closely at some of the tentacles you might see that they were actually bent into shape!

Can you tell us if you continued working on LEGO Atlantis and if you would like to return to another underwater theme one day?

Mel: Yup, I stayed in the team and worked on 4 new sets and I most definitely want to be part of a new underwater playtheme.

Tim: Personally I always like to work on the new themes. So I'm sure one day we'll return to another underwater theme. Who knows, maybe the real Squidman will go back to his roots!



One of several sketch models that would come together to create the 8078 Atlantis Portal set.

Harry: I would definitely enjoy working on an underwater theme again. There are always new possibilities for underwater adventure.

Bettina: I had the great pleasure of working on Atlantis in year 1. I would have loved to continue but I moved onto our next big project. For the future I think it would be great fun to work together with the Designers on a new underwater theme.

Niels: I am still working on Atlantis and for many years I have wanted to do an underwater Jules Verne inspired theme – but that might never happen!

Kjeld: I am always ready to work on an underwater theme:)

Raphael: I am always up for underwater themes, it is just an adventure you can't refuse... so many things to discover yet.

Thanks for your time!



Building

Sea Monkeys:

Creating a Fan Theme

Article by Felix Greco Photography by Felix Greco and Joe Meno

Every theme has a small number of elements that make it instantly recognizable. Stone walls, monsters, and knights tell us this must be a Castle theme. Starships, aliens, and astronauts? Must be Space. Underwater science fiction also has these components: yellow submarines, scuba gear, and anything related to the myth of Atlantis. A theme becomes remarkable when it captures the imagination and building takes one into a direction other media had never explored. Certainly, castle and space builders have been able to take the standards of their theme much further than video games, movies, or books had ever imagined. This is one of the great things about LEGO; the medium allows a builder to explore infinite possibilities. In this article I will explain my fascination with underwater science fiction and the manner in which LEGO helped me create my

own sub-theme, the Sea Monkeys.

LEGO has very generously embraced the idea of under water science fiction. In 1995, the first incarnation was introduced in the form of Aguazone. This theme had many of the staples one would expect. The good guys had yellow submarines and wore white. The bad guys had shark shaped submarines and wore black. The Aquaraiders made their first appearance two years later with menacing dark subs. In 1998 the theme moved forward with the Hydronauts and Stingrays. Interestingly, the theme was never formally named Aquazone, but many enthusiasts were quick to give it this label. This was certainly understandable since the Hydronaut sets shared a lot in common with their Aquanaut predecessors. The Stingrays were remarkable not only for the abundant love of their namesake, but also because they were the first minifigs created that were alien in any way. Thanks to Alpha Team: Mission Deep Sea, underwater science fiction never left the shelves. A dedicated underwater science fiction line then returned with the reinvention of the Aquaraiders. This time,

> large underwater monsters were the adversaries. Currently, the Atlantis theme is available combining many familiar elements of its predecessors with

unique submarines, cool minifigures, and the staple of underwater science fiction... the myth of Atlantis. Since 1995, underwater science fiction in some form or another has been made available by the LEGO company.

Aguazone was the theme that brought me out of my dark ages. As a young college student majoring in biology, the idea of the future undersea seemed very real to me. The oceans of our world are abundant with life. As we explore the planets of our own solar system, the search for life continues to coincide with the search for water. For me, the thought of a future exploring either our own oceans or the sea of some distant planet seemed very believable. At first, my concept of underwater science fiction was very "spacey". I created underwater submarines and robots, but all of these held to the same standards that I felt necessary to communicate that they were under water. My submersibles were yellow, I incorporated lots of propellers, and I used minifigs with masks and flippers. As subsequent underwater subthemes became available, I (like many other enthusiasts) referred to anything related to underwater science

fiction as "Aquazone". In time I thought
I had reached the end of my creativity
with Aquazone. There are only so
many yellow submarines one can
build, I thought.

As is so often the case, I found inspiration through the creativity of other builders.
In 2001 the fad was to create fads. Space in particular had exploded with Pre-Classic Space, Skulls, Pods, and a number of other

fan-designed subthemes. The themes often worked on limitations of form and color a builder had to work within. Interestingly, numerous builders showed prowess in



A transport for the Sea Monkeys.

working within the confines of these specifications and the online community was rich with creations. I flirted with the idea of creating my own Aquazone subtheme, but choosing an alternate color scheme or some specified shape seemed too simplistic. Toying with pieces one day, an idea emerged from a simple click. The Life on Mars aliens had immovable legs that made a click attachment to their torso. Replacing the legs with quarter dish radar piece instantly gave the appearance of some kind of aquatic creature. Sea Monkeys seemed like a natural name for fun aquatic life that had come from almost nothing.

To that point, no one had utilized an alien species as an idea for a subtheme. Most would probably have set to building, but I opted for more thinking. I had a lot of fun imagining how my Sea Monkeys lived. I was determined to invent their culture and biology first, and then let the building naturally flow from there. I had posted a few pictures of the Sea Monkeys and some small creations online at which point Joe Meno became interested. In a series of e-mails we began bouncing ideas off of each other. I told him my idea of how I thought they lived, how their biology worked, and how we could build around these concepts. What

emerged was probably one of the most specific set of

A hammerhead-inspired attack craft.

criteria to date for a fan-created subtheme, but one of the most enjoyable builds I have ever

I created a website on LUGNET called the Aquarium where I explained everything about the Sea Monkeys. They were a telepathic species with a hive mind. Concepts of individuality were unknown to them. Their gas and nutrient exchange occurred through the movement of their tail. Reproduction included two phases. In the first phase, they took on the original aquatic appearance, but in the second stage of life their consciousness was transferred into an immortal crystal form. These crystals formed the basis of the Sea Monkey religion. The Elders, as they were referred to, contained the collective knowledge of everything ever known by the Sea Monkeys. While many other subthemes were limited to a mere color palette, Joe and I made building specifications that outlined arrangements based on the biology and culture. Vehicles were modeled after sea creatures; we were inspired by shellfish, sharks, and fish. Many other builders contributed and took the Sea Monkeys in their own direction.

In the grand scheme of the online building community, the Sea Monkeys were perhaps a blip in the radar. Other fan created subthemes have become imbedded in the online culture we have created together. But the Sea Monkeys were something different. Joe and I were able to break through the constraints placed on underwater science fiction and let our imaginations run wild. Creations didn't have to be about Atlantis or yellow submarines. We were able to take a genre into a completely new direction

inspired by nothing more than our imaginations. The momentum of the subtheme most likely came to a halt due to my own lack of building. I had more fun creating the website and biology of the Sea Monkeys whereas Joe Meno was the creative force in his builds. The Sea Monkeys remain one of the most fun experiences I have had with LEGO and show that creativity can stretch far beyond the bounds of a genre's staples.

A hermit crab transport.

Land gear for the aquatic beings.



is an Advertising Photographer who has worked with LEGO products for Advance agency since 1984.





Building

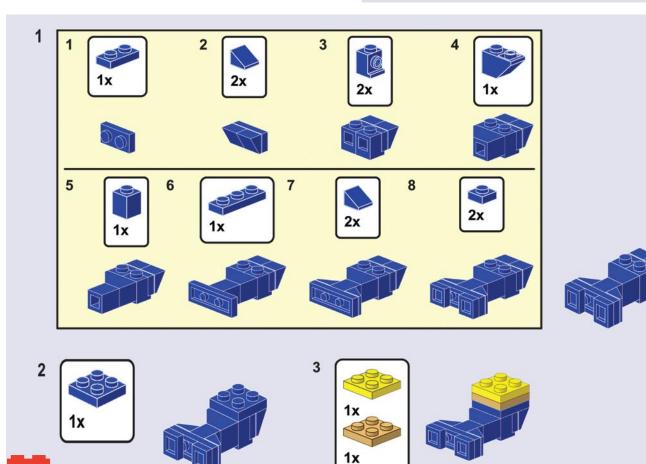
You Can Build it: Little Miniland Mermaid

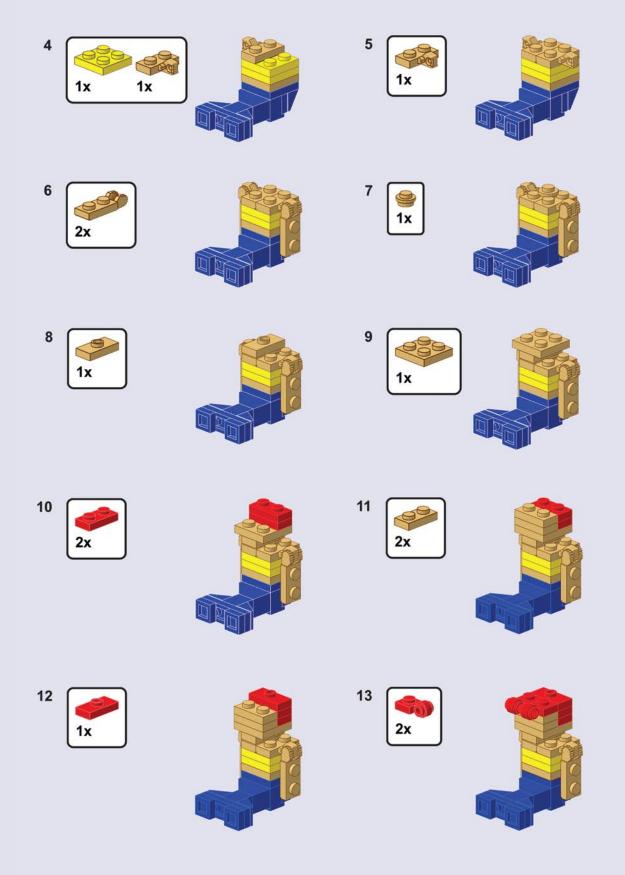
Design and Instructions by Mariann Asanuma

Hi guys and gals, for this issue I thought I'd make something from the deep beneath the sea. This young mermaid has just started swimming on her own and practicing sitting on rocks.

You will learn several fun Miniland techniques in this model. You can add clamshell, crab, and seaweed LEGO elements to complete the scene.

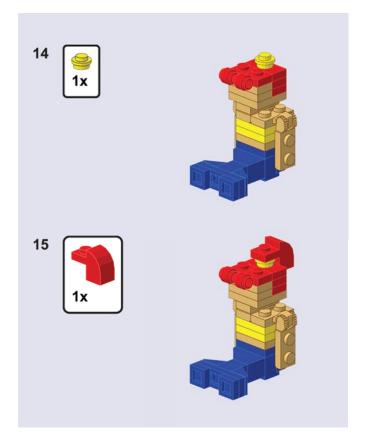
Qty.	Part	Description	Color
2	3023.dat	Plate 1 x 2	Tan
1	3023.dat	Plate 1 x 2	Blue
2	3023.dat	Plate 1 x 2	Red
1	3623.dat	Plate 1 x 3	Blue
2	4081b.dat	Plate 1 x 1 with Clip Light Type 2	Red
1	4073.dat	Plate 1 x 1 Round	Tan
2	3024.dat	Plate 1 x 1	Blue
1	6091.dat	Brick $2 \times 1 \times 1 \& 1/3$ with Curved Top	Red
1	3665.dat	Slope Brick 45 2 x 1 Inverted	Blue
2	4070.dat	Brick 1 x 1 with Headlight	Blue
2	3022.dat	Plate 2 x 2	Yellow
1	3022.dat	Plate 2 x 2	Blue
2	3022.dat	Plate 2 x 2	Tan
1	6141.dat	Plate 1 x 1 Round	Yellow
2	44302.dat	Hinge Plate 1 x 2 Locking with Dual Finger on End Vertical	Tan
4	50746.dat	Slope Brick 31 1 x 1 x 2/3	Blue
2	44567.dat	Hinge Plate 1 x 2 Locking with Single Finger On Side Vertical	Tan
1	30071.dat	Brick 1 x 1	Blue
1	3794.dat	Plate 1 x 2 with 1 Stud	Red
1	3794.dat	Plate 1 x 2 with 1 Stud	Tan







The completed mermaid.



BRICK FAIR DG LEGO FAN FESTIVAL



You Can Build It

Hello again dear fellows! I'm certainly glad I could join again for this wonderful issue of *BrickJournal*. With the release of a new official underwater theme by the LEGO® company, all prior submarine playthemes also return to the center of the stage again. Hence I'd like to contribute a small deep sea diorama to this special themed issue.

With more than one hundred pieces, this mini diorama has slightly more parts than an average mini model. It consists of the sea bottom with a small shipwreck, a giant spider crab, a sixgill shark (those could be found within depths of more than 2,000 meters) and a small yellow submarine exploring the sea ground.

Building this was quite fun, as it's different from what I usually build. I especially enjoyed building the small creatures, although I have to admit that it cost me some time and many attempts to come up with a micro shark design which looked satisfying enough. Those new 1x1 slopes were really helpful for that. The spider crab uses a modified octagonal plate and lots of droid arms attached around it. For the little yellow sub I wanted to use octagonal elements because they provide a typical submarine look and echo the spirit of the former underwater themes in which they were used.

Crab, shark and sub, together with the sea ground and its rocks, plants and shipwreck, create this nice little underwater scene. With this, I am done for this time. I wish you happy building, and see you next time!

Yours, Christopher Deck.

Mini Deep Sea Diorama



Parts List

SEA BOTTOM

Ouant.	Color	Part	Description
1	Tan	3867.dat	Baseplate 16 x 16
6	Reddish-Brown	3062b.dat	Brick 1 x 1 Round with Hollow Stud
1	Md-Stone-Gray	3010.dat	Brick 1 x 4
1	Md-Stone-Gray	2357.dat	Brick 2 x 2 Corner
2	Md-Stone-Gray	3001.dat	Brick 2 x 4
2	Trans-Green	6188.dat	Cone 1 x 1
3	Trans-Green	6126.dat	Minifig Flame
18	Trans-Purple	4728.dat	Plant Flower 2 x 2
1	Trans-Green	30093.dat	Plant Sea Grass
4	Trans-Green	3024.dat	Plate 1 x 1
3	Reddish-Brown	3794.dat	Plate 1 x 2 with 1 Stud
1	Reddish-Brown	3623.dat	Plate 1 x 3
1	Reddish-Brown	3710.dat	Plate 1 x 4
1	Reddish-Brown	3666.dat	Plate 1 x 6
1	Trans-Neon-Green	30385.dat	Rock 1 x 1 Crystal 5 Point
1	Reddish-Brown	3747.dat	Slope Brick 33 3 x 2 Inverted
8	Reddish-Brown	3665.dat	Slope Brick 45 2 x 1 Inverted
1	Reddish-Brown	3039.dat	Slope Brick 45 2 x 2
1	Md-Stone-Gray	3039.dat	Slope Brick 45 2 x 2
2	Reddish-Brown	own 3660.dat Slope Brick 45 2 x 2 Inverted	
CHARK			

SHARK

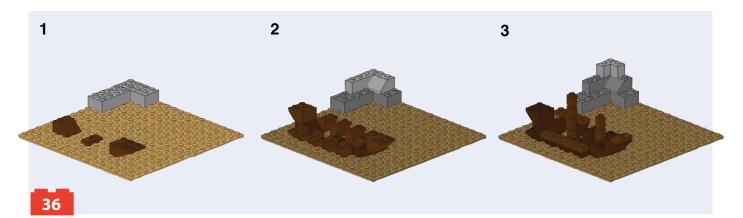
Quant.	Color	Part	Description
1	Dk-Stone-Gray	4733.dat	Brick 1 x 1 with Studs on Four Sides
2	Dk-Stone-Gray	47905.dat	Brick 1 x 1 with Studs on Two Opposite Sides
1	Dk-Stone-Gray	6188.dat	Cone 1 x 1

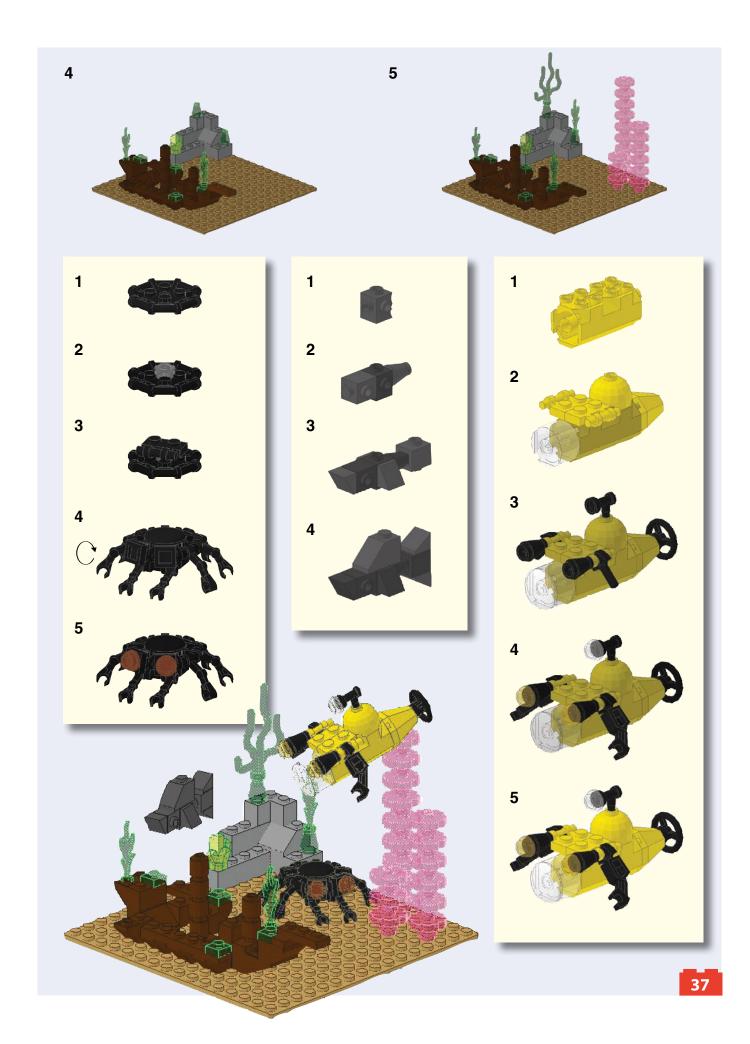
5	Dk-Stone-Gray	54200.dat	Slope Brick 31 1 x 1 x 2/3
1	Dk-Stone-Gray	3040b.dat	Slope Brick 45 2 x 1

CRAB

Quant.	Color	Part	Description
1	Black	54196.dat	Dish 2 x 2
6	Black	30377.dat	Minifig Mechanical Arm
2	Black	59230.dat	Minifig Mechanical Arm Straight
2	Trans-Orange	4073.dat	Plate 1 x 1 Round
1	Trans-Clear	33291.dat	Plate 1 x 1 Round with Tabs
1	Black	2540.dat	Plate 1 x 2 with Handle
1	Black	30033.dat	Plate 2 x 2 with Rod Frame Octagonal
2	Black	2555.dat	Tile 1 x 1 with Clip

SUB Quant.	Color	Part	Description
2	Black	48729.dat	Bar 1.5L with Clip
1	Trans-Clear	3941.dat	Brick 2 x 2 Round
1	Yellow	6042.dat	Brick 2 x 2 x 3 & 1/3 Octagonal With Side Studs
1	Black	30663.dat	Car Steering Wheel Large
2	Black	6188.dat	Cone 1 x 1
1	Yellow	6039.dat	Cone 2 x 2 x 1 & 2/3 Octagonal
1	Yellow	30367.dat	Cylinder 2 x 2 with Dome Top
1	Trans-Clear	54196.dat	Dish 2 x 2
2	Black	53989.dat	Minifig Mechanical Arm with Clipand Rod Hole
2	Trans-Yellow	4073.dat	Plate 1 x 1 Round
1	Trans-Clear	4073.dat	Plate 1 x 1 Round
2	Yellow	2540.dat	Plate 1 x 2 with Handle
1	Black	4599.dat	Tap 1 x 1





Building



You Can Build It: **Seated Woman**

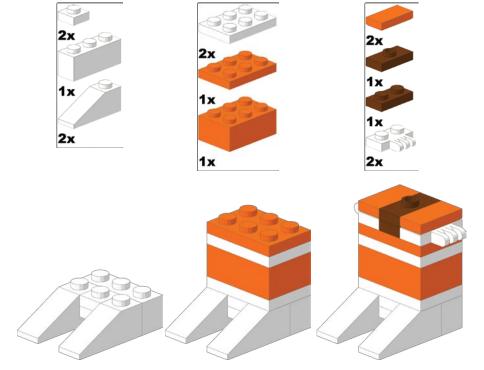
Article and Photography by Didier Enjary



This character is a tourist at LEGO-LAND MINILAND's Kennedy Space Center. She is resting on a bench at the Rocket Garden entrance, chatting with visitors.

Compared to the usual standing up character (*BrickJournal* issue 1), the build is not so different. The transition and shift between the torso and legs is simply achieved with the long 1x3x1 slope brick.

The orange parts being nowadays very common (there exist more than 600 different orange parts), the only difficulty in building the torso lies in the use of the discontinued three-fingered hinges as shoulders and connections to the arms which, by another way, allows to create a striped pattern. This can be substituted with click hinges to achieve the same effect.



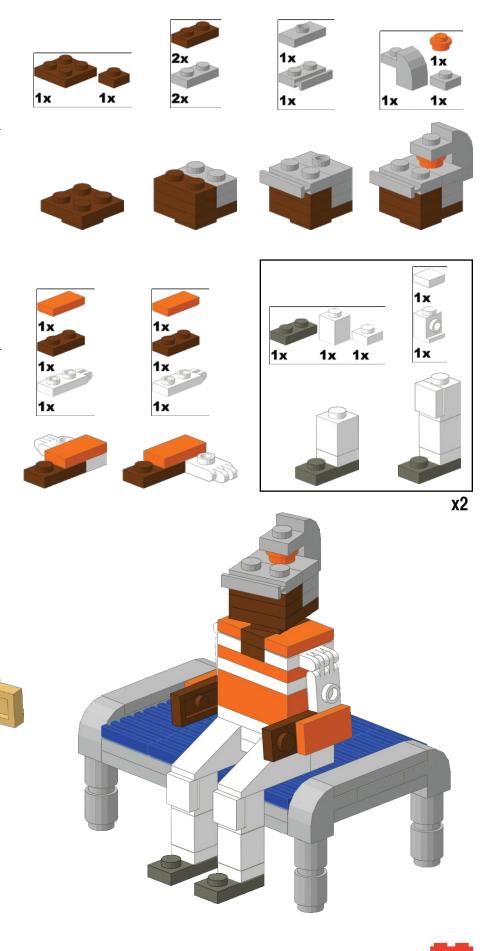


MINILAND - The Rocket Garden

The features of the character's head are the colored face - brown, not black - but above all the original iron-grey hairstyle which makes an inventive use of two specific parts. The 1x2 plate modified with door rail is a perfect fringe and the modified brick with curved top is used surprisingly as a ponytail but fits perfectly this role.

The arms are a simple 3-part (symmetrical) build. However, the joint to the body is different from anything we have seen in previous articles. The arms are free to move not from the back to the front but only up and down on the character's sides.

As an alternate model, you simply can change the colors and posture. This mix of orange, brown and grey is nice but you can also choose to represent a red-haired girl with a green shirt using red or orange, tan, and green parts.



Building

Rapunzel, Rapunzel,

let down your long

Article and photos by Benjamin S. Schwartz

This MOC is my tallest to date, measuring a whopping 37" tall! But it did not begin as Rapunzel's Tower. Just like all of my other creations, early on I establish a very basic idea of where I want the project to go – a sort of mental blueprint – without having expectations that the creation will look like that in the end. In this case, my initial concept was simply to build a tall tower. However, the original plan would have called for either a massive tree or a spindly beanstalk to sprout from the top. I cannot exactly pinpoint where these ideas came from, but they certainly possess a certain fairy tale

In the end, however, I felt those concepts were a little too "trippy" – if I did not understand the MOC, how could I expect my peers to? So I figured choosing a classic, widely recognized (but still rarely built) story (like Rapunzel) would suit the venture well.

What never changed during the planning stages, though, was the color scheme. Every creation seems to have one feature that makes it what it is, and I feel my color choices really make this piece pop. Tan castles are rare; incredibly rare, actually. It is unfortunate because tan stonework is easy on the eyes and stands out against all the grays of other castle MOCs. Gray bores me, even if it is more accurate! The other two colors I relied most heavily on were light



The main characters in

this creative adaptation of the Brothers Grimm

fairly tale!

to be sure.



yellow and bright light yellow. By far, these are my two favorite LEGO colors – so buttery, smooth and soft; they are far too rare in my opinion. And obviously, with rarity comes a higher price tag. Frankly, the project was a good excuse to splurge a little (70 light yellow 2 x 2 tiles – yes please!) The lesser colors were dark tan, blue and the lighter shades of green. A few minor dark tan accents can be found around the model, along with various blue splotches (I.e., the roof and wagon wheels.) Finally, bright light green can be found around the base and up the side of the tower as ivy. If one word was to sum up the vibe I wanted to convey through colors, it would be "mellow." Although it was considerably more difficult to gather the parts I needed, it was worth the extra effort.

The major obstacle I faced in building the tower was my stubbornness in wanting to make it round. The most common technique in round castle building is the combination of 1 x 3 or 1 x 2 bricks and 1 x 1 round bricks – obviously, though, it does not create a particularly "brick-like" texture. Luckily, while browsing online, I came across a brilliant brick technique by the illustrious Deborah Higdon (d-higdon on flickr). She discovered that using 1 x 2 - 1 x 4 brackets with 1 x 2 plates underneath them, along with an alternating tile combination on the outside, creates a surprisingly realistic brick texture. She



Detailed look at the cross section of one of the ring sections utilizing the 1x2-1x4 brackets and 1x2 plate combination.

Once stacked and connected together, the tower comes to form with some beautiful detail!





was happy to help me with advice on the best way to go about executing the technique on such a large scale and her guidance surely helped! At the very widest (the base), the ring has 35 2 x 2 tiles wrapped around, while the top only has a mere 24. Naturally, the larger the ring, the easier it was to connect, but towards the top (around 26 to 24 tiles round) the rings became very difficult to snap together. Frustrating, yes, but thankfully I learned a long time ago that little patience with LEGO can go a long way

(throwing the annoying MOC to the ground in a huff does not solve anything, now, does it?)

Inspiration

My main inspiration for the turret was Peles Castle in the Carpathian Mountains of Romania*. When I first saw a photograph of it, it was love at first sight. The four-sided clock tower boasts ornate, neo-renaissance details and amazingly carved wooden supports and rails. Although Rapunzel's Tower is generally portrayed as having only one window from which the captive beauty looks out, I could not resist doing something a little different. Some of the parts used for the turret's regal details include beards, ice cream scoops, minifigure heads, bread loaves and Tauntaun horns, while the wooden rails and posts are made from telescopes, rocket bases, steering wheels and palm tree sections – some very strange, but effective choices!



I do not landscape as much as I would like to, so this was a prime opportunity to really have fun with the base. Ultimately, I decided to create a mosaic, tiled patio around the tower – the edges taper off and tiles rest unevenly over different levels of the landscape. And big, bright yellow flowers blossom all over!

Ultimately, the tales of the Brothers Grimm are often very dark and disturbing (this goes for parts of Rapunzel, too) – this is an aura I did not choose to capture. Instead, I took the tale a put a bright jovial twist on it! With the tower's unorthodox walls and colorful turret, it now looms over my collection, as the prince readies to climb up Rapunzel's braid of battle droid arms. Ah, the forces of true love surely know no bounds!

^{*} For a nice image sample of the Castle visit: www.wallpaperweb.org/wallpaper/Known_places/Peles-Castle-Sinaia-Romania_1600x1200_33519.html



The new family home, Ole Kirks House.

The company that would become the LEGO Group began in 1916, when carpenter and joiner Ole Kirk Kristiansen bought a house and small workshop in Billund and settled down with his wife and three sons, slowly building a business based on quality in everything he did. However, the challenges and misfortune Kristiansen met also played a part in the growth of his company.

One Sunday in 1924 when the parents was taking a nap after dinner, the two sons, Godtfred Kirk Christiansen and his brother Karl Georg tried to light a fire in an oven in the workshop. By accident, shavings caught fire and the workshop and the family home burned down.

Ole Kirk Kristiansen asked Jesper Jespersen, who was the architect behind the local dairy, to build a new family home. The house was way too expensive for Ole Kirk Kristiansen and he had to rent out the first floor in order to be able to afford the house. The house served as family home, office and shop. Today the house bears the name Ole Kirk's House and forms part of the LEGO Idea House.

In 1925, a small fire was quickly extinguished leaving only very limited damage.



The family home and workshop that burned down in 1924.

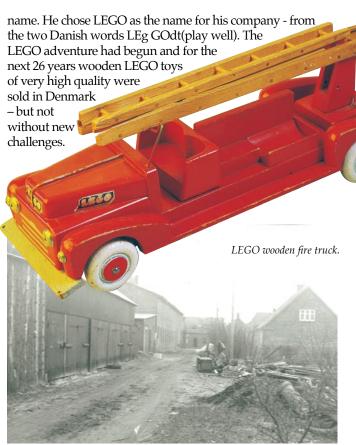
"Life is a Gift But Also a Task"

A farming crisis as a consequence of the 1929 Depression reached Billund in 1932, leaving Ole Kirk without an income to support his family. He was encouraged to use his skills as craftsman within the wooden toy business. Besides step ladders and iron boards, he and his two employees in the first year produced buses, fire trucks(!!) and racing cars. Very slowly, the toy business was improving and Ole Kirk in 1934 decided that the toy business should have an appropriate

The LEGO Group

Phoenix Rising: How the LEGO Group Turned Adversity to Opportunity

Article by Jette Orduna, Head of the LEGO® Idea House, Billund Photos provided by the LEGO Group Archives



The wooden toy factory as it looked before the 1942 fire.

Another Blow

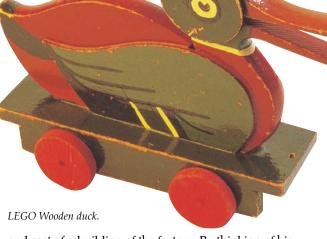
In the night between March 20 and 21, 1942 a fire completely destroyed the wooden toy factory, however, by luck, the family home, warehouse and the rest of the town was spared. Ole Kirk was close to giving up his toy business as his insurance could not cover the loss



The day after the 1942 fire.



The brand new wooden toy factory in 1943.



and cost of rebuilding of the factory. By thinking of his responsibility towards his family and his 15 employees, though, he managed to start rebuilding the factory and the business.

Ole Kirk received several offers for a new location for his toy business outside Billund, but he declined and decided that the LEGO company should remain in Billund.

Less than a year later, the wooden toy workshop, now very modern and updated, was up and running again, employing 40 people. It was part of this building that transformed the company to what it is today.

A Crisis and a Change

50 years ago on Thursday February 4, 1960 at 3 am, a fire destroyed the center part of the LEGO Group wooden toy factory in Billund.

It was time to make a difficult decision: Should the company concentrate on the then-new LEGO bricks and the LEGO System of Play that offers unlimited play possibilities or should the company choose the safe road and continue production of wooden toys as an alternative?

The very next day, Godtfred Kirk Christiansen (GKC) decided to end production of wooden toys in Billund and focus on the LEGO System of Play and worldwide expansion.

In one respect, the decision was easy to make: the wooden toys were never sold outside Denmark, whereas the LEGO bricks and the LEGO System at that time were known in

Western Europe, where one sales company after another was established starting in Germany in 1956.



Ole Kirk reconstructs the LEGO duck after the fire in 1942.



The 1960 fire.

At an internal leadership meeting after the fire, GKC said: "There are, however, very few consumers who have yet fully understood the idea behind the LEGO System of Play. As the need for understanding the LEGO idea will increase and the more skillful we get, the faster the need will arise".

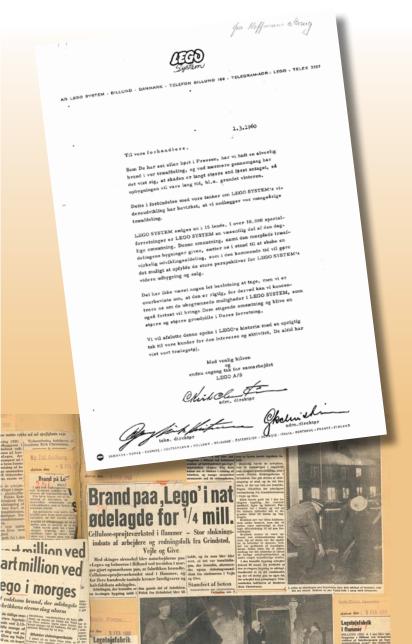


Belief in an Idea

The decision to concentrate on the LEGO bricks led to two of GKC's three brothers leaving the LEGO Group, as they disagreed on his decision. His elder brother Karl Georg was technical manager of the plastic production whereas his younger brother Gerhardt had served as technical manager for the wooden toy production. Gerhardt had been deeply involved in the development of the wooden construction toy, which had been launched in 1959 under the name Bilofix. Godtfred Kirk Christiansen bought their share of the company and from then on was the sole owner of the LEGO Group.

The remaining stock of wooden toys was offered to Danish retailers at a much reduced price and GKC also sold some of the remaining products and spare parts to Danish toy manufactures. This means that today, you might find LEGO products with another name on, as for instance, a version of a Hanse tractor, or you might find toys that were never produced in Billund but with the LEGO name on as leftover LEGO tires had been sold to other toy manufactures.

The building was soon rebuilt and housed the first LEGO development department, LEGO FUTURA. The former wooden toy factory is now part of the LEGO Idea House.



After the decision was made to focus on the LEGO System of Play, a letter was sent to retailers. This is a translated copy of the letter.

1st March 1960

Dear Retailers,

As you will probably have seen or heard in the news reports, we have had a serious fire in our department for wooden toys, and a closer investigation of the incident has shown that the damage is far more extensive than at first assumed, so reconstruction will take a long time, also because of among other hindrances, the winter.

This, along with our thoughts about the further development of LEGO SYSTEM, has lead us to close down our department for wooden toys, which has existed for many years.

LEGO SYSTEM is now sold in 15 countries. In more than 10,000 specialty stores the LEGO SYSTEM sales contribute considerably to the daily turnover. This turnover and the extra space in the buildings of the department for wooden toys give us the capability to create a real development department, which in future will make it possible to set the further development and sales of LEGO SYSTEM into a greater perspective.

It has not been an easy decision to make, but we are convinced that it is the right one, as it enables us to concentrate on the unlimited possibilities of LEGO SYSTEM, which will continue to increase your turnover, and, eventually, turn into becoming a considerable linchpin in your store.

We will end this era in LEGO's history expressing our sincere appreciation to all our customers for the interest, you have shown, and the activity you have put into the distribution of our wooden toys.

Yours sincerely,

I thank you once again for your cooperation.

LEGO A/S

Building



Mike Huffman's first puzzle. Photograph by Mike Huffman

Puzzling **LEGO® Models:**

Building the World's Smallest LEGO Sliding Puzzle

Article and Photography by John Cooper



Above: Some of John Cooper's puzzles. Right: Mike's puzzle module design.



One of the best parts of being an Adult Fan Of LEGO (AFOL) is the wonderful collaboration and inspiration that occurs within the AFOL community. Here's a good example of how one builder's creative idea became the inspiration for another builder to

push the concept to the next level.

Back in November 2006, Mike Huffman was inspired by the LEGO Mosaic sets (#6162 and #6163) and built a fun sliding puzzle. Mike shared his creation with a post on LUGNET (www.lugnet.com, post is http://news.lugnet.com/ announce/moc/?n=3647), along with some linked photos online. The genius of his design was the interlocking rail and groove sliding modules. Many people have built simple noninterlocking sliding puzzles out of LEGO, but this was the first interlocking design I had seen. Immediately I set out to build my own puzzle to fill a 32x32 stud baseplate.

Mike's puzzle design used a 6x6 stud sized sliding module. After building my initial puzzle, I thought it would be great to have a smaller module, allowing more sliding pieces in a similar-sized puzzle. After many attempts with overly complicated 4x4 stud designs, I found a simple solution.

Around this time I got in a dialog with Tommy Armstrong (www.brickengraver.com) about some projects using engraved and printed LEGO tiles. Tommy laid down the challenge "What's the smallest size sliding puzzle you can make?" I began more experimentation with ideas for building an even smaller sliding module. As is often the case, the best solution was based on clever simplicity. An effective 2x2 stud sliding module was devised using an upside down tile.

The puzzle frames utilize the same slotted bricks and rail plates from Mike's original design. Since slotted bricks are only available in 1x4 size, it takes a little creativity in designing the frame for smaller puzzles, particularly the corners. But otherwise, any size puzzle can be made in two stud increments.

One thing that has always annoyed me about sliding puzzles is the empty space necessary to allow movement of the pieces. I wanted to display my LEGO puzzles when not in use, so I made a removable filler piece for display. That way there isn't an empty spot, and the filler piece drops out by

turning the puzzle over and tapping it gently.

Mike's original sliding puzzle used 1x1 bricks to create the puzzle picture. With the smaller puzzles it's difficult to get a recognizable image with the resolution of the 1x1 bricks. This is where Tommy's expertise shines.

Engraved or printed tiles are the perfect medium for a

detailed image in a small puzzle. When the Nintendo DS Lite armor cases were released in late 2009 with LEGO Star Wars and Indiana Jones images printed on tiles,





naturally I had to build sliding puzzles in that size as well.

The final size reduction came as a suggestion from Gary McIntire. Gary reminded me about the new 2x2 jumper plate that was introduced in 2009. When the part was first released I considered it for use in the puzzles, but discounted the idea since the part was expensive and only available in game sets sold in Europe. But since then, the new part was showing up worldwide in new sets, so it was becoming more affordable. Gary also pointed out one benefit I hadn't considered—the engraved or printed tiles could be attached directly to the 2x2 jumper plates. This reduced the height

of the puzzles by nearly 40 percent. While the 2x2 jumper plates don't slide quite as well as the 2x2 tiles, they certainly offer a significant size reduction.

So what is the world's smallest LEGO element interlocking sliding puzzle size? Obviously a non-interlocking sliding puzzle with 1x1 modules could be built, but it wouldn't survive the test of being turned upside down. An interlocking puzzle with

four modules can the filler piece is three pieces order. I personally a puzzle, since no to get the pieces vote would be

to get the pieces back in order. So my vote would be that a six module LEGO element interlocking sliding puzzle is the world's smallest.



Printed tiles from Nintendo DSi cases, sold by a third party.

easily be made. But when

removed, the remaining

would slide around in

wouldn't consider this

real thought is required

Of course I realize anytime you claim the "World's Smallest" title, someone else will come along with an even smaller design. But I see that as a continuation of the collaboration and inspiration process, so bring it on!

The Evolution of a Puzzle Module or the Incredible Shrinking Piece!

Here's a look at how the puzzle module has decreased in size, from Mike Huffman's initial module at left to John Cooper's and Gary McIntire's latest iteration at right.





Building

You Can Build it: Sliding

LEGO® Puzzles:

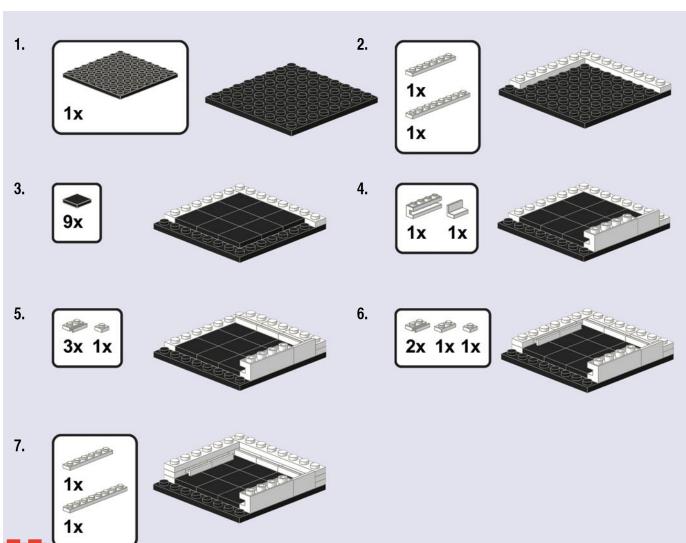
9-Module Puzzle

Design by John Cooper Instructions by Joe Meno

48

Here are the instructions to make a 3 module by 3 module puzzle. This will create a puzzle with 8 sliding modules and 1 insert module. With some thought, this can be upsized to a 4 module by 4 module or larger. Also the colors of the frame can be changed if desired.

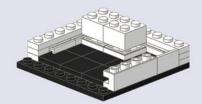
Quanti	ty Part	Description	Color
1	3023.dat	Plate 1 x 2	White
9	4274.dat	Technic Pin 1/2	White
2	6636.dat	Tile 1 x 6	Black
5	32028.dat	Plate 1 x 2 with Door Rail	White
2	3460.dat	Plate 1 x 8	White
9	3068b.dat	Tile 2 x 2 with Groove	Black
17	3068b.dat	Tile 2 x 2 with Groove	White
1	4865.dat	Panel 1 x 2 x 1	White
1	3070b.dat	Tile 1 x 1 with Groove	White
2	3024.dat	Plate 1 x 1	White
2	3008.dat	Brick 1 x 8	White
1	41539.dat	Plate 8 x 8	Black
9	3003.dat	Brick 2 x 2	White
2	3009.dat	Brick 1 x 6	White
2	3666.dat	Plate 1 x 6	White
3	2653.dat	Brick 1 x 4 with Groove	White
2	4162.dat	Tile 1 x 8	Black



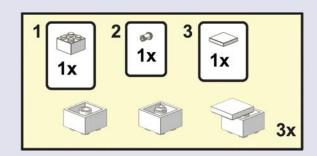
8. 1 1 1 2

3 3 1x



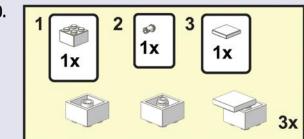


9.





10.



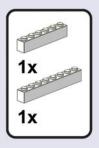


11.



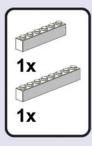


12.



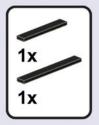


13.



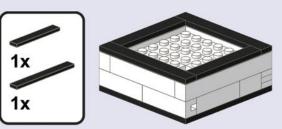


14.



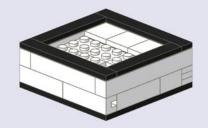






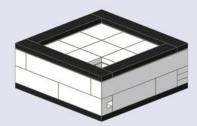
16.



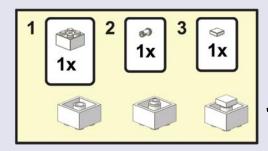


17.





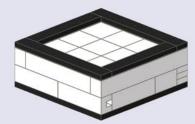
18.





19.





Here's an example of a 3 module x 3 module puzzle (left) and a 4 module x 4 module puzzle (right), These use engraved tiles, but cut stickers can also be used, or patterns can be built directly on the brick, eliminating tiles altogether. Have fun building!





Brick Journal

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Building

Minifig Customization 101:

The Best of Sculpting

Article by Jared K. Burks

As some time has passed since the introductory articles on sculpting and modifying parts, hopefully you have been creating new elements for a bit and you have likely developed an understanding of your creative style. If you haven't developed a clear style, hopefully this article will help you define or refine your style. Perhaps you are a realist in your parts creation making them highly detailed — do you tend towards the cartoony style making them oversized, or do you attempt to stay close to the style of the LEGO Company? In this article I am going to point out what I believe to be the best hand created custom parts. By doing so, I hope to teach how to evaluate custom sculpted items as well as help you refine your style for creating custom elements.

Just as in the previous article on decal design, sculpting a custom part relies on interpretation of the inspirational object in the LEGO scale and form. You need to decide what parts of an inspirational item are essential for its identification in LEGO scale and form, and which are merely too detailed to recreate, or might distract. Typically, this decision will rely on your skill level. You may start out creating very simple elements that are merely 3-dimensional shapes with little detail, and as your skill develops, you will be able to add more and more complexity to your work. Recall the method of layering when creating clay sculpture, as your skill matures, you will find adding additional layers easier.







Bluce "Arealight" Hsu's scooter and head tentacle figure. Notice the simplicity to both designs and how well they both fit into the LEGO-verse.

Simplicity

Certain items can be created in a very simple style, as using a simple style they gain an elegance to them. In my opinion, it's the simple design that is the hardest to create, but it is also the one most readily identified with the inspirational item. For example, Bluce "Arealight" Hsu has created a scooter inspired by a Vespa; notice that in Bluce's work he doesn't make anything bold, just a simple scooter with nice rounded portions. He very wisely incorporates LEGO elements for the head and tail lights, seat, and wheels. By incorporating the LEGO elements the custom item blends more readily into the LEGO environment. The greatest part of this creation is its symmetry, which likely gets discounted — many would only notice if it was incorrectly made asymmetric. This is one of my favorite custom items as it is "so LEGO" that an outsider to the customizing field probably could not tell it wasn't an official item.

Bluce carries this simple style into many of his custom items, including his tentacle head with accessory parts. He used the style of the basic LEGO head and merely attached tentacles to achieve his custom element. His head is completely minimalistic allowing the accessories to add the detail, primarily by addition of a second color to the head. The accessory items' details are

also sparse, but contain enough detail along with the color to identify the head with the inspirational character. The concept and design of the tentacle head is "so LEGO," I believe LEGO has followed the hobby. If you examine Kranxx/Rench figures from the new Space Police theme you will see that LEGO has created a head very similar in style to the tentacle head. They have added simple details to a basic LEGO head shape, the first in the official "LEGO-verse." LEGO does do something with this part that has never done before, which I consider quite brilliant. LEGO has left an open area for the mouth, because of the head's orientation paint on the neck stud the open mouth has a painted interior and I don't believe the added detail cost them a penny more in production costs. This is smart, yet very simple sculpture design that takes advantage of the production requirements.



LEGO Space Police's Kranxx/Rench head. These are official parts that speak to the heart of simple creations. The real genius is the mouth design.

Complexity

Some sculptors focus on details; these sculptors go well beyond the level of detail that LEGO would incorporate into a design. Examples of this type of work are created by Hazel-Tam of the Amazing Armory, Jason "Jasbrick" Burnett, and Nicholas "NickGreat" Sim. These sculptors see beyond the limitation of the size

and push the envelope of what is possible to recreate in this scale.

Hazel's use of complex part design is simply amazing. He adds more complexity to his figures than any another sculptor out there. In the figure below I show his modifications to the LEGO motorcycle where he creates a dirt bike. Notice the frame is still the simple LEGO style, but he has added detail upon detail. Hazel has even gone to the extreme of adding a fill-in for when the rider is not on the bike to make it look even more real in the absence of the rider.

Jason and Nick are primarily known for their cut and glue approach to sculpt/create the desired part. In their application they are carvers rather than sculptors; carving away the undesired portions of plastic. This approach is very viable and a great way to start creating custom parts. Jason and Nick are masters at this technique making it near impossible to find their joint work.

While Jason is primarily known for his cut and glue I have chosen to show one of his clay works in the figure below. It is a figure inspired by the Stargate movie and TV series. Notice the level of detail; it is simply a stunning figure. This piece also demonstrates Jason's other impressive skill, his ability with a brush. He freehand paints figures better than any other I have seen. His use of paint on this clay figure helps hide some of his clay errors, another wise tactic to use when learning to sculpt.







Hazel-Tam (dirtbike - top), Jason "Jasbrick" Burnett (fantasy figure – lower left), and Nicholas "NickGreat" Sim (Samurai lower right). These three sculptors create parts with extreme levels of detail.

Nick is known for several of his figure series, but none are as well known as his Samurai series. In case you have missed them I am showing one above. This is a cut and glue figure where Nick has created a custom helmet beyond any LEGO has produced, yet LEGO produced the parts. Nick has taken the LEGO samurai helmet















Robert "Tothiro" Martin (Star Wars Inspired parts - top) and Isaac "Redbean" Yue (helmet – bottom). Robert was the first person's sculpture I saw for the LEGO-verse. This is some of his last work. Redbean has primarily created weapons and armor. His parts skirt the line of the LEGO-verse yet still find a nice home. Unfortunately, I was only able to find a single photo of his clay work.

and added the front face plate from the Spiderman Green Goblin mask. He has removed all unneeded portions and managed to keep the plate perfectly aligned with the face. It is this vision that allows for the creation of such a phenomenal work. The figure is made all the better through the "complete" feeling obtained by adding all the accessories and keeping the style flowing through them. He utilizes LEGO elements and melds them together to create complex yet simple new figure that is beyond LEGO yet obtainable with its use and one that still fits in the LEGO-verse.

Sculpting Originators

Two sculptors in particular have struggled to create items that fit in the LEGO-verse. They are also the primary people who help introduce clay part sculpting to the hobby. Robert "Tothiro" Martin was the first person that I am aware of to create custom elements for LEGO figures. His items still set the mark as what is possible. Notice the simple details, yet the elegance to his work below. This photo shows clay versions of several of his last works in progress. Robert has set the standard and his parts are still highly sought after several years after their introduction.

The second sculptor is no longer producing items any more, yet is also one of the yield originators, Isaac "RedBean" Yue. Unfortunately I was only able to locate one of his clay items, which is shown above. Notice the simple lines and the incorporation of LEGO elements. The key to this work is the symmetry. Speaking from experience this is the hardest thing to create. Making a perfectly symmetrical part by hand takes hours of work.

Rising Star

The newcomer to the field of sculpting that I have had my eye on is Jamie "Morgan19" Spencer. He has started creating clay elements that are quite interesting. His technique is a bit rough, but he is steadily improving. The key that he has already figured out is practice. I see improvements in each of his items over the last. Jamie, like Jason, uses paint to help hide errors or make the errors part of the "texture" of the part. I look forward to great creations from him in the future.

Personal Note

I am still a relative newcomer to the field of sculpting and am refining my craft with each part I create. I have found that repetition is the key; I will sculpt the same part multiple times. I believe my best effort to date is my Cad Bane sculpt, which is still a work in progress.

When viewing a custom element it is hard to realize how many hours went into its creation; the basic sculpting, the cautious curing of the clay, and the extensive sanding to perfect and repair the sculpting errors. Time accumulates and perfect sculpting cannot be rushed. Now that you have seen what is out there, show us what you are working on (feel free to share your work and get tips on the K.A.M. sponsored forums: http://www.fineclonier.com/Forums/index.php). Remember we were all beginners at one time and only through practice will you get better.

Next Time: **Minifig Customization 101 – Q & A**: Email me (at FineClonier@gmail.com) your questions about minifigure customizing and I will do my best to answer your questions!



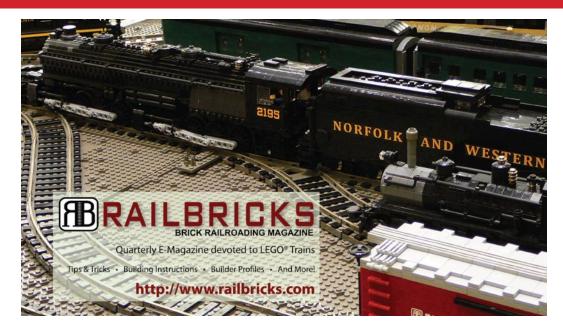
Sculpts by Jamie "Morgan19" Spencer. A newcomer to the field of sculpting, he is already showing great promise with the first parts he has created.



Cad Bane. This is my best sculpting attempt to date. The hat and head were completely custom created. The cloth jacket was generously given to me by Mark "MMCB" Parker.

Next Time:

Minifig Customization 101 – Question and Answer



LEGO Set Review: Tantive IV



History of the Rebel Blockade Runner

The year was 1977 and I was a young teenager (I'd love to lie and tell you I hadn't been born yet, but alas, I had). I had seen all of the commercials talking about some super new movie with breakthrough special effects, a great story and all of the hype to be a blockbuster. I remember going to our little theater in Aiken, SC; the Mark II (which featured two different movies to choose from, and yes, that was a rarity in

our area). We made it into the theater, the lights dimmed and this big overture from John Williams thundered through the room. Then, in a moment of silence, a spaceship flew in from the top of the screen. Then the lasers fired. And then another ship got on the screen, and kept going and going and going. I am sure everyone knows the infamous opening scene from *Star Wars* Episode IV, "A New Hope". It was lifechanging for me since it was the first time I ever saw really great space effects. I instantly fell in love with several space ships, but the two I remember the best are the *Tantive IV* and the Imperial Star Destroyer.

Fast forward 22 years to 1999. Lucasfilms released *Star Wars* Episode 1 and the LEGO Group released a new series of kits based on *Star Wars*. Once again I was first in line for the movie, and I was first in line for the LEGO sets. I got all five on the day they released (and yes, I still have all five of them). In 2000, LEGO started a new series called the "Ultimate Collector Series" by releasing a UCS X-Wing and a UCS Tie-Fighter. As expected, I bought both of them. Then 2001 came around, and LEGO upped the ante on the UCS collection with the release of #10019, the *Tantive IV*. I have two of them. 2002 ushered in the release of the biggest LEGO set to date with the release of the UCS Imperial Star Destroyer (#10030). I got very lucky on my preorder and was one of the first 10 people in the USA to get my name on the list for this massive set. Included as part of this set was the first Star Wars "MICRO" set; a scale model of the (you guessed it) *Tantive IV*.

Fast forward to 2009, and the 10th Anniversary of the partnership between Lucasfilms and the LEGO Group. By now the company has released more than 175 *Star Wars* sets, as well as more than 100 unique Star Wars minifigs. As part of this latest release, LEGO brought back the *Tantive IV*. It is a slightly smaller version of set #10019, but no less appealing. For a size comparison of the three different models, see the diagram on page 58. Even though it is a big set, and is listed as a part of the UCS line, it is far from being just a model. It has lots of features that allow you to play with the set, but it still is a detailed and fairly accurate model. As you will see in this review, there are many cool features to enjoy even after the build is finished.

Fun Facts

Star Wars Films:

Original Movie (A New Hope)
- May 25, 1977
Episoda I (The Phentom Mona)

Episode I (The Phantom Menace)
- May 19, 1999

LEGO Star Wars Set facts:

#7140 First Star Wars Sets introduced, 1999

#7191 Ultimate Collector Series (UCS)X-Wing, 2000

#10019 UCS Tantive IV, 2001

#10030 UCS Imperial Star Destroyer, 2002

#10198 Tantive IV 10th anniversary set, 2009

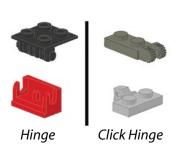
LEGO Star Wars Series

(as of 1/1/2010): 178 different sets 100+ unique minifigs

The Build Begins

The set arrived at my house Saturday afternoon, and I dove in fairly quickly, not only because I was excited, but also because I was leaving for business on Sunday and wanted to have the build finished before I left. As I always do with a new set, I got my collection of paper plates and other needed supplies that I have for every build (see photo above) and settled in for the build. Some sets come with the parts bags numbered so you only open a couple at a time, but (as is usual with some more complex models) this one did not have numbered bags. Even though the build was complex and there were a lot of pieces to go through, I took my time and I got through the build fairly easily. I got all of the parts out and setup (making sure my dogs didn't eat any), I put a movie into the DVD player, got my milk and started building.

The first portion of the build involved making the superstructure (in layman's terms, this is the framework, rarely seen, that holds the constructed object together). The superstructure includes several hinge and click-hinge pieces (see the graphic below) that will allow the model to have the complex angles it requires. The middle section play area then started to form with a command center complete with a captain's desk. The desk is a great example of "SNOT" (Studs Not On Top) construction.





Ready to start building the set.



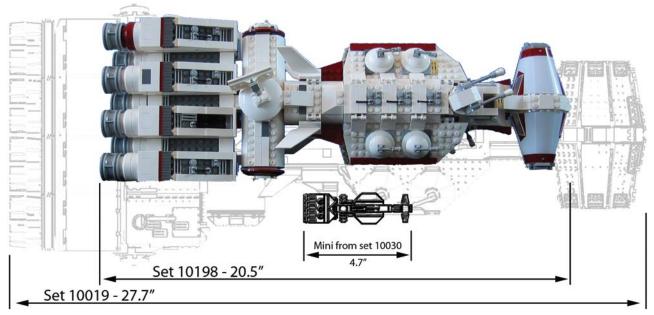
This is an example of SNOT construction. By placing the two 1x1 bricks on their sides, the finished desk can be fastened to the floor.







The build continued forward where I was introduced to a couple of new elements used to make the conical navigation centers. Even though it is possible to make the basic shape with normal elements (see the design for the original Tantive IV model), by developing a new element, LEGO has added another area where people can play with the model. Minifigs can fit in the sections and the model's design allows the top half to open for easy access.



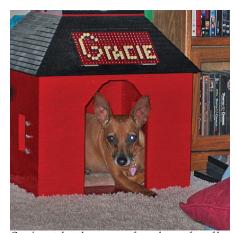
size comparison of the three Tantive models



Example of greebling.

Along the way, there were small sections made for the outside of the ship with lots of "greebling." Now, in case you are wondering what greebling is, this is a term made up by the LEGO Space community to describe a portion of a model where there is a great deal of detail added to make the model have more texture.

At this point, the instructions took me to the back of the model, the movie had ended, I was getting sleepy and the dogs had already crashed. Teddy was so deep in sleep that he was actually snoring. I guess he won't be buying any LEGO sets soon.



Gracie watches the progress from the comfort of her doghouse. Note that the doghouse is made entirely from LEGO pieces.



My dogs love to help build sets, but usually their help consists of bothering me or running through the build area and scattering pieces everywhere. Here Teddy decides that I need to clean behind my ears.

I managed to finish putting all 11 engines together and to attach them to the main model. The one thing I was really not happy about with the model so far was the lack of places to easily grab the model and move it around without knocking pieces off of it. Since it was now well after midnight, I took one last picture, scooped up the dogs and went back to the bedroom for a good night's sleep.

The next morning I got up and went back to work. The rest of the build was very similar to the first part, except that I did have a moment of stupidity, which I quickly corrected. (Not

worry. If you

do run into a

problem where a piece is missing, you can get a replacement easily enough. See the sidebar about Customer Service). I finished the build about 30 minutes before I had to leave for the airport (remember my business trip? I had almost forgotten). I rushed through packing my belongings in a suitcase and then rushed back into the family room to quickly pack up the model and get it out of the room. My wife enjoys seeing the creations I make, but she is not happy at all when I go out of town and leave these creations all over the house.

Review:I think this is a good model overall and will be one that kids and AFOLs alike will enjoy. The detail

is nice and the ability to play
with it will appeal a
lot to children. There
are a number of
building techniques

demonstrated that will help less experienced builders learn how to enhance some of their own creations.

As I stated earlier, the model has one drawback, and that is the ability to easily pick it up and move it around. Unfortunately the overall design of the real ship makes it difficult to design this model with good pickup points. On the good side, the model is solid and if you do knock off sections, you should be able to put them back on quickly, and without having to consult the instructions. Also, I can guarantee this version is a LOT easier to move around than the original Tantive IV UCS model. The dogs gave the model a final sniff and told me they didn't care one way or the other about the model. They were just glad that I had spent time with them building it.

I give the model a score of 4 out of 5. The dogs give it a sniff and two tail wags.

They may have liked it more if I had let them chew on the pieces.



During the build, I got to a step where I used the wrong color piece. Later I got to a step where I did not have enough of the piece I needed. I had to go back through the instructions and find my mistake (missing pieces is almost always caused by using the wrong piece somewhere earlier). However, if I had not found the pieces, I would turn to LEGO Customer Support.



I needed three trans-yellow round plates but only had one. I found an earlier step where I had used the trans-yellow pieces when I should have been using tan pieces.

Customer Support

If you run into a problem with pieces missing or defective, you can call LEGO Customer Service and they will help you. Just let them know what piece is missing and from what set (they will ask you to give them the page and step number from the instruction manual, and they will ship you a new one. Usually there is no cost for this service. You can get the phone number from the LEGO website.

The LEGO Group



Pirates in LEGO[®] Land

Article by Matthew Hocker Photos Provided by the LEGO Group

Top: A recent pirated set.

Above: A much older counterfeit with its LEGO counterpart at right.

While 2009 witnessed the glorious return of the LEGO Group's popular Pirate theme, they have certainly been no stranger to pirates. But instead of the swashbuckling type, the pirates I'm referring to are those who deal in the production and distribution of counterfeit merchandise. Counterfeiting is the art of copying already existing merchandise and selling it for profit, a huge issue in today's world that certainly won't be disappearing anytime soon. Most people are already well aware of several types of bootleg products that make their way into the market, such as CDs, DVDs, and even apparel. However, LEGO products have also been and continue to be an all too tempting target for counterfeiters. Say all you want to about the "clone brands" out there, but by the time you've finished reading this article, *Megabloks* won't seem so bad anymore.

Interestingly enough, the story of LEGO product imitations begins relatively early in the history of the brick. According to the LEGO Group, they have faced this problem since as far back as the 1960s. For example, check out the photograph of Tekton's counterfeit version of the LEGO Group's classic "Giftbox," (LEGO set 700/4 & 700/5 according to the LEGO Collector's Guide). In making their logo feature white lettering outlined in black, framed in a red oblong, Tekton used a tactic that many future LEGO counterfeiters would use. Specifically, they made their logo look very similar to the LEGO Group's various logos used between 1955 and 1959. Just as important, the picture used on Tekton's set is virtually identical to the one that the LEGO Group featured on several sets produced between 1955 and 1961, including the "Giftbox." Even though the background of the imitator's picture is of a different color than that of the picture featured on the original LEGO product, the two children and the models in front of them are exact copies from the original image. However, just as companies touch up photos to get rid of undesired images, so too had Tekton decided to delete the little girl that had been in the middle of the original LEGO set's picture. Whatever their reasoning behind this was, they certainly couldn't "delete" the LEGO Group.



Top and bottom: A couple of Enlighten's counterfeit sets compared to their LEGO set counterparts.

Flashing forward to the present-day world, the business of counterfeiting LEGO products is still very much alive and well. Today, most LEGO forgeries come from China despite the Chinese government's attempts in recent years to curtail counterfeiting within its borders. Such "fakers" produce two types of counterfeit LEGO sets; those that are exact copies of LEGO sets and those sets that feature identical copies of LEGO bricks packaged along-side those of the counterfeiter's. For example, the infamous company of Enlighten has engaged in both types of counterfeiting. Among the other more recent manufacturers of fakes are brand names, such as Bela, Dalu, and the ironically named *Shifty* and 666. Shifty is of course, the word associated with suspicious activity, and 666 is the number of the Devil. If anything, at least they seem to have a sense of humor. (Dalu made imitations in the '80s and is no longer on the market - *Editor*.)

Meanwhile, no LEGO set is safe from being replicated by any of these counterfeiters. *Bionicle, Technic, Racers*, and several sets from a wide variety of *LEGO System* themes have become victims of forgery. Sometimes they target more recent sets, and *Enlighten* is one such company. However, *Enlighten* is also well-known for producing copies of long-since discontinued LEGO sets, including themes such as town, space, the original pirate line and, more recently, 9-volt trains. And while some might





argue that *Enlighten* is doing AFOLs a favor by re-releasing their favorite sets of old, the reproductions are unsurprisingly of an extremely poorer quality in comparison to that of the legitimate LEGO sets (more on that in a future article of *BrickJournal*). Therefore, while the fakes may be cheaper than the real thing, you really are getting what you pay for.

Although the problem of counterfeiting LEGO sets is still a huge problem, and tracking down the exact locations of the perpetrators proves extremely hard, the *LEGO Group* still continues to persevere in their fight against counterfeiters. Because of this, the *LEGO Group* keeps an eye on the international market, taking legal action in any country where these imitations are found. Their first step is to send a cease and desist letter to the local importer or distributor guilty of trading in counterfeit LEGO sets and, if all else fails, the *LEGO Group* moves toward filing a lawsuit. According to the company, through the aid of a global network of excellent lawyers, along with the legislations of other countries that deal with issues of copyright infringement and unfair competition, their "...possibilities of preventing the existence of product imitations [in most countries]...are fortunately rather good."

Customs authorities throughout the world have also proven to be a valuable ally to the *LEGO Group* in their battle against counterfeiting. Because they have filed an application for

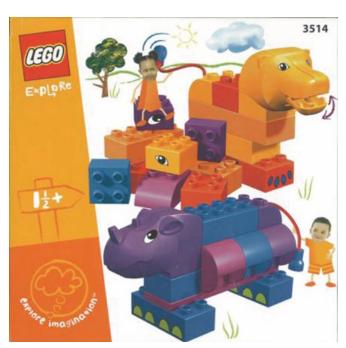




Above: Enlighten sets destroyed in Finland.

Below: Another pirated set by another company, with the LEGO set at bottom.





Customs surveillance, the company has access to product imitations obtained during customs authorities' seizures of suspicious cargo. The *LEGO Group* is then able to examine these imitations and, if deemed appropriate, take legal action and have the fake sets destroyed. Such was the case in 2003, when customs authorities in Finland confiscated over 10.5 tons of *Enlighten* sets, after which the *LEGO Group* took the issue to court and won their case by default since *Enlighten* failed to show up. After their victory, the *LEGO Group* then had the well-earned pleasure of having the imposters completely crushed and incinerated.

However, another problem exists with websites such as eBay, which make it even easier for individual sellers of counterfeit merchandise to sell fake LEGO sets. If the AFOL were to ever come across any complete counterfeit sets on e-bay, most of them would be very hard to mistake for actual LEGO sets, as the boxes themselves are usually a reliable indicator of whether or not the set in question is a fake. But take the box away, and it becomes increasingly difficult to tell the difference based on a picture alone, especially for a novice collector or an uninformed parent buying a set for their children. In fact, according to the *LEGO Group*, there are numerous instances where average consumers have encountered confusion in regard to these fakes. For example, they note, "our Consumer Service Center in Enfield receives many calls from confused consumers each month [related to the issue of counterfeit sets]."

Although the chances of us AFOLs unintentionally picking up a fake set may seem pretty small, it still doesn't hurt to educate oneself. Become familiarized with sets you're interested in purchasing by learning everything you can about them, especially their contents and appearance. Also, be aware that sellers can, and often do, list non-LEGO sets on eBay under the "building toys" sub-category of the larger "toys and hobbies" category, and some even sneakily include the LEGO brand name in their listing titles (ie: "fits LEGO," "compatible with LEGO"). This is a form of deception, whereby the seller is using the name of a far more familiar company to try and increase the number of views their merchandise receives and, in turn, increase their potential sales. Lastly, if anything looks suspicious and you are unsure about what you're dealing with it doesn't hurt to ask for a second opinion on internet forums, such as LUGNET and Eurobricks.

As one can see, counterfeit sets have been a continuing problem for the *LEGO Group* since the early days of the LEGO brick. And despite the help of international law and customs authorities, for the time being, there is no way to fully eradicate the counterfeiting, especially since the internet has proven itself to be a valuable asset to this illegal industry. Yet, it is ultimately up to you as the consumer to educate yourself regarding these fakes, both to avoid purchasing them and to then pass on the information to others. To further assist you in this, I will be comparing an *Enlighten* set with the real LEGO set it is trying to imitate in an upcoming issue of *BrickJournal*. In the meantime, I hope that this particular article has somehow served to "enlighten" you on the subject (pun intended).

Information on the author:

Matt Hocker is a 24-year old resident of Palmyra, PA and is recent graduate of Lebanon Valley College with a Bachelor's Degree in History. He has been an avid LEGO fan since the age of four, and his favorite themes include Town/City, Trains, Castle, and Pirates. Additionally, he enjoys modeling various historical subjects, especially the American Civil War.



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Community

Stepping Back in Time:

Visiting the LEGO[®] Archive

Article by Megan Rothrock Photography by Huw Millington and Megan Rothrock



Ian Grieg (front) and Huw Millington (back) photographing sets for Brickset.com.



Megan Rothrock carefully restores a classic LEGO Town set to its rightful place.

There is a place that is a LEGO fan's dream: a deep underground room at an undisclosed location in Denmark where sitting on shelves are row after row of mint condition LEGO sets, from the distant origins of the company to next year's sets still a few weeks from release! Access to the vault is limited—no one except those in charge of maintaining the LEGO Archive are allowed access to the room. With so many valuable items and rich historical LEGO sets, it's easy to understand why it is so well-guarded. In November 2009 Brickset (a website —www.brickset.com— managed by Huw Millington, Grahame Reid, and Ian Grieg) was allowed access to this most hallowed place of any AFOL. *BrickJournal* was invited along to document this rare privilege, and to give a hand in their archiving quest.

The LEGO Archive is a very important part of retaining the product history of the LEGO Group. It can be a source of inspiration for LEGO Designers and marketing teams able to see firsthand how solutions have been found in the past, and it gives an important reminder to new employees of the company history their work will be building on.

Since it is normally impossible for AFOLs to visit the LEGO Archive, even when invited to Billund, it was decided to let Brickset into the vault to take photographs of sets that were missing from their online database, so fans worldwide could at least have access to high quality images of these old LEGO sets.

We were lucky to have the help of an expert in LEGO history as we were watched over by Mr. Mogens Møller Andersen, a retired LEGO Group Warehouse Manager who worked at the LEGO Group from 1969 till 1998. Mogens explained to us how things were arranged in the archive: "Keeping with the tradition of LEGO things, each row of shelves is called a street. Each section on a row of shelves is called a house. I think it is a nice touch when looking for a particular set from a certain year, it adds to the nostalgia."

Ian Grieg, an administrator and photographer for Brickset, had brought a digital SLR camera and photography lamps, as we were approved to set up a makeshift studio in the vault. Brickset's current online database has a lot of information, but still has many gaps. Also, some images the site had acquired of some sets were of poor quality. The visit allowed the opportunity (time allowing) to get better pictures of these sets too and to fill Brickset's database gaps. In order to cover as many years as they could, Ian was set in charge of the camera, Huw was in charge of entering the set numbers to the database, and Mogens and I would bring the boxes to them and return them neatly to their correct house and street.

With everything set up and using the utmost of care, we began at the first street: 1958-1972. We were surprised to discover just how much of the LEGO archive was missing from Brickset's database. The time seemed to fly by as we

journeyed back to the early years of LEGO sets. It was amazing just how many sets were actually released back then, and how many expansion packs and accessories sets were available, as we left the first street and started onto the second: 1972-1979. We noted that there was quite a shift in the product line when the LEGO minifigure hit the scene in the late '70s. With the sudden arrival of Space, Castle, and Town, it was a mini-figure paradise!

As we got into the '80s, we couldn't believe how many LEGO Fabuland sets came out. The '90s and'00s surprised us further with not only the shift in brick by brick LEGO models to a more 'modular' style of building and also an increase in the amount of licensed products: Star Wars, Disney, Harry Potter and such. Our time in the LEGO Archive seemed almost too short — we could have stayed for weeks — but before we knew it, we had achieved our goal. It was time to go.

As a LEGO fan, you can rest easy knowing that great care and devotion is being given to the LEGO sets of the past by the company itself, preserving them to be enjoyed by future generations. Thank you to Jette Orduna, Mogens and the LEGO Idea House team, for allowing Brickset and BrickJournal the opportunity to share LEGO history with the rest of the AFOL world, and I'd like to thank them here in print for doing their jobs so well and helping to preserve LEGO History for future LEGO fans of all ages around the world.



Ian Grieg takes a quick moment to pose with a treasured childhood set!



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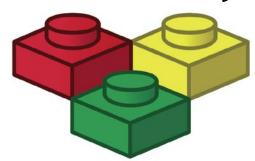






Community

The History



of Brickset.com

Article by Huw Millington and Megan Rothrock Photography by Huw Millington, Ian Grieg and Megan Rothrock

One of the many sets photographed in the archive. Note the split in the cellophane wrapping. Brickset.com is an online database of LEGO® sets which today is one of the most visited LEGO-related websites on the Internet. Megan Rothrock recently caught up with its founder Huw Millington, who lives near Southampton on the south coast of England, to find out more about the site.

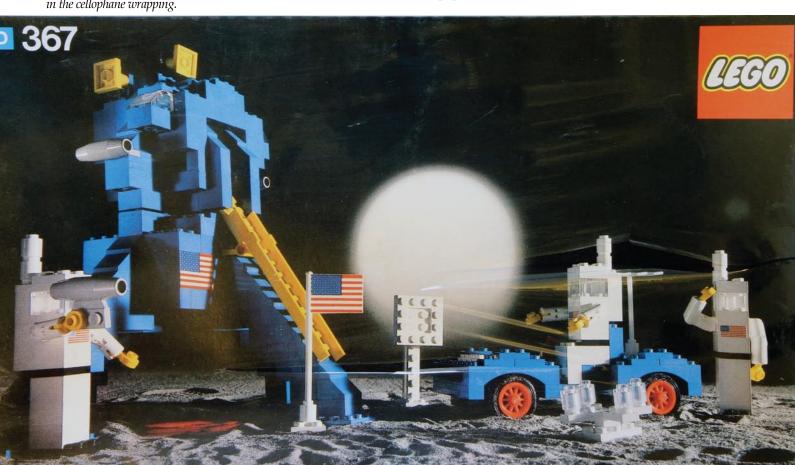
I understand Brickset has been around for quite some time. When did you set it up and why?

Huw: The site was launched in 1997 and was originally hosted on my local ISP's server. Brickset.com came into being in 2000. So, in one shape or form it's been around for 13 years, which is probably longer than many *BrickJournal* readers have been AFOLs!

In 1997 the Internet was a very different place to what it is today. There were quite a few LEGO sites around but none of them provided comprehensive information about LEGO sets and their availability. In the mid '90s LEGO produced a lot of sets for co-promotion with other companies that were not available in normal toy shops. For example in the UK, a series of small sets was available only from Blockbuster video, and a range of sets, including a Model Team Ferrari (set 2556), from Shell petrol stations. There were many such promotions around the world so the original aim of the site was to keep track of what was available from where, mainly for my own benefit as a collector. It was handy having the website out there because people would contact me to provide new information thus helping to keep it up to date. In fact they still do!

Brickset's database now contains just about every LEGO set ever made, how did you go about collating all that information?

Huw: I have Grahame Reid to thank for that: I had been corresponding with Grahame (on the Usenet newsgroup rec.toys. lego), who maintained his own comprehensive database, at the time of Brickset's launch and basically we teamed up: Grahame started populating the database with his data and has been





Huw Millington.

helping to maintain it ever since. In the years that followed other online databases appeared which served as a useful way of cross-checking our information. More recently, the publication of the *LEGO Collector's Guide* has proved very handy for identifying gaps in our coverage. There are now three main database administrators: myself, Grahame and Ian Grieg: between us we try to keep on top of the hundreds of products launched by LEGO every year.

What's changed on the site since it was launched?

Huw: The biggest change was the introduction of usergenerated content. The first thing added was set reviews and ratings. Later I provided a means for users to record their collection on the site so that when searching or browsing they can see which sets they own in, for example, a particular theme, and which ones they don't. Around 18000 people use this facility who collectively own about 1.2 million sets (that's an average of 66 sets each!). With all this data about everyone's collection we can show how many people own a particular set, what sets are popular and so on.

it into Brickset and it's now also possible to export your collection to Peeron to see a list of all the parts you own.

I recently added a facility which I called BrickLists to enable users to create lists of sets to share with others. This is a useful way of grouping what would otherwise be unrelated sets, such as all the red Bionicles, or all the sets which were available as part of a particular promotion.

Where does the news for the home page from?

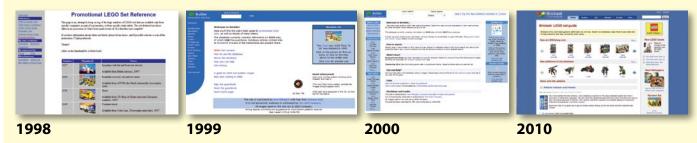
Huw: I read a lot of other LEGO sites such as EuroBricks, FBTB and Brothers-Brick and also search Google News for LEGO related articles to try and keep on top of breaking stories but the majority of our news comes from Brickset's readers: they are great at finding things I might otherwise have missed. We also have news correspondents in the USA, Canada, UK, Australia and New Zealand who keep an eye on what's happening locally online and in bricks-and-mortar shops. We aim to be a one-stop-shop for LEGO related news but we are careful to respect LEGO's confidentiality and don't report things which we believe breaches it, such as information from retailers' catalogues. This can be frustrating for us and our readers when the information is already out there elsewhere, but I believe it does help foster a good relationship with LEGO which has offered opportunities such as our visit to the LEGO Archive.

What do you have planned for the future of the site?

Huw: I recently conducted a user survey to find out what people like and dislike about the site and also if they had suggestions for improving it. This resulted in some great feedback and ideas, some of which I hope to implement this year. I won't tell you what I have planned as that'll spoil the surprise, but rest assured that I certainly don't plan to let the site stagnate.

On the database side, our visit to the LEGO Archive provided Ian and I with the opportunity to photograph many old

BrickSet Through the Years



Having users contributing to the site adds such a lot and changes it from being just a static reference to a thriving community.

Last year I reached agreement with the BrickLink community to use their minifigure data so you can now see the minifigures that appear in each set and which sets a particular minifigure appears in. If you've recorded your set collection on the site, you can also view a list of the minifigures you own and, just as importantly if you're a collector, those that you don't!

I've also made it easier to get data in and out of the site and provided better integration with other LEGO websites. If you have your collection recorded at LUGNET, you can import

sets which we didn't have photos for previously, so we're currently adding those and while we're doing so, making sure that the data we have about them is complete and accurate.

Thank you for the opportunity of doing this article. I'd also like to thank everyone who visits and contributes to Brickset: the site wouldn't be the same without you!

I'm always happy to receive feedback and suggestions so if anyone wants to get in touch you can do so at huw@brickset.com.

Thanks Huw!



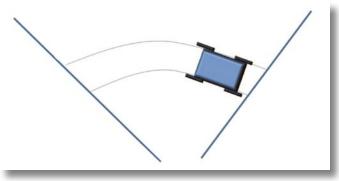
Mastering
FIRST LEGO League:
Calibrating the
Robot (Turning)

Article by Randy Miller and Tatiana Znayenko-Miller

This is the fourth in a series of articles about both basic and advanced techniques that can help your FIRST LEGO League team achieve mastery of the robot and the game. This article discusses the calibration of your robot as you prepare to solve this year's challenges. There are many aspects to calibrating LEGO MINDSTORMS NXT robots, including the programming languages, drivers, motors, turns, batteries, friction, and the center of gravity. We will examine each of these in the coming articles. This article describes the various ways of turning a robot. In Part V of this on-going series, we will discuss the framework for organizing programs.

In the 2007 challenge, Power Puzzle, teams could score a lot of points without turning. However, for most of the other challenge years, accurate turning was crucial to obtaining a good score. Turning a robot sounds simple, but many teams only know only one way to actually turn their robot. Since they know only one way of turning, they use this one way for all of their turns. Using a single turn makes their "runs" that much harder. Harder runs lead to inefficient paths through the challenges which cost time and accuracy.

Let's start with a couple of assumptions. While some robot designs incorporate steering like a car, nearly all FLL robots use differential drive (also called tank or skid steering) for steering. With differential drive, motors drive two parallel wheels which propel the robot. When one of the motors travels more slowly than the other, the robot turns in the direction of the slower motor. Both NXT/G and Robolab (see Part 3 of this series) have the ability to turn the motors independently to allow differential drive steering.



Differential drive turning

This article describes three different ways of turning: the one-wheel, the two-wheel, and the steering turn. This article presents some pretty advanced NXT/G programming constructs, so if you are new to NXT/G, some of these things may seem new to you. Don't worry, we show you the code so that you can try these things out. Later articles will further discuss some of these concepts. In the interest of space, we only show the NXT/G code for these turns. At some point, we will post the equivalent RoboLab code on one of our websites (stay tuned). Most teams use the "B" port of the NXT "brick" for the right hand motor, and the "C" port for the left hand motor (if you are facing the same direction as the NXT would be moving in). The "A" port is usually for the attachment motor.

Key Factors in Making Turns

The key to the different robot turns is the axis of rotation. The axis of rotation is the center of the circle formed when we turn the robot. Understanding the axis of rotation is critical to getting the correct behavior out of our robot. We can place the axis of rotation anywhere from the center of our robot to some arbitrary point a certain distance away from our robot.

When the axis of rotation is in the center of our robot, we turn in place (at least to some degree). When the axis of rotation is outside of our robot, we turn in a circle whose radius is the distance to that point. This distance is not

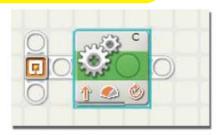
unlimited but can be fairly large. A special axis of rotation is one of our wheels and many sharp turns in FLL are made on this axis.

Another key factor is the speed of each wheel, and more importantly the difference in speed. The higher the difference in speed, the sharper the turns will be. Really sharp turns happen when one wheel is still (and of course it becomes the axis of rotation). Really large turns can be created when the two wheels differ by a few degrees or a few tenths of a rotation.

Finally, there is the angle of rotation. You may want your robot to turn right or left. The right or left turn is usually to turn the robot 90 degrees (not to be confused with the motor going 90 degrees). When planning a turn, it helps to have some idea of how far you want it to go. Robots may want to turn around (which is 180 degrees) but they rarely go in a complete circle (which is 360 degrees). Common turns are 45 and 90 degrees (to either the left or right) although the FLL designers seem to build challenges that require us to turn at all manner of angles.

Three Turn Types

One-Wheeled Turn



There are three different types of turns. The first is the easiest to program and it is called the one-wheeled turn. With the one wheeled turn, one wheel turns while the other wheel stays still. The axis of rotation for the one wheeled turn is the non-turning wheel.

It is interesting to watch a robot turn on this wheel as it can often cause you to reevaluate where you want your robot's wheels. In fact, many a robot has undergone redesign after it was made clear that parts of the robot got in the way during just this simple turn.



Steering Turn



The steering turn uses NXT/G to decide that one port (motor) gets more power than the other. If you look closely, you will notice that Steering slider bar in figure 3 is moved toward the C port. This tells NXT/G to put more power to this connected motor than the other motor. The difference between this turn and the one-wheel turn is that unless the slider is positioned to the far right or far left, both wheels are moving although one moves slower than the other.



The axis of rotation for the steering turn can be a single wheel like a onewheeled turn or a point outside of the robot. By moving the slider close to the center, your turn gets wider. Of course, if the slider is in the dead center, the block is simply a straight move. So that position is not valid for turning.

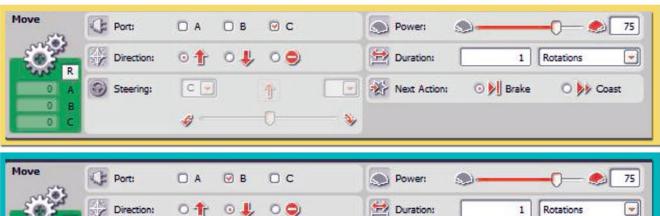
Two-Wheeled Turn



The final turn type is Two-Wheeled turn. This turn is a lot like the steering turn, but the difference is that you control the difference in speed between the two wheels. The blocks are performed simultaneously by virtue of the two blocks being aligned vertically. The second programming beam is created by pressing SHIFT while clicking on the hole right before the "move" block. Drag the beam down and connect it to the second "move" block.

With two-wheeled turns, the wheels can turn in the same direction (like a steering turn) or in opposite directions. When the wheels turn in opposite directions at the same speed, you can turn in place. When a robot turns in place, the axis of rotation is in the center of the robot between the two wheels.

Next Action:



Turn Problems: Steering Turns

The Steering and Two-Wheeled Turns have problems that can be trouble to a FLL team. The steering turn lever has approximately 10 different positions on each side. That means that the granularity of the turns is rather coarse. In other words, if you are using a steering turn and decide that you want to turn a little bit sharper, you may be out of luck.

B

Fortunately, there are multiple ways to input the value for steering. Using the steering slider bar just happens to be the easiest. Another method of inputting steering parameters is to use a variable. We can see from the NXT Guide that the steering parameter actually has 100 possible values on each side. There are 201 possible steering positions (although 0 is straight, not a turn).

Steering Parameters on the Move Block [1]

● Brake

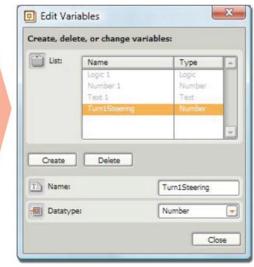
O >> Coast

	Plug	Data Type	Possible Range	What Values Mean
9	Steering	Number	-100 to 100	< 0 = steer to wards left motor. > 0 = steer towards right motor

Defining a Variable

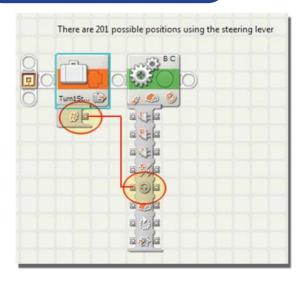




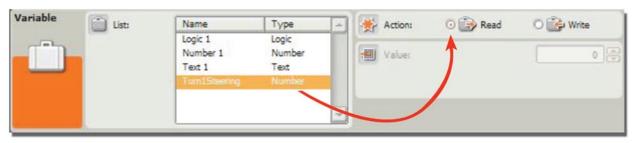


To access these positions, we need to define a variable called "Turn1Steering". From the "Edit" menu, choose "Define Variables" and then push the "Create" button. Set the name to "Turn1Steering" and the Datatype field to "Number".

Setting the Read Variable



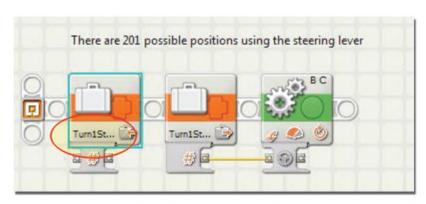
Create a new "Read" variable block and a move block. Open the data wire connections by clicking on the bottom tabs of the blocks. Set the variable to the name "Turn1Steering". Connect the "Read" variable to the "Steering" hub. To connect the variable to the steering hub, mouse click on the variable hub and drag the resulting wire to the steering (little steering wheel) hub. Click on the hub to connect it. This takes practice so "Ctrl-Z" (undo) is your best friend when you want to back out of a broken wire.



Setting the Write Variable

Now, create a "write" variable block before the "read" variable block and name it "Turn1Steering" as well. This is where you set all of your value information. Let's start by setting it to the value "50".

You should be ready to use your enhanced steering turn.

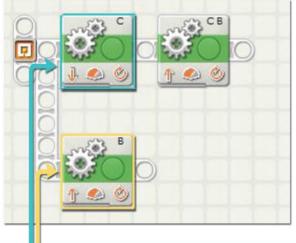




Turn Problems: Two-Wheeled Turns

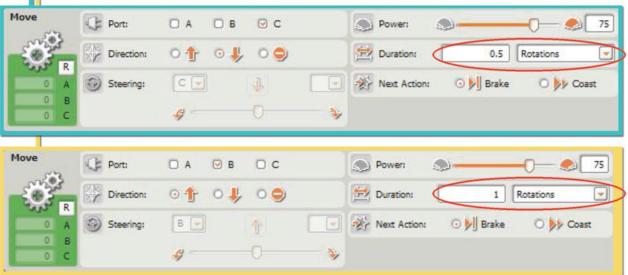
Two-wheeled turns have a couple of ways to trip you up. The key to a Two-Wheeled turn is that the two blocks are running simultaneously. Any other behavior ruins the turn. So let's look at the first way that people get tripped up with this type of turn.

A Poorly Executed Two-Wheeled Turn



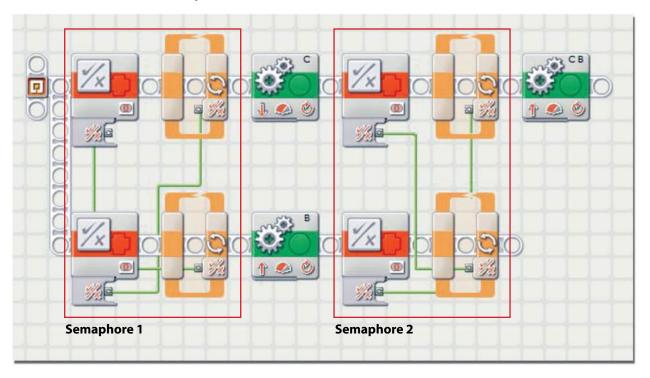
We often come out of a turn and go straight ahead or maybe into another turn. In the example shown to the left two blocks are being performed simultaneously, but the block that turns the "B" motor will take longer because the duration of the "B" block is longer and the power is the same. Thus, the line that performs the "C" motor move will move into the next block before "B" block is done. The result will be two sets of commands to the "B" motor simultaneously, which never performs well.

If you switch the two blocks, this will work fine. But always be sure that longer running block is on the main thread.



Using Semaphores to Coordinate Blocks

Another problem that the two-wheeled turns have is that they sometimes don't execute at exactly the same time. A solution to this problem is to create the equivalent of semaphores (used in Unix) in NXT/G [2]. With a semaphore, you synchronize the two threads and don't let one execute until the other is ready.



The key to creating these semaphores is to start the wires from the loop (those orange things in figure 9). NXT/G will not allow you to create a valid wire when you start the wire from the logic block. You can put semaphores before and after the blocks of the two-wheeled turn to keep all of the blocks synchronized. The loops wait until the other thread is ready.

Creating Common Turns: The MyBlock

There are certain turns that tend to be the staple of an FLL strategy. The 45 degree and 90 degree turns just always seem to be necessary. You may want a "MyBlock" for each of these angles and for each turn type to shift the axis of rotation.

Creating "MyBlocks" or reusable building blocks for these turns can be an interesting task to get ready for the season. However, each robot performs turns differently, and the same robot will perform a turn differently with an attachment on it.

One way to handle this variation is to try to make your attachments with as little resistance as possible. This is easier said than done. More likely, you will recalibrate your turns based on robot design and attachment friction. Be concerned when your attachments radically change your turns as it is a sign of something that will likely bite you in competition.

Conclusion

Calibrating the turns to any new robot requires time. Experimentation is required to get used to the differences between the turn types and when to use them. We often set the axis of rotation when designing the challenge runs and move the robot around it. For example, when trying a one-wheeled turn, hold one wheel fixed and manually move the other. See if the robot is capable of doing what it needs to based on that turn type. If not, choose another.

Consider these turn types as tools in your FLL toolbox. Many teams spend a huge amount of time trying to use the steering turns (which are shown in the NXT/G guidance) for all of their turning needs. The limitations of this (and any other) turn type leads to frustration. You can find more helpful information on FLL in this continuing series in *BrickJournal* and our forthcoming book that will be available just before the start of the 2010-2011 FLL season [3].

References

[1] LEGO MINDSTORMS NXT version 1.1 Help

[2] Brian Davis, http://forums.nxtasy.org/index.php?showtopic=509&hl=Semaphores and private communications.

[3] Randy Miller and Tatiana Znayenko-Miller, Winning Design! LEGO MINDSTORMS NXT Design Patterns for Fun and Competition, Apress, 2010.

Not quite LEGO

This issue: Marvel (MiniMates) Team-Up!

Art Asylum's MiniMates figures are a line of block figures that have become very popular. The line started on 2002 with a 3" block body design with 14 points of articulation and featured figures from several different licenses, including Star Trek, KISS, Rob Zombie and Bruce Lee. A short while later they scaled their body size down to a 2" version with figures from licensed properties like Lord of the Rings, Battlestar Galactica and Star Trek (Look for my article about the Battlestar Galactica and Star



Trek lines in BrickJournal #?) and more recently *Terminator* and *GhostBusters*. In 2004 they even did a short-lived line of *Batman and Justice League* figures that came with LEGO knock-off brick construction sets called *C*3.

However, MiniMates most successful line has been their Marvel Heroes line. This spring will see their 35th wave of Marvel figures. Right now there have been over 100 different Marvel characters made, ranging from different incarnations of the same character (like modern, classic and 1st appearance costumes) to versions of Marvel characters as seen in their movies (like *Iron Man* and *X-Men: Last Stand*).

Because of the high number of characters created, this allows you to actually put together complete super-hero teams— something always not possible with regular lines of action figures. Art Asylum, possibly realizing that people liked having complete teams, started putting together waves that contained characters from a certain team, instead as just a random assortment of characters. For example Series 12 was the *New Avengers* wave, Series 13 was the *Astonishing X-Men* wave. The popularity of assembling teams lead to Art Asylum releasing boxed sets exclusively featuring teams, like the *Champions* and the *Defenders*.

Here's a look at some of the Marvel teams that can actually be put together:

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 MegaBloks, but about other toys that are sometimes similar to LEGO, or may be of interest to LEGO fans in general!

X-Men

There have actually been many versions of the popular X-Men released over the years, allowing fans to put together X-Men teams from their favorite era of the comic.

It started in 2003, when through Diamond Select Toys; Art Asylum released the Giant-Size X-Men #1 boxed set. The box and the figures weren't "giant-size" but the name refers to the comic "Giant-Size X-Men #1," which is the first appearance of the "new" X-Men. The box even features a MiniMate reproduction of the comic cover. The set comes with Giant-Size X-Men versions of Wolverine, Storm, Nightcrawler, Colossus, Cyclops and Thunderbird. All of these figures, with the exception of Thunderbird, and much to the anger of collectors, were re-released in separate 2-packs. Since the fan outrage at doing this, no figures have ever been re-released (characters have been redone with new and revised deco, but the exact version of a figures has not been re-done since). Add figures which later came out like Professor X and Phoenix to this group and you have a pretty good representation of the fan-favorite '70s and '80s version of the X-Men (we're still waiting for Banshee and Sunfire figures to round out the team!).



Even before the Giant-Size X-Men #1 set came out, Series 3 features characters from the Ultimate X-Men version of the X-Men. Really, only four characters were made, Wolverine,

Storm, Jean Grey and Cyclops. It would have been nice to have had Ultimate versions of Iceman, Colossus and the Beast to round out the team, but seeing that the figures came out around the same time as the first X-Men movie, their choice of characters were surely trying to cash in on character recognition generated by the movie.

Recently, Art Asylum released two X-Men themed boxed

sets. The first one was a First Appearance X-Men set and the other being an X-Factor set. Both these sets were sold as exclusives through the Action Figure Xpress website.





The First Appearance X-Men set came with Cyclops, Marvel Girl, Iceman and the Beast in their classic yellow and black costumes. Because Art Asylum has been recently limiting their

boxed sets to contain only four figures, the fifth member of the classic X-Men team, Angel, was relegated to Series 31, which came out around the same time.

There was some controversy around the Angel figure. Originally, when Series 31 was announced the 1st Appearance Angels was to be the chase figures (meaning less of these figures were made making the harder and often more expensive to get). Because of the high amount of fan outrage, Art Asylum decided to make 1st Appearance Angel the regular figure and Angel in his current blue and white costume the chase figure. Fans were quite happy and impressed that their opinions had been listed to! However, seemingly due do to an error at the factory, when the wave came out stores got lots of the "Chase Variant" blue and white Angel, and 1st Appearance Angles in low amounts, making him harder to get.

X-Factor was a comic from the early '90s where the "original" X-Men were reunited in a new team. So, the X-Factor boxed set comes with the same characters,



Cyclops, Marvel Girl, Iceman and the Beast, as the First Appearance X-Men set. But this time they are all in their X-Factor costumes. Once again, X-Factor Angel was relegated to a regular 2-pack release and once again, there was controversy over his figure!

X-Factor Angel was released in a 2-pack as a Toys R Us exclusive. And like all Toys R Us exclusive MiniMate sets, this was produced in smaller amounts than non-exclusive Toys R Us MiniMate figures. This has made X-Factor Angel one of the hardest and most expensive to get. Within a month of it coming out, Angel it goes for an average of \$40-\$50 on eBay.

Continuing on the "original" X-Men theme, a team of original X-Men with their '70s and '80s looks can be put together using Cyclops from the Giant-Size X-Men #1 set, Beast and Phoenix from the Secret Invasion box set, Angel from the Champions set and Iceman from Series 11. You could also throw in Havoc and Polaris from Series 20.

For fans of the more current X-Men comics, Series 13 featured X-Men from their new look in the "Astonishing



X-Men" comic. Series
13 had three 2-Pack sets
featuring Cyclops and
Emma Frost, Wolverine
and Colossus, and Kitty
Pryde and Beast. These
figures are actually some

of the weakest figures made, as they make use of parts from previous figures and contained no new parts. To many fans disappointment, Wolverine doesn't come with a mask.

Series 14 featured versions of the movie X-Men from *X-Men: The Last Stand.* Characters featured were Wolverine, Storm, Beast, Colossus and Jean Grey. The chase



figure in the line was a translucent version of Jean Grey as Phoenix. A movie version of Juggernaut was also included with this line. It would have been nice to have gotten an Ian McKellan Magneto and a Patrick Stewart Professor X figure.

The future of "complete" X-Men teams is interesting, with a future series featuring figures based on artist Jim Lee's version of the X-Men. New Beast, Cyclops, Jean Grey, and Rogue figures will join the Jim Lee Wolverine, Storm, Gambit and Psylocke figures that have already come out.

Fantastic Four

Marvel's "First Family" has been represented twice in MiniMate forms. Series 8 featured two 2-Packs, one with Mr. Fantastic and the Human Torch and another



with the Invisible Woman and The Thing. One of the interesting things about these figures is the accessories that came with them. Mr. Fantastic came with two large "bendy" arms that could be attached to his regular arms to make him look like he's stretching. The Invisible Woman came with a transparent shield that could be attached to her arm. The Human Torch has fireball that could be put on his hands. And lastly, the Thing came with what would be known as the "Powerhouse" chest—an attachment that goes over his upper body to make him look bigger than the regular MiniMate body. The "Powerhouse" chest has gone on to be used in other large or strong Marvel characters such as the Hulk, Hercules, Venom and the Beast.

In 2005 a Fantastic Four exclusive boxed-set came out, sold at Wizard World Chicago and the San Diego Comic-

Con. This set contained "Classic" Thing, Phasing Invisible Woman (using transparent "invisible" legs), "Flame On" Human Torch (with only the lower half of his body in flames)



and "Lab" Mr. Fantastic. While the versions of the Thing and Human Torch in this set are somewhat weak, the Invisible Woman and Mr. fantastic are pretty good. In fact, I'd say this set is worth it for the Invisible Woman alone.

While the Fantastic Four figures that have come out are pretty much the "definitive" versions of the characters (in my opinion), I wouldn't mind seeing The FF in the newer versions of their outfits, or in John Byrne dark blue and white costumes, or even as the Ultimate Fantastic Four.



Avengers

Outside of having single figures for Captain America and Iron Man, it took a while for any versions of the Avengers to get going with MiniMates. But once they started, the Avengers were represented in a big way! Through different boxed sets and regular 2-packs, it's possible to make Avengers line-ups from just about any era of the comic.

In 2008, an Avengers #1 boxed set came out to comic and specialty stores though Diamond Select Toys. The set contained four of the Avengers as they appeared in Avengers #1. It had Iron Man (in his bulky "Golden" armor), a Jack Kirby-style Hulk, Ant-Man and the Wasp. Thor, from Series 16, could be added to round out the team. The interesting thing about this set was it came with

extra pieces so you could convert Ant-Man into Giant-Man and you could create 3 different costume looks for the Wasp. Also, Iron Man came with a weird "hammer" hand.



Using the Wasp and converted Giant-Man from the Avengers #1 boxed set, and adding Thor, Captain America and Mark III Iron Man (from the Iron Man Through the Ages boxed set) you can have the team line-up from the classic Avengers #4.



The hero line-up from Avengers #16 can be made with Captain America, Scarlet Witch and Quicksilver (from Series 16) and Hawkeye (from Series 20).

Fans of the current New Avengers can put together a team featuring the Bucky version of Captain America (from Series 25), Spider-Man, Wolverine, Spider-Woman (from Series 10), Ms. Marvel (from Series 19) and Ronin and Luke Cage (both from Series 12). Even their arch-enemies, the Dark Avengers (villains posing as the "real" heroes), were produced in two separate boxed sets. Dark Avengers boxed set was San Diego Comic-Con and toysrus.com

exclusive and features the Iron Patriot, Wolverine, Spider-Man and Captain Marvel. Dark Avengers 2 boxed set was also a San Diego Comic-Con exclusive featuring Ms. Marvel, Ares, Sentry and Hawkeye.





Although not called "the Avengers," the Ultimates were made in Series 27. This line-up featured Ultimate versions of Captain America, Iron Man, Thor and Nick Fury. The chase figure in this wave was a nifty World

War 2 version of Captain America. It would be nice to see Ultimate versions of the Wasp, Giant-Man, Hawkeye and the Black Widow in the future. Nice, but probably unlikely!

All in all, characters that have been members of the Avengers and produced as MiniMates over various waves and boxed sets are Captain America (both Steve Rogers and Bucky Barnes versions), Iron Man, Thor, The Hulk, Wasp, Ant-Man, Giant-Man, Quicksilver, Scarlet Witch, Hawkeye, She-Hulk, Wonder Man (in two different costumes!), Ms. Marvel, Vision, Black Panther, Captain Marvel (both the Mar-Vell and Monica Rambeau versions), Sub-Mariner, Goliath, Yellowjacket, Hercules, Black Widow, Beast, Sub-Mariner, Spider-Man, Luke Cage, Sentry, Iron Fist, Dr. Strange, Ares and U.S.Agent. It seems only relatively obscure characters, such as Tigra, Mockingbird, Swordsman and Starfox and one major character, The Falcon, have yet to be made as MiniMate figures.

Defenders

Marvel's fantolerated "non-team" was produced in a Defenders boxed-set from Action Figure Xpress in 2007. While I can't see the Defenders having a huge fan-base,



the set did include some key characters, like Dr. Strange, the Sub-Mariner and the Hulk (which I think is the best version of the Hulk they've done). The set rounded out with Defenders mainstay Valkyrie. Add a Silver Surfer (from Series 7 and other various re-releases) and you've got the main players in this team. I severely doubt we'll see any other Defenders characters made, such as Nighthawk or Son of Satan.

Invaders

The Invaders, Marvel's team of heroes from World War 2, was made as a boxed –set in 2008. This set came with Captain America, Bucky (who had never been made before), the Human Torch and the Sub-Mariner (this



time in his popular green Speedos!). The interesting thing was Captain America came with two masks, one the classic mask associated with Cap, and his first appearance mask (which didn't cover his neck). It also came with three shields, Cap's regular

round shield and his first appearance triangular shield. There was also another round shield that had an extra blue ring. While the packaging shows this to be Bucky's shield, it's actually a version of Cap's shield that he was often drawn with in the '40s. Cap and Bucky even came with straps that allowed their shields to be attached to their backs.

Soon after this set came out, a Union Jack figure was released as a Toys R Us exclusive 2-pack.



Champions

The Champions were a short-lived team with their own comic in the '70s. While they might be a team that a lot of fans might not remember, this set does give us some key characters that hadn't

been made yet. The set comes with Hercules and Black Widow (who also were key members of the Avengers), Ghost Rider (with his classic '70s look–a '90s version of Ghost Rider has already been made in Series 6), and Angel (produced for the first time with feathery wings). Add Iceman (from Series 11) and you have the main team.



Illuminati

Recently, it was revealed in Marvel comics that a team called the Illuminati existed and they were behind the scenes in causing just about every major event in Marvel continuity dating back to the '70s! And it turns out that *all* the members of the Illuminati all exist as MiniMates: Iron Man, Mr. Fantastic, Sub-Mariner, Dr. Strange, Professor X and Black Bolt. They were probably secretly behind getting these figures made, too!



What about DC?

In 2007 Art Asylum started producing lines of DC characters in the same style as the Marvel characters. This line produced a good amount of figures, and had acceptable sales, but only lasted 8 waves. One problem with these figures was the often strange assortment of characters made (Ma Hunkle? Ambush Bug? Really?). Some key characters were never made, making assembling teams, even as well known as the Justice League, impossible or incomplete. Almost as if to "tease" us, members of teams like the Justice Society and the New Teen Titans were made, but often only two or three characters were made. Unless you had the somewhat rare Martian Manhunter figure from the older C3 line, a group of main Justice League couldn't even be assembled. Interestingly enough, you could almost put together a complete group of Keith Giffen's '80s Justice League America line-up, with Batman, Dr. Fate, Guy Gardner, Blue Beetle, Booster Gold and Captain Marvel existing as MiniMates.

The Future

Art Asylum has said that there will be more Marvel boxed-sets coming out this year, which hopefully means more teams. As a fan, I would like to see teams like Alpha Flight, The New Mutants and the Young Avengers made!

With Marvel characters often topping the list of themes fans would like to see LEGO produce, and the fact it's unlikely this will happen, Marvel MiniMates offer a good alternative to these characters in block-based toys. While much bigger than a LEGO Minifigure, MiniMates don't look out of place in a custom LEGO building or vehicle. They also have holes in their feet that conveniently enough are the right size to fit a LEGO stud!

Waves of MiniMate figures and boxed sets can be found at comic and specialty toy stores, and at Toys R Us (in the U.S.). On-line retailers, like Action Figure Xpress (www.shopafx.com/minimates.html) and Luke's Toy Store (lukestoystore.com) offer a wide assortment of MiniMates (including exclusives). Also, eBay.com is always a source of figures. And if you find an extra X-Factor Angel, let me know!

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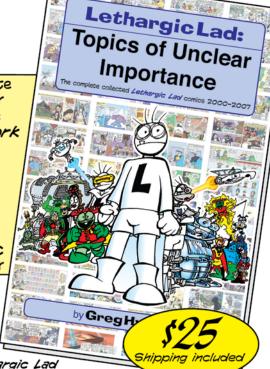
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Another issue is done, and none too soon!

It's going to be a busy convention season with LEGO fan events in the US and abroad. *BrickJournal* will be getting reports from many of these and will be attending a few, such as Brickworld and Brickcon. You'll also find me at San Diego Comic-Con, FIRST LEGO League World Festival, and our own event, BrickMagic!

If you haven't gone to a LEGO fan event, I invite you to go - there is no substitute for actually experiencing an event. Seeing the creations up close and in three dimensions is a quantum leap from seeing photos. You'll also meet the builders and LEGO staff, who are a great group of people to meet!

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