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Brick Journal
Issue 2, Volume 2 • Summer 2008
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BrickJournal
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Summer 2008
Volume 2, Issue 2

About the Cover:
Indiana Jones arrives to BrickJournal.
Photo by Joe Meno.

About the Contents Page:
Indy's arrival, by Greg Hyland

From the Editor:

Welcome to the second issue of *BrickJournal!* It's been an interesting issue to do — mainly because there have been so many articles from the LEGO Group this time.

There is an ongoing effort by me and other staff members to get some articles from the LEGO Group, as it's fun to find out what was done to make a set or a part. We also want to be able to find out information that we can pass on to the fans and public that they may not know. There's a lot of unseen factors that are behind the decisions that the LEGO Group has to make, and we try to shed some light on them.

We also want to show the best of the LEGO adult builders and show how and what they do. It's fascinating to see how a person builds and uses the LEGO bricks and plates to make the house and car, then do something far beyond.

As a result, there's a bit of both in this issue. *Indiana Jones and the Kingdom of the Crystal Skull* will have been out for a short time by the time this gets out, and we were able to get some info behind the making of the first sets and also a custom flying wing model that was shown in a German event. There's also an article on a micro-scaled city that has been shown in Asia. And there are a few instructions to join in the fun!

But this is the tip of the iceberg — if you want to see more photos, you can go online at http://www.flickr.com/photos/brickjournal/. All the photos I have taken for events can be found there. There's also the website, which is mentioned below.

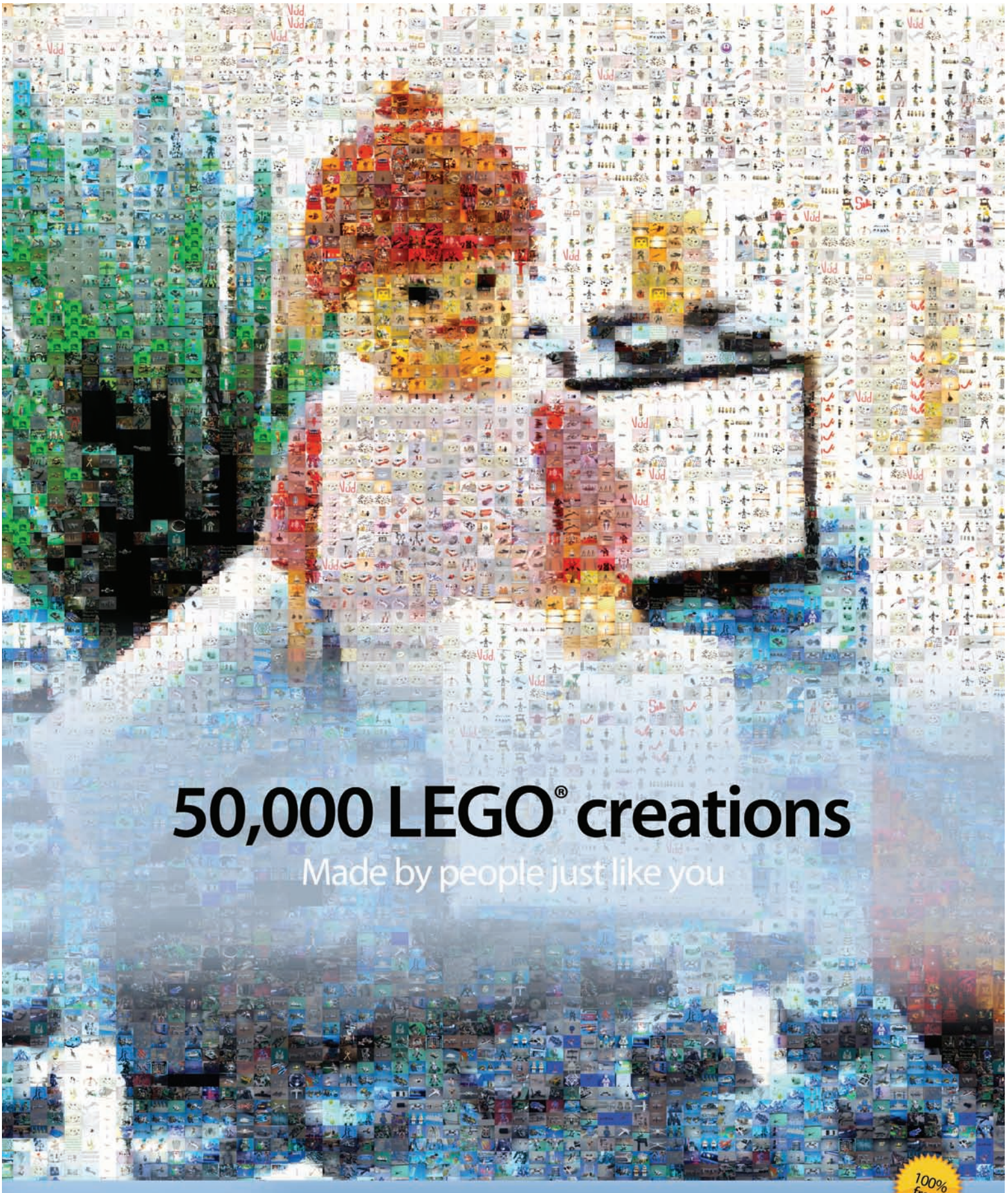
There's also going to be a compilation of the first three issues of *BrickJournal* that were only online. More compilations will be coming, as there were nine issues released online only.

And this is only the beginning...

Joe Meno
Editor

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

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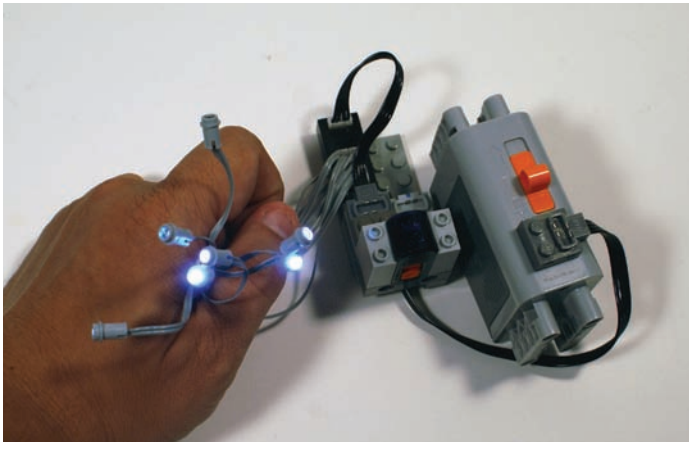
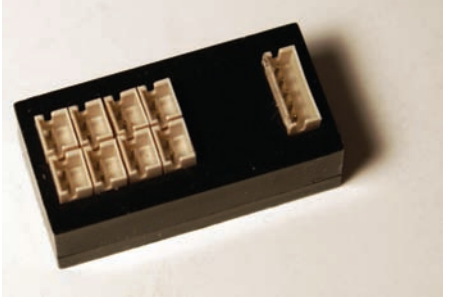
LEGO Fan Projects





Above: The unit plugged into a Power Functioss receiver and LEDs on.

Right: The eLite unit by itself. The nuit has a board that can keep eight different lighting sequences.

eLite for LEGO Models Now Available!

Do you enjoy having models that have more abilities than simply sitting on the shelf as a display piece? We do too, which is why we dreamed up the LifeLites eLites line of products. Our newest product, the eLite PF is not only a convergence of dynamically controlled blinking lights and LEGO® pieces, but also takes advantage of LEGO's awesome Power Functions technology. Our idea was to give your creation the ability to move *and* have interactive lights using the wireless Power Functions remote.

So, when you just happen to need lights for airplanes, runways, campfires, ambulances, space cruisers, buildings, signs, or almost anything you can dream up, we have the system for you. Don't see a particular lighting sequence that would work perfectly in your creation? Can't fit our modular design into your available space? Send us a request! We'll be happy to work with you on that special project even if it happens be that one particular pulsing green death beam.... But hey, that's just another way to be creative with the eLite PF!

-Rob Hendrix,
www.lifelites.com

Web Phone Pick-a-Brick Listing Online!

Planning a trip where there's a LEGO store and are wondering what is on the Pick-a-Brick wall and if you need to pack an extra suitcase for the trip home? Have a large LEGO project that you're working on and need a large supply of a particular brick and wonder if a LEGO retail store has the parts in their Pick-a-Brick inventory? Wish you could have this information right at your fingertips? Find yourself at the LEGO store when new, exciting parts are on the wall and wish to share this information with your clubmates?

On April 6, 2008, Michael Huffman announced the release of a web application optimized for Apple's iPhone® called: iPick-a-Brick (http://www.brickbuildr.com/iPaB/). This web application allows you to quickly check the inventory of your local LEGO store's Pick-a-Brick wall from your iPhone (or any mobile device with a web-browser). Currently, the inventory for two LEGO stores — the LEGO Imagination Center in Orlando, FL and the LEGO store in Tigard, OR — are both on-line now.

Michael has announced that other stores will be on-line as fans contribute information, and updating a store's inventory will be simple enough to do straight from your phone or web-enabled device. If you would like to contribute to the accuracy and growth of iPick-a-Brick, contact Michael at: mhuffman@mindspring.com

New Brickarms Accessories Now Available!

Brickarms, provider of custom-made building-toy compatible weapons and custom minifigs, is proud to announce the addition of several new weapons and accessories to its lineup. All of Brickarms' accessories are custom-designed and manufactured with exacting precision to achieve the highest possible quality, and these welcomed new additions to the Brickarms family of products are no exception!

Brickarms is now proud to offer the service rifle that saw the US Army through the war: the M-1 Garand. Modern weapons added include the MP-47 and MK-48.

Fans of sci-fi weaponry also have reason to be excited as these new items include a number of eye-catching pistols and rifles that would be perfect for any futuristic MOC. Each weapon is a unique design of Will Chapman inspired by the world of science fiction.

Other accessories include monopods and bipods for rifles, and a flashbang grenade.

All of these great new accessories are available for order on www.Brickarms.com now, so order today! Will has even more great ideas for the future, so keep your eyes on Brickarms for many new, exciting developments to come!

Event Report

HISPABRICK

L'Ànec Blau 2007

Saturday, December 8th and Sunday, December 9th

Text: Lluís Gibert
Photography by members of HISPALUG as noted

One of the layouts at HISPABRICK. Photo by Albert Pique.

It was a dream, the kind of dream that you have when you are surfing on the Net and you are looking at foreign LEGO events. When you wake up, the first thing you have on your mind is, "Why not in Spain?"

After some years with the same question in the mind of the Spanish AFOLs, in June 2007 we decided to organize the first AFOL event in Spain. The first step (and the most difficult) was to find the place to do it. We mailed all the malls of Barcelona, and the results were quite fruitful. The first answer came one day after we sent the proposal. It was from L'Ànec Blau, a mall situated in Castelldefels (15 km from Barcelona). After the first meeting with Alexandra, (Assistant Director of the Mall), we were very impressed about the enthusiasm and all the facilities that she wanted to give us. Moreover, the location they wanted to place us was really perfect for this kind of exhibition.

The decision was very easy. Three days after our first contact we gave her our okay to celebrate the event at l'Anec Blau.

After that, we prepared a meeting with the AFOLs to discuss plans and ideas. At the beginning of August, we held a meeting in Valencia with 15 AFOLs and had a real brainstorming session. We tried to foresee all the possible eventualities we could think of. This meeting was very useful, as when problems appeared they were easier to solve.

There were a big number of decisions taken by polls. At the beginning, the people (organizers) decided the date and the name of the event. Some things had to be decided by the organizers, to avoid troubles or delays. The date planned was December, 8 - 9, 2007. At the beginning, we thought that six months was enough time to plan, but we were completely wrong. From the moment we decided the date, a race began to prepare the event and there were a lot of things to plan (we never realized how much).

The die was cast. We couldn't turn back now and we had to do the best we could to prepare the event.

On Friday 7 December, 2007, the AFOLs met at the hotel around 6:30 pm and put all their stuff into a room close to the exhibition area at 7:00 pm. There were around 12 cars full of LEGO sets and models. Later, all the AFOLs went to the hotel and had dinner together.

I went to the airport to meet Jan Beyer, who had decided to attend our event. We had a really interesting evening together. We visited the Sagrada Familia Church and had dinner in a typical Catalan Cook Restaurant. At 11:00 pm (too late for a German or Danish guy, but early in Spain), Jan arrived at his hotel for the night.

On Saturday, the arrival to the mall was planned for 9:00 am (the opening hour for the workers of the mall). The AFOLs went to the exhibition area at that hour and began to

One of the models from the Arvo Brothers. Photo by Juan Cuello.

Photo by Roman Gibert.

build-up their models. During the first three hours there were a large number of people working hard to finalize their buildings before the Official Opening. There were 30 Spanish AFOLs who attended the event, and eight from the Portuguese Comunidade 0937, including Tânia Biaxinho, the Portuguese LEGO Ambassador.

At 12:00 pm the event opened. There were three speeches:

- Jan Beyer talking about what is the meaning of the AFOL community for the LEGO Company.
- Ricardo Cordon, Webmaster of HISPALUG, about the Spanish AFOL Community.
- Lluís Gibert, LEGO Ambassador, about other uses of LEGO, and Agreements.

After that, the event had begun. There were building and drawing activities for kids, exhibition of layouts, MOCs, sets… Ramon & Amador (Arvo brothers) presented for the first time the *Iron Man* figure, as well as other models of their stuff. It was the first time that the Arvo brothers were at an exhibition. The public expectancy of around 3,000 (over the two days) was great and the result was even better. In the exhibition area there were three City layouts, one of them including a MOC dedicated to the Catalan traditions (Castellers, Human Castles), one of 12V trains and another of 9V trains. Also, Classic Space, Castle, *Star Wars* (with three 19" minifigs made with bricks) and MOC layouts (with the largest MOC — A space cruiser with more than 30,000 bricks!), a large exhibition of Technic models, Mindstorms MOCs (including the first Spanish GBC modules), and much more….

There were also Brickwars games and a building contest for the AFOLs. They (the AFOLs) had to build a special Factory model designed for the event by car_mp. The contest was very funny. Five AFOLs competed to be the first to complete the model. For ten minutes, all five were searching the right position of a modified brick 1x1 with headlight. In those stressful minutes, Jan added to the prizes a golden C-3PO for the winner. All the participants were quite nervous at this stage. Finally, the winner was Amador, one of the Arvo brothers.

The space layout, with monorail.
Photo by Antonio J. Fernandez.

Building also went on at the event.
Photo by Roman Gibert.

Iron Man!
Photo by Jose Manuel Ruiz.

Waiting for the train on the layout. Photo by Roman Gibert.

The Technic layout.
Photo by Antonio Bellon.

We had the presentation of four 2008 sets, including for the first time in Europe, an Indiana Jones™ set (**Indiana Jones™ Motorcycle Chase** #7620). These sets were built by the people who had organized the event, as a little prize for their collaboration. After that, the sets were exhibited to everyone.

At 8:30 pm there was an official dinner with the AFOLs, their families and the guests. Unfortunately, we had to do the dinner in two parts, because some AFOLs didn't want to leave their stuff alone and we were not able to do the presentations after dinner, as we planned. Finally these presentations were postponed to Sunday morning.

Some of the AFOLs left the mall around 11:45 pm, and others were at the mall talking or playing until 3:00 am.

On Sunday, we began with the presentations at 10:00 am. There were three presentations:

- 2008 Spanish January-May general catalog.
- Brickin Software designed by Ignacio. It is software to organize all your LEGO stuff, written in Java.
- Building techniques by the Arvo brothers.

Next up was exhibition time. We prepared a mini-MOC contest (MOCs with a maximum of 50 bricks). There were two winners: Rick83 (Ricardo Cordón) and car_mp (Carlos Méndez) — decided by the votes of the AFOLs. Each winner received two prizes: one *Star Wars* set and one of the 2008 sets presented on Saturday. The day also included more activities for children of which approximately 120 children participated in over the two days.

At 3:00 pm, the exhibition closed and all the AFOLs had to pack-up their stuff and leave the mall for their journey home. We were all really tired but had really enjoyed the event. The last question I received on Sunday evening was: "When will be the second Hispabrick?"

Soon…

Sometimes our dreams come true.

A castle layout. Photo by Victor J. Buforn.

Camera by the Arvo Brothers.
Photo by Roman Gibert.

Frechen 2007: Starting the Year With the Brick!

January 4-6, 2008

Article and Photography by Joe Meno

The beginning of 2008 was marked by a German LEGO fan event. Named Frechen, after its host town, the event is a fan meeting and also a public display. This year, over 250 AFOLs attended the entire weekend, and over 6500 guests visited during public hours.

For the LEGO fans, there was the display of models that ranged from a Dutch moonbase colony to a layout of Venice to the US Capitol, and that was just one side of a gymnasium. The rest was filled with other models, including the Empire State Building and a working amusement park. Lining the edges of the gym were vendors selling out-of-production sets and LEGO elements. There was also more to see.

The entrance to the community center that was the site of the event had a display by the LEGO group of some upcoming sets, including the Town Plan Commemorative set (now available), the Spring Creator Sets, and most interestingly, the Volkswagen Beetle set to be released this summer. In 2007, this event was the place where the Beetle was chosen to be an official set by popular vote from a group of vehicles, including a Delorean, and an Aston Martin. Along with the sets were some of the staff from the LEGO Group, including a designer who worked on the Town Plan set and Volkswagen. They answered questions from the attendees and public during the event.

On the other side of the building, at the auditorium, there was even more to see. There was a display of pneumatic vehicles that worked motorized pumps, and also a dance hall with dancing figures that could be remotely turned on and off using a LEGO remote control. To one side of the dance hall was a mountain with a lit interior, with bats and monsters creeping inside, and witches landing on a landing pad, complete with flashing lights! There were some other electrical models, too — there were a couple of train layouts with steam trains here, and an operating crane at a skyscraper construction site. Along with the motors and elements made by the LEGO Group were also some custom items — the mountain lights, including the blinking landing lights, were controlled with a custom circuitboard. The dancing hall used custom wiring to link up an MPEG player to play music using the same remote to control the dancers. For train layouts, a custom light post was shown that could be retrofitted on old (9v) electric plates and wiring.

There were also activities — such as a televised speed build that turned out not to be as speedy as hoped. Other activities happened after hours, such as an auction for rare and custom sets and parts, and before that, a tribute to the event organizer — Frechen celebrated its fifth year, and the attendees surprised the organizer with a gift: a mosaic portrait!

During public hours, children were able to participate in a MINDSTORMS workshop, where they were able to program a robot with the help of some NXT experts. It was a sight to see a

room of computers with kids all working on programming. There was also the Tombola, where people bought lottery slips — they would pick out a slip from a bucket to possibly win a prize.

Frechen became very busy during public hours — the line extended out the door and around the building. On the second public day, the line was cut short by the local police, as there were too many people coming in. The place was crowded, to be sure, but it wasn't overcrowded. Visitors clumped around the displays, and builders answered the many questions passed their way. There were smiles everywhere, too.

For LEGO events, the end often comes too soon. This was no exception. Within a few hours of closing, what was a center of building and builders once more became a gymnasium and an auditorium.

But there were smiles still everywhere, for the fun and work and most of all for the friends met and made. Frechen was a great start to the year, and I plan to start 2009 the same way!

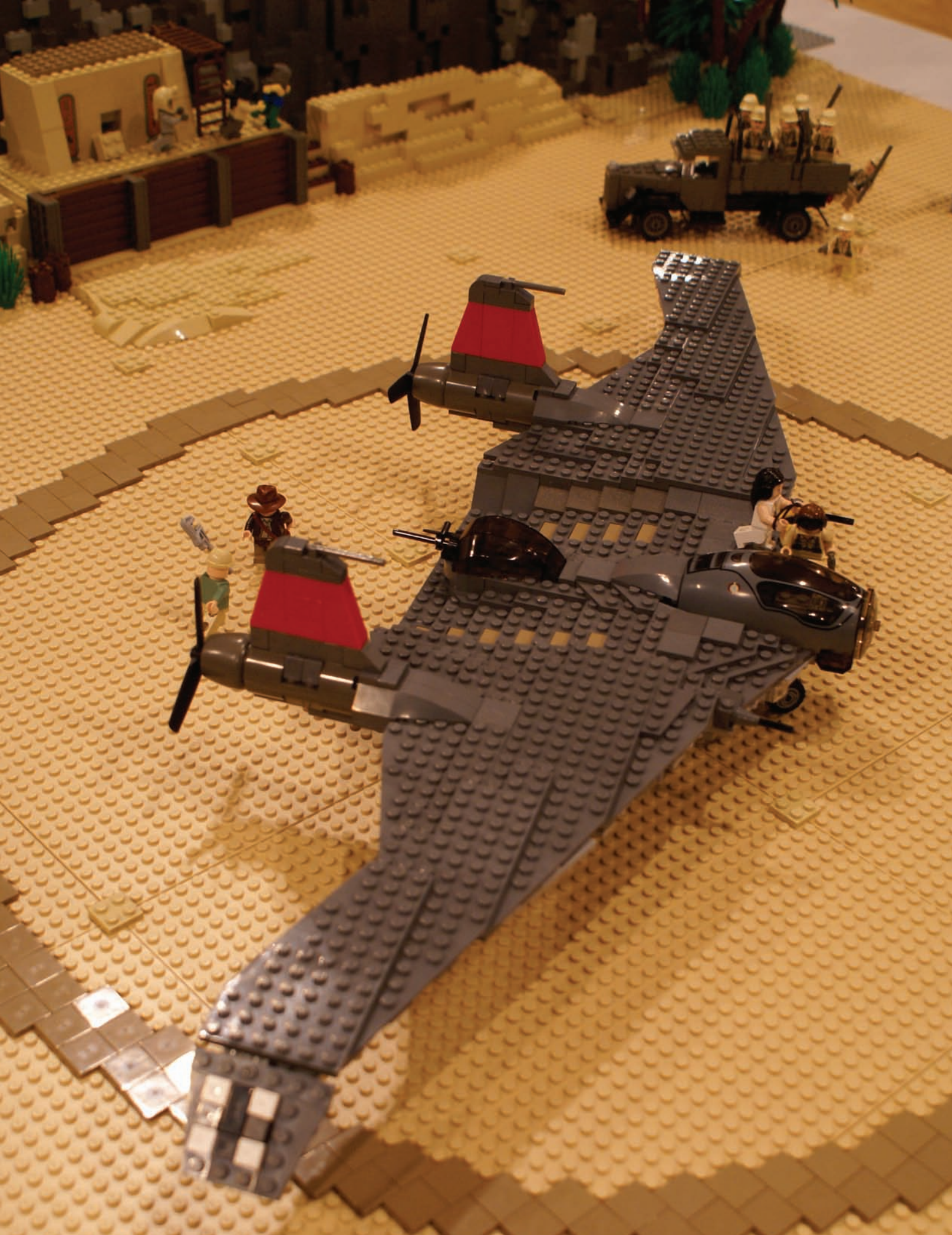
Quiet on The Set:

Indiana Jones, *as done by LEGO Fan Klaus Dobisch*

One of the most striking layouts at Frechen was built by Klaus Dobisch. He made a table layout based on two significant and memorable scenes from the first two Indy movies: The flying wing from *Raiders of the Lost Ark* and the Shanghai pursuit from *Temple of Doom*. Why did he pick these scenes? He answers, "Well, for one thing I am an airplane fan! And I always wanted to build the Flying Wing from the movie. So now with all the LEGO Indy hype going around, it was time to tackle it. Another airplane I was longing to build from the series was the Ford Tri-Motor from *Indiana Jones and the Temple of Doom*."

"Eventually the layout evolved from my enthusiasm for the aircraft shown in the Indy movies. Usually I build standalone model airplanes out of LEGO. But this time with the availability of the Indy Minifigs I was just too excited to see how the aircraft would look like in their movie scenes. The Shanghai Pursuit scenery is almost like a movie stage setting itself; I only built the buildings as a façade and behind it you find BURBs to make the background for the Flying Wing desert setting."

He concludes: "I am really excited about the new LEGO Indy line. There are so many cool planes, vehicles and even buildings that one can build from the movie. It sure got me inspired to build my Indy layout."

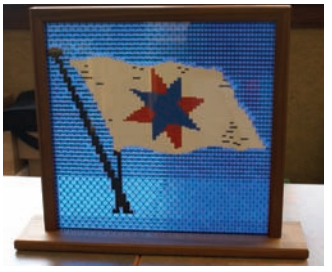


A Different Mosaic

Building Transparent Art

Article by Joe Meno

Photography by Joe Meno, Melody Krützfeldt and Bruno Kurth



Top left and middle photos: Mosaics built by Bruno Kurth.
Top right: Thomas Wesselski's mosaic.
Bottom: Bruno's mosaics with Jette Orduna, Kjeld Kirk Kristiansen, and Jørgen Vig Knudstorp

A few of the more unique items at Frechen were mosaics. Ordinarily a mosaic is something of a low-key item — the art is done on a large baseplate and built and viewed stacking face up (stud up). However, these mosaics were done with bricks stacked straight up to be seen by their sides, or in this case, through their sides. Transparent bricks were used to create the art, and the resulting effect is like stained glass. With normal opaque bricks, there is a subtle 3-D effect also — the solid graphics pop out from the transparent backgrounds. I talked with the builders of these mosaics: Bruno Kurth and Thomas Wesselski.

Bruno, who built Classic Space, DUPLO, and PRIMO logos, is 47, and married. He has been collecting LEGO sets for the last 20 years and built models in the last eight years. Minifigure scale buildings are his specialty, either building models of real buildings or thise from his own imagination.

Thomas, 39, works for the German tugboat shipping company named Fairplay-Towage. He and his wife Manuela have been married for eight years, and have a seven-year-old daughter, Selina. He left his dark ages in the year 2000 "when our daughter was born. It's the same story like most adult builders have:). I started with collecting old sets from the '70s and '80s — Mostly Classic Space, Castle and Model Team." As soon as he saw Modulex (smaller scaled LEGO elements that were sold for architectural use, no longer available) he fell in love with them instantly. He built his first maxifig (enlarged minifigure) in 2002-2003. Since this time he has built ten of them and the "little Tux" penguin (designed by Tobias Reichling) with Modulex.

BrickJournal: When did you start building mosaics? Did you start by hand, or did you start by using PicToBrick?

Bruno Kurth: I started building in March 2007 using PicToBrick (a software program for making mosaics, created by Tobias Reichling), but the idea to build a mosaic for my office door was seven years old. At the time, I didn't have any idea how I could do this project. In January 2007, I contacted Tobias and we talked about using his program, so I began Project Office Door with help from him.

Thomas Wesselski: I built the first mosaic in 2006 as a present for a good friend. The mosaic had 13,100 1x1 plates, and I worked with a group of eight people. At this time there was no PicToBrick, so we scanned a photo and built it by pixel. It took about six hours.

BJournal: Did you start using transparent colors at the beginning?

Bruno: Yes, I started the project from the beginning like this, as this was the basic idea for the mosaic — to build it transparent.

I have a roof window in the south end of my office, and it looks very cool when the sun shines through the door mosaic.

Thomas: My first mosaic was built with "normal" colors (red, blue, yellow, white, black)

BJournal: How did you get all the parts to build the mosaics?

Bruno: I had to buy the parts in the Pick-a-Brick wall in Billund, the LEGO Store in Hamburg and on Bricklink (an online shopping area for LEGO elements and sets). Also I opened many sets!

Thomas: Many of them we had ourselves. But we still had to buy a lot of them (thanks to all who gave us good prices).

BJournal: Are the mosaics glued? How do you transport them?

Bruno: No, the mosaics are not glued, the mosaic in the door has glass on both sides. I also have the other mosaics between glass on both sides in a stable wooden frame.

The frames are custom-made for me from a factory... so it is very easy to transport the mosaics.

Thomas: They are not glued. They have a frame around. With the first mosaic we were afraid that something could happen. We were happy

and glad when we gave the present, because if something happened it wouldn't have been our fault).

The others are no problem. We put a woollen blanket or bubble wrap around them.

BJournal: For Thomas: you did the mosaic with the flag. What was the inspiration behind the mosaic, or why did you pick the flag?

Thomas: It's the flag of the tugboat shipping company I'm working for. I was looking for a fine mosaic for my office.

BJournal: How have the mosaics been received by the public?

Bruno: Many people think it is a very good idea to build mosaics in this style, with the most people impressed with the mosaics with transparent parts around the LEGO logos

Thomas: They like it. Most of the time we have a model of one of the tugboats in front of it (no, it's not built with LEGO), because normally the people don't recognize the flag. They can identify the flag on the tugboat.

BJournal: Bruno, tell me about the mosaics that were requested by the LEGO Group.

Bruno: Jan Beyer saw my door mosaic, and he later asked me, "Can you build three mosaics for the LEGO Community Development Team to present on its 75th anniversary celebration?" They were to be presented to Jette Orduna (Director, LEGO Idea House), Kield Kirk Kristiansen (Owner of the LEGO Group) and Jørgen Vig Knudstorp (Chief Executive Officer).

And so Tanja (Bruno's wife), Jan and I had the honor to present the mosaics on the 75th anniversary celebration in Billund, Denmark on August 10th, 2007.

BJournal: Plan to build more?

Bruno: No, I will not build more mosaics in the future... when I started, I only was going to build my door mosaic, then I built the three mosaics for the LEGO Group, and finally the Classic Space, Duplo rabbit and the primo bear mosaics. I think this is enough for the moment.

Thomas: Yes, I do. We will see what ideas I will have:).

Top left: Bruno's office door model.
Top right: Thomas' mosaic at port.
Bottom left: Bruno Kurth.
Bottom right: Thomas Wesselski.

Hawai`i Championship Tournament

FLL
FIRST LEGO® League

Events

Article and photography by Joe Meno

Mufi Hannemann speaks to the teams and participants of the tournament.

One of the FIRST LEGO League teams is evaluated after their robot run.

The warm, rainy weather and a Hawaiian high school set the scene for a tournament. This wasn't a sports competition, but a robotics tournament, the Hawai'i FIRST (For Inspiration and Recognition of Science and Technology) LEGO League Championship Tournament. 64 teams from all of the islands met at McKinley High School in Honolulu.

The high school was the center of activity December 1, 2007, the day of the competition. FIRST LEGO League (FLL) teams compete with two challenges: a project and a robotics game. Each year, FLL creates a topic and theme for the teams to develop their projects. In 2007, the theme was Power Puzzle, which addressed meeting global energy needs in a sustainable and environmentally responsible way. The robot game is a set of missions on a standardized table that requires the use of a LEGO MINDSTORMS set to accomplish the missions within a time limit. The winning team of the tournament receives an invitation to the World Festival in Atlanta, Georgia, where teams from around the world will compete. This year, the team who won was the Roboraiders Red Team from Iolani School.

To accommodate the tournament, presentations were held in the school's classrooms to allow private judging. The robotic heats were held in the gym to allow teams and the public to watch the teams and their robots go through their paces. The cafeteria, across the street from the gym, was made into what is called ''the Pit''— a setup and practice area for all of the teams. Teams were everywhere; from the gym, running their robots, to setting up and practicing in the cafeteria, or relaxing for a moment outside the cafeteria for a quick bite to eat.

There were some displays from Junior FIRST LEGO League teams, which are made of younger team members from FLL. A large LEGO display and crowd favorite was done by the LEGO Enthusiasts Association of Hawai'i (LEAHI), and featured event-themed models, as well as a variety of MOCs, from renditions of *Futurama's* Bender to a model of the prominent Hawaii Theatre building in downtown Honolulu.

Participants came from all the islands, as well as visitors — the mayor of Honolulu, Mufi Hannemann, and the lieutenant governor of Hawai'i, James "Duke" Aiona visited and cheered on the teams who took on the challenges. Members of the Hawaii State Senate, Senators Norman Sakamoto and David Ige also got a chance to watch the tournament and see the displays.

Competition was tough. One of the judges, Kevin Dang, tells, "This year, I got to assist the technical judges for the awards. There were so many good teams that we discussed for over an hour to pick from the best of the best. Every year the kids seem to get better and better. The best part of the judging is to see the passion and creativity in the kids today as they tackle real problems."

Kevin has been a coach to a FLL team, the SPIDERS (Super Powerful Intelligent Determined Energetic Robot Scientists), that went to the World Festival in 2006. Since then, all the team members of the 2006 team have outgrown FLL, so the team now was a new group who competed for the first time at the tournament. He recalls: "This year's topic was challenging for our young team because they had to apply their knowledge and recommend energy-saving changes for a community building. The SPIDERS team picked a local family restaurant as their location, Yama's Fish Market. Based on their energy audit, the team recommended electrical, water, fuel, and waste management changes. In the end, they presented their suggestions to the restaurant manager. The manager was very interested in the alternative ideas and asked many questions to the young energy-efficiency team members."

One of the new SPIDERS members was Kevin's daughter, Arianna. She had a great time and told her favorite part of the season: "Being part of what I have watched for years and which I have been left out of, the fun of being creative, finding a solution, and working together. Now that I am nine and have participated, I can't wait to do it again next year." The SPIDERS scored fifth out of the 64 teams and were third place in the Team Presentation Awards in Research Quality, a really good showing for a team of completely new members.

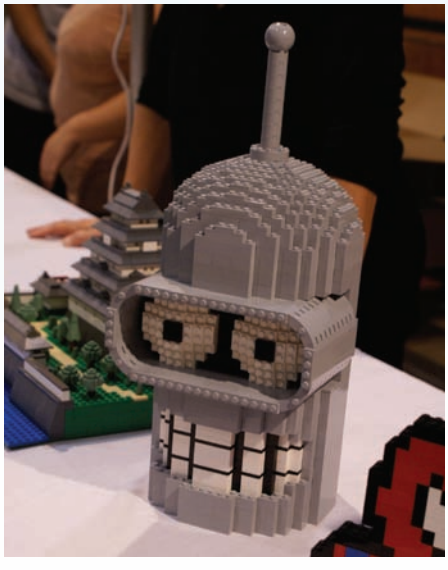
One thing she learned? "You can do anything, if you put your mind to it."

There will be an article in Issue 3 about the Roboraiders Team and their experience in Atlanta.

Onlookers watch the teams take on the robot challenge.

The SPIDERS at the contest table.

Members of the Champion's Award Team, the Roboraiders Red, with their trophies.



A couple of the models that were displayed by LEAHI: Bender, built by Patrick Yziarry, (above) and the Hawaii Theatre (right) by Roy Gal.

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The AFFOL
(Adult Female Fan of LEGO)

Over the past few issues I have searched the world for female fans of LEGO. Many of them have shared with me their views on products for girls as well as what they would like to see in the future. Of course, they've also shown me the amazing models they build and in turn I've shared those with *BrickJournal* readers. It is interesting to read through their answers to my questions and to find many of them fall in certain age ranges, and the fact that few of them want to build with the stereotypically female colors like pink.

While this is a mostly male dominated hobby (boys and men), it is also exciting to see the girls and women being able to build so well and as time goes on, maybe there is hope for more of us girls, yet! Girls throughout the world are encouraged to build and use the LEGO product, and as you can see, age is no barrier. You do not need to be an artist, designer, sculptor or anything else; just be yourself, have fun, and build with your imagination! There is plenty of inspiration out there and loads of fantastic parts and colors with which to build and create some of your wildest dreams!

So, let's hope for more female minifigs, more females in advertisements (personally I think these things are also lacking) and many other exciting things for both boys and girls in the future!

If you are a female AFOL, have a website, Brickshelf folder or pictures of your MOCs and would like to see your MOCs in *BrickJournal*, please e-mail me at: mel@brickjournal.com

Mandy

Mandy Dee

Name: Mandy Dee

Age: 41

Country: England

Hobbies: Hiking, horse riding, tap dancing, gardening

Gallery: http://www.brickshelf.com/cgi-bin/gallery.cgi?m=mdee
http://www.mocpages.com/home.php/2119

LEGO was one of the first toys I remember playing with, as my sister already had a cupboard full of bricks before I was born. We each were given little cars every Christmas as presents; mine were an ambulance car, a milk float, and a yellow taxi. I still have them, along with the cardboard road layout. I remember the excitement one year when I was given a homemaker set, particularly as it had people! Later in my childhood I did get wooed away to the delights of Playmobil, mainly due to the accessories that the people could hold.

BrickJournal: Why are you an AFOL?

I spent nine years working as a garden designer, and when I moved on to another job, I needed an outlet for my creativity. I have dabbled with painting, for which you really need some talent, and cross-stitch, which needs no skill whatsoever, but both are very two-dimensional. Once my children started playing with LEGO, I started to get itchy fingers, although for many years I restricted myself to helping with their building. Then my husband Chris discovered the Brickish Association, and started collecting shiny new bricks. Soon he was building MOCs for train displays, and I succumbed to temptation and built my first MOC. I wanted to design a LEGO garden, so I had to build a house to put it around. Soon building the modern, designer houses became more interesting than the gardens, and now I am branching out in other directions as well.

How many hours do you spend building with LEGO?

As a working mum I don't get to build as often as I would like, but several times a year I will get stuck into a big building session, where I will do little else all weekend!

BJournal: What are your favorite themes?

I enjoy the underwater themes, with all the sea creatures, probably because I was brought up watching Jacques Cousteau and *Man from Atlantis*. I have built an underwater living pod, and would like to expand it into a full undersea base… I feel a building session coming on!

BJournal: What do you like most about LEGO and their products?

A toy that never breaks (well, apart from the odd "very fragile" piece) and can be extended ad infinitum? What could possibly beat that? I love the quality of the clutch — never too tight, and never too loose, and the way that parts can be used in so many different ways.

BJournal: Five parts that you would love LEGO to produce:

1. 1x3 tiles
2. Concave shallow corner slopes
3. Flowers in different colors. Us garden designers need these things!
4. More types of foliage
5. Gates for fences, such as the picket fence

BJouranl: What is it like to be a female in the AFOL world, which is dominated by men?

I have been welcomed by all the AFOLs I have met through the Brickish Association. Some of my houses can be quite feminine, with all the flowers, but men are mostly very appreciative of the design details, and full of encouragement. I do sometimes find at shows that people treat me as Chris' wife, rather than a builder in my own right!

BJournal: What would you like to see from LEGO in the future in relation to girls?

I think LEGO need to produce small collectible sets for girls, at pocket money prices, to get them into LEGO, in the way that Bionicle has for boys. More animals would be good, and accessories for minifigs, as girls like to play out stories. But it has to be compatible with the town sets that their brothers have, which is the other problem with Belville. Bring back Paradisa!

BJournal: Is LEGO doing enough to promote their products to girls?

I think LEGO is almost trying too hard. Not all girls like sparkly pink, and might find the Belville range too girly. I think instead they should focus on including plenty of appealing elements in a variety of colors.

BJournal: Any other comments you would like to share?

I think the most amazing thing about the AFOL community is the variety of MOCs that we make. I am in awe of the fantastic work that others do, but still feel happy building whatever small ideas I have. There is no sense of competition — there is room for us all in this fantastic hobby!

Naomi

Naomi Farr

Name: Naomi Farr

Age: 30

Country: UK

Your hobbies: Apart from LEGO, playing the euphonium and various other large brass instruments in as many bands as will have me.

I started collecting as an AFOL in my early twenties. Having helped my boyfriend Stuart (already an AFOL) to sort out his collection, I was tempted to search out my childhood bricks and recreate the sets I'd had as a child. This soon turned into collecting those sets I wished I'd had and building the creations I wanted to but couldn't due to lack of bricks. As a young child, I had a small supply of LEGO, mostly consisting of a box of mixed family hand-me-down parts. I remember being given a basic building set (#30) and finally having a decent supply of bricks. Doctors and nurses was a favorite game as a child, so I begged my parents to let me spend all my pocket money on LEGO hospital sets, and so finally got a selection of vehicles and aircraft and set about building a hospital to go with them. Other than those, I mostly built small cars, as LEGO was the only acceptable way, as a girl, to be able have toy cars, and again after much nagging, I got a few small town sets. My other inspiration was my dad's sacred Hornby train set, which my sister and I could watch but were not allowed to touch! I spent a lot of time building LEGO scenery for this, although I never had enough bricks of one color or enough slopes to finish my buildings. Nothing much has changed there then! I temporarily drifted away from LEGO in my teens as the town sets became ugly and whilst the technic sets looked fun, I didn't have enough pocket money to buy them for myself, and couldn't persuade my parents that I really wanted boys' toys. However, I am now more than making up for that.

BJournal: Why are you an AFOL?

I've always liked LEGO, and like the opportunity to be creative. It's so much less messy (and in my case more successful) than painting or ceramics, with the added advantage of being able to recycle the building materials and not having a house cluttered with old creations or unsuccessful attempts. It's also good to collaborate with other AFOLs and build things that as a child you couldn't even have dreamt of.

BJournal: How many hours do you spend building with LEGO?

Not nearly enough. About one or two evenings per week at the most.

BJournal: What are your favorite building themes?

I like pretty much all town and city LEGO and small cars, and I collect these LEGO sets as well as building my own. I am also building some of the Mr. Men (Roger Hargreaves children's book characters) — seven completed so far, and several more on the way. I also help out with my boyfriend's projects, especially with the small details, such as the internal decoration of his medieval banqueting hall and Space Police station.

BJournal: What do you like most about LEGO and their products?

The quality of the recent sets designs has been great. The Creator range and Café Corner series are inspiring, well they've certainly inspired some of my building. Mostly I like the challenge of having a limited range of parts and colors and seeing what is physically possible to achieve, although there are always other parts that you wish existed.

BJournal: Five parts you would love LEGO to produce:

1. 1x3x2 door left in dark purple (I can't be the only AFOL wanting to use their Knight Bus parts to build an alternative vehicle)
2. 3x3 inverted slope double convex
3. 3x3 slope double concave
4. minifig scale animals of any species — an entire zoo preferably!
5. I'm not so sure about a plate (1x1 or 1x2) with studs on both sides. I think this would ruin most of the fun!

BJournal: What is it like to be as a female in the AFOL world, which is dominated by men?

It doesn't feel particularly unusual to me, as a brass instrument player and a mathematician. Most of my friends from senior school onwards have been male.

BJournal: What would you suggest to LEGO to make their products more popular for girls?

I may not be the best person to ask, as I've never been interested in girl's toys. All I wanted was to play with dad's train set and small cars. Town sets, especially emergency vehicles, offer a lot of role play value for both sexes. I think LEGO lost an opportunity with the latest hospital set. If it had opened so you could play with the insides, it would have been much more fun. The Creator houses are good because you can do this, and maybe a girl could use them as a doll's house. One major problem is that the retailers tend to put all the LEGO sets in the boys' section, so girls or their parents don't see it as a girl's toy. The new Beach House (set #4996) is definitely not just a boy's toy, but how many girls will get the chance to decide that?

BJournal: Is LEGO doing enough to promote their products towards girls?

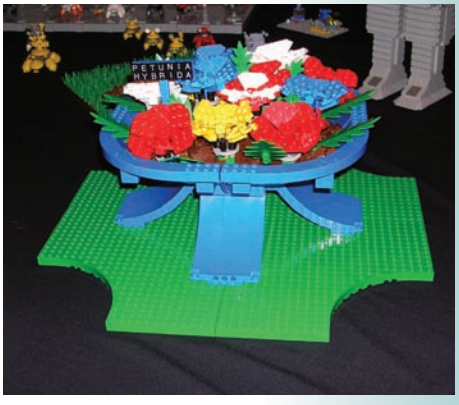
Quite a few of the recent sets have been very good, the mosaics in particular — which appeared away from the boys' sections in some stores. I've never seen an advert for the girls' ranges though. Maybe if they increased awareness of Belville, etc, they would become more popular, as a doll's house with more creativity included. The Creator range needs to be marketed as a unisex range and not sandwiched between Racers and Mars Mission. As I said earlier, much of it is ideal for creative youngsters of both sexes, but girls just don't get exposed to it as much. I'd like to see a big poster advert in a toy shop with a young girl playing with one of these sets.

BJournal: What would you like to see from LEGO in the future in relation to girls?

Personally, I'm not interested in pink or fairytale sets, except for helping with the color range and interesting minifig utensils, etc. Sets like the beach house, with figs to play with and a few interesting utensils would be ideal.

BJournal: Any other comments you would like to share?

Please don't take my views as those of a typical female or indeed someone in any way in touch with what young girls like. I still have to shut my eyes when I walk down the "pink aisle" in a toyshop. I can't bear the stereotyping of toys for girls, and understand their willingness to accept it, or even enjoy it, even less.



Teresa

Teresa Elsmore

Name: Teresa Elsmore

Age: 32

Country: Scotland

Your hobbies: LEGO, cooking, reading, cinema, tapestry and doll houses.

Web: www.mrselsmore.com

I think I was about five or six when my dad bought us a LEGO train station (Railway Station #7822) and lots of the non-electrified train track. I guess we had the trains to run on it, too, though I don't remember which ones they were specifically. I was, and still am, most interested in the details of the buildings. I specifically remember being impressed that there were little steps down from the platform to the track-bed and raised tile walkways across the tracks. I loved building the steps and bridge up and over the track and making sure the trains ran according to the timetable on the platform and the station clock. We also had the non-motorized level crossing (set #7834) and I remember loving the fact that the bar of the gate came to rest exactly between the studs on the top of the two 2x1 bricks at its outermost tip. We had lots of random collections of bricks which we used to build into endless towers, castles and walls. My brother and I most delighted in seeing who could make the tallest tower before it fell over. I think it is great that there is a Guinness World record for the tallest LEGO tower. My other favorite childhood toy was my doll's house which my parents bought me when I was nine, which we decorated inside and out and I spent the majority of my pocket money for the next ten or so years on collecting furniture and accessories for it. I really concentrated on my collection for the house, but the similarities between that and my interest in LEGO revolved around being able to create detailed scenes.

BJournal: Why are you an AFOL?

I got back into LEGO through my husband and have rediscovered my love for it. I enjoy the sense of camaraderie in the community of AFOLs.

BJournal: How many hours do you spend building with LEGO?

It depends if I have a project on the go or am working to a deadline. I don't build all the time or even every week or month, but when I get an idea for a project and I've built up some plans and have some parts I'll spend several hours tinkering on sections. When a project is 'finished' I like to make little changes and improvements and I would probably carry on doing that forever if I am not working to a timeline, like for the Brickish Association Christmas Party.

BJournal: What are your favourite building themes (both what LEGO produce and what you like to build yourself?)

I love the new buildings that LEGO are doing — the Café Corner and Marketplace — and I am really looking forward to having the Town Plan. They fit perfectly with my love of detailed scenes and I like that they are complete buildings with full walls and roofs giving spaces which I can fill with interior scenes. I have been working on a large mosaic which is all trans-colors. The mosaic itself is finished and I am now going to build a frame for it with built-in lights to illuminate the image from all sides. I enjoyed transposing the image I used into pixels — it is similar to how I create images for my tapestries.

BJournal: What do you like most about LEGO and their products?

I admire LEGO for their attention to detail which allows such a variety of elements to be put together in such a variety of ways. It gives the creatively-minded such scope for projects, for pursuing their particular favorite theme and taking an idea as far as they can.

BJournal: Five parts you would love LEGO to produce:

1. Plates with studs on both sides.

2. I would love to see boxes of a variety of 1xN bricks and plates in ranges of colours suited to different purposes like:
   - Blues, grays, white and their trans-colors for sea-related projects, or
   - Browns, tans and greens for landscapes and special tree and plants elements, or
   - Tans, dark reds, grays, black and trans-clear for town or building projects.
3. More accessories, like food and household furniture and accessories such as candles, chairs with legs, DVD players, showers, etc. Things which are harder to make out of existing elements and still be in scale.
4. More animals, like sheep, cows, ducks, etc. for farm or country scenes.
5. 48x48 trans-clear baseplates to use as the basis for larger mosaics.

BJournal: What is it like to be as a female in the AFOL world, which is dominated by men?

I've never been a particularly girly-girl, although I am no tomboy either. I have always had geeky tendencies and LEGO is a perfect foil for those. I think there is a definite affinity among the female AFOLs and I love seeing their work.

BJournal: What would you suggest to LEGO to make their products more popular for girls?

I would really love to see LEGO move away from producing yet another version of a Police Station or Fire Station or Hospital and produce more of a range of Town-related items such as a post office, bank, shoe shop, library or DVD rental store to give the City theme a wider appeal with more of a variety and less of an emphasis on the emergency services.

Linked with that, I would also love to see more sets with detailed interiors which could be built into scenes or town plans.

BJournal: Is LEGO doing enough to promote their products towards girls?

I don't like stereotyping of toys for boys or girls. I am getting quite interested in the Belville sets which are less fairytale princess and more doll's house in style, as I think there are many elements which could be used for detailed interiors, but I know that they don't always fit scale-wise with non-Belville LEGO which limits their applications. I think the expansion of items in the City theme I mention above would help to attract more girls to LEGO.

Additionally a wider range of minifigs, especially more girl faces, hair, clothes and accessories to populate scenes would help to increase the appeal to girls.

BJournal: What would you like to see from LEGO in the future in relation to girls?

My doll's house furniture and accessories collection was a serious one and I think that if more individual elements which could be used to build scenes were available my collection may have been of LEGO rather than non-LEGO items.

Building More than Meets the Eye:

An Interview with Alexander Schranz

Article by Joe Meno

Photography by Alexander Schranz

My name is Alex Schranz, a.k.a., Orion Pax (orionpax@web.de), and I was born 1980 in Munich, Germany. Since 2004 I've lived in Rheinbach, Germany, where I just finished my education as a graphic design assistant at Staatliches Berufskolleg Rheinbach (http://www.glasfachschule.de/).

BrickJournal: What got you started in LEGO building?

Primarily, I have to say my creativity. I always was involved in creating something. I'm into graffiti, illustration art, graphic design, rap music and LEGO. What got me really started in LEGO building was the fact that the only toys I had in my childhood, the '80s, was LEGO.

I remember these early Saturday mornings when I woke up at 5 am., ran to the TV to watch cartoons like *Transformers*, *M.A.S.K.*, *Starcom*, *Masters of the Universe*… all of them.

I think all of you know what I did after watching these cartoons. I started building them with LEGO.

BJournal: What theme did you start in?

The '80s were the theme I started in. I think I just stopped LEGO building for four years (between 14 and 18) but for the past three years I've been taking it very seriously. :-)

I have no favorite LEGO theme. One time I'm building a pirate ship, another a building for my city layout.

I let the parts decide... I know that sounds weird. But I don't plan my creations like: "I need 300 of these parts and 100 of those."

I just pick a well sorted color LEGO box and then let it flow....

Except if I'm building something like the Airwolf or the Delorean. For these kind of creations I sort every kind of part in color and detail. And sometimes I have to buy a part or two.

BJournal: What are your inspirations?

Life, '80s childhood thoughts, movies. When I'm building, the photos or the originals inspire me, and everyday again my girlfriend that supports all this LEGO madness in our living room. Sometimes other LEGO creations or new colors of new LEGO sets will also inspire.

BJournal: How do you build? Do you plan what you build, or do you build by trial and error?

I'm "headplanning" days, weeks, months and years. I always think about solutions to build this and that.

But when I have started building on a project I don't stop till it's ready, except for month-long or year-long projects like my city layout or... no, I can't tell you this. It's a secret. :)

I also like building by trial and error, because you will never know what part will fit together if you just try....

BJournal: What is the most challenging part of building to you?

When I start a new creation, the most challenging part is the stability. I always try to build with small parts as detailed as it is possible, which requires a lot of LEGO building skill.

BJournal: What is the most fun about building?

To see how the creation grows. To add details at the end, change a detail, to sit down for a few minutes and just look at this new creation under the desk lamp... and then when it's 3 or 4 am to finally go to bed.

BJournal: When did you start building Transformers?
The first ones ,when I was a child. Transformers toys were very expensive, as they are today. We did not have that much money those days and I think I only had two Decepticons and one Autobot from the flea market. My luckiest birthday present, when I was nine, was a Decepticon spy that could change into an Autobot.

So I had to build most of the toys I wanted to have with LEGO.

I remember how sad I was when I went to my friends and they had all the '80s toys I was dreaming of, but when I think about it today I think it was destiny that I "only" had the coolest toy the world has ever played with: LEGO... and then Transformers! :)

I thought that it would be cool to combine these two toy lines.

Maybe LEGO should also think about it....

BJournal: What's your favorite theme?

LEGO Transformers! :) But at the moment I like building *big*.

Sculptures like Arvo's Iron Man or busts like Mr.Zumbi's Predator (seen online at http://www.brickshelf.com/cgi-bin/gallery.cgi?f=298449) are really something that needs to be continued.

Let's just call this theme MASTERPIECE or something like that....

Above: Optimus Prime in Autobot and vehicle form.
Below left: A B-25 bomber.
Below: B-25 with crew and support equipment.

BJournal: What's your favorite built model?

It is not easy to answer this question because I like a lot of LEGO creations, and I mean not just mine.... I think I always like the model most that is my newest model..

BJournal: What's your favorite set?

My favorite official set is LEGO set #4005 (Tug Boat) because it is my first LEGO set.

BJournal: What would be your dream model?

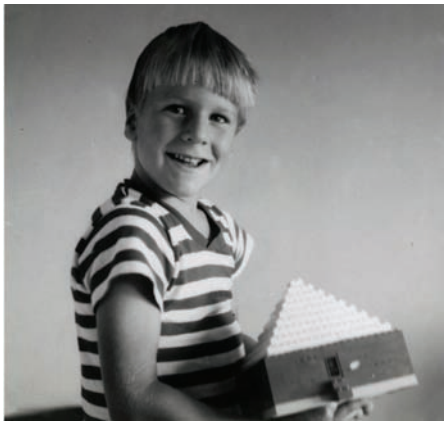
A huge '80s toys diorama built by the a few Masterbuilders like Zumbi, Varszegi, maybe you and me.... ;)

The Matrix will light our darkest hour....

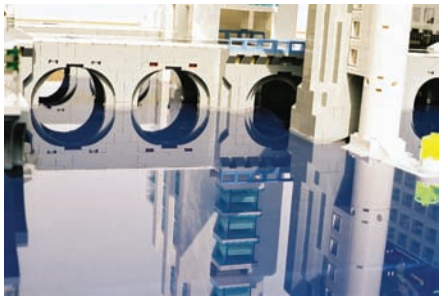
Building Utopolis

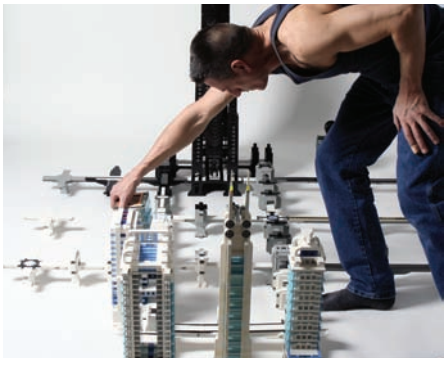
Article and Photography by Michael Labelle

1968 was the starting point for Michael Labelle's LEGO building passion. From building a simple pyramid-roofed house he had found the perfect construction material.... In 1970, at age seven, Michael Labelle, who was part of the LEGO club, came in second in a skyscraper building competition with a contemporary building that also included a cable car in the middle. In 1997, after a 24 year hiatus, Michael started the Porte St.Laurent project. The project consisted of five towers/buildings, each of a different color. As the years went by the project expanded. Recently, in December 2007, Michael headed over to Seoul, South Korea where he presented his futuristic town, Marina City, at the LEGOWORLD exhibition. So who exactly is Michael Labelle? Read on....

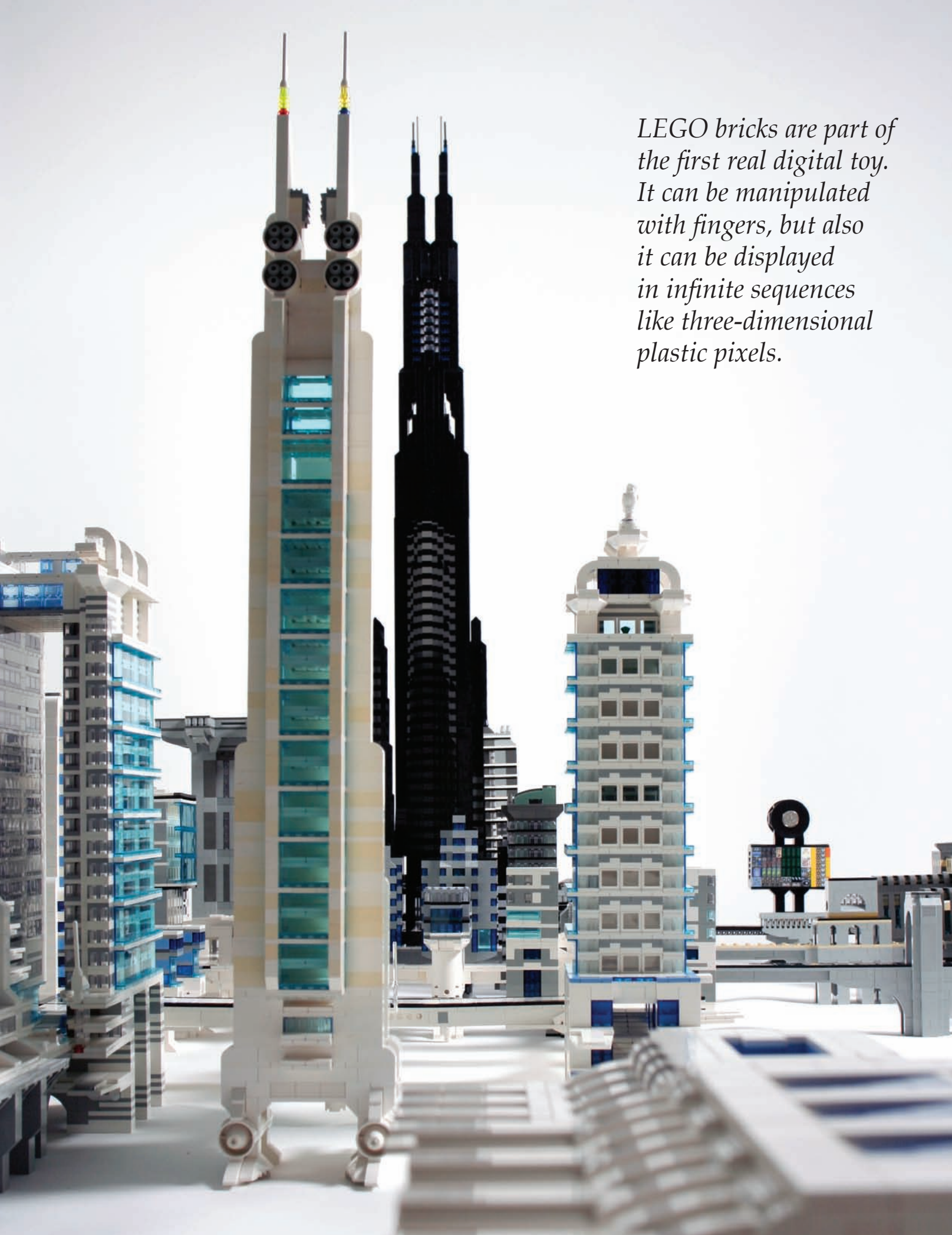


I am Michael Labelle, a 44-year-old artist from Montreal, Canada. I have been playing with LEGO bricks since I was five years old. It was my favorite toy of my childhood. All the gifts I received were LEGO sets. By the time I was eight I had already built up an impressive collection of pieces. My favorite things to build were shopping malls and skyscrapers. When I was seeing a building for the first time I was thinking, "How can I build this with my bricks?" Of course, there were all kinds of models I also enjoyed building like airliners, spaceships, cars and trucks, but I would mostly return to architectural pieces. I still have these original bricks with me; I built five buildings (one in each of the main colors) using all of them in 1997.





As an adult, I am still enjoying LEGO bricks because I have always remained a child inside. I appreciate LEGO bricks even more so now. There are so many different shapes of bricks to work with. The possibilities are infinite. I am also still enjoying LEGO bricks because I can imagine living in a city that I conceive.



LEGO bricks are part of the first real digital toy. It can be manipulated with fingers, but also it can be displayed in infinite sequences like three-dimensional plastic pixels.

The building is a product of the LEGO shapes and mathematics. LEGO bricks are part of the first real digital toy. It can be manipulated with fingers, but also it can be displayed in infinite sequences like three-dimensional plastic pixels. The brick is added to and removed from the grid, like electrons. All I do now is LEGO architecture. LEGO bricks are the best way to render architectural concepts; It is modular, long-lasting and can be altered anytime.

My most recent project — and the largest one by far — is Marina City, Korea. It is a master plan for a moveable urban grid that can be laid out on shallow waters or on grounds that can be flooded. All the elements are raised eight bricks above the ground and the modular system enables quick changes of buildings and bridges within the grid. It can be simply rearranged in thousands of different ways using pin connectors that are standard across the city. The scale is: one brick high (3/8″) equal to one storey (8′). To put this more clearly, the scale is 1:256. The model was commissioned by a Korean businessman and presented in Seoul, South Korea where the fans over there were really appreciative.

I have dreams of taking part in projects that involve many people and talents. A carefully crafted display of architectural sculptures that can make people imagine their own kind of city. I would also like to keep innovating and finding new ways of building.

My work can be seen at www.building-utopolis.com

Out of This World:

Interviewing the Jim Spaceborn *Artist, Frank Madsen*

Article by Peter Reid, James Shields, Louise Dade and Melody Krützfeldt

Photography and art provided by Frank Madsen

Top: Frank Madsen
Bottom: Two of the Jim Spaceborn books: The Unknown Galaxy *and* Castle of the Darkmen

Once upon a time —well over 20 years ago anyway — in an unknown galaxy was a young explorer, named Jim Spaceborn. It is here that Jim and his friends, Bart Seeker (ship's captain), Duncan (the forgetful engineer), Viva (the chief pilot), Keko (Jim's best friend and robot) and MAGS (the supercomputer) went on crazy adventures and explored the universe aboard their spaceship *Spearhead*.

Jim Spaceborn is a classic comic from the mid-'80s. And while many readers may not remember it, today it is still a much loved and sought after series. In this interview with the author/artist, Frank Madsen, Frank takes us back to the very beginning of the series and what the future held from there.

One of the main things that struck me about *The Unknown Galaxy* (Jim Spaceborn's first book) was the similarity between Kazak's men and the official LEGO Blacktron range. The black and yellow ships are almost identical — were you influenced by preliminary Blacktron models in the LEGO design studio?
I was asked to do *Jim Spaceborn* back in December 1983 and Kazak and his black men were part of the plot line I received for the first book from LEGO Publishing, in January 1984. Back then the LEGO space theme was populated only by these happy astronauts with smiley faces in differently colored suits, buzzing around on the Moon's surface and bringing samples back to the Earth. Kazak and his men were black variants of those, for what I knew. I didn't see any of the Blacktron models before or after LEGO Publishing was closed down in October 1987. In fact, I received very little information about the development of new LEGO sets, I think it was only when they prepared to launch the monorail that I was asked to put a not-yet-released model into a story and was provided with preliminary pictures and a model to draw from. That story was produced in Spring 1987 and was one of the three 24-page mini-comics that were never published.

Another very impressive part of *The Unknown Galaxy* is the brick-built LEGO ship at the back of the book. Did you copy the design from LEGO, or did they build it from your artwork?
During the first few meetings in January or February 1984, LEGO Publishing brought along a guy from LEGO's development department in Billund. His name was Mads Rye and he had built this huge spaceship. I think it was almost one meter long. Kazak's tower was built in LEGO and shipped from Billund to Copenhagen, where I took a lot of Polaroid photos from different angles to draw from. The main computer MAGS and the x-wing fighters Jim and Kazak's men fly around in were also supplied from Billund. Oh yeah, and the Keko design was also an original LEGO concept — he was really cute, I think, and a good example of what you can do with those bricks. A couple of years ago, I was visited by a Dutch *Jim Spaceborn* fan, and he told me, that it took him years to figure out, that Keko was built upside down!

Are you aware that it's only recently been possible to model a "true" version of Jim Spaceborn? With the advent of flesh-toned minifigs we can at last do him justice!
He would look a lot healthier now! :-) When I worked on *Jim Spaceborn* I built all the characters just for the fun of it, but had to use colored metal paint to achieve Bart Seeker's mustache, Jim's speckles, etc. We had a lot of preliminary discussions whether or not the characters could do facial expressions, have noses, bend their arms and so on. At the start LEGO wanted the characters in the comic book to be very true to what the toy figures could do, and you can still see how stiff the characters look during the first half of *The Unknown Galaxy*. But gradually I was allowed to give

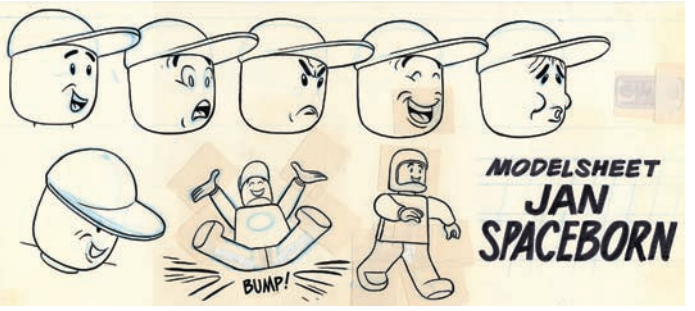
them whatever facial expression and draw them in any pose I wanted.

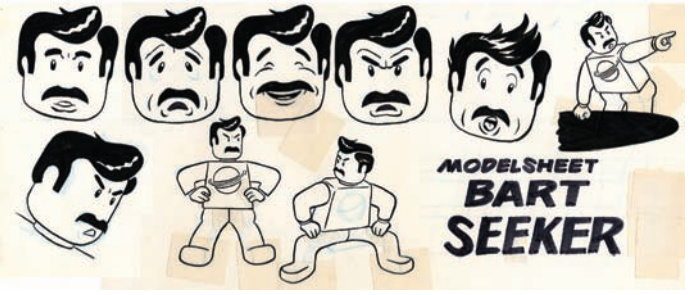
All of the buildings, ships and characters were made of LEGO, except on Comercia. There everything was smooth and studless in sharp contrast to the rest of the book. I'd be interested in the reasons for this.
My argument in 1984 was that the main characters and their space ship came from a LEGO world, and that the strange worlds they encountered not necessarily should be built from LEGO bricks. Exactly as when you were a child playing with your LEGO bricks and figurines in your parents' garden, and the surrounding world was also real grass, plants, concrete, the occasional garden table and so on. I thought it was a nice contrast.

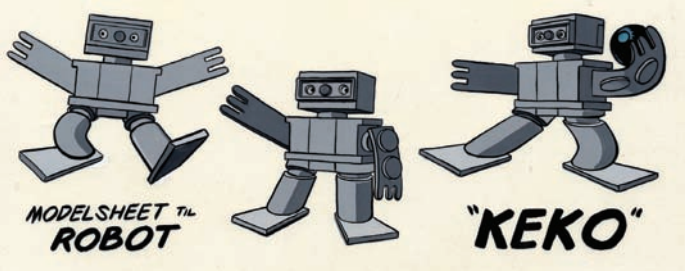
Relating to the scenery and models questions, were all the drawn LEGO models "legal", would they actually work if somebody tried to build them?
Well, you wouldn't go very far if you tried to embark *Spearhead* for at space expedition. It couldn't fly, and I never got a look inside the model to see, if it contained any of the interiors, that would be needed for the hundreds of crew members. But the models LEGO provided were "legal" in the respect that they could be built, if you had an immense amount of bricks.

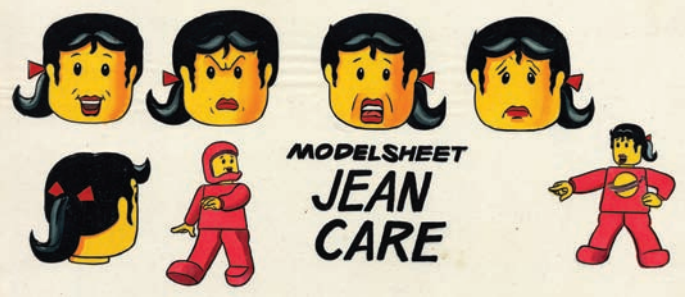
Did you feel your artwork was limited by the LEGO geometry?
The concept of making a comic book story with smiley plastic figurines as the main characters had its built-in limitations, but it also provided a fascinating challenge. In the beginning, we worked out a series of model sheets on the main characters. A lot of meeting hours went on discussing whether or not the characters should have fingers, be able to bend their arms and feet, and so on. From that point on, there were no obstacles and it was just plain fun to see what stories you could make up with the characters and their LEGO bricks encountering a strange space world.

How much influence (or collaboration) did The LEGO Group have on the comic — themes, story, look and feel, etc?
I did not work directly for LEGO, but for an advertising agency in Copenhagen, Advance A/S. In 1983, LEGO had produced a children's book with the space theme, written by Douglas Hill and illustrated with photographs. I don't know if the book was ever published, but I have a printed test copy. It contained some of the elements that were later used in *The Unknown Galaxy*: The starship *Spearhead* in a much different design, the mainframe computer

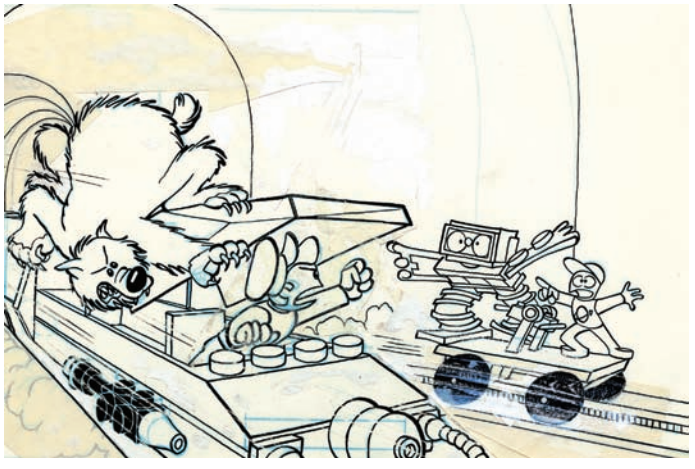


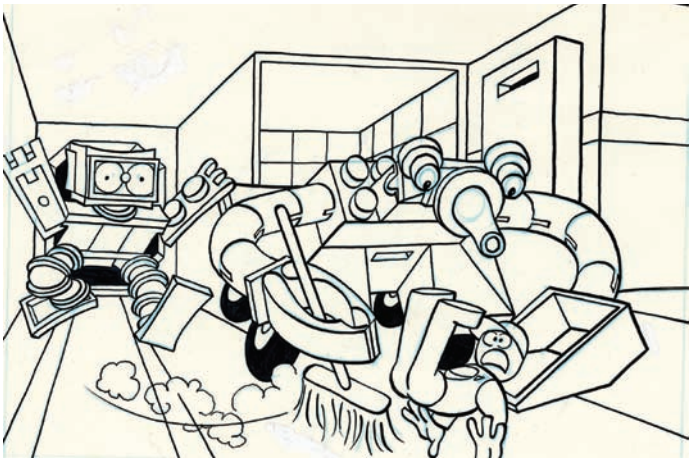






Above: Model sheets from The Unknown Galaxy.
Below: Layouts from one of the unpublished minicomics.





MAGS and lots of small yellow, white and red LEGO astronauts with cool names like Nicola Madden, Jed Carson and Willy Gerling. LEGO abandoned the children's book concept and started the comic book project instead. At the first meeting at Advance, I was handed a large stack of papers describing the LEGO Space universe; the *Spearhead* expedition; the crew members Bart Seeker, Viva, Duncan and Mello; the origin of Jim Spaceborn; and the struggle between Keko's robot planet and the evil, evil Kazak. When we had agreed on the character designs around January/February 1984, I started writing and drawing six pages per fortnight. Every second Monday, the people from LEGO Publishing would fly in from Billund to Copenhagen and we would have a four-hour long meeting discussing the pages, corrections and so on. And then back to the drawing board.

Is there a third book, or is it mythical? Also, what happened with the three 24-page comics? Were they actually published in the end?

LEGO Publishing was a wholly owned subsidiary of LEGO SYSTEM A/S and in October 1987 they closed it down. I guess they found out that they could earn more money selling toys than books, but I never really got an explanation. Apart from the *Jim Spaceborn* comic book series, LEGO Publishing had also produced a range of other books, but all that ended suddenly in Autumn 1987. Only half a year earlier, when I was working on the third *Jim Spaceborn* book, I had been asked to write and thumbnail three mini-comic books, half height and half page count. One of the stories described the new monorail, which had been built inside *Spearhead* to accommodate transportation between the various

Top: Cover to the unpublished third Jim Spaceborn book: Panic Aboard!
Below: Pages from The Unknown Galaxy.

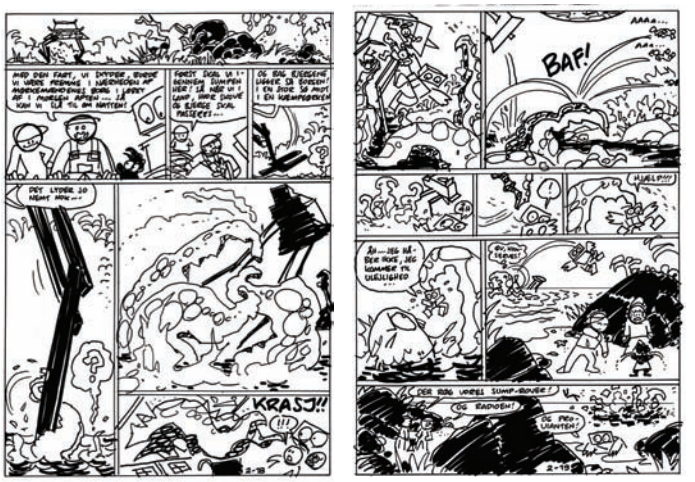
sectors of this huge space vessel. When LEGO Publishing was closed down, the third *Jim Spaceborn* book and the three mini-comics were already colored and finished, but none of them ever saw publication. Personally I feel they were some of the best stories, but that's easy for me to say. :-)

The third 48-page book, *Panic Aboard*, took me three months to write, because I wanted to describe life aboard *Spearhead*. Jelly-like creatures sneak aboard *Spearhead* and gradually take over, eliminating the main characters one by one.

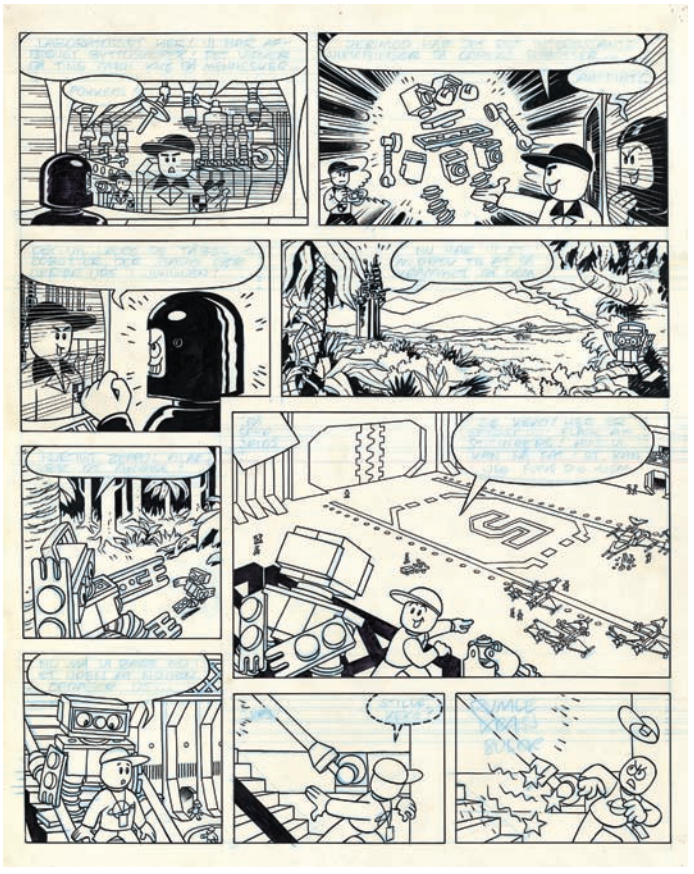
With the comics being over 20 years old now, did you ever think they would still attract fans today?
Frankly, I don't know. I think the stories are okay, but if I should draw LEGO comics today, I would be much more inspired by the Japanese manga style. They really know how to involve and interest the reader.

Prior to being contacted by TLG, were you a fan of LEGO, did you play with it as a child?
Like any other Danish child of the 1960s I played with LEGO trucks, built houses and loved the blue and black LEGO train sets. And now my son plays with LEGO. But I have never been a fanatic about it. I have visited LEGOLAND five times though, and been invited to see the factory a couple of times. The machines that produce the bricks are almost as fascinating as the toy itself.

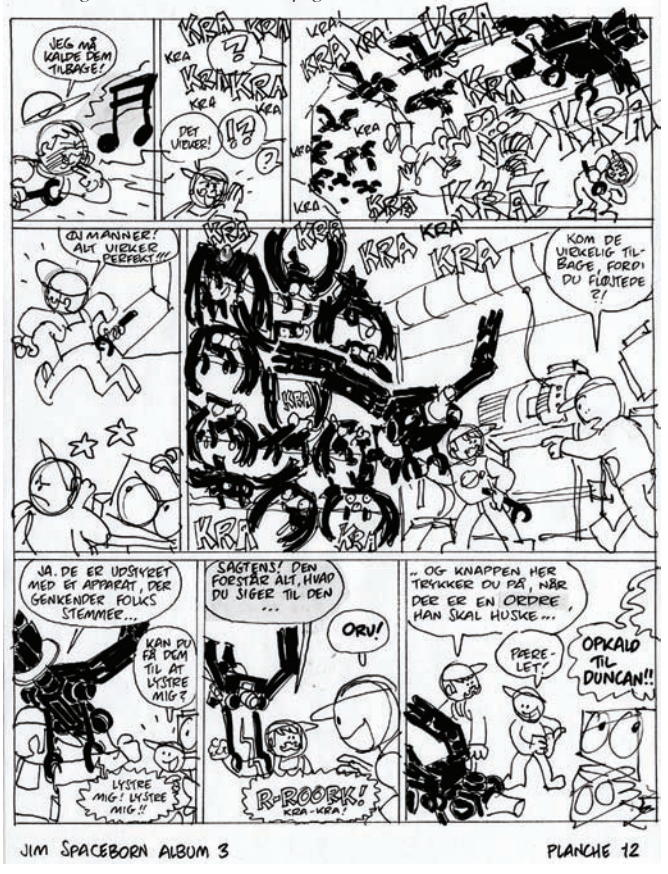
Did you ever have a favourite *Jim Spaceborn* character? If so, which one? What about a favourite segment of the *Jim Spaceborn* comics?
Well. Jim and Keko were the main characters of any of the six stories, because they saw everything from a child's perspective,

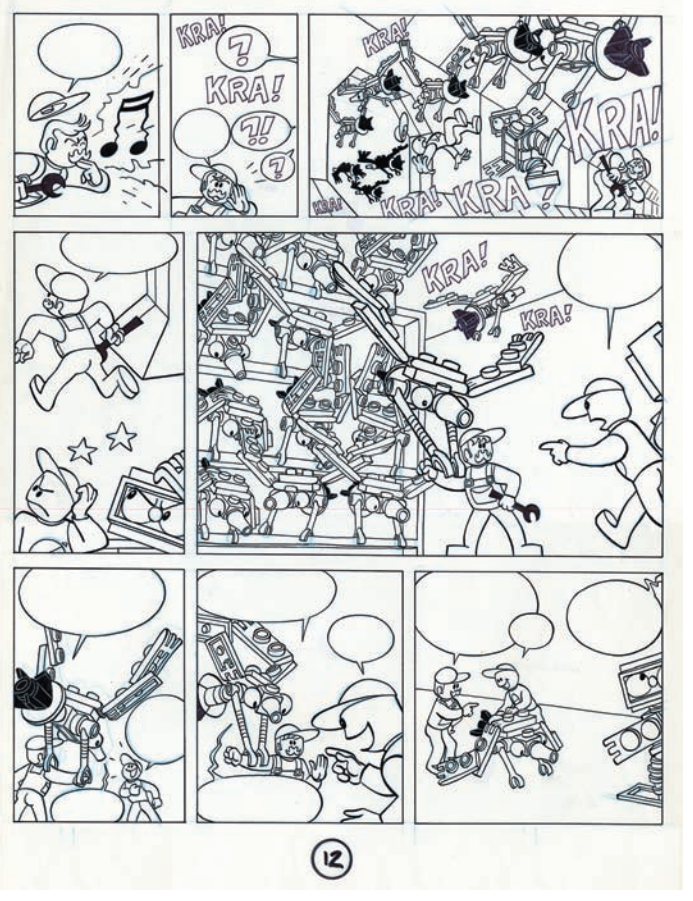


Above: Inked pages to Castle of the Darkmen, and *Below: the finished pages.*



Above: Inks to page 34 of The Unknown Galaxy
Below Left: Layout to a page from Panic Aboard *(never published) and*
Below Right: Finished inks to the page.





but eventually the annoying, bragging Mello became the natural center point of the stories. The best characters are always those rude types you wouldn't invite for dinner.

What is the reason to only a few books being published? Was it because of how long they took to produce or was it more on the LEGO Group's side?
Each 48-page book took me ten months to write and illustrate. I delivered a new *Jim Spaceborn* comic book in 1985, 1986 and 1987. Each time I put more and more work into the manuscript and the drawings, so eventually it was a full-time job. Especially in 1987, with the third book and the three mini-comics. At one time, six people at my studio worked on the series.

Would you consider doing more LEGO comics in the future?
They have so many talented artists, and the comics inside the box sets are really good, although the concept with no test limits the stories you can tell. I have always thought that comics are a good way for LEGO to communicate with the kids, a direct and inexpensive way of telling what the characters and built-in conflicts are all about. You need stories to fuel those toy sets; kids want to know the basic rules and story potential of their toys. The Japanese have always understood that. And it seems like LEGO has, too.

What are you currently working on now?
A lot of different illustration projects, many of them children-related comics and Flash games for different companies. So far I have made three books with my own comic book hero, Kurt Dunder, and this year I will be finishing a new 100 page book with him. The title is *Kurt Dunder and the Nano-bots.*

The Concorde Flies Again!

Article and Photography by Ed Diment

Recently, some members of The Brickish Association (the UK AFOL community to which I belong) coaxed me into tackling a 1/36 scale model of the famed Concorde. They felt my success building LEGO aircraft at this scale made me the most likely candidate to try this project. I had always been reluctant to consider building this aircraft as a substantial number of renditions of it have been done in LEGO, not least of which are the ones that were previously and are currently displayed at the various LEGOLand theme parks. I always feel it is only worth attempting a project if you can do it better than it has been done before, if not better. The one thing that tipped the balance was fellow builder Ralph Savelsberg's B-1 bomber — I have a reputation to maintain as *the* builder of big within the Brickish Association! The B-1 is truly massive for an aircraft MOC, but I knew Concorde was bigger, so I had to do it.

The Real Concorde's History

Work began on Concorde in 1967 after an agreement between the British and French governments to build a Super-Sonic Transport (SST). For the next eight years the aircraft was designed, prototyped and manufactured, before beginning operational service in 1976. A total of 20 Concordes were built, including prototypes and spares, with twelve operating full-time (seven with British Airways and five with Air France). The Concorde always struggled to realize its potential due to its

enormous development costs and the cancellation of orders from over a dozen airlines (largely due to the 1970s oil crisis). Concorde's immaculate safety record came to an end in the year 2000 when debris on the runway in Paris caused a tire to explode, rupturing the fuel tank of Air France Concorde 203. The resultant fire caused the loss of the aircraft along with all passengers and crew. After this, Concorde was on borrowed time and was finally retired in 2003. Concorde remains the only supersonic passenger aircraft ever built and operated commercially.

Building the LEGO Concorde

There were two specific aspects of Concorde's design that I knew I had to crack: the complex wing geometry and the drooping nose mechanism. The drooping nose on the real aircraft allows the pilots to see forward, given the length of the nose and high angle of attack required for landing. There would be other considerations, too: the weight collapsing the undercarriage, the impossibly long length (necessitating a build in three sections) and the ability to set the thing up for display at all. Fortunately a number of these issues had been ironed out on earlier aircraft I'd built at this scale.

For the wing geometry there are not enough angles of wing plate to achieve the continuous curve of the leading edge, although LEGO does now produce an extensive range. The problem is that the leading edge never reaches a 45° angle, but is wider than the next nearest wing plate; the 8x4 wedge plate. In order to get around this problem two sections of wing are used and attached by plate hinges. When combined in this way it is possible to continue the line of the leading edge. This technique, developed by Ralph Savelsberg, has allowed both of us to explore a variety of angles for wings and other flight surfaces not possible previously.

When it came to the drooping nose, the technical issues were enormous. The nose tapers to a slender point; has an additional windscreen, which slides up for supersonic flight and has to have a cockpit inside. I decided that the best way forward would be, as far as possible, to emulate the construction on the real aircraft. The solution is 7-stud long Technic spar (studless beam) pivoting at both ends, one under the main fuselage, the other end under the nose. This double joint allows the break in the outer wall to lift slightly and tip forward. To stop the nose drooping completely, there is actually a LEGO chain built into the floor that tensions once the nose reaches the desired droop angle. The supersonic windshield is simply a collection of rods mounted in clips, which are fixed on top of hinge bricks, which then allow the screen to fold down into a recess on top of the nose.

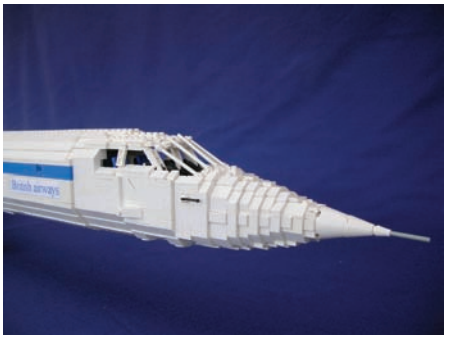
The aspect of the build I enjoyed most was the vertical tail. I deliberately chose Concorde's original color scheme from the 1970s and early 1980s in order to create the red and blue sections with interesting SNOT work. The windows on the fuselage were another interesting building point as these are basically copied direct from LEGO's Boeing 787 Dreamliner (set #10177). This is due to the fact that Concorde had relatively small windows due to the altitudes at which it operated. The whole aircraft is actually an odd number of studs wide, and it is surprising how often the scales work out that way (all the 1/36 aircraft I have built are an odd number of studs wide!)

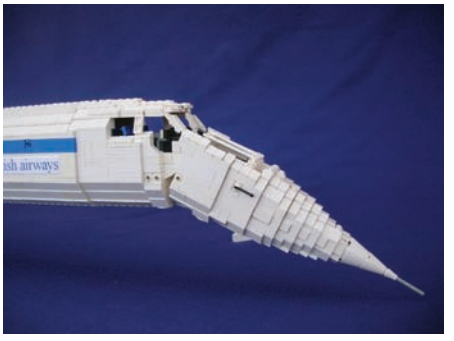
My fears about the main undercarriage were justified, as the

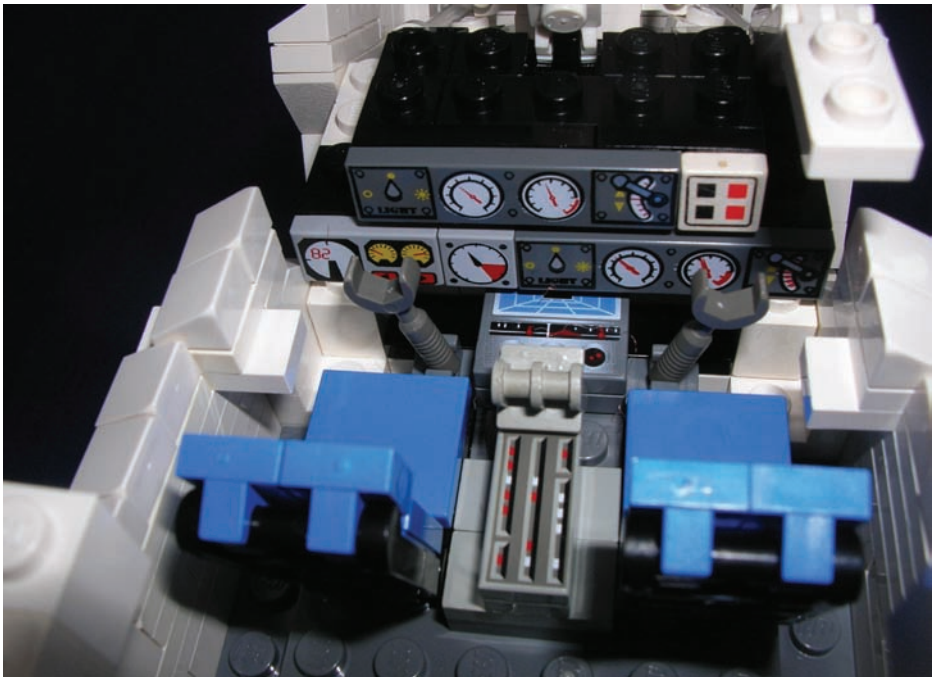
original set of them simply folded under the weight of the model. That's not to say they folded into the wheel-bays, rather they folded forwards and backwards, a direction in which they don't even pivot (ouch!). Having retrieved the broken Technic pins I had a rethink and simply opted for doubling up the thickness of the upper part of the leg and the point of rotation. This solved the problem completely.

The division of the aircraft into sections was fairly natural; the body and wing section would have to remain as one due to the complex slopes and curves of the wing. The logical place to have the body detach, therefore, was at the trailing edge of the wing and forward of the front point of the wing. These sections simply slide on tiles and have Technic pins to clip together. One problem remained however — Concorde's nose wheel is actually a long way back and the weight of the nose was causing the brick layers to split apart at the front joint, causing the whole front section to droop (a bit more droop than was needed!). The roof came to my rescue at this stage. By keeping it as one long separate section I was able to have it be detachable and clip to a strategically placed key stud. The roof then straddled the forward joint providing more than enough support.

A few final details and the MOC was completed just in time for Joe Meno to contact me and ask if I wanted to write another article for *BrickJournal*! The final LEGO Concorde is 1.7m (5′ 6″) in length with a wingspan of 0.7m (2′ 5″), this equates to 214 studs in length and a wingspan of 89 studs. She weighs approximately 9kg (20 lbs) and is made from roughly 12,000 bricks. I was quite surprised by the fact that she took me little more than one month to build, but after this, I think I'm done with aircraft for a while!







Keeping Up With the Joneses:

Designing the LEGO Indiana Jones *Line*

Article by Joe Meno

Photography and art provided by the LEGO Group

Background by Todd Kubo

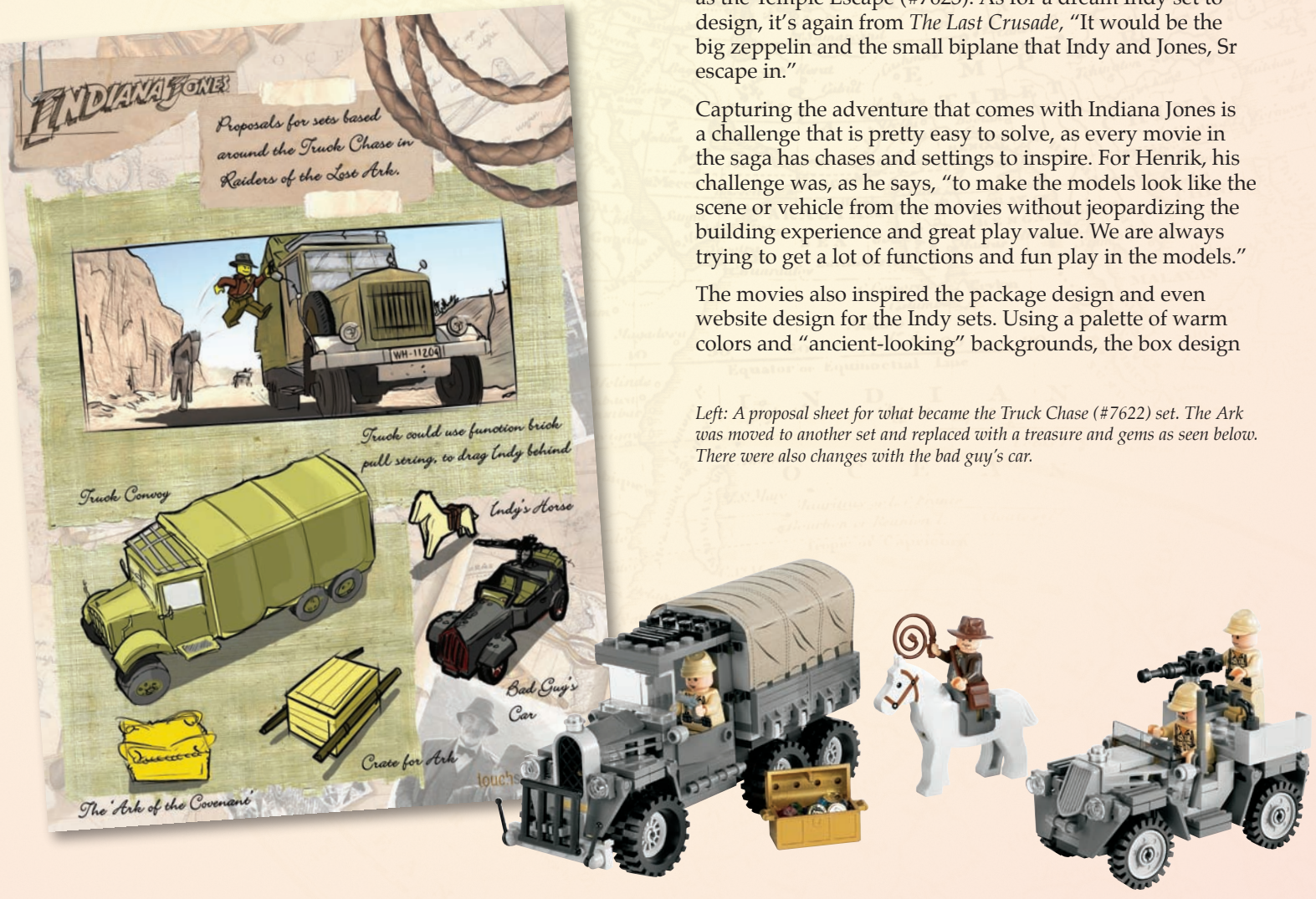
One of the most exciting product lines to come from the LEGO Group is the *Indiana Jones* line. With four sets that were released at the beginning of 2008, and another wave of sets to coincide with the release of the movie *Indiana Jones and the Kingdom of the Crystal Skull*, the Indy sets have appeal to both adults and children alike. *BrickJournal* chatted briefly with the Creative Lead of the LEGO *Indiana Jones* product line, Henrik Saaby Clausen.

The rights to make an Indy theme were secured from Lucasfilm in February 2007, and design work was determined by both suggestions and restrictions from Lucasfilm. It helped that Henrik is a fan of the Indy films, who recalls his first Indy movie, *Raiders of the Lost Ark*. His favorite, though, is *Indiana Jones and the Last Crusade*.

Asked if his favorite Indy movie played a part in set design, Henrik replies, "Yes, just look at the Motorcycle Chase set (#7620)!" This is also one of his favorite sets, as well as the Temple Escape (#7623). As for a dream Indy set to design, it's again from *The Last Crusade*, "It would be the big zeppelin and the small biplane that Indy and Jones, Sr escape in."

Capturing the adventure that comes with Indiana Jones is a challenge that is pretty easy to solve, as every movie in the saga has chases and settings to inspire. For Henrik, his challenge was, as he says, "to make the models look like the scene or vehicle from the movies without jeopardizing the building experience and great play value. We are always trying to get a lot of functions and fun play in the models."

The movies also inspired the package design and even website design for the Indy sets. Using a palette of warm colors and "ancient-looking" backgrounds, the box design

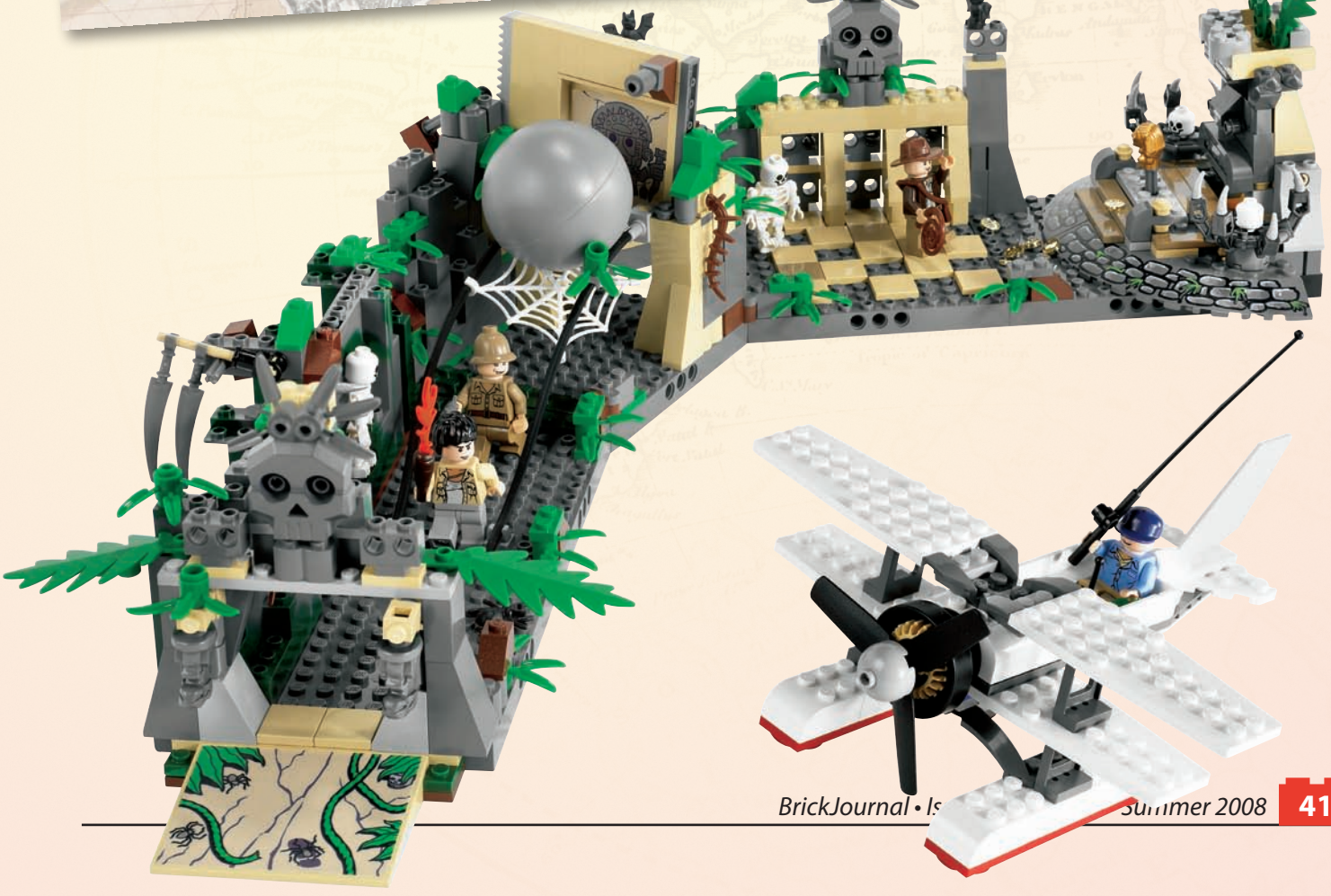


Left: A proposal sheet for what became the Truck Chase (#7622) set. The Ark was moved to another set and replaced with a treasure and gems as seen below. There were also changes with the bad guy's car.

was based on a combination of, as Marketing Lead Lisbeth Grøndal notes, "guidelines received from Lucasfilm on the overall principle design look and great work from the LEGO Group art directors. " The website, part of the LEGO website, is a fun mix of games and media, including movie clips and games loosely based on the sets. "The idea was to make the website action adventure and really portray the Indy character," explains Lisbeth.

As for what the future holds for the product line, neither are saying anything. One thing is sure — if LEGO Adventure now has a name, it's Indiana Jones!

Left: A proposal sheet for what became the Temple Escape set.
Below: Box art for the set.
Bottom: The set itself. Note how the general layout is generally unchanged.



Indiana Jones: The LEGO Game

Article by Joe Meno

Photography and art provided by TT Games and LucasArts

On June 3, *LEGO Indiana Jones: The Original Adventures* — the LEGO *Indiana Jones* game — will be released in the US, with European release following on June 6. With it, a new set of LEGO adventures will be available to gamers and LEGO fans. TT Games, the group behind the LEGO *Star Wars* game, are also the creators of the LEGO *Indiana Jones* game, so there will be some things that will be carried over from the previous games.

Not everything, however. While the settings will be obviously different, there will be some other notable differences. Different characters will have different abilities, from Indy and his whip to digging by Satipo to monkey access by Marion Ravenwood. Indy's whip will let him to attack, disarm, swing across gaps, activate levers and more.

There will be over 60 characters from the original three movies to unlock, from supporting characters such as Marion, Short Round, Marcus Brody, and Henry Jones, Sr. to villians such as Mola Ram and Rene Belloq. Gamers will also be able to create custom characters by mixing and matching all the parts of all the playable characters.

The levels will be based on scenes from all three of the original *Indiana Jones* trilogy, and the environments will be explorable and have minikit parts to find, much like *LEGO Star Wars*. However, characters will be able to interact with the environment by climbing, swimming, shimmying along rock ledges, picking up and carrying objects. This also will mean that weapons from the environment can be taken and used, such as chairs and bottles. Gamers will be able to build, battle and brawl their way their favorite movie moments from the Indy movies. For those playing on the Nintendo Wii, they will be able to use Indy's whip with the controller, and for Nintendo DS gamers, they can use the whip with the screen stylus!

LEGO Indiana Jones will also be a game for all ages — parents and their children will be able to play together and share the adventure, exploring the game world and solving puzzles using teamwork, making this game fun, and like LEGO *Star Wars*, funny!

LEGO Indiana Jones: The Original Adventures *will be available for the Xbox 360, Playstation 3, PlayStation 2, PSP, Windows, Nintendo Wii and Nintendo DS.*

Concept Art

Here are a few of the sketches for the settings in the game.

As Large as Life:

Building the Indiana Jones Statue

Article by Joe Meno

Photography and art provided by the LEGO Group

Toy Fair Photography by Joe Meno

One of the most impressive LEGO models that were shown at the New York Toy Fair was Indiana Jones. However, it wasn't the sets that were being released that got the attention, but the life-size statue of Indy outside the entrance of the LEGO booth that turned heads.

The statue was the result of dozens of hours, thousands of LEGO elements, and the design efforts of two of the LEGO Master Builders, Stephen Gerling and Erik Varszegi. Based in Enfield, Connecticut at the LEGO Americas headquarters, I got to talk to both of them at the Toy Fair about the statue and how it was created.

Both Steve and Erik have been with the LEGO Group for around 15 years, working as part of the Model Shop, which designs and builds large scale LEGO models for sales promotions and exhibitions like the Toy Fair.

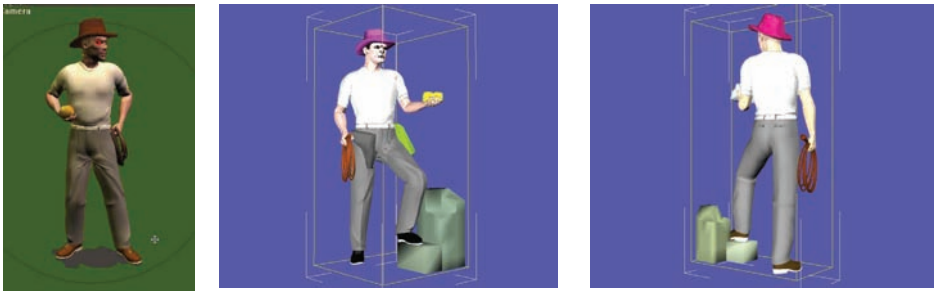
The Indy statue was proposed in October 2007 to promote the LEGO *Indiana Jones* product line, set for release in 2008. Suggested by the Product Manager, a model lover, the budget was quickly set aside to build the statue, and Stephen and Erik were brought into the project.

Steve takes the story from here: "We had a tight time frame, and we had to work with Lucasfilm to approve the design of the statue. We set our priorities on Indy's head, a naturalistic pose, and selected detail." One of the details selected was the idol from the first movie, *Raiders of the Lost Ark*. Indy was going to hold the idol in his left hand.

Lucasfilm wanted a dramatic action pose for Indy, however from past experience, the Master Builders needed to have something that was, as Steve put it, "bombproof." The statue would have to stand up to the rigors of display, so leverage points and appendages had to be minimized to keep breakage down.

The statue isn't completely LEGO brick. Inside the model is a steel armature to support the arms and structure. Even with this reinforcement, though, it was important to limit places on the model where the bricks would split or break off. Also, before the building could begin, the design had to be approved to build the armature.

To facilitate the workflow, the statue was split into two parts — Steve would design the body and Erik would design the head. Initial poses were developed in Poser (a computer program that has human forms that could be used for posing and then rendering) and then sent to Lucasfilm for feedback. The head was designed separately with the joint defined, so that regardless how the body and neck was done, the head would fit seamlessly. Additionally, the idol and left hand were designed to be removable, so it could be replaced later with perhaps another prop if needed.

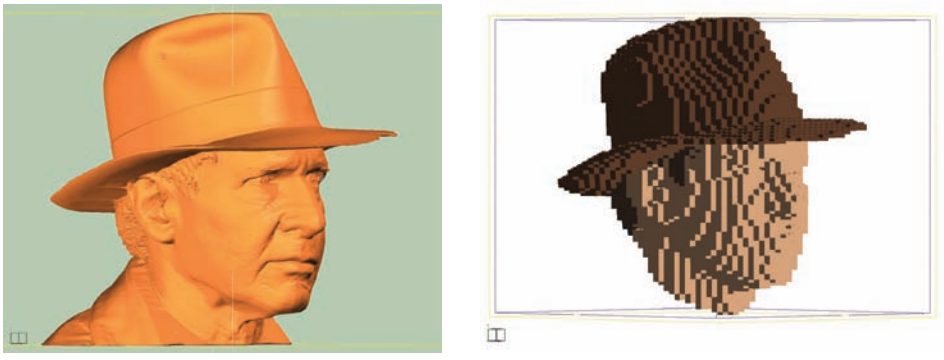


Initial poses for submission.

This approach proved to be a wise one, as while the head was approved relatively quickly, the body took a little more time. Lucasfilm was unfamiliar with the process of model building, so some of their suggestions were too wild to do with a LEGO model. Some of the simple changes recommended would also result in a complete redesign of the figure. One change was the addition of a stepping stone for Indy to stand a foot on.

During this time, the pose was also changing in a subtle way — it had to depict an "in your face" attitude. This was revised from an initial pose that seemed to state "I got the idol and you can't have it" to "I got the idol — try to take it." Initial poses were set in Poser with Indy having no jacket, a t-shirt, slacks, a hat, and holding a crude idol. These were sent back and forth between the Model Shop and Lucasfilm until they were approved.

Meanwhile, the head design was approved and Erik got a chance to do something completely new. He got access to a complete laser scan of Harrison Ford as Indy for use with his design. As Erik tells,"I was able to take this 3-D file and import it into the LEGO BrickBuilder program we use. I couldn't get all the fine details like his eyes and lips but it did give me a pretty good approximation of his cheek structure, his jawline, and it worked great on his hat!"



Harrison Ford's head scan (left) and the BrickBuilder sculpture in progress.

"Best of all, the virtual model turned out asymmetrical. Any artist worth his salt knows that no face is a true mirror image and the Indy laser scan clearly showed that Harrison Ford's nose clearly favors the right side of his face. It's the little details like that, little features that you can focus on that will really make a LEGO brick likeness come alive."

The body was approved after a few revisions and rebuilds, and for Steve it was also importing his Poser file to BrickBuilder and sculpting. While the imported file gave a beginning template to build the body, there had to be another level of detail added to render the jacket and the folds of the clothing. To accomplish this, Steve needed reference, so he and Erik took photos of each other posed and dressed like the statue, wearing a jacket added for the final model. With photos in hand, Steve began working on the jacket and the pants. He noted,"While working with a digital brick design program is faster than actually creating an ABS prototype for the model, the process of sculpting the folds and creases in Indy's clothing is still an extremely painstaking single-one-by-one-brick-at-a-time effort, and took almost three days to complete."

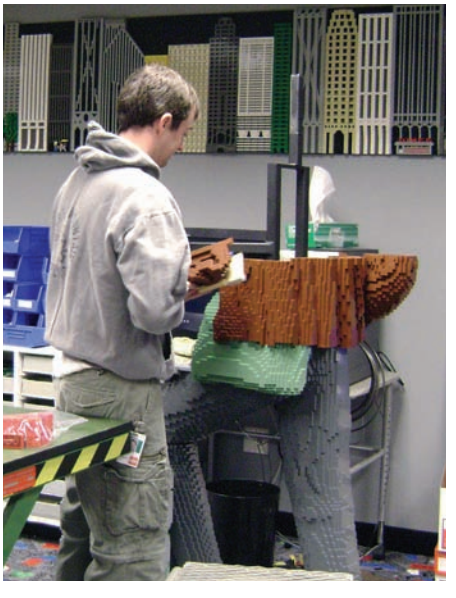
Steve Gerling as reference model.

Steve Gerling's idol sculpture.

The steel armature was created as a computer-aided design, then exported out to a file that could be imported to BrickBuilder. In the program, Steve then removed the bricks that occupied the armature's space, basically custom fitting it to the statue.

Steve's previous experience as a woodcarver came in handy in one part of the statue. It was decided that the idol that Indy was holding was not going to be a LEGO construction, as there were not LEGO elements that were available in a chrome gold finish. A true sculpture had to be made, so Steve worked on a clay version of it. Designed to be attached to the left hand and shaped to fit into the fingers, he used reference from Lucasfilm to make a faithful replica. A cast was made from the original, and a total of eleven idols were made.

Construction began on the statue with Steve starting on the body from the bottom up, to allow for revisions to be incorporated on the fly. This was good, because one decision that was made initially was that Indy's whip would be made as part of the steel armature. However, as construction of the statute was going on, the decision was made to replace the steel whip with a real whip. The steel component had to be removed from the armature, which took a lot of effort, as the sculpture had to also be revised. There were also safety concerns to look at, as the real whip was secured to the statue, but loose. As a result, the loops had to be made large enough to prevent any danger.



Construction by Pete Donner (above) and Mark Roe (right)

Above: The statue at Toy Fair.
Left: Indiana Jone completed.

After the initial statue was completed, the computer files and extra idols were sent to Kladno in the Czech Republic, where eleven more copies were made. The initial statue was delivered to FAO Schwarz in time for Christmas, and all of them will be showing in events worldwide. Be on the lookout for them as well as the other statues from the Model Shop!

From a Dragon to Indiana Jones' Hat:

Twelve Questions with a LEGO Sculptor

First in a Series

Gitte Thorsen.

Gitte Thorsen's dragon.

Article by Megan Rothrock

Prototype Photography by Megan Rothrock

Other Photography provided by the LEGO Group

Beginning this issue, *BrickJournal* will be talking to the people behind the sets at the LEGO Group. This time around our spotlight falls on a woman who has been a part of many themes and sets in an obvious but subtle manner — she sculpts minifigure accessories and a little more. Her name is Gitte Thorsen, and she is a LEGO Sculptor!

BrickJournal: How long have your worked for The LEGO Group (and how long as a sculptor with them)?
Gitte Thorsen: 26 years, and I have sculpted on and off in total maybe ten to 15 years.

BJ: What inspired you to become a carver/sculptor?
GT: When I was a kid I could not draw what I wanted, I sculpted it first, so it has always been something that I liked doing.

BJ: What themes (that you can tell us about) have you been involved with and created elements for?
GT: Castle, Agents, *Indiana Jones*, Spongebob®, Belville, City, Clikits and Scala.

BJ: When you begin work to design an element, from where do you draw inspiration?
GT: A brief from the Design Lead and images from the Internet, books and other designers' drawings and ideas.

BJ: Could you please describe to our readers, the steps that you take to design and sculpt an element?
GT: 1. I start with scratch sculpting the first elements — maybe on top of existing bricks.

2. When the shape is 50-75% right the element is video scanned.

3. I then get copies in 1:1 scale to build with and a copy in a bigger size (2:1 or 3:1). The big copy I will sand so that the shape is the way it should be. This will be decided by the Design Lead and with comments from the Model Designers.

4. After working together with a Technical Engineer and making the element moldable, it will either be sent to China or it is then part-designed in Billund. [*Large elements, those requiring lots of decoration or pre-assembly are sometimes made in China — on average less then 2% of LEGO parts*]

BJ: What is the average turn-around time for you to create a new piece?
GT: From one or two weeks to one or two months!

BJ: Do you prefer to carve by hand or sculpt on the computer?
GT: Depends on the element. Some are much easier to do on the computer, but the elements like the Dragon, Troll, wigs [*mini-figure hair*], etc., I still prefer to sculpt by hand.

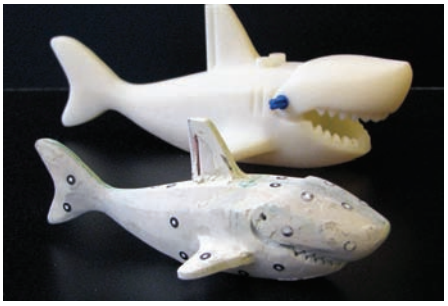
BJ: Your elements have a very organic feel to them. Do you find it fun, or a challenge to bring such a feel to tiny pieces of plastic?
GT: It is a fun challenge to give a very organic shape the right LEGO design style. Sometimes it is harder then other times and some elements design themselves; the process is easy and they look right straight away — it is just great when that happens and the element is nearly always right.

BJ: What is your reaction when you are holding a first mold of an element that you have created?
GT: It is great, especially if the element did not have to change a lot from what we would like it to look like to what was moldable in the end.

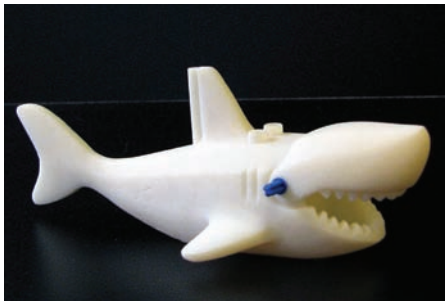
BJ: Do you have to travel to production facilities to make sure that everything is in order for the final production of the elements?
GT: Yes. I have been to China sometimes, where we make changes and design for manufacturing on location, and that saves us a lot of time.

BJ: If you could design any LEGO element that would be put into production, what would it be?
GT: I would like to make a Teddy Bear for the mini-figure because I love old-fashioned "classic" Teddy Bears.

BJ: What is the "favorite" element that you have made?
GT: Luckily, I like many of them very much and that of course makes my job very interesting, exciting and fun. If I shall pick some out it will be the Indiana Jones hat, the [*new*] shark and also the dragon and troll from Castle are amongst my favorites.



Gitte Thorsen's shark sculpted and prototyped.

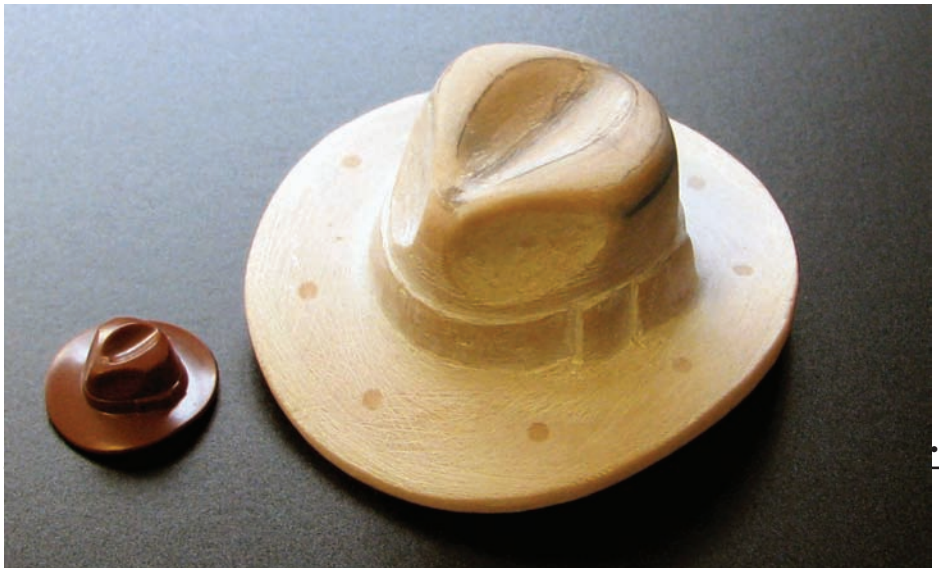


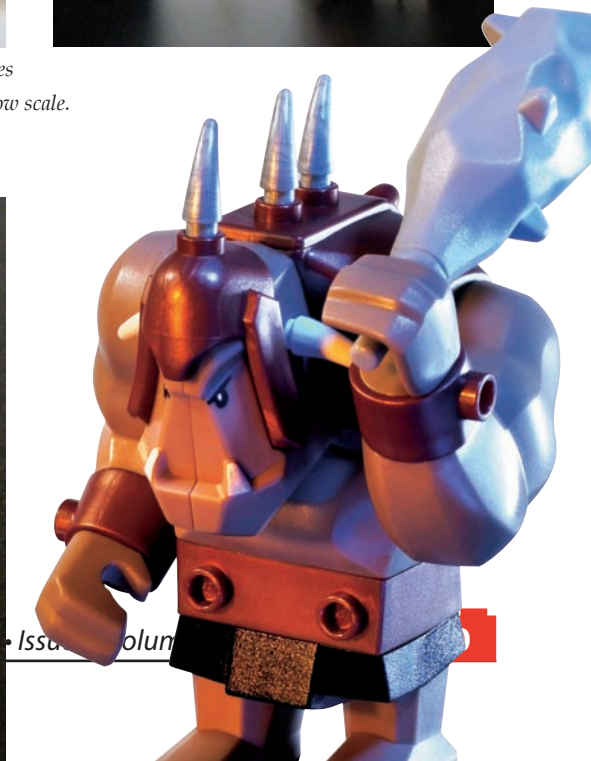
Prototyped shark.

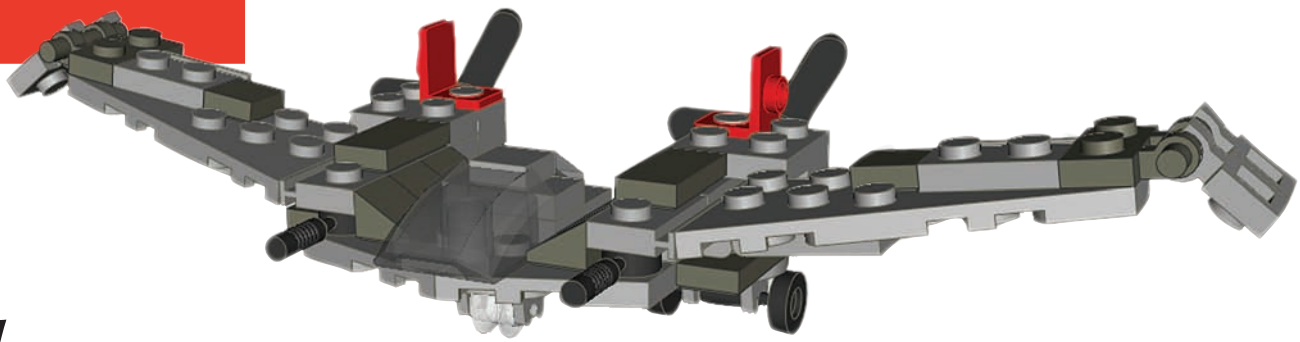
Final shark with um, lasers.

The prototypes with the completed shark element.

Above: Minifigure dummy with sculpted accessories
Above right: Dummy with actual minifigure to show scale.
Below: Final hat with sculpted version.
Right: Gitte's troll.







MINI Flying Wing

Article and Art by Christopher Deck

I'm glad I could again contribute to *BrickJournal*. Without a doubt, one major highlight of this issue is the new Indiana Jones sets!

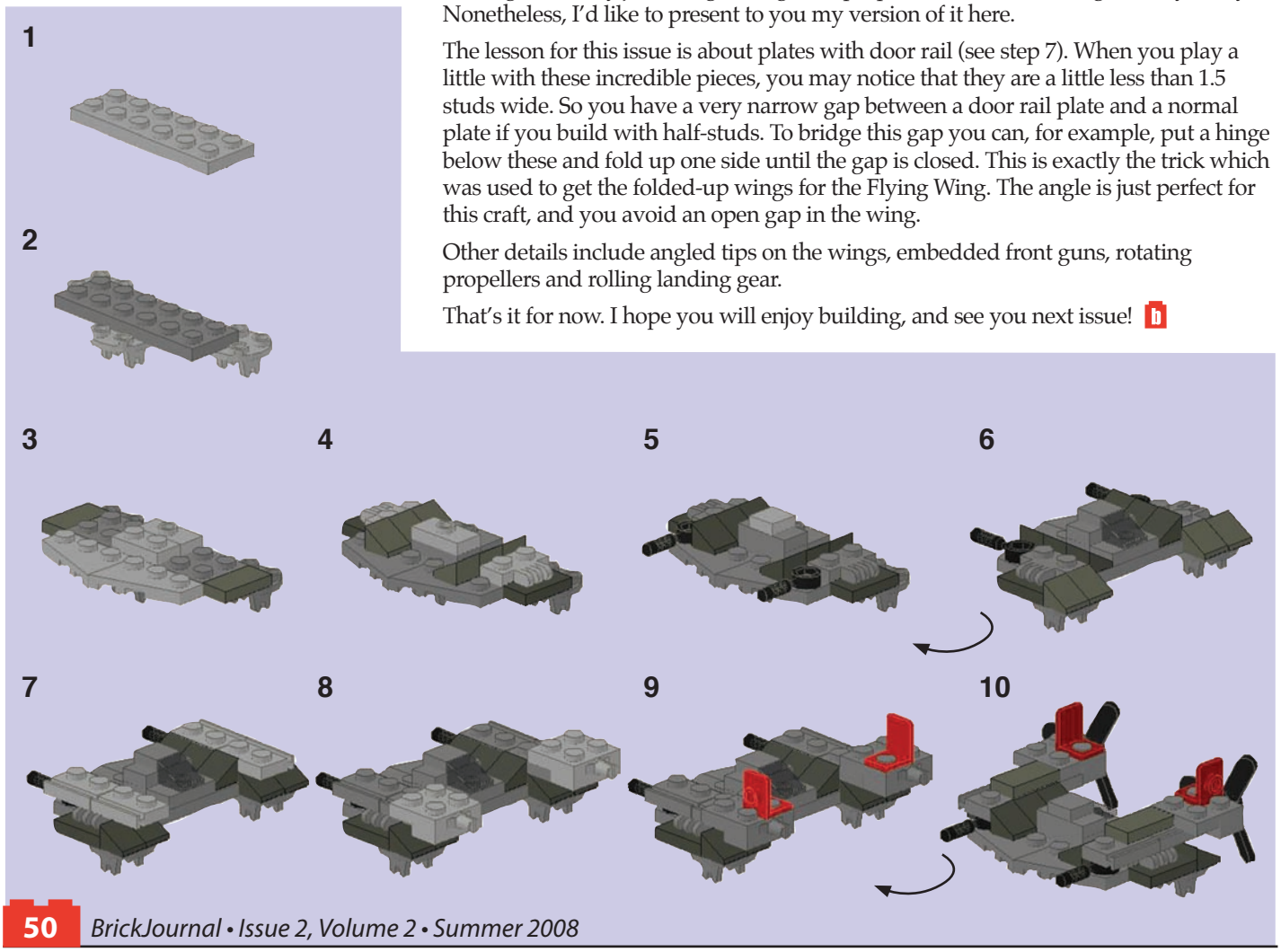
Some of you may recognize me as a *Star Wars* MINI model builder, but the *Star Wars* and the *Indiana Jones* franchise have many things in common. Not only is Han Solo, err… excuse me, Harrison Ford, a main actor in both productions (which are both by Lucasfilm Ltd.), but also John Williams is the composer of the soundtracks for both of the trilogies.

So why not an Indiana Jones MINI model? One of the most recognizable vehicles of the trilogy is probably the Flying Wing from *Raiders of the Lost Ark*. Created by the movie designers to show the technology of the Germans, this plane was loosely based on some designs of the time that never made it to production. Unfortunately, although basically just being a wing with propellers, the model design is very tricky. Nonetheless, I'd like to present to you my version of it here.

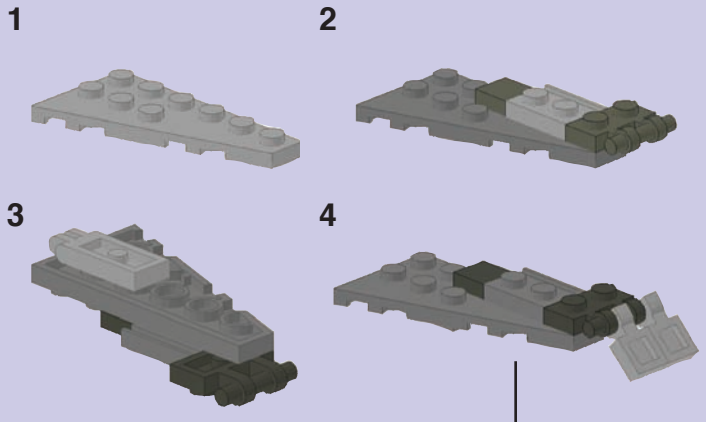
The lesson for this issue is about plates with door rail (see step 7). When you play a little with these incredible pieces, you may notice that they are a little less than 1.5 studs wide. So you have a very narrow gap between a door rail plate and a normal plate if you build with half-studs. To bridge this gap you can, for example, put a hinge below these and fold up one side until the gap is closed. This is exactly the trick which was used to get the folded-up wings for the Flying Wing. The angle is just perfect for this craft, and you avoid an open gap in the wing.

Other details include angled tips on the wings, embedded front guns, rotating propellers and rolling landing gear.

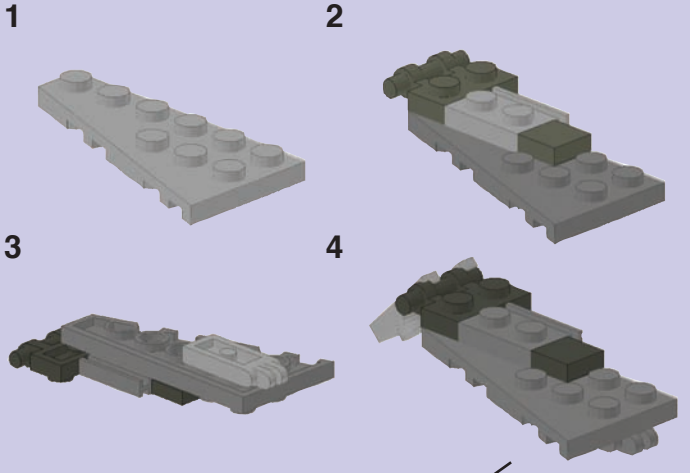
That's it for now. I hope you will enjoy building, and see you next issue!



Left Wing

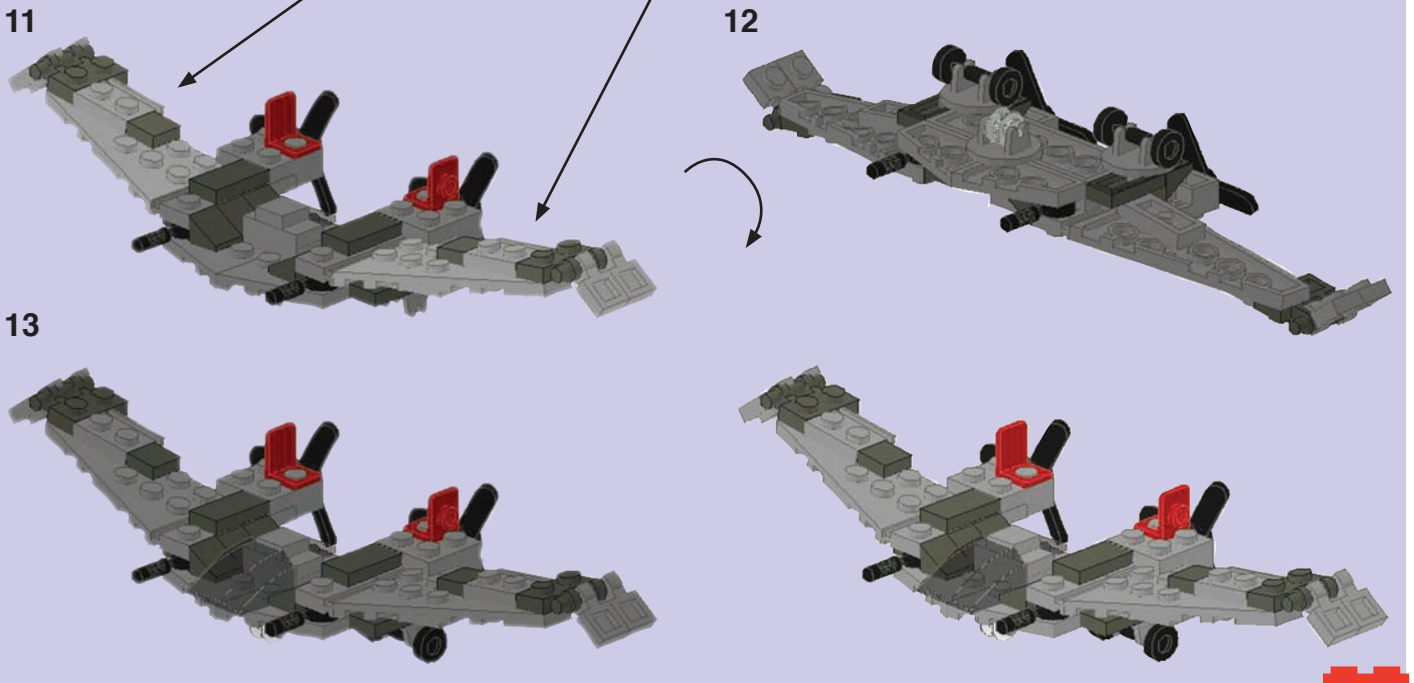


Right Wing



Parts List

Numb.	Color	Part	Description
2	Red	42446.DAT	Bracket 1x1 - 1x1
2	Light-Gray	2452.DAT	Hinge Plate 1x2 with 3 Fingers On Side
2	Black	6246D.DAT	Minifig Tool Box Wrench
1	Light-Gray	3023.DAT	Plate 1x2
2	Light-Gray	3794.DAT	Plate 1x2 with 1 Stud
4	Light-Gray	32028.DAT	Plate 1x2 with Door Rail
3	Light-Gray	2655.dat	Plate 2x2 Round with Wheel Holder
2	Light-Gray	4488.dat	Plate 2x2 with Wheel Holder
1	Light-Gray	3795.DAT	Plate 2x6
2	Black	2421.dat	Propellor 3 Blade 4 Diameter
10	Dark-Gray	50746.dat	Slope Brick 45 1x1x2/3
1	Trans-Black	50746.dat	Slope Brick 45 1x1x2/3
1	Trans-Black	30602.DAT	Slope Brick Curved Top 2x2x1
1	Light-Gray	3070b.dat	Tile 1x1 with Groove
4	Dark-Gray	3069B.DAT	Tile 1x2 with Groove
1	Trans-White	3464.DAT	Wheel Centre with Stub Axles
2	Black	2496.DAT	Wheel Trolley
1	Light-Gray	43723.DAT	Wing 2x3 Left
1	Light-Gray	43722.DAT	Wing 2x3 Right
1	Light-Gray	4276b.dat	Hinge Plate 1x2 with 2 Fingers and Hollow Studs
2	Light-Gray	6019.DAT	Plate 1x1 with Clip Horizontal
1	Light-Gray	32028.DAT	Plate 1x2 with Door Rail
1	Dark-Gray	2540.DAT	Plate 1x2 with Handle
1	Dark-Gray	3070b.dat	Tile 1x1 with Groove
1	Light-Gray	54383.dat	Wing 3x6 Right
1	Light-Gray	4276b.dat	Hinge Plate 1x2 with 2 Fingers and Hollow Studs
2	Light-Gray	6019.DAT	Plate 1x1 with Clip Horizontal
1	Light-Gray	32028.DAT	Plate 1x2 with Door Rail
1	Dark-Gray	2540.DAT	Plate 1x2 with Handle
1	Dark-Gray	3070b.dat	Tile 1x1 with Groove
1	Light-Gray	54384.dat	Wing 3x6 Left



LEGO Factory Goes to Space:

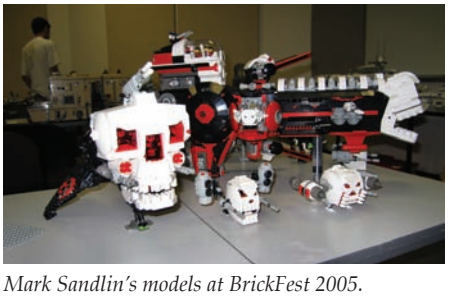
Star Justice and Space Skulls

Article by Joe Meno
Photography by Joe Meno and Rob Doucette
Art provided by the LEGO Group

Until recently with the Mars Mission theme, the LEGO Group produced no space-themed sets. Originally phased out to make way for the LEGO *Star Wars* sets in 1999, the absence of Space sets was keenly felt by LEGO fans.

In the years where the LEGO Group had no Space line, fans came up with their own simple and open-ended classic-style themes. Two LEGO fans, Chris Giddens and Mark Sandlin, created their own themes and models. What happened from their creations no one could have expected or even dreamed of… they got to design sets in their themes for the LEGO Group! However, this did not happen overnight.

Some of Chris Gidden's models at BrickFest ® 2005.



Mark Sandlin's models at BrickFest 2005.

Beginning Themes

Chris Giddens is a minister who has been building since 1977. In 2002, he began building spaceships in what has become known as "Pre-Classic Space." In Chris' words, "Pre-Classic Space started as an attempt to bridge the gap between modern space themes, such as Space Port and now Mars Mission, to older yet futuristic themes like Classic Space. Then it kinda settled in as '60s era American Space that kept going into deep space exploration."

Over the period of three years, from 2003 to 2006, Chris created over 15 different spaceships and many colorful characters, which can be seen at http://pre.classic-space.com. The PCS subtheme brings MOCs like a large capital ship, the *Vanguard*, to small explorer craft like the *HopLab*, to the Flash Gordon-inspired *Fazoom-o-Craft*.

Mark Sandlin is a graphic designer that has been LEGO building since 1980. In 2003, he started a theme called 3vil ("Three Times the Evil!") that became an opponent to Pre-Classic Space's good guys. As Mark tells, "The 3vil guys showed up as the main badguy… classic cheesy over-the-top '50s badguys." The trademark symbol of 3vil, the skull, first appeared with the 3vil *Death Skull*.

From 2003 to 2006, Mark made eight spaceships and crafts, from the *Asmodeus* (a 5-foot-long space battleship) to a single-person hover cycle, in the 3vil theme. All can be seen at Mark's website, http://fleebnork.com.

Many great builders in the community also joined in building MOCs for these subthemes. There was a sense of ownership in the community for these fan-created themes.

With the two themes, the stage was set for something big to happen, but it would take a little time.

Building Interest

Both presented their models online and at events, including BrickFest in Washington, DC. At BrickFest 2005, they met Paal Smith-Meyer, then a Creative Lead at the LEGO Group, who quickly saw the potential of Chris' and Mark's skills and started talking to them about building sets for the LEGO Group. It would take some time before anything happened though — a factory had to be built, LEGO Factory to be exact.

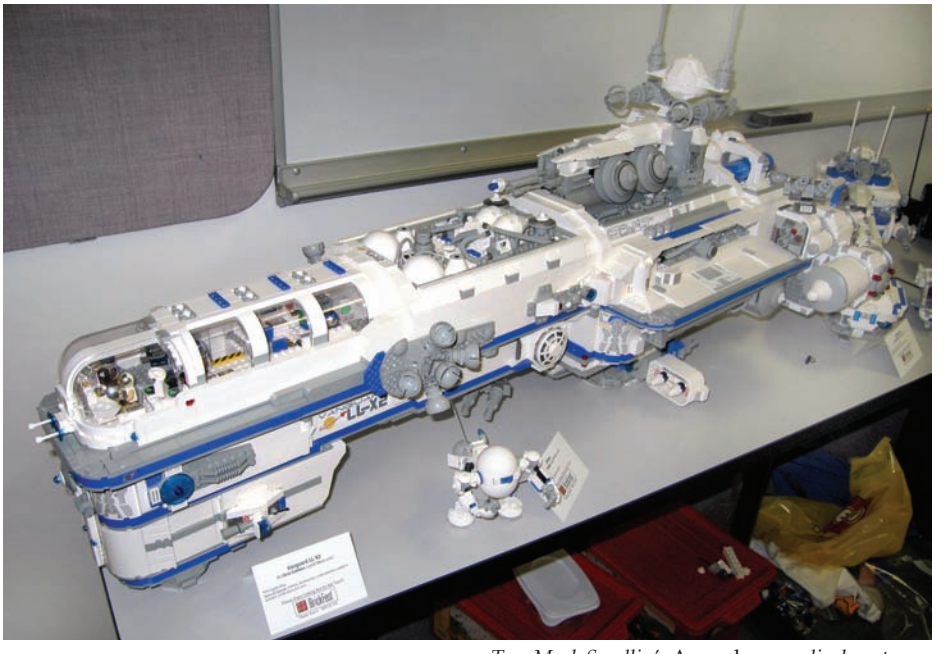
Launched in 2004, LEGO Factory was a new concept providing a way for users to design and purchase their own LEGO sets online. Following the fan-designed LEGO Hobby Train and Market Street sets, the designers of 3vil and PCS were chosen to create the first play theme concept to use the LEGO Factory platform.

Design began in 2007. But first there were some changes that had to be made.

What's in a Name? And a Palette? And a Sticker?

The first challenge was the theme names. While "3vil" and "Pre-Classic Space" was recognized and respected in the LEGO fan community, it had only a little resonance with those outside the AFOL community, so new names were chosen. 3vil was changed to Space Skulls, and PCS was changed to Star Justice.

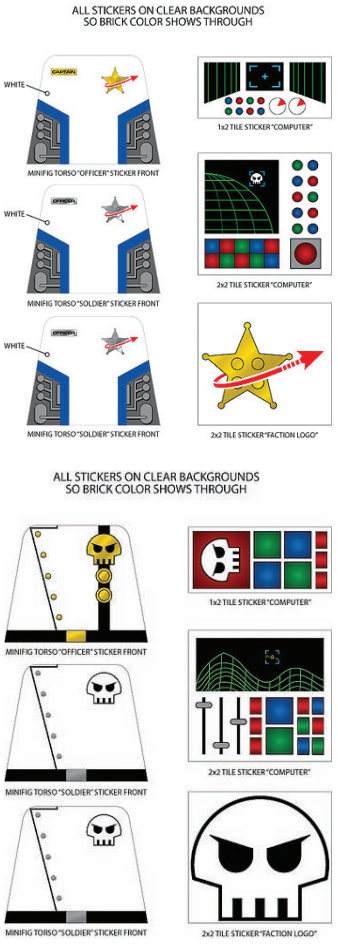
Another problem was printing. Printing on LEGO elements is an expensive process, and one that could not be done exclusively for these sets, so stickers were used. Mark's design background proved useful, as he provided designs for computer readouts and uniform stickers for both sets.



Top: Mark Sandlin's Asmodeus *on display at FIRST LEGO League's World Festival 2006.*

Above: Chris Gidden's Vanguard *at BrickFest 2005.*

Other factors to consider were the parts selected. Chris and Mark were asked to choose new parts to include in the sets. These parts would be added to the part selection in the LEGO Factory warehouse and the palette of parts in LEGO Digital Designer (LDD), the program used by consumers to create their own LEGO Factory models, when the space sets would be released. However, not all of the parts requested were available, which later posed problems and forced redesigns and rebuilds. Mark tells: "As far as building challenges... it was very difficult. At first, [the] LEGO [Group] asked us to choose 50 'space' parts we would like to use. Once we chose them, about 75% of the parts we chose were unavailable for cost or production reasons. It's a lot harder to design a 'spacey' set when a lot of the parts you like to use aren't available. Also, some of the building methods used also were difficult to do in LDD.



Sticker designs by Mark Sandlin.

A design by Chris for a larger spaceship, initially the centerpiece of his set, was lost because of parts and price point issues. In its place, he designed a ground station and rover with "fuel cells" that the Space Skulls could steal. Both made many models, but eventually, only a few could be selected for the two sets.

Steen Sig Andersen was the LEGO designer who worked with Mark and Chris and guided them through the process from design to reworking the models. Steen notes one of the many changes he worked on: "What I had to do was to rebuild the base, the one Chris had made was too big (too many elements) to fit into the set. Both LEGO Factory Space Sets had to have the same size impression. I tried to keep the visual impression that Chris had in the original model, just in a smaller scale."

Other changes Steen had to make were replacing the elements that no longer were available in the LDD palette and making some stability changes in the construction, most of them not visible on the models.

As designs progressed, Mark and Chris were sent photos of the models/changes and then discussed them in phone conferences with Steen and members of the LEGO Factory team. Based on the discussions, further revisions and suggestions were made, sometimes becoming a major influence on the design of a model.

Mark recalls: "We designed our sets and sent them to the LEGO Group, at which point the production schedule was pushed back, which caused more parts to be removed from our sets. At this stage, the LEGO Group did not give us the opportunity to redesign the affected parts of our sets, so Steen did the best he could to maintain the designs we had built. The Skulls sets weren't affected as much as the Justice sets."

Chris tells: "The effect on the Justice sets were: loss of a ship, design and redesign of base, addition and finalization of rover, change in robot torsos, and color changes in parts. Steen did a great job getting things back to where they needed to be. Our original models are there, just with part substitutions. For example instead of a 1x4 SNOT (studs not on top) brick in white, you have Technic pins. The ship that's in the set used to have blue slopes underneath, now they're dark grey. Engine pieces were used until those parts were dropped and wheel hubs were used instead. It was an interesting process, but the ideas we wanted made it to the box."

Above left: Preliminary Skull ship.
Far left: Final Skull ship.
Left: Packaging for the Space Skulls set.
Above: Skull speeder designs.

The most crucial test for the models was the final review. Official LEGO sets, regardless of design by fans or LEGO designers have to pass a quality test for their target group in terms of ease of build, building technique, and model stability (making sure it doesn't fall apart easily).

Steen adds, "To ensure this, the models are checked on a review. At the review an experienced LEGO designer, one from our building instruction group, and a quality engineer build the models and do several tests. From their testing and building, they return with their feedback on how to improve the model, so they will meet the quality standards for the target group. Chris and Mark's models went through the model review, with very few comments."

In April 2007, the models were finalized and made ready to be produced. Pre-production (final evaluations by LEGO set designers and other preparation), box art and instruction creation took six months, but part delays and scheduling issues pushed the set release to April 2008.

Preparing for Launch

The sets are a testament to the building skills of Chris and Mark and the trust of the LEGO Group in allowing two fans the means to create their own designs as LEGO Factory Exclusive sets. Space Skulls and Star Justice were not only launched as sets but also as themes in LEGO Factory, meaning that everyone can use the LEGO Factory platform (www.legofactory.com) to create their own Star Justice and Space Skull sets. Both are happy with the results and are excited with the release and what new models may be created by LEGO fans both young and old.

Additionally, more space MOCs — all designed in LDD — from Mark and Chris will be gradually published on legofactory.com. Serving as fantastic inspiration models, users will be able to purchase, and more importantly, design their own cool space models. Chris Giddens puts it this way: "It's a chance to bring the adult fan experience back to the kids. Children are always very excited about the space creations as I and other adult fans present our space models at LEGO events, and now children get the opportunity to get into our designs and build and rebuild good spaceships and vehicles." To paraphrase a saying, the sets are "one small step for fans, one giant leap for fankind."

Top right: A couple of designs that were built but not selected.

Middle right: Packaging for the Star Justice set.

Right and far right: Preliminary fighter design and final model by Chris Giddens.

Below and below right: Preliminary model and LEGO Factory draft of larger ship that was not selected because of parts issues. However, models will be appearing in the LEGO Factory website, maybe including this one!

Developing A Super-Bike

From Model Sketch to Set Design

Article by Geoff Gray
Photography by Mark Staford
Set Photo provided by the LEGO Group

The model sketch that started it all.

BrickJournal recently had a chance to chat with Mark Stafford. Mark is an AFOL that is now working as a set designer for The LEGO Group in Billund. He designed the Swamp Hunt set for the new Agents theme.

Below and below right: The Mark II, using orange as the base color

BrickJournal: Was this bike developed especially for the Agents Theme?
Mark Stafford: No, in fact this first version of the bike was built shortly after I started at the LEGO Group during a brief stint in Mars Mission. It was far too obviously a motorcycle to be a space set and nothing I worked on directly became a model in that line, but I liked the lines and concept of it too much to chuck in the recycling bin.

BJournal: So if the model was not used how did it end up in the set?
Mark: I spent a few months in Exo-Force, helping to develop the 2008 line-up. That was fun, but there was no room amongst all the mecha for a motorcycle either. At the end of Exo-Force development we had a few weeks before being re-

assigned to new product lines, so I took part in two building boosts, which are fantastic fun! All designers who are not too busy take part in the boost. We brainstorm ideas and build models that will inspire the designers who are later assigned to that theme. It can be a one day to a one week event, and it's always a very creative time.

BJournal: Really? So what themes were these boosts for?
Mark: Batman was the first boost and we had a cool time building models, and almost all of the new line came from this event. I built an early version of the Tumbler, and later another designer, Hans Henrick, had to develop it into the final model. Fantastic job he did, too, the floor doesn't fall out of his final version when you put Batman in, unlike my original! The Joker Ice-cream Truck also came out of the boost, but by a different designer (Adam Grabowski — Brickshelf: MisterZumbi.); three designers, one set, cool!

The second boost was for Agents and that's where the bike comes back into it. At this stage the theme was still very loose. We knew the basic premise was good spies versus bad spies, and although we have approached similar themes in the past, Alpha Team being the obvious example, we knew this theme had to have a totally fresh approach. We built a ton of models, cool cars and trucks, planes and boats and many other vehicles including this Agents-colored chopper-bike. A little of the build up of this made it through to the final model, but it was still quite complex; probably too complex for instructions to be made that an average seven-year-old could follow, and this is always our primary concern.

BJournal: Did the Agents boost provide as many set concepts as the Batman boost?
Mark: Not really, only a few ideas from the Agents boost made it through to the final models — the remote controlled crocodiles being one of them — but the main success of the boost was realizing what worked! The theme's tone was best when lightened and made more playful; the characters became Agents, rather then spies, and the bad guys were more fantastic — mutants with cyborg animals at their command — while the heroes stayed human and good-looking (for mini-figures anyway). The color schemes began to come together, too, with dark blue added to grey/silver for the good guys and black and orange for the bad.

BJournal: You still haven't explained how the bike made it into the set!
Mark: I guess I haven't! After the boost I was assigned as a designer to Agents, which was cool, because I got to develop the line further. While we were still hammering out what the final line-up of models would be, I built this more simplified version of the bike, still for the bad guys at this point. I used the Exo-Force figure as I had so many of them on my desk at that time. The new mini-figure prints are one of the last things we finalize and get into stock.

Below and right: The Mark III, a chopper-bike. This version was deemed too complex to build for the target age group.

Below: The Mark IV, going back to the orange color scheme for the AGENTS bad guys.

Below: The Mark V, now for the good guys, and now nearing finalization.

BJournal: How did your bad guy bike end up on the side of the Agents?
Mark: The decision was made that the Agents would have more conventional vehicles and the bad guys fantastical ones, so the cycle became too "normal" for the bad guys. However there was a spare "smallish" good guy vehicle needed, and the Agents color scheme finally made it on to the bike! The build was still quite complex, with a lot of Technic in the main chassis. Also I was using the silver curved shape element with an overlapping lip; this caused a problem with the part pulling off when the mini-figure was removed. So another month or so of development and I had finalized the design. I had added a trapped bridge, swamp shack and escape boat for the bad guy with the jaw-helmet and I'd squeezed as much into the set as I could and still be on price. The build up was considerably easier in construction, but still retained the massive super-bike coolness of the earlier builds. The model went through model committee with no major changes, and I passed the model on to building instructions and packaging to do their bit while I finished up the other two Agents models I was designer on.

BJournal: Mark, thanks for your time. And congratulations on your design of a cool set for the new theme.
Mark: Thank you, feel free to leave reviews of the set on LEGO.com!

Above: The final set model, with AGENT in place!

Altering the Color of LEGO Elements — Paint, Dyes, and More!

Article and Photography by Jared K. Burks

Have you ever run across a LEGO part that you just wished existed in another color? Of course you have. I know I have. Unfortunately, LEGO cannot produce every part in every color of the rainbow. But, there are some easy ways to alter a part's color. This article will discuss paints, dyes and a few more tricks to turn LEGO elements a new color. Briefly, I will go through the different options for altering a part color: markers (Sharpie brand), paints, fabric dyes, and vinyl dyes. The advanced method (vinyl dye) to alter part colors requires adult supervision, so please be sure to seek help if you are under the legal age to purchase this product.

There are limitations to some of the techniques that I'll describe. If you are concerned over the final result or have never tried a specific technique, start with a practice part you don't mind experimenting on. This practice part could be anything from a like-colored element to a duplicate part. Just be smart about your practice part. I know that some elements are very expensive or hard to find, but if you can, use a like-colored element to work out your conditions.

Part Preparation

To begin altering any part color the piece must be properly prepared to get the best color adjustment possible. The main reason for preparing parts is to remove the residues that are on the elements from their production and packaging. To do this you need to scrub each part with soap and water. Typically, mild dish soap works well to remove these residues, however using an old toothbrush to get into the small cracks and crevices will also help. The next step is to completely dry the part with a soft towel or wash cloth. To ensure the residues and water (especially in the small crevices) are completely removed, wipe down the part with an alcohol wipe or 70% isopropyl (rubbing alcohol). The alcohol will evaporate quickly and help remove any water trapped in the crevices; it will also remove many non-water soluble residues. Now the part is ready for whatever alteration method you choose to use.

Sharpies

Markers (paint or Sharpie) are really only good for small color changes. Typically they are not for broad coverage nor are they very permanent regardless of what the manufacture states. These are best for quick coverage of small areas that will not see much wear. However, they *can* be used to alter part color and are likely the cheapest way to do so. If you use these methods be sure to use even strokes across the part and, once dry, clear coat the part with acrylic paint to protect the ink. If, however, you are wanting a temporary color alteration, this is your method of choice, with a touch of rubbing alcohol the Sharpie marks will come right off the elements, unless you use the alcohol resistant types.

Figure 1: Various figures created by altering part colors. A. Star Wars *Ewok figure with dark red cloak created using a red Sharpie marker. The eyes, cheeks, and hood pull strings were colored with a black Sharpie. B. Grand Admiral Thrawn is sporting a custom colored head and set of hands. His blue color was produced using a custom mixed vinyl dye. This process can be expensive, but it gives the best and most durable results. C. Mace Windu is seen toting a purple light saber blade that was colored using RIT fabric dye. D. The Cyclops, Harry Potter troll, received a full body color alteration using a custom mixed Testors' acrylic paint.*

Paint

Paint, the next option to alter LEGO part colors, is the most widely used. There are two types of paint: enamel and acrylic. Enamel is an oil-based paint that will dry slowly and requires paint thinner to clean up. Enamel can also have strong odors. If you are using it in any volume, be sure to take frequent fresh air breaks. Acrylic paints are water soluble, meaning they thin and clean up with water, as long as they haven't dried. It is because of these two factors that I recommend acrylics.

When using paint it is best to apply it in thin layers and build to the final finish. This will make a stronger finish overall and leave the least amount of build-up on the part. Build-up is the accumulation of paint on the part, and when visible it noticeably detracts from the final custom figure. It is better to apply three thin coats than one or two thick coats to an element to help avoid build-up.

There are two basic ways to apply paint: with a bristle brush or an airbrush. If you have an airbrush, you likely already know it is a wonderful tool to apply paint to broad areas. Cheap airbrushes are all you really need, ones that use small compressed cans of air. Slowly sweep across the part applying three sequential thin coats of paint. If, however, you don't have an airbrush, adequate results can be achieved with a bristled paint brush with a bit of patience and practice. Personally, I prefer nylon bristled brushes. Follow the recommendation above and use several thin coats. Often it helps to thin the paint as well. Be sure to give each coat plenty of time to dry before applying the next coat. Painting takes practice, so you might want to try a few test pieces before painting your rare LEGO element.

Paint does have flaws. Much like markers, it can wear or be scratched off. It can also be hard to get perfect finishes with a brush and, as mentioned before, you can get paint build-up. Minifig hands are very difficult to paint as it will almost always chip off if you routinely place anything in the figure's hand. Because of these issues, many in the customizing community have sought out alternatives.

Dyes

One of the alternatives mentioned above are dyes. They are more permanent color changes since they penetrate the surface of LEGO elements. They do not build up on the surface making it impossible to chip them off the part. However, they can be difficult to find and temperamental to use. So there is no perfect solution to part color alteration. There are two different types of dyes that are commonly used, RIT fabric dye and vinyl dye.

RIT fabric dye points out on their website that, "RIT can be used to dye many different types of materials including wood, paper, plastic, feathers, and even canvas shoes!" RIT fabric dye can be used to alter the color of lighter elements to darker shades. However, it cannot be used to lighten darker elements. RIT dyes can be mixed to create custom colors, making it a good alternative to paint if you need a darker element. Their website gives some guidelines for what colors can be obtained based on the starting color (http://www.ritdye.com/Questions.50.lasso). Typically it is best to experiment when using RIT dye. A trick I have learned is that it will penetrate into the part faster if the dye is warmed to near boiling temperatures. Just be careful, you don't want to melt your part and be sure to use a device (spoon) to help remove the parts from the dye. To begin, use an experimental part placed in warm dye and check for the desired color every 15-30 seconds. It is easy to go beyond the color you are after very quickly, so checking frequently is best. Note the duration required to get the desired color and then dye your desired part for that duration. If you need to alter many parts to the same color it is best to do so in small batches. Make sure to note the time and to use fresh dye for each batch to ensure that you get consistent color across the batches.

The final method for altering part color is vinyl dye. This is a difficult product to find, however it can be found in many automotive stores. Avoid the products called vinyl color (or colorant), which are easily confused with vinyl dye. Another place vinyl dyes can be found is custom automotive paint stores. It is *very* expensive to purchase vinyl dye from these stores, but when you need the absolute correct color, this is the only option. Typically this product comes in a spray can, so be sure to use several light misting applications instead of one thick and heavy spraying. Let each application dry before applying the next.

Vinyl dye contains strong organic compounds which help the dye penetrate the plastic; vinyl color (the product mentioned above that you don't want) is a fancy name for paint. If in doubt on which you have found, read the product components. One of the first compounds

listed in vinyl dye should be acetone. Yes, we all know that acetone will melt LEGO elements when used in high concentrations, but in low concentrations it allows the dye to penetrate the LEGO element and alter the color. This is a permanent color alteration. There is no build-up on the surface; true vinyl dye cannot be scratched off. Because of the mechanism of action, vinyl dye must be applied above 70° Fahrenheit and below 85° F. If it isn't applied under these conditions the results are poor.

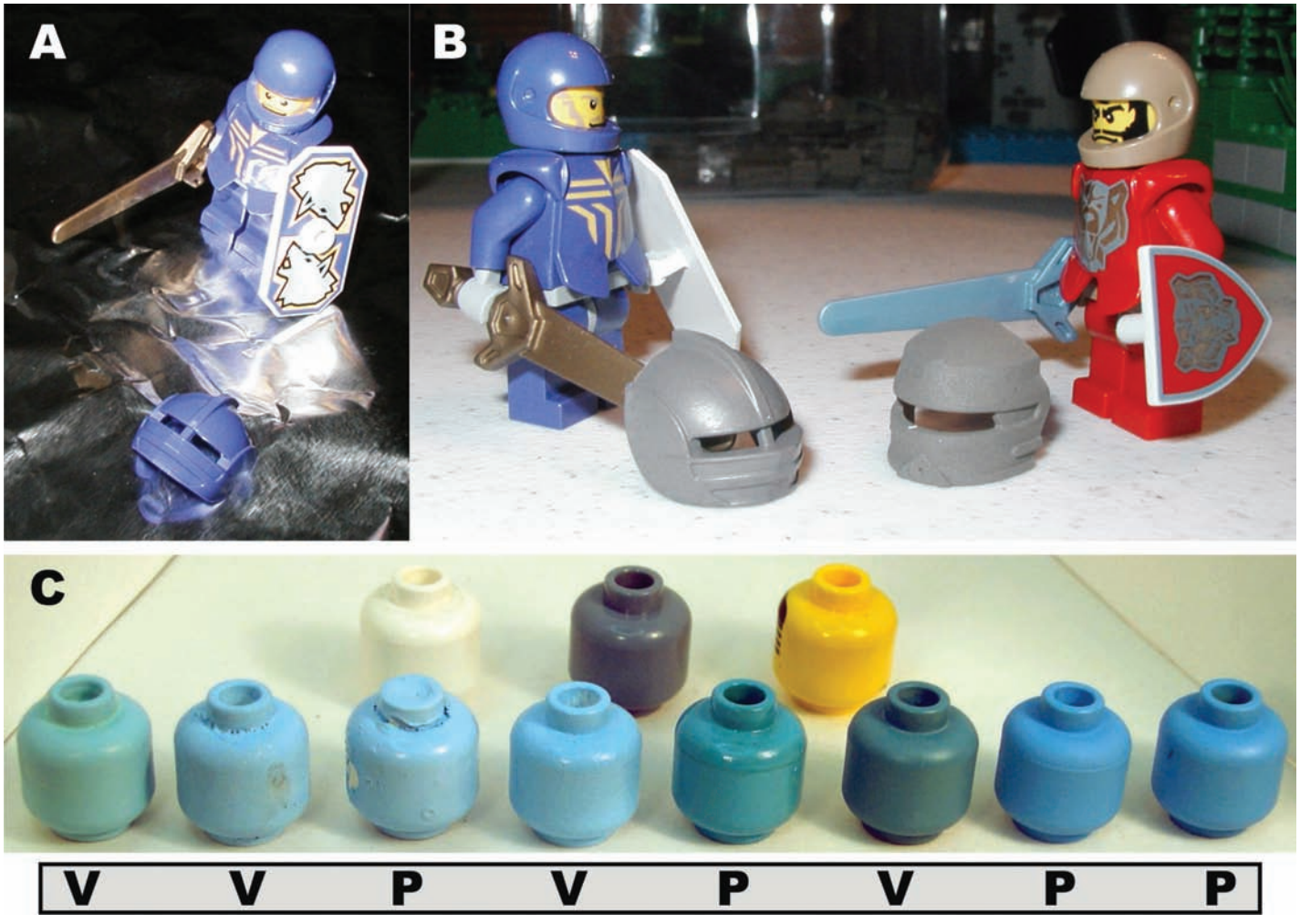


Figure 2: A. Helm visor part ready for vinyl dye application using an over-the-counter vinyl dye. B. The resulting visor altered by Anthony Sava with a comparison of applications at the correct and incorrect temperatures. Notice the difference in the visors. The visor on the right was not applied at the recommended temperature and it resulted in a less than perfect finish. This application gave the surface a rough and dull surface. Photos A and B were taken by Anthony Sava and used with permission. C. This is a comparison of paint (P) to vinyl dye (V). Notice that the color of the original part can have an effect on the final result. The first and the fourth heads from the left were coated with the same vinyl dye, however the far left head was a yellow part originally and the fourth head was white. Also notice the improper temperature application in the second head and paint accumulation on the third. The fifth head used a Testors' spray paint for plastics. The sixth head was colored using an over-the-counter vinyl dye. The final two minifig heads on the right were painted with an air brush using Testors' paint.

So now you have many options for altering LEGO part colors and you can create many new and different custom figures and pieces. Just remember, with all these options, it is best to figure out what works for the project at hand. If you need permanent, hard wearing color alteration, look to dyes, and if you need quick small area coverage look to paint or markers. Also, please consider if your custom figures are for display or hard play. Good luck creating! Enjoy the new rainbow of colors that are now open to LEGO elements and your creations.

Next Time:

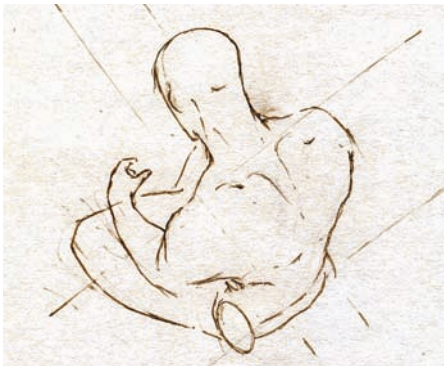
Minifig Customization 101 – Advanced decal application!

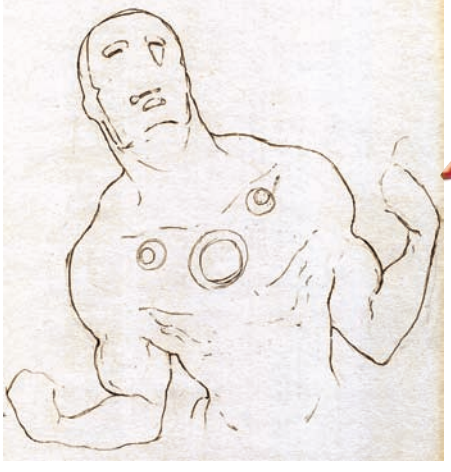
The IRON MAN

Building

Article, art and photography by Arvo

Layout by Todd Kubo





The Hero.

After 20 years of reading comics, we don't remember which one of us bought an *Iron Man* comic for the first time…

…anyway that yellow and red "robot" captivated us. Slowly but surely, comic to comic, something about Iron Man appealed to us… and we couldn't say what it was. Perhaps it was his inexpressive face (paradoxically, full of tension), his armor… or the man inside.

But it was not only the hero, who in our imagination we created a ritual environment for. Nowadays it would be impossible to think about the hero without "drawing" inside our heads the music of Jean-Michele Jarre or *Zoolook*, a record that we listened to many times over, lying on the floor around the comics… music set the scene, and without it, it was like reading a blank comic.

We filled entire books of drawings with…

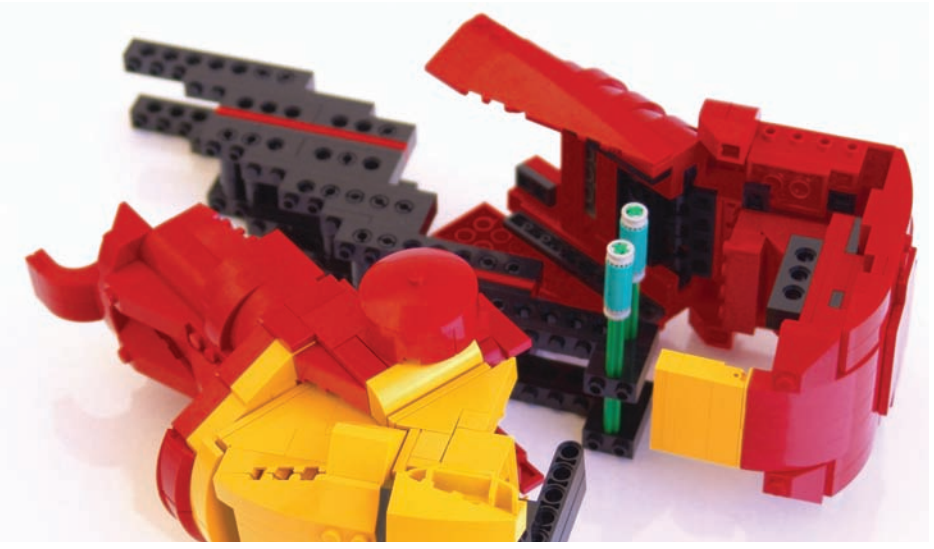
"Iron Man flying, fighting… even dancing!"

…We always have thought about the idea to simulate muscles; we guess that was carried by an impulse similar to the experience of Geppetto carving Pinocchio.

That was the moment we chose to move to 3-D!!!

The Model

The references of human sculptures are many. Who has not seen a *Star Wars* action figure? We wanted to try something different, and we thought that the best character for our "first attempt"



could be this "Man of Iron."

We recognized that the selection had very great advantages… . He is all armor, no skin in sight and with an inexpressive mask, which allowed us to focus on our goal, trying to imitate the human proportion and musculature with LEGO pieces. The selection of the position was chosen because we tried to depict this character of "human sculpture" far from the typical threatening "gesture" that we might expect in a sculpture of a superhero.

As we always do, we began collecting all the images of the hero from our own comics, the Internet, and a few drawings.

We drew different points of view and different postures, although the first thing that we knew was the position. We wanted a sitting position!

In the first steps of the MOC the

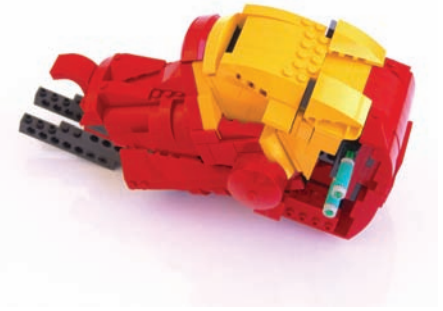
sketches enabled us to get an idea of what the structure technique would be, the proportions, and different details of the armor.

It's an alternative to MLCad (a computer program used to virtually build), although it was also necessary to do some tests with that software, especially the hands and the head. The next step consisted of making the part of the model that we thought would be the most difficult… in this case the head. But the images that we were able to get off the Internet were too complex. To try to imitate and duplicate forms with LEGO pieces was a mistake; we needed some time to create the head.

To our surprise, the final version of the front-mask was composed of only 15 pieces! It was less than we initially expected. The rest of the "skull" was resolved like a puzzle — filling in the gaps we built in all directions where necessary. This was the first time that the problem of the head weight appeared….

The head was formed by five parts; face, temples (x2), neck and skull vault. The two most voluminous parts (face and skull vault) joined together thanks to two axle "pins" being fixed in a Technic "spine" that runs inside the neck. The remainder, less heavy components, was added simply by stud.

Once we got the head completed we knew that this model was possible…

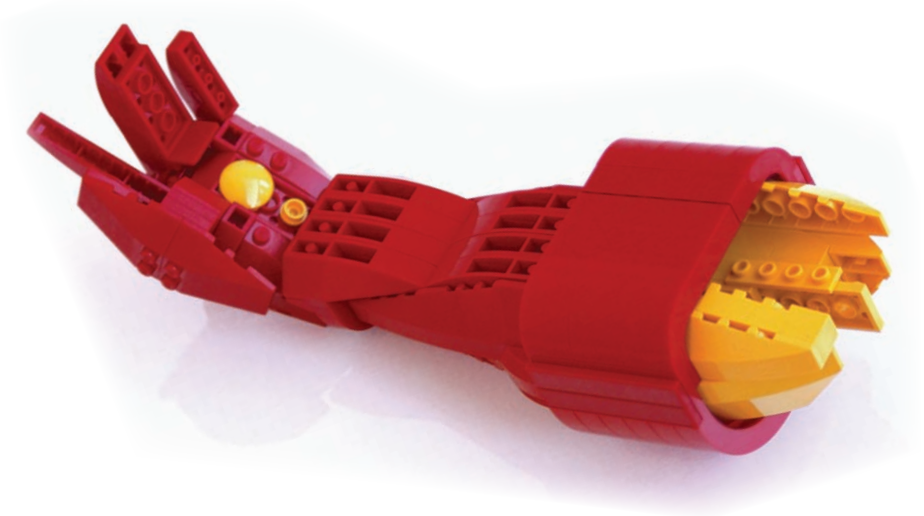


…it was the moment to begin making the structure from the ground up!

Did we mention that the head was the most difficult part of the MOC? *Ha!*

So were pectorals, back, legs, arms and even the navel! It has been really hard to find the right size. Joining the different parts became an aspect that was truly difficult. The big difference with respect to other sculptures is that all our parts were independent, built in oblique planes and with a Technic structure that supports the assembly between them.

The head, legs and arms were built with SNOT techniques. In these assemblies some pieces were essential. Inside them, the bracket 1x2-2x2, brick modified 1x4 with 4 studs on one side and brick modified 1x1 with headlight, outside them, slopes (all kinds of them) and wedges, but probably the piece most



used was the Technic pin. This simple piece is very useful. There were a lot of techniques to construct in inverse orientation with a cleaner look and more SNOT, but they used a lot more pieces! With only one Technic pin the aesthetics/results were similar with many fewer parts! When the limitations of space are important these kinds of solutions are ideal. We can find them in shoulders, boots and gloves.

Just as important as the construction, is the composite. All parts (pectorals, head, back, arms…) have an order into the frame. It is very fast but it has to be done very carefully. This operation is based on the modular character of the construction… from our experience the modular technique is the most intricate for medium-size MOCs; this one allows two people to be working at different parts of the construction at the same time….

Conclusions

The MOC was designed as a static sculpture (unique posture). The construction has been a great experience and an exceptional opportunity to learn how to not to do some things…

"LEGO has a certain size!"

The most insignificant correction meant starting almost from zero (the head was the only part that was set as a standard), we didn't imagine that so much knowledge is needed at all levels. We were too innocent. Even something as simple as shooting the MOC became a slow and exhausting operation.

Anyway we wanted to make something special for the first event of the Spanish AFOLs, HISPABRICK '07…. Two years after HispaLug's creation the effort of the whole Spanish community of LEGO fans (specially organizers and the Spanish LEGO-ambassador) has materialized in this first event that we can celebrate with an important representation with the Portuguese community. It was a special occasion.

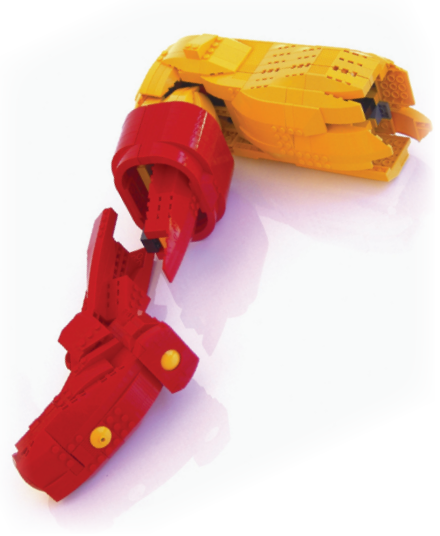
This MOC has not been the only one related to the "sculpture-concept"; weeks before we had constructed other MOCs that we used as tests for this Iron Man…

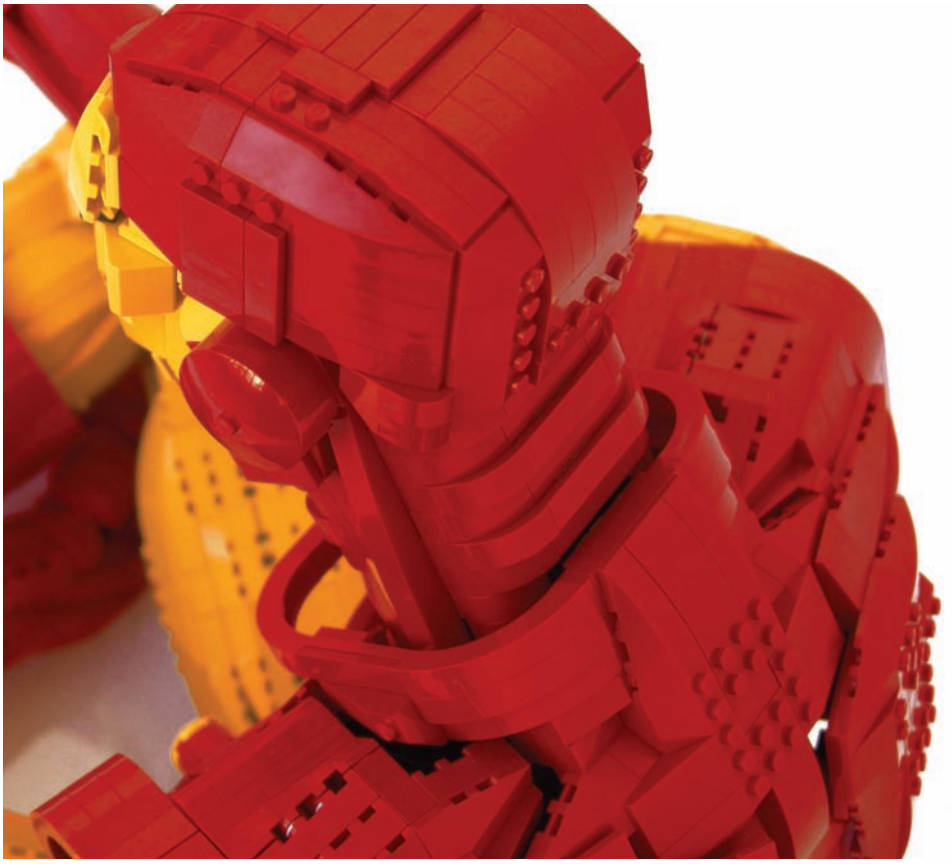
As we commented in March we made two MOCs based on *Alien* — H.R. Giger's creature. His work is full of models to reproduce with LEGO. Not easy, but possible? In any case it was a challenge!

The repetition of certain pieces as Minifig-heads, round 1x1 plates…or the utilization of hoses, animal body parts, bricks modified, allowed us to obtain very similar biomechanical-textures.

All this was done without forgetting the color, which for us, is an aspect of design as important as the forms of the MOC… the color is maybe the most important part of the construction…

…our *Calypso* is an example of that. The construction is extremely hidden in





order not to eclipse to the real highlight; the color. Conceived as a scale in balance, the hair offsets the weight of the chest, with the only support being a modified 2x2 plate with bar frame square (the feet of the marionette do not exercise any function of support).

There will be new projects like this (we love comics and LEGO), of course, but already we know that the order is the most important in these types of projects where the size and weight are decisive…

…Why not to do a Captain Britaia?, Or Meggan (at real size, of course!) (both of these characters are from the Marvel comic book *Excalibur*)? Or Spider-Man perched on an antenna, or Batman holding the inert body of one of his one thousand Robins (he ought to think; "well, now I only have 999")?

One Vacuum Cleaner, Two People, Four Days

Article by Martin Long
Photography by Mark Palmer

Of all the models on my wish list to build, a vacuum cleaner was never one of them! However, the Brickish Association was approached by Miele, a premium brand manufacturer of home appliances, who asked if we would be interested in building a life-size version of a new product they were about to launch. I agreed to lead the project and met with them to discuss their requirements.

Miele wanted us to create a full-size model of their new S7 upright vacuum cleaner as a live build during their dealer trade show. The S7 range is to be launched in the summer and they wanted something to attract the attention of the show visitors previewing the product. They asked if two people could complete the build from start to finish live at their Experience Centre showroom — both as a challenge to us and a piece of unusual "theatre" for all their visiting guests. I estimated we could finish the bulk of the structure in two days and the complete model with feature details in four. This fit within their show schedule perfectly. A call was put out to all other Brickish members and Duncan Titmarsh was the first person to respond.

Preparation

Two weeks prior to the event, Duncan and I borrowed a prototype model to understand how we might approach the build. We tried out a few ideas and placed a few BrickLink orders to ensure we had a good stock of the more specialized parts we thought we might need. We decided not to pre-build any sections as this would detract from our agreement to start from scratch at the beginning of the show.

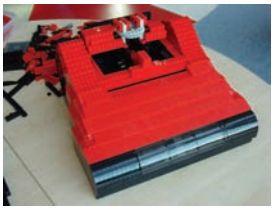
The Live Build

At the beginning of day one we still weren't entirely sure if this crazy project would be completed on time. The S7 vacuum cleaner is an elegant piece of design with almost no straight edges, so it was going to be something of a challenge to build with LEGO bricks! Duncan focused on the base section and I concentrated on the upright body. The S7 also has an unusual feature in that the upright section hinges both backwards and twists about its vertical axis, enabling the whole thing to be steered. We managed to build this cool feature into our model, too!

At the end of day two, as planned, we had a very respectable LEGO brick version of the complete unit. On days three and four we returned to the show to remodel a number of sections. The top range model has headlights in the base, so we added lamp bricks at the base of ours, controlled by a polarity switch squeezed in the handle. We also smoothed a number of the curved sections to be closer to the actual design, added some much-needed structural integrity, perfected the functioning dials and catches and finally solved the problem of how to build a vacuum cleaner hose purely from LEGO elements!

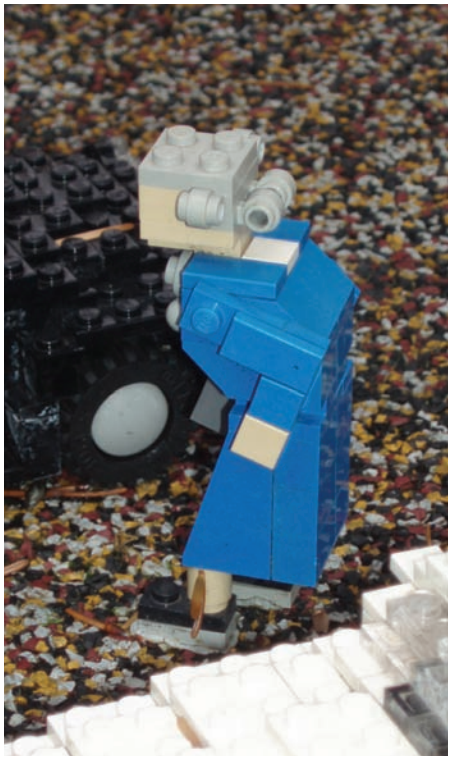
We finished the live build of the S7 with time to spare on day four. The Miele guys said that it far exceeded their expectations and was very popular with their show visitors. We had enormous fun building this, too, whilst constantly interacting with the visitors to the show. Duncan and I were asked many questions, the most popular being, "*Are you guys following a plan?*" closely followed by, "*Have you had special bricks made to build this?*" Most people could not believe we were building something from our own brick collection just by looking at it!






Old Bended Woman

Article, Photography and Art by Didier Enjary



As a regular reader of *BrickJournal*, you probably read the previous and first article on Miniland people. Today let's have a look at a different model: an old bended woman.

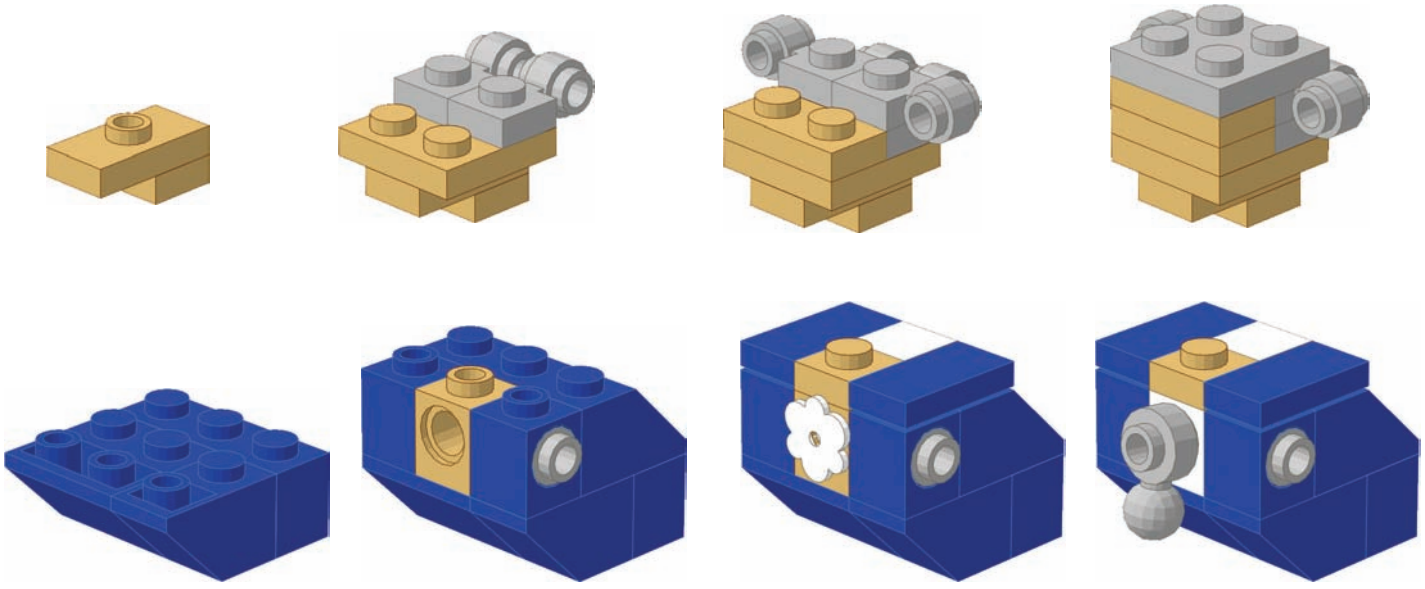
This time, let's begin the lesson with the character's head. LEGO part colors are as diverse as people's hair colors: from black or brown (brunette hair) to yellow (blond hair) to red and orange (red- and sandy-haired) or dark grey. Here, what makes the woman look old is her light grey hair, but it could also be white. The curly effect is simply achieved by the use of 1x1 plates with clip: two directed to the rear and then two directed to the sides. Just the right choice for the desired effect. We will try to show you in upcoming issues how to achieve different hair-dressing effects with other parts.

This character is a woman. But how does the designer made it look this way? The hairdo is the first clue, the flower on the chest is another, but the dress is the main recognizable element. It is built from tall slopes and stacked 1x3 bricks covered with tiles and jumper plates of the same color. The building is quite fragile — remember that models from the LEGOLAND parks are glued.

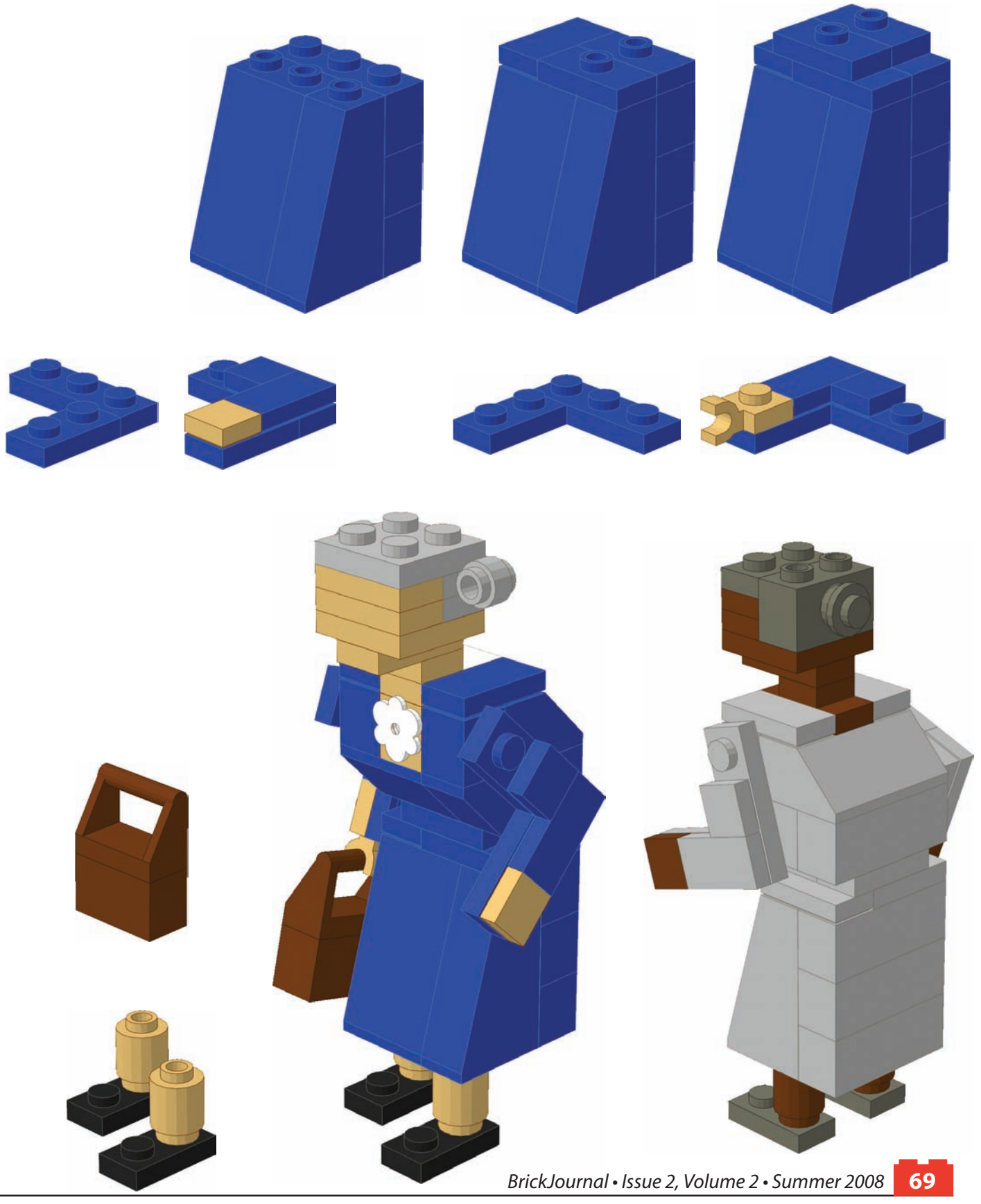
The torso uses inverted slopes and a 2x3 slope to achieve the look of a bended person. The 1x1 TECHNIC brick with the flower adds a nice decorative detail on the chest. The Miniland designers use altenative construction to add variety, for instance replacing the flower with a 1x1 round plate with towball.

To finish the old bended woman, add the feet, arms and a bag as shown below. The stability of the final model will greatly depend on the placement of the feet. The alternate model, a black woman, shows you how much you can create a totally different looking model by only changing the colors of parts and minor changes (see the knot of hair).

Next issue, I will show you how to build a model that will fit the upcoming season: a young woman laying on the beach under the summer sun.



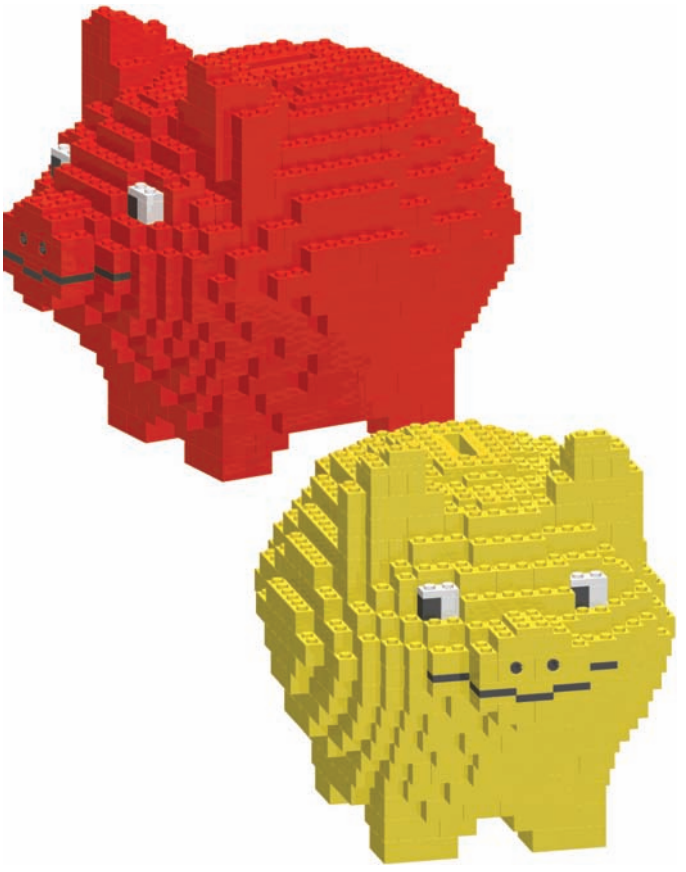
Billund Miniland People

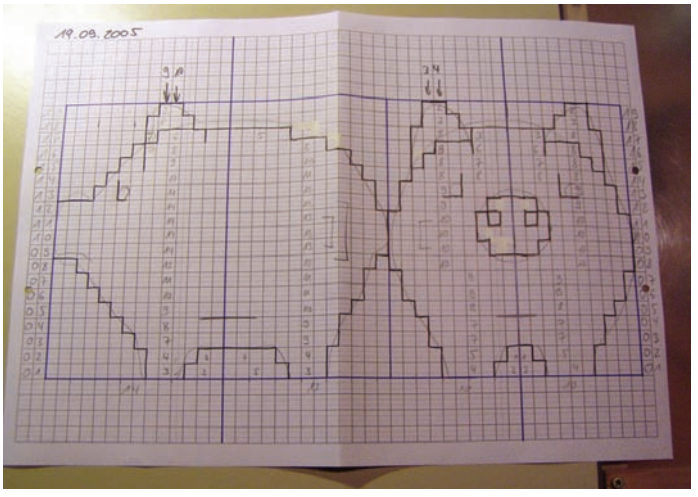


Old MacTobias Had a Farm...

Article and photography by Tobias Reichling

German AFOL, Tobias Reichling, decided to build a LEGO "piggybank." Due to the cuteness factor of the piggybank other fans started creating their own piggybanks based on Tobias' design. Now the piggybanks plan to take over the world!





The original "piggybank:"

In September 2005, I had the idea to build a piggybank from LEGO bricks. It was supposed to be as small as possible, yet still recognizable and beautifully roundish. In addition, it was to be a functional piggybank, providing a good amount of space to hold money.

Number of bricks: 483

Time: September till October 2005

Height: 18.20 cm

Length: 21.43 cm

Width: 15.88 cm

Planning stage:

In the beginning, I used Google to find a suitable photo of a piggybank. Afterwards I drew the contours of this picture on the computer and created the front view, too. Then the front and side view were transferred to brick paper and the outer lines were adjusted to the shape of the LEGO basic bricks. At this stage, I had not yet made any plans for the eyes and nose of the piggybank, so these were only indicated. A mouth was not yet planned to be included.

The various levels were drawn on paper based on the side and front view.

Building stage:

The challenge in constructing the piggybank was to enlarge the internal space of the belly (for money) without losing stability. I think I managed this quite well. The side walls are up to two studs wide and the piggybank is generally quite stable.

I built the first version in red. The eyes consisted of white and black basic bricks and plates; the nose was made up of 1x2 Technic bricks with 'hole' and black Technic pins. But the pig looked rather cranky. That is why it has some funnier ears and a grinning mouth made with black plates. The second piggybank was built simultaneously with the digital version in yellow and my girlfriend, Vanessa, built the third blue pig a short time later.

By the way, there is no slot for removing the money. Of course it was constructed this way intentionally. If one wants to get a hold of any money, the pig must literally be slaughtered (taken apart). Afterwards it can be rebuilt with the help of the building instructions (see below).

Building instructions:

As mentioned above, I created a digital version of the piggybank in MLCad along with the model of a yellow pig. So I decided to design my second set of building instructions. A detailed description of it can be found here: http://www.t-reichling.de/en/instruction_piggybank.shtml (Building Instruction Piggybank) and http://www.t-reichling.de/en/tutorials_buildinginstruction.shtml (Tutorials: Building Instruction) — also includes digital building with MLCad.

The building instructions for the piggybank can be purchased from me. If you are interested in the building instructions please contact me via e-mail at lego@t-reichling.de. The building instructions cover 16 colored and stapled DIN A5 pages (approx. 8.27″ x 5.83″). Each building step shows exactly one brick level in cross section. The bricks of the underlying level are represented in light grey for easier orientation.

More information about this sculpture can be found here: http://www.t-reichling.de/en/mocs_piggybank.shtml (MOCs: Piggybank).

Variations of the piggybank and piggybanks built by other LEGO fans:

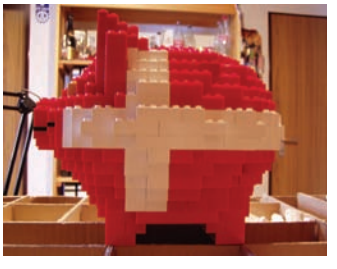
For me, it is the utmost praise, if other LEGO fans send in photos showing them with their models built with the help of my building instructions. A few fans created excellent and imaginative variations! Thank you very much!

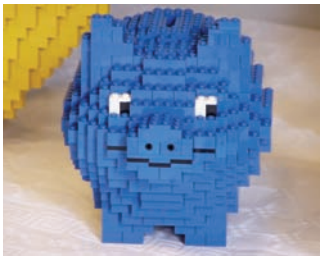
You can also see other creations by Tobias Reichling:

Sculptures: http://www.t-reichling.de/en/mocs_sculptures.shtml (in English and German)

Homepage: http://www.t-reichling.de (in English and German)

PicToBrick: http://www.pictobrick.de/ (Mosaic program)





Meeting the Spanish LEGO Fan Club

Article by Lluís Gibert

Photography provided by HISPALUG Members

Six years ago I met Ricardo Cordón by chance. He was my first contact with the AFOL Community. It was a pleasure to meet him because I knew that I was not alone in my LEGO life. During three years, in our meetings, we talked a lot about the creation of a Spanish LEGO Community. We were amazed about other communities, their meetings, their fests.

Two years ago, on March, 9th 2006, HISPALUG was created by Ricardo. All our dreams, our ideas were expressed in a forum, with the technical assistance of Yoyei (a fellow fan) and the excitement of a small number of AFOLs.

The first months we spent our time getting to know the LEGO community and ourselves. The relation between members was through the forum. But before the first anniversary of HISPALUG (in February), was the first meeting in Madrid. It was the first opportunity to meet AFOLs in person. There were 15 fans and they had a nice day talking, exchanging experiences and buying LEGO products. In April, the second meeting was held in Barcelona. We were eleven fans.

After these meetings, we understood the importance of knowing AFOLs in person. It is really different to talk with others just knowing their nickname than really knowing their face. In that moment, we decided to organize a Spanish LEGO event.

Once we had the place and the date, we had our third meeting in Valencia to establish the basis of the fest. There were 15 AFOLs from all over Spain and we had a brainstorming session to plan all the things that could be important to us.

We organized some workgroups to prepare the layouts and the sets to exhibit, and each group had a leader. Most of the main decisions were decided by polls. It really was very important to give the AFOLs the opportunity to hear their voice and to involve them in the organization. For example, there were polls about the date, the name of the fest, etc.… . The name is very important because it gives the personality of the event. After 28 proposals and a poll, the name was chosen: HISPABRICK.

The first HISPABRICK event was held on the 8th and 9th of December, 2007 in a mall called L'Ànec Blau, placed in Castelldefels (Barcelona). There were 30 Spanish AFOLs and eight Portuguese AFOLs from the Comunidade 0937 group. During the event, there were activities for children, and for the AFOLs, presentations, and lots of conversations.

Since the HISPABRICK event, our forum activity has increased. There are around 150 users who participate frequently in the threads and we are growing every day. We have some projects for 2008, including the second HISPABRICK event and a charity action.

HISPALUG members

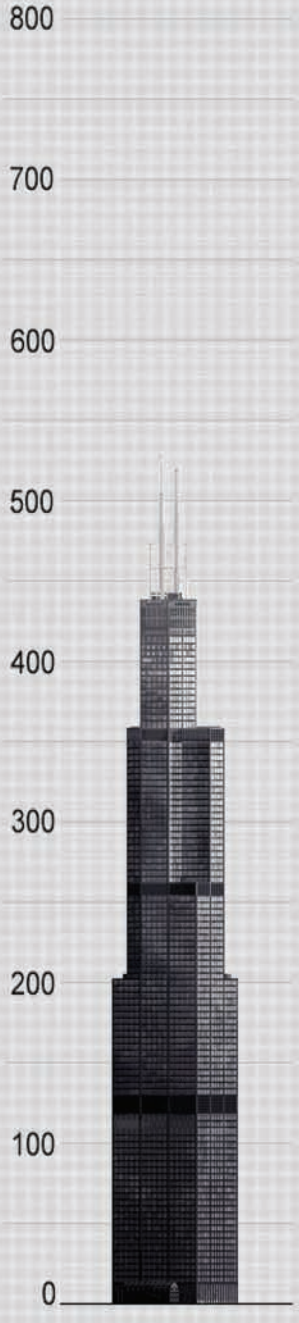
We have members from all over Spain. The most famous members of HISPALUG are the Arvo brothers (Amador and Ramon from Albacete). Their creations are known by many AFOL Communities in the world. We are very proud of their designs and it's an honour for us to have the Arvos as members of the Spanish Community. Their gallery is: http://www.brickshelf.com/cgi-bin/gallery.cgi?m=arvo. Rick83 (Ricardo from Barcelona) is the owner of HISPALUG and is the most important collector in Spain, as well as a nice builder. He has one of the most impressive MISB collections in the world. His Brickshelf gallery is: http://www.brickshelf.com/cgi-bin/gallery.cgi?m=Rick83. Manticore (Jesus from Almería) is the AFOL who has built the biggest Spanish MOC at the moment. It has

more than 30,000 bricks, and its name is SULACO II: http://www.brickshelf.com/cgi-bin/gallery.cgi?m=manticore. Carlos (car_mp from Madrid) specializes in the creation of Minimal MOCs with LDD. He has a very personal way to create animals and scenes http://www.brickshelf.com/cgi-bin/gallery.cgi?m=carmp. Antonio (legotron from Bilbao) is the *Star Wars* specialist. He has created Maxifigs and big scenes of the film, including some personal jokes. He likes to build castle MOCs, too: http://www.brickshelf.com/cgi-bin/gallery.cgi?m=Legotron. These are just some examples of the great Spanish builders and collectors. If you want to know more of all of us, please visit www.hispalug.com. You are all welcome!!!

Brickstructures™.com

Bring Two Worlds Together…

Form Structure Architecture



Facts at a Glance

Location: *233 S. Wacker Drive, Chicago, Illinois, United States*
Architect: *Skidmore, Owings and Merrill LLP.*
Classification: *Skyscraper*
Construction Type: *Steel Frame and Curtain Wall*
Materials: *Aluminum, Concrete, Glass and Steel*
Year: *1970 - 1974*
Height: *1,458ft. (442m.)*
Footprint: *225ft. x 225ft. (68m. x 68m.)*
Pinnacle Type: *Antenna*
East Antenna 1,720ft. (521m.), West Antenna 1,740ft. (527m.)
Stories: *110*
Cost: *$175 million (1970)*
Floor Area: *4,400,000ft.2 (409,000m.2)*
Zoned: Commercial: *Office, Communication, Retail & Observation*
Elevators: *104*

Architecture, Engineering and Construction

The Sears Tower is an "international style" design consisting of square tubes in a 3 tube by 3 tube arrangement, with each tube having the footprint of 75 feet by 75 feet in essence creating a unified bundle of nine tubes. The Sears Tower was the first building for which this type of "bundled-tubular" construction was used. This design provides stability against high winds and also allows for future upward growth if so desired by the owner.

The 222,500-ton or 445 million pound building is supported by 114 rock caissons secured into bedrock. The foundation and the floor slabs combine to equal 2 million cubic feet of concrete. 76,000 tons of prefabricated steel frame sections measuring 15ft. x 25ft. were put in place.

The Sears Tower has more than 16,000 bronze-tinted windows and 28 acres of black aluminum cladding or "skin".

As the building climbs upward, the tubes begin to drop off giving the Sears Tower its characteristic setback or "step-back". This geometry of the 110-story tower was developed in response to the original interior space requirements of Sears, Roebuck & Company. The configuration incorporates the unusually large office floors necessary to Sears' operation along with a variety of smaller floors.

A revolutionary vertical transportation system was instrumental in the Sears Tower reach in soaring to new heights never previously achieved. A total of 16 Double-decker express elevators travel from the first two floors to "sky-lobbies" located at floors 33/34 and 66/67, where passengers transfer to single local elevators serving all other individual floors. The elevators servicing the observatory are among the world's fastest at 1600ft. per minute.

Points of Interest

There are 4 sets of distinctive black bands wrapping around the perimeter of the building which appear between the 29th - 32nd, 64th - 65th, 88th - 89th, and 104th - 109th floors. These black bands are actually louvers which allow ventilation for service equipment and also serve to hide the structure's belt trusses which the Sears, Roebuck & Co. did not want to be visible.

Form Structure Architecture

Sears Tower
Chicago, Illinois, USA

Bricks, Blocks, Beams & Plates

This was my very first architectural LEGO© skyscraper attempted. I was kicking around this idea of using the brick to explore, investigate and ultimately celebrate the worlds of Architecture, Engineering & Construction. I first needed to understand the limitations of doing so, so I decided upon the Sears Tower as my first creation for many reasons. The most obvious being that I live in Chicago and know the building quite well. Other reasons are its iconic recognition, relatively basic form and straight forward structural engineering system.

The overall design is based on pure cubic polygon geometries which lends itself to be rather simplistic in nature. Consequently, very inviting when replicating through use of the brick. The challenge however comes when deciding to choose a scale large enough to capture enough detail, but Yet still manageable to design, obtain parts, construct, transport and set-up. At 1:200, which means for every inch of model it represents 200 inches of the real building the model tops out at 8'-6".

I first determined the size of the base and overall height in studs which in turn I used to calculate my total quantities for each section based on the use of predesigned study models. The design process was roughly 75% of my time including, research, scratch building, mock-ups and test sections refining all of the main architectural elements as I go along.

Aside from the various white round pieces to make up the antennas and a few select elements for the banded venting louvers and parapets (a continuous knee-wall roof edge), I primarily used black bricks, plates, and tiles for the external curtain wall frame with transparent black panels for use as the bronze reflective glazing. The internal structural core is actually 9 bundled vertical tubes which were simultaneously built using *Technic* beams acting as the girders and standard 2x2 blocks for the "box" columns.

It is worth noting that even at this scale (relative to the brick) real life issues need to be addressed such as stability, weight and design integrity which all come into play. Much in the same way a real structure experiences, but obviously on a much smaller and more simplified scale.

- Adam Reed Tucker

- Built: 2006
- Scale: 1:200
- Height: 8'-6"
- Pieces: 20,800
- Time: 80 hours
- Cost: $3,200

Please visit www.Brickstructures.com for more information about all of my LEGO© Architecture . I can also be contacted directly by using the following email address: adam@Brickstructures.com.

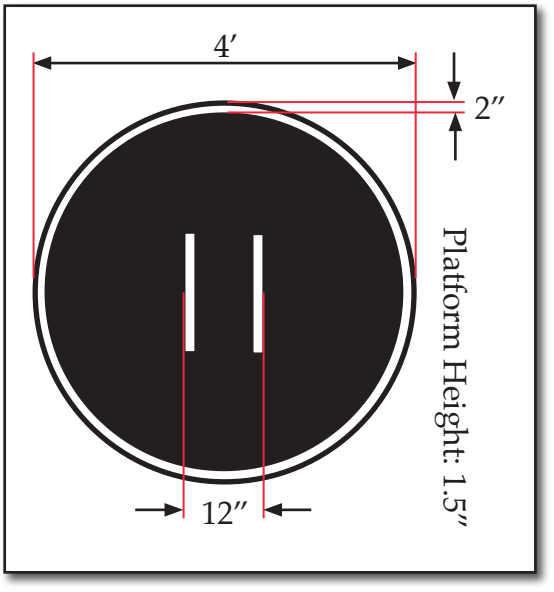
From the MCP

A Column About LEGO Robotics from the Mindstorms Community Partners Program

Several members of the Mindstorms Community Partners program (as well as other Mindstorms enthusiasts) have competed for several years in a contest called the Sumo-Bot competition. This contest pits two LEGO robots against each other in a "wrestling" ring, where one robot tries to push the other robot out of the ring, or otherwise incapacitate the other robot. The rules that are set up vary from show to show, and can be modified however you see fit. Recently, The LEGO Group sponsored an online competition where they invited people to submit robot designs for a Sumo-Bot contest. The robots were built and tested by members of the MCP. The details of this contest can be found on the LEGO Mindstorms website. The rules for this contest were more restrictive than several of the other contests that happen all the time at shows, conventions and other gatherings. While this article (and the MCP competitions) involve robots made from LEGO elements, there are other groups that build many types of robots for sumo competition. For more information, visit the Wikpedia site (http://en.wikipedia.org/wiki/Sumobot)

The Competition

For this article, I wanted to describe some of the things you can consider if you want to host (or participate in) your own Sumo-Bot competition. Most of the rules I describe here are from the recent online event. The ring can be built out of plywood or other similar material and should have a smooth black surface, with a white outer ring and two white starting lines, as shown in the diagram. The Sumo-Bot has to fit within a 12" by 12" square and has to be 2 pounds or less. It could be as tall as you wished.

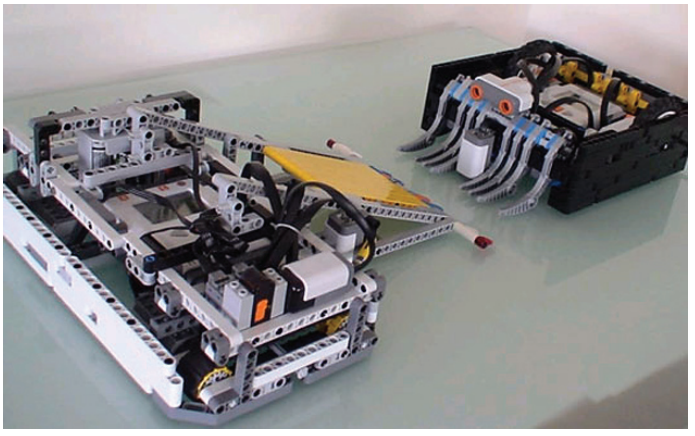


Sumo Mat Diagram

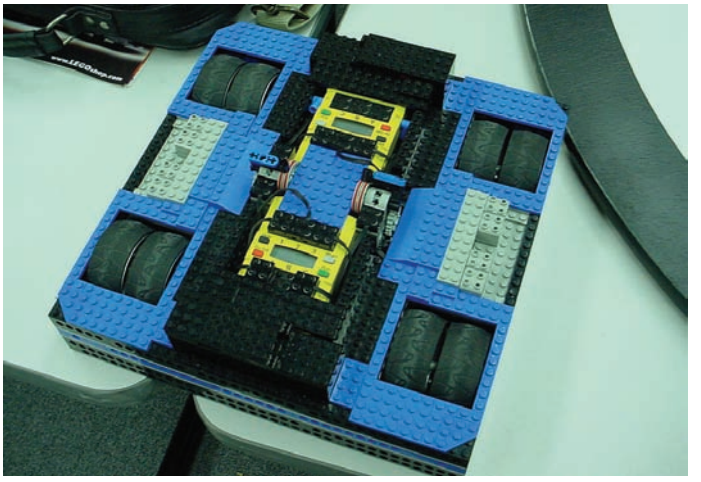
The match lasted for 3 minutes total, with up to three bouts during that time. Each bout started off with the two robots facing away from each other, each behind one of the starting lines. When the bout started, each robot had to remain stationery for 3 seconds before starting any movement (a robot was allowed to lower appendages or expand itself as long as the morphing did not cross the start line). Once the match started, the Sumo-Bot had to be 100% autonomous. The recent online competition required that the Sumo-Bot be built using a Mindstorms NXT brain, but other competitions have been held where RCX controlled bots were used. I believe there have also been Sumo-Bots that had no computer brain.

The Sumo-Bot Construction

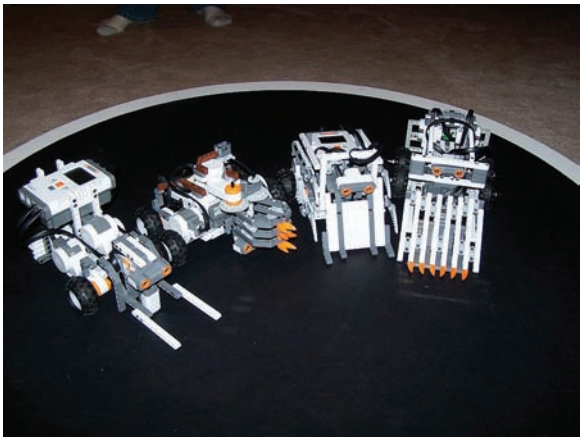
Many of the members of the MCP recently had a long discussion (online) about trying to create a primer for building Sumo-Bots. While the ideas varied wildly from person to person, the one big message that came across loud and clear was to *build* and *test*. If you go to BrickShelf (http://www.brickshelf.com) and search on "sumo," you will find all sorts of pictures to use as inspiration. Some great examples of Sumo-Bots that have been built in the past include:



Models by BlueToothKiwi



PR-36 by Steve Hassenplug



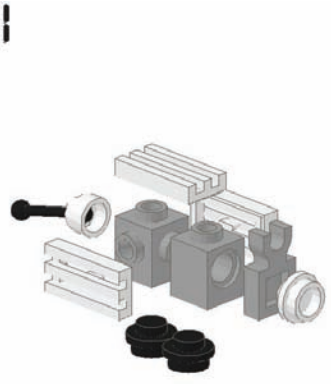
1st round finalists from the Sumo-Bot competition.

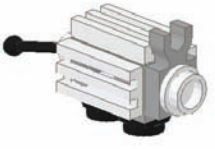
Most of the MCP members who have built Sumo-Bots have built more than one and then held their own testing, pitting the bots against each other, learning from the results and making modifications accordingly. One MCP member, BlueToothKiwi, spent a great deal of time designing and perfecting a motorized lifter (used to flip a competitor over) only to find out that the lifter was a liability. He finally decided to remove the lifter.

Now that you know about the sport and have had a chance to see a few models already built, you should set up a ring and build a few models of your own, and then have them battle each other. Some people find building a defensive robot is easier and more effective. Some people like to build bots that try to flip others over. Some want to build a bot that simply overpowers the other bots. You can search on the web for more examples of robot designs to try, and you can attend LEGO festivals and watch or participate in competitions. No matter what you try, I think you'll find the sport is fun and addictive, and you just might learn a thing or two about robot design. So get out there and start building, and good luck.

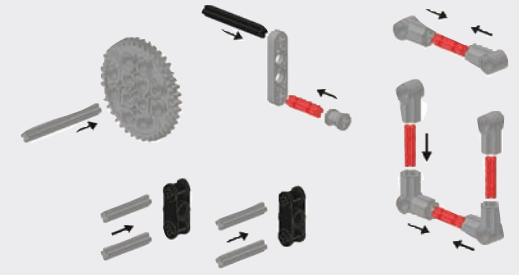
For more information, please visit:
http://mindstorms.lego.com/specialevent/default.aspx

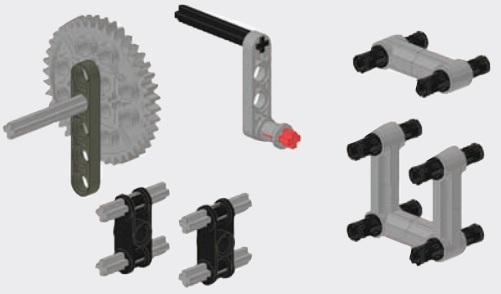
Bricks For Thought

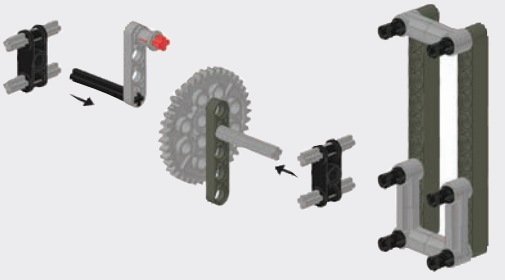


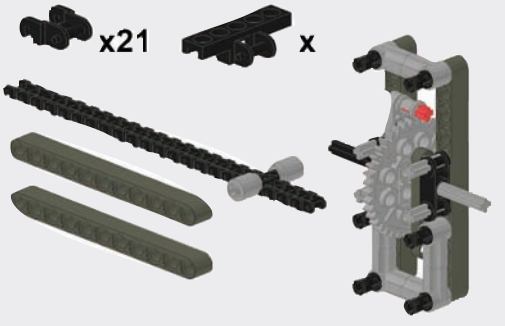


Technic For Thought

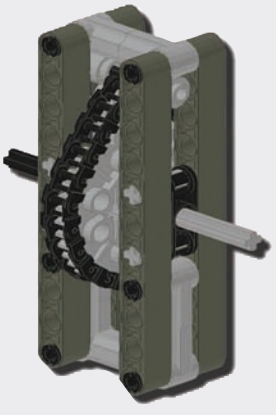








Precession Drive



10:1 reduction ratio drive will rotate the output axle (gray) once for every 10 turns of the input axle (black). Multiple drives can be linked to create odometers , counters, clocks, etc. Learn more at Mike Hatton's Brickshelf site:

http://www.brickshelf.com/cgi-bin/gallery.cgi?f=296899

Last Word

We like to laugh.

Really.

The LEGO builders community is one that is not too terribly formal and is based not on any profession, but on a hobby. For all of us, it's a fun hobby, and the fun shows when we get together for meetings or displays.

We like to play.

Building for us is an extension of playing — just with more parts! And we share our playtime with our new friends and old friends at events.

We like to smile.

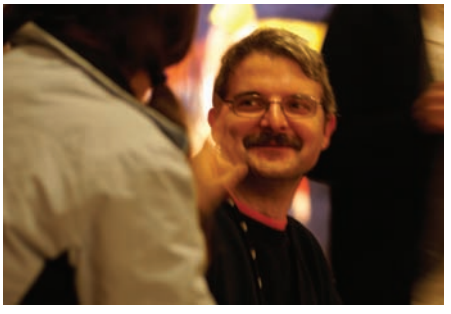
There's a lot that happens at conventions and sometimes it can get busy and even exhausting. But there is usually something that happens that gives everyone a smile, from seeing the look of amazement on a child's face when they see a model, to playing a small (or in the case of the Germans at their events, large) prank on a layout.

I hope that you got as many laughs and smiles from this issue as I got putting it together.

Next issue we will have some articles from FIRST LEGO League's World Festival and more articles on the community and building! See you then!

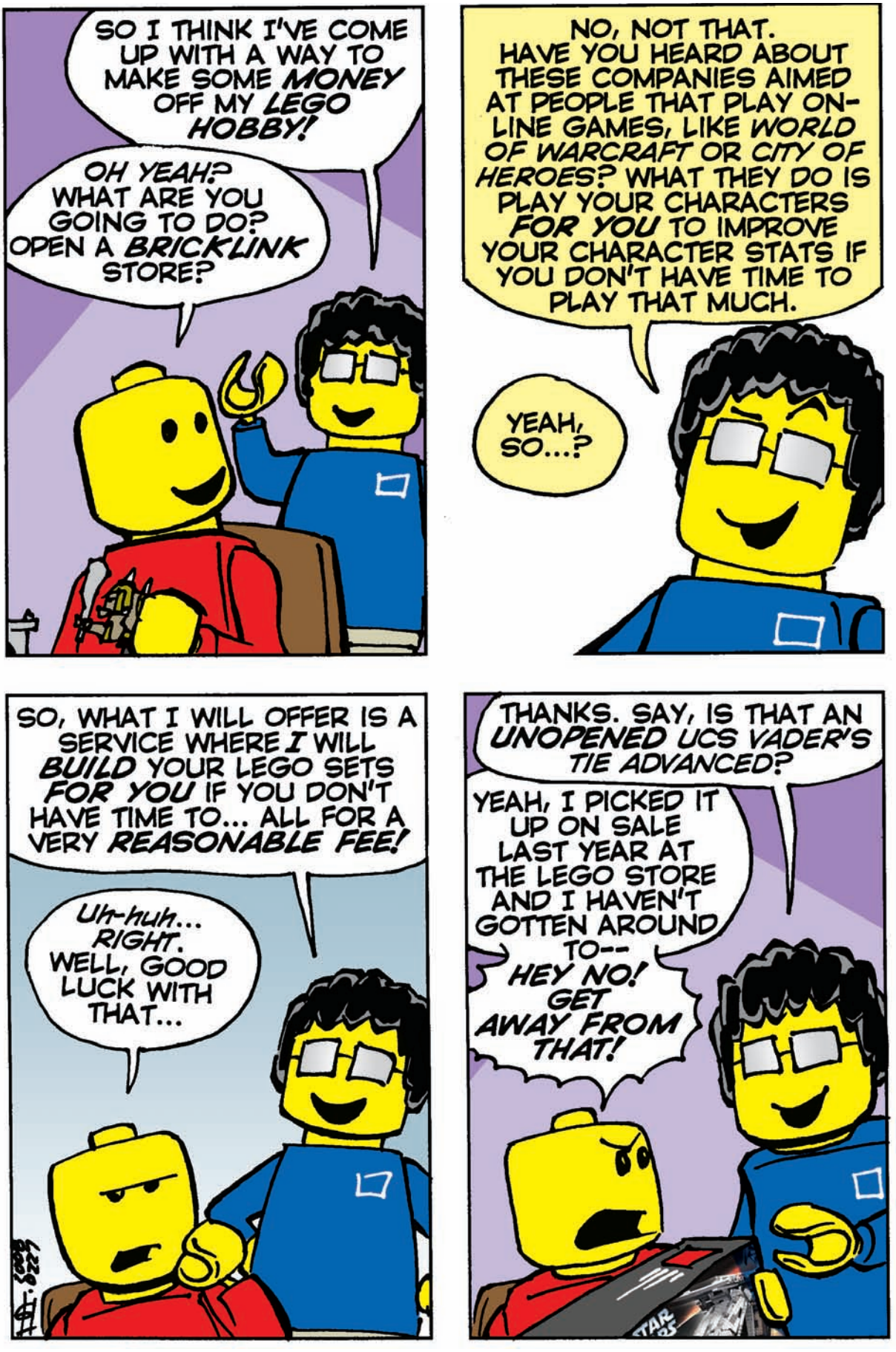
Joe Meno
Editor, *BrickJournal*

PS. Many thanks to Greg Hyland for all the illustrations — it's fitting that we begin with his drawing for the contents page and finish with his comics. The illustration on the next page was meant to be a splash page for the Indy section, but it looked too good by itself.




HYLAND

AFOLS by Greg Hyland



NEW STUFF FROM TWOMORROWS!

BACK ISSUE #29

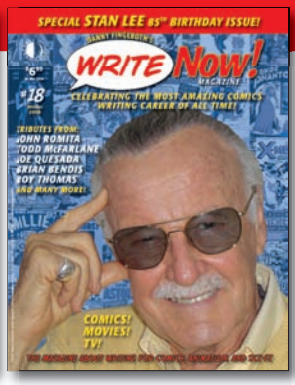
"Mutants" issue! **CLAREMONT, BYRNE, SMITH,** and **ROMITA, JR.'s** X-Men work; **NOCENTI** and **ARTHUR ADAMS'** Longshot; **McLEOD** and **SIENKIEWICZ's** New Mutants; the UK's **CAPTAIN BRITAIN** series; lost Angel stories; Beast's tenure with the Avengers; the return of the original X-Men in X-Factor; the revelation of Nightcrawler's "original" father; a history of DC's mutant, Captain Comet, and more! Cover by **DAVE COCKRUM!**

(100-page magazine) **$6.95**
Diamond Order Code: **MAY084246**

ROUGH STUFF #9

Editor and pro inker **BOB McLEOD** features four interviews this issue: **ROB HAYNES** (interviewed by fellow professional **TIM TOWNSEND**), **JOE JUSKO, MEL RUBI,** and **SCOTT WILLIAMS**, with a new painted cover by **JUSKO**, and an article by **McLEOD** examining **"Inkers: Who needs 'em?"** along with other features, including a Rough Critique of **RUDY VASQUEZ!**

(100-page magazine) **$6.95**
Ships July 2008
Diamond Order Code: **MAY084263**



WRITE NOW! #18

Celebration of **STAN LEE's** 85th birthday, including rare examples of comics, TV, and movie scripts from the Stan Lee Archives, tributes by **JOHN ROMITA, SR., JOE QUESADA, ROY THOMAS, DENNIS O'NEIL, JIMMY PALMIOTTI, JIM SALICRUP, TODD McFARLANE, LOUISE SIMONSON, MARK EVANIER,** and others, plus art by **KIRBY, DITKO, ROMITA,** and more!

(80-page magazine) **$6.95**
Ships June 2008
Diamond Order Code: **FEB084191**

DRAW! #16

Features an in-depth interview and coverage of the creative process of **HOWARD CHAYKIN**, plus behind the drawing board and animation desk with **JAY STEPHENS,** more **COMIC ART BOOTCAMP,** this time focusing on **HOW TO USE REFERENCE,** and **WORKING FROM PHOTOS** by **BRET BLEVINS** and **MIKE MANLEY,** plus reviews, resources and more!

(80-page magazine with **COLOR**) **$6.95**
Ships July 2008
Diamond Order Code: **MAY084262**

ALTER EGO #78

DAVE COCKRUM TRIBUTE! Great rare X-Men cover, Cockrum tributes from contemporaries and colleagues, and an interview with **PATY COCKRUM** on Dave's life and legacy on The Legion of Super-Heroes, The X-Men, Star-Jammers, & more! Plus an interview with 1950s Timely/Marvel artist **MARION SITTON** on his own incredible career and his Golden Age contemporaries!

(100-page magazine) **$6.95**
Now Shipping
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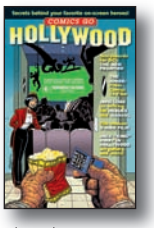

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