Brick Journal

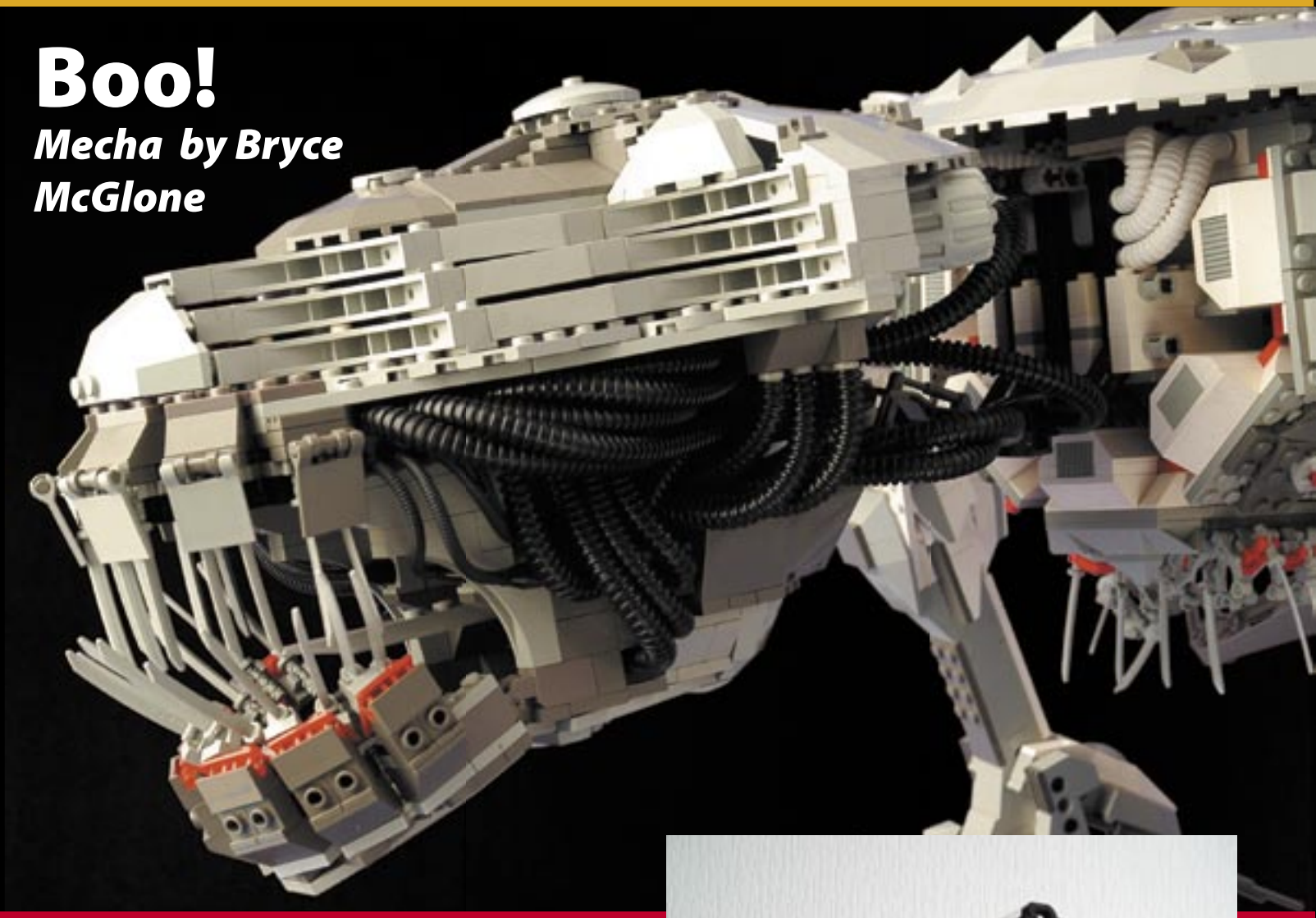
Issue 2, Fall 2005

people • building • community

Inside: Castles by Bob Carney

Boo!

Mecha by Bryce McGlone



THE MECHA ISSUE

Also:

Builder Spotlights:
Jeff Ranjo, Philipe Hurbain and Scott Warfield

Build Your Own:
Mini Constellation and *Venator*

Event Preview:
Northwest BrickCon 2005 and LEGO World

AND MORE!

Inside: A Look at Vandy One, built by Ralph Savelsberg

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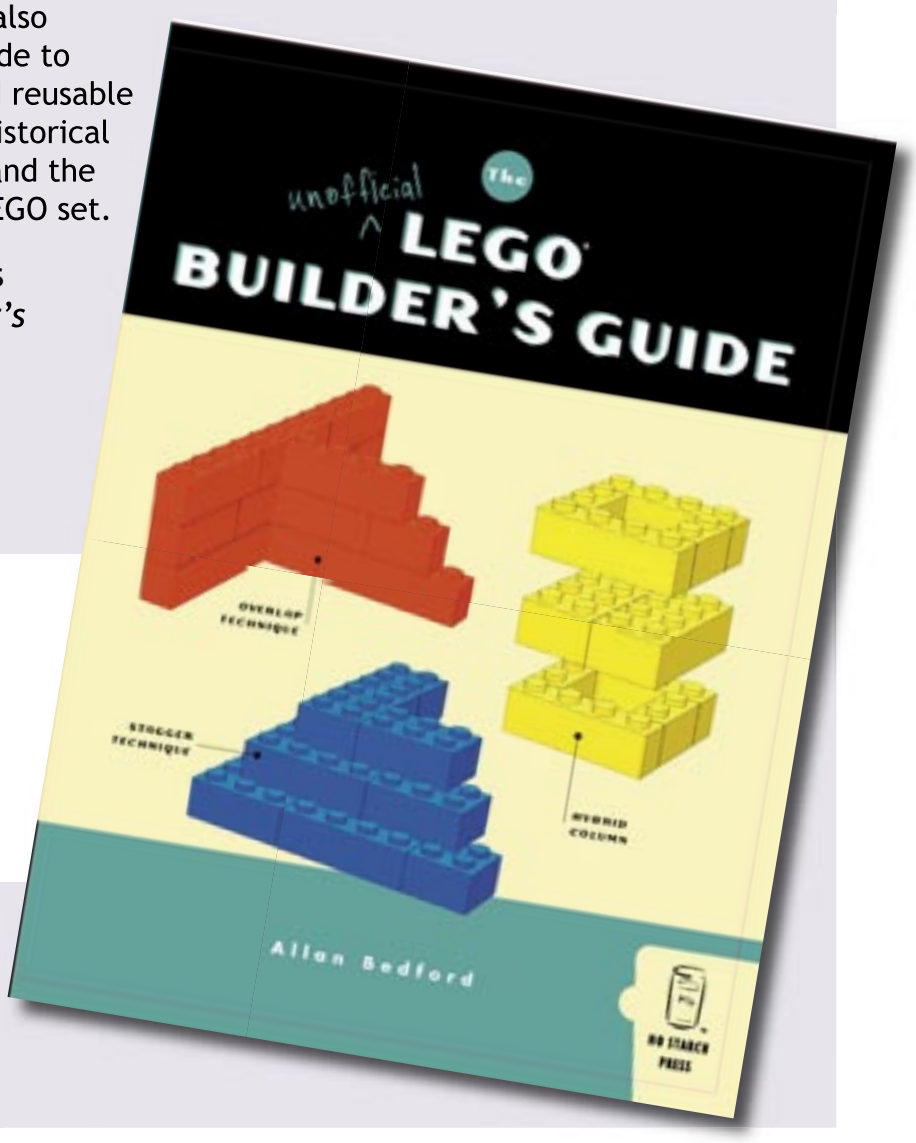
Build A Firm Foundation for Your LEGO® Hobby!

Have you ever wondered about the basics (and the not-so-basics) of LEGO building? What exactly is a slope? What's the difference between a tile and a plate? Why is it bad to simply stack bricks in columns to make a wall? *The Unofficial LEGO Builder's Guide* is here to answer your questions. You'll learn:

- The best ways to connect bricks and creative uses for those patterns
- Tricks for calculating and using scale (it's not as hard as you think)
- The step-by-step plans to create a train station on the scale of LEGO people (aka minifigs)
- How to build spheres, jumbo-sized LEGO bricks, micro-scaled models, and a mini space shuttle
- Tips for sorting and storing all of your LEGO pieces

The Unofficial LEGO Builder's Guide also includes the Brickopedia, a visual guide to more than 300 of the most useful and reusable elements of the LEGO system, with historical notes, common uses, part numbers, and the year each piece first appeared in a LEGO set.

Focusing on building actual models with real bricks, *The LEGO Builder's Guide* comes with complete instructions to build several cool models but also encourages you to use your imagination to build fantastic creations!



The Unofficial LEGO Builder's Guide
by Allan Bedford
No Starch Press
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AVAILABLE NOW

Available in bookstores everywhere or directly from the publisher at www.nostarch.com. Visit the author's website at www.apotome.com for more information.

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Issue 2, Fall 2005
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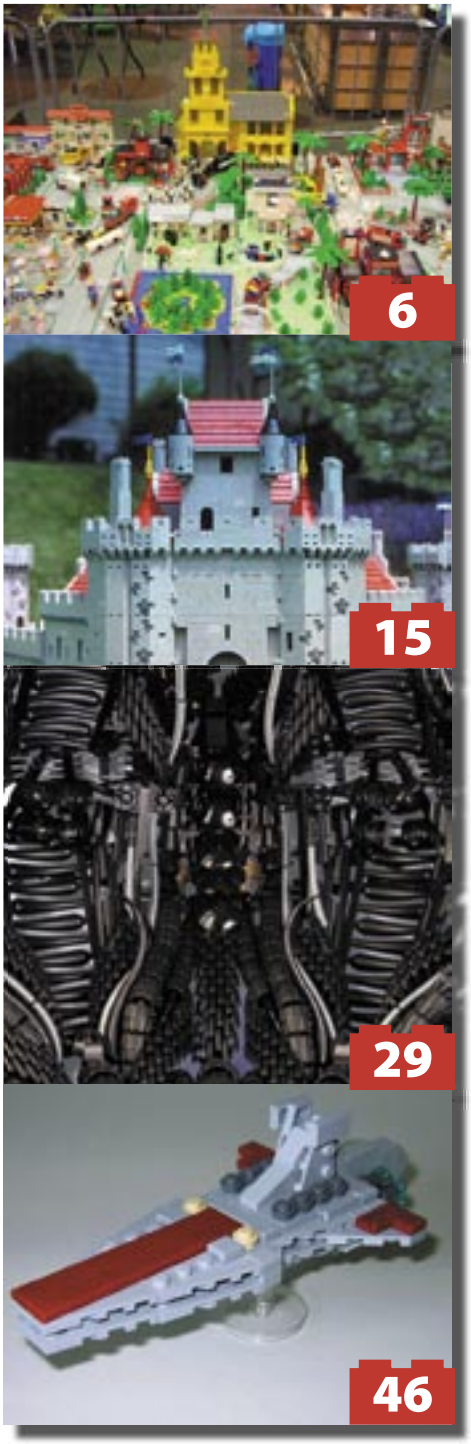
Volume #1
Issue 2

Contents



BrickJournal
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Fall 2005
Volume #1, Issue 2

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About the Cover:

Photo of the Cankerworm courtesy of Bryce McGlone.

Photo of Vandy One courtesy of Ralph Savelsberg.

Castle photo courtesy of Bob Carney.

From the Editor:

Hi!

When the first issue of *BrickJournal* was uploaded, the response was much stronger than I would have ever expected. The magazine got spotlighted on two well-known websites - Slashdot and Boingboing - and the resulting download hits numbered in the tens of thousands!

I also got responses online from people both in the AFOL community and outside, all of them praising the staff for an outstanding job. At BrickFest, perhaps the best compliment I could have gotten was when I met the CEO of the LEGO Group (TLG), and he recognized me from the magazine picture! Having the owner of TLG do the same thing was just as incredible!

But some of the feedback indicated some doubts about *BrickJournal*. People wondered if we did all the best stories in the first issue...

"How we could continue to create so much content?" was asked by these readers.

It's easy, really.

At any given moment, someone is building a LEGO model.

In Billund, there are projects that are being worked on in the LEGO offices.

There are events around the world to celebrate the LEGO hobby.

From talking to builders to the CEO of the LEGO Group, from showing how to build in a certain style to going behind the scenes of some of the projects that the LEGO Group is working on, there's an entire WORLD of stories to tell!

BrickJournal is committed to finding these stories and presenting them. And the stories are as far as continents, or as close as the keyboard.

We just have to reach for them.

Joe Meno
Editor

P.S. Next issue, I will not be quite as active in *BrickJournal*, as I will working on another project. It's something that I have been looking forward to do for some time, so I will be devoting time and effort behind it. The project? Patience....it'll be soon!

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

What's the Coolest Thing You've Ever Built?

Article by Ashley Glennon
Photos by Phil Moyer and Joe Meno

Regardless of the tallest, longest, coolest or biggest LEGO creations I've ever seen, the coolest thing I've seen built by the LEGO community is friendships.

It's the people and their creativity that make this hobby fun. It's how an eccentric person and their spacecraft, a technophile and their robot or an introverted individual and their castle creations challenge our very abilities to do more, be more and build more.

Sure, one can gain great personal satisfaction out of building an innovative train, the best vignette, a well-planned star-cruiser or the most photo-realistic mosaic, but the satisfaction pales in comparison to sharing it with others.

There are trendsetters in our group. There are experimenters. There are newbies, know-it-alls and nerds. They're all needed to push us to build our best.

It's safe to say that there are some among us who intentionally choose not to share or show their creations. These individuals gain their satisfaction in knowing that their creations are superior to what's been shown, posted or discussed. At the core of this selfishness, however, are people, their postings and their creations. After all, how would one know that their creations are better than others unless they have others--a community--to compare to?

On the opposite extreme are persons who feel they don't have enough bricks, or the talent or caliber of creations to even show others. This is unfortunate, as what I've seen from the community is passion and understanding. I've never seen the community bash or trash anyone or any creation unless it was plagiarized or politically loaded.

There are loudmouths in our midst, and there are folks who seem to be motivated by power, politics or whatever. But they, we, are all bound together by our love of tiny plastic bricks.

Whether you are new or old to the LEGO community, you are welcome here. This community does more than just build incredible and colorful structures out of LEGO bricks, it builds friendships.

Ashley Glennon lives with his wife and two children near Seattle, WA, and is one of the pioneers of micro-scale building. Ashley enjoys building in every scale and every theme but may be best known for his LEGO themed website that debuted in 1999, "The Minifig Museum of Modern Art." Ashley is on the editorial staff of BrickJournal.

News: NWBrickCon 2005

What Will be Happening at NWBrickCon 2005?

A growing convention on the West Coast is Northwest BrickCon. Thomas Garrison, one of the organizers of NWBC 2005, talked to BrickJournal *about the convention.*

Article by Thomas Garrison.
Photos by Brian McLean, David Winkler, and Thomas Garrison

NWBrickCon is an annual LEGO fan convention and expo in the Seattle area. NWBrickCon 2005 will take place in the Northwest Rooms at the Seattle Center October 7, 8, and 9, 2005.

NWBrickCon 2004 established a fan-focused structure. Most obviously, there were separate public spaces for exposition and private spaces for classes, gaming, and events. Additionally, a full program of events was scheduled throughout the weekend—not simply more events, but more structure and awareness of what could be done at the Con. This will continue. Already, organizers are considering the most popular activities of years past. In the Master Build Contest, participants are given the opportunity to build creations in a specified theme from one copy of a current LEGO set and then have those creations judged by leading artists in the community (last year, three LEGOLAND Master Model Builder finalists). In the Wacky Race, MOCs roll down an inclined plane and along the floor—but originality (and sometimes just wackiness) of MOCs was given just as much weight as going the greatest distance. Pirate ships on wheels can make excellent Wacky Racers. Even now, the Con is recruiting speakers for talks and roundtables. In 2004, topics ranged from DCC and LEGO Trains to how to pack MOCs for transport and shipping.

A new twist this year: the addition of a Micro Moonbase layout, using a standard designed by Gary "Mt. Eruptus" McIntire, that packs a whole modular Moonbase into one sixteenth the usual area. . .or sixteen times as much Moonbase into the same area. . .

With a solid basis of inward-facing convention activities, the Con can now reemphasize its roots as an outward-facing LEGO exhibition. NWBrickCon started, after all, as an opportunity for showing off MOCs to other fans in the Northwest and, especially, to the public. Outside of train shows, LEGO fans have only limited opportunities to show their handiwork to the public at large—a library display box here, a fair hobby display there. NWBrickCon

offers each fan a chance to exhibit LEGO creations amid a plenitude of others' creations; enough, indeed, that the public will pay to look at what will be the region's largest LEGO exhibition in 2005. Moreover, at this exposition the creators will have the opportunity, should they so desire, to explain and demonstrate their models to the public. The Con will offer eight hours of public exposition: noon to four on both Saturday and Sunday. This will offer the public every chance to come and see (and come again!) while not taking undue time from the private aspects of the Con. The creations that will be on display are not all yet known—people like to surprise their fellow Con-goers. Many things, though, can be anticipated. The Moonbase Project has a long history with NWBrickCon (the first major Moonbase display was at NWBrickCon 2002) and 2005 will see another new, better and possibly bigger, Moonbase display, together with the plethora of Space MOCs for which the Northwest is famous. A new twist this year: the addition of a Micro Moonbase layout, using a standard designed by Gary "Mt. Eruptus" McIntire, that packs a whole modular Moonbase into one sixteenth the usual area. . .or sixteen times as much Moonbase into the same area. . . Another display that will be new to NWBrickCon this year is an area for LEGO History and Collections. Much LEGO product is outside the fan mainstream, and fans and public alike will get a glimpse at rarely-encountered products of the LEGO Company, from wooden toys to HO cars to the original SCALA to Galidor. All this in addition to displays of sculpture, town and train, castle, and almost everything else that can be made of LEGO—perhaps even another chance for the sheep to fight back.

In issue 3, BrickJournal will have event coverage of NWBrickCon!

A Hobby of a Thousand Faces

LEGO WORLD shows them all

by Eric Brok

In a few years, the annual LEGO WORLD in the Netherlands has grown into the largest LEGO event worldwide. This year, over six days, 45,000 visitors, mostly families with children, are expected to enjoy the multitude of play areas, building activities, displays and shows.

Successful partnership

The event is organised by In-store & Events of LEGO Netherlands and Libéma Exhibitions (IJsselhallen venue). Other participants include a national children TV-station (Jetix/Fox kids), the Dutch LEGO enthusiasts society De Bouwsteen, AxiTraxi Attractions and Intertoys Toy store. This has proved a very effective combination. While LEGO arranges many large displays and activities, IJsselhallen manages the venue and its facilities, and the TV station offers publicity and a musical show at the site. Volunteers of De Bouwsteen help out with activities and display their own creations and collections in a dedicated exhibit hall. AxiTraxi offers playground attractions while Intertoys sells the tickets nationwide and sets up a large store at the event.

The beginnings

I happened to be part of our societies' organising committee of the first edition of LEGO WORLD in 2001. Back then, we really didn't know what to expect. Personally, I anticipated a possible failure. I couldn't imagine all those families buying expensive tickets to attend an event that they may easily perceive as just a company-sponsored promotion tour which should have free admission. The tie-in with the TV-station was crucial in this respect: it offered a lot of publicity and the popular musical artists performing at the event made it easier for people to buy a ticket.
It was a bold leap for LEGO and De IJsselhallen too. The venue was a former cattle market which had been updating their facilities and doing some other events.
But just now, in response to animal epidemics, the government had banned cattle markets altogether, so the venue was in need of new large events. This also explains why the event remains strongly tied to its location in a rather quiet town away from our nation's big cities.

The initiative from within LEGO at that time lay with a tiny promotional department of only three people. To make the event work at this grand scale, they were in desperate need of many hands, which our society supplied.

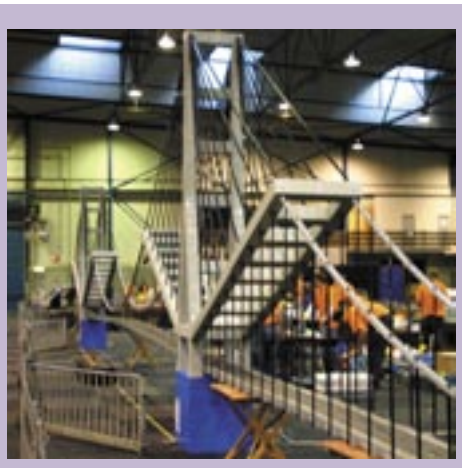
The success of the event was overwhelming and several people at the doors were turned away, which made national news headings. Over the next few years, we better accommodated for the increasing number of visitors.

At LEGO WORLD 2004, Evert de Graaf exhibited his historical fire fighters LEGO set collection and built a town display featuring many jobs of the fire department. Being a fire fighter himself, it's his way of arousing interest for the job among youth.

Jennegien Nieuwstraten likes to build in fantastic shapes and colors. This 'Spooky Bridge' however came in black, created almost subconsciously while she was thinking of a befriended couple. The model expresses that relationships can seem frightful, but beautiful if you span the crossing.

This large 1:100 model of a multiple building brewery site was commissioned by Grolsch to De Bouwsteen. The model was first laboriously designed in MLCad, and after parts were sourced from around the globe, it was build over several days as a group effort. The group had a great time; even considering the hurdles along the way. The model is now on permanent display at the Grolsch site but was exhibited on LEGO WORLD 2004.

A science researcher in daily life, Sybrand Bonsma showed his large collection of 1980's Fabuland LEGO sets at LEGO WORLD 2004. The colourful town with its variety of animal characters put a smile on thousands of faces. Sybrand recently ventured into building his own creations while keeping true to the Fabuland style.



Setting a new world record of the widest free span (about 12,5 m), this LEGO railway bridge was cleverly designed after the real-life Gibraltar bridge, since this prototype had to span a wide crossing as well. The project was supported by LEGO, which allowed Bart Efdé, Benny Efdé and Marco de Vries to build it from 650 kg of bricks.

As many LEGO enthusiasts find their own perspective or niche in the hobby, Nathanaël Kuipers specialized in designing alternative models for existing sets. At LEGO WORLD 2004, his inventive creations inspired the audience to work

For volunteers at the first edition some of the jobs turned out to be unsatisfactory. Consider yourself signing up to volunteer at a LEGO event and ending up counting visitors at the door, or overseeing children in a playground. We learned from that and made sure the talents and experience of our society members would be put to use in LEGO–related activities, such as supporting a building contest or RC-race. After the event had proven itself, LEGO fortunately was able to hire people for many additional tasks in the following events.

Besides helping out, our society displays many MOCs and collections, which proved to be a very popular part of the event among visitors. It shows what can be done beyond retail sets and makes the event less of a slick corporate commercial.

Ambitious projects and international guests

As the LEGO Group wants to offer something new and spectacular each year, our society is challenged to come up with ambitious, preferably record breaking projects, which the LEGO Group supports. Examples are two long railroad bridges and a giant sports stadium.

While it's mainly a national event, De Bouwsteen has welcomed many guests and exhibitors from the global LEGO community, including the US, Canada, UK, Germany, Belgium, France, Portugal and Brazil. Also, it was great to have Mr. Kjeld Kristiansen, owner of the LEGO Group, visit the event in 2003, and as he confided to me at BrickFest, he plans to join us again this year.

This year's edition

At LEGO WORLD 2005, 20-25 October, some special features will involve the Hans Christian Andersen celebration and the Knight's Kingdom. Besides many individual creations, De Bouwsteen will present a mosaic, large railroads, a modular Moonbase exhibition, and collections of every Train and Technic set ever produced.

And as always, we plan to have a lot of fun in a great atmosphere, both at the event and after hours.

Experience it for yourself

You can participate in LEGO WORLD as exhibitor and/or as volunteer for a single day, a few days or all days. Please register and bring some of your interesting creations. We look forward to meet you.

Please contact me at ericbrok@zonnet.nl and find the registration information at www.debouwsteen.com

And if you can't make it, but are interested in seeing more of the event and many more creations, you may wish to order our movie DVD 'De Bouwsteen presents LEGO WORLD'. Contact us above.

News: Ask Capt. Fazoom

Hi there space cadets (and non-space cadets).

I'm Captain Fazoom and I'm here to answer your questions about LEGO, Life, and Lookin' good for that special alien in your life. So if you want to get advice from this LEGO Country Boy, then send in your questions, concerns, prayer requests, and mortgage applications, and I'll do my best to give you some of the same great advice that I recieved.

From: Kmdr. Moozaf Blastov

Q: Mr.Fazoom: How do you keep your teeth so clean and shiny? Is there a special product or technique you use?

A: I use some 40 weight motor oil and some gauze pads. Oh and ball bearings. It's all done with ball bearin.. HEY WAIT, yer that commie guy ain't ya? Well shut my mouth and call me cornbread. I ain't sayin no more... except yer attempt to control my mind through floridation ain't workin'. You'll never git me! Now, I'm off to play Tetris at work.

From: Classic Space Forum (www.classic-space.com/forum) user: Qazeriu

Q: How many fleebnorks can you eat in a minute and 15 seconds?

A: None, they's to spicy fer me. I used to eat em but the Dr. said I got this here reflux. Since I stopped eatin' the whole fleeb and just snacking on nork rinds, live it better and I can git in my space suit easier. The low fleeb diet works.

Q: What is the average velocity of an unlaiden fleebnork?

A: Do you mean a virgin fleebnork? What the heck are you talkin about?

Q: Coca-Cola® or Pepsi®?

A: Co-Coller is the best.

From: Classic Space Forum user: JPascal

Q: Where can I get good quality unobtainium? I'm running out of it.

A: The last place you looked. Hey pick me up some and a pack of nork rinds when you go.

From: Classic Space Forum user: fatpie

Q: How many power cables must a fleebnork chew, before you call him a fleebnork?

A: Fleebs is fleebs. What the heck is the matter with you boy?

Q: Who are the new Star Rangers recruits?

A: Nunya Beezwax is the newest.

Q: Who is your greatest role model?

A: Cindy Crawford... but she's skinny and has no rolls on her.

Q: Why don't you rip apart your chrome sidekick and use him to decorate your ship?

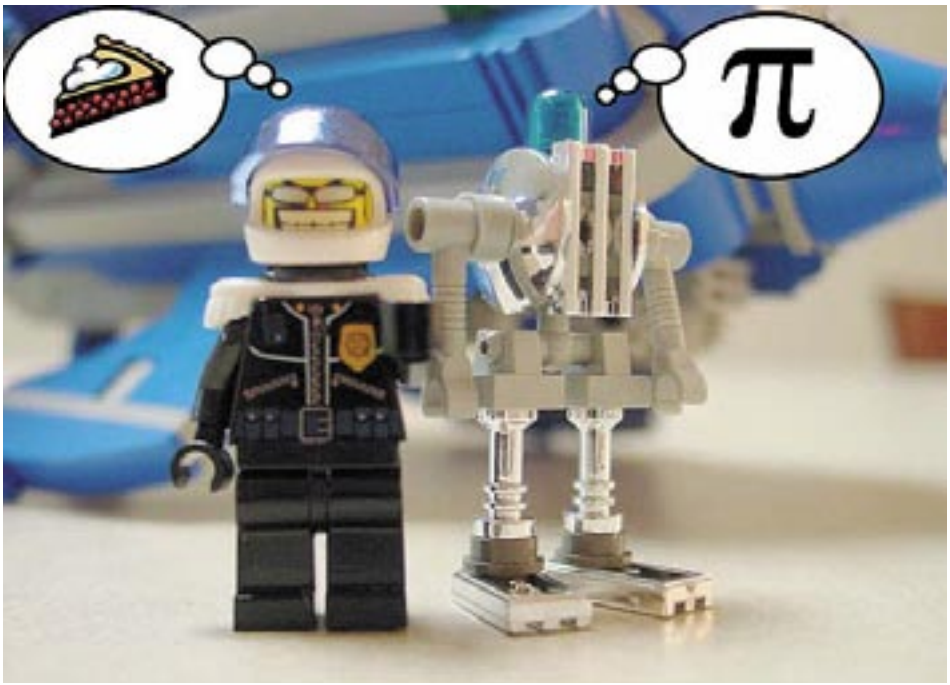
A: Why don't you stick it where the spamcake don't shine? Geez, ya come in here to help folks out and all they do is bust on ya. Geez'ma'neez. Makin funna my sidekick Sterling. I ain't never heard such. Boy you are as clueless as a Trek fan at a car show.

Q: If you got 50 nork rinds for every 3vil ship you destroyed, how fat would you be?

A: Yer just an angry young man ain't ya? You need to listen to more Styx.

Chris Giddens has been a fan of LEGO since his first set in 1977. Since then he's been building spaceships, and now as an AFOL he's getting to see many of those childhood spacecraft built the way he's always wanted. Back a few years ago, he struck on the idea of building a spaceships to "bridge the gap" between the futuristic Classic Space theme and the more now-a-day Life on Mars and Space Port themes. This theme dubbed "Pre Classic Space" is now a recognized building style among AFOLs. Other themes have flowed from this style, one being the Star Rangers. The Rangers are futuristic space lawmen who reign in the wilds of space. Their commander, Captain Fazoom is best described as "Larry the Cable Guy meeds Flash Gordon." His wisdom shall be recorded here for the ages.

Chris and his wife Melanie live in Silver Creek, GA. They have a son, a dog, and a lot of LEGO. Chris works as a Children's Minister in a Baptist Church. He is part of the LEGO Ambassador program, DixieLUG, SciBrick, and co-founder of Classic-Space Forum. His personal website is http://www.pre.classic-space.com.



Fazoom and Sterling

The LEGO Brick Enters the Digital Age

Mike Gott of Qube Software and Ronny Scherer of the LEGO Group are two of the leading people behind LEGO Digital Designer (LDD), which is a free program that is available from the LEGO website. LDD 1.4 was recently released as part of LEGO Factory, a new concept being introduced by the LEGO Group. LEGO Factory allows the consumer for the first time to design and make a unique model set that can be sold online. To celebrate the launch of LDD 1.4 and LEGO Factory, Mike and Ronny spoke to BrickJournal.

Interview by Joe Meno
Photos by Mike Gott, Eik T. Brandsgaard and Claus Sennov

BrickJournal: It's been a while since LEGO Digital Designer® was first released and then re-launched. What were the reasons behind the re-release?

Mike Gott: We're now on the 5th release of LDD and each release has been developed to meet a specific aim. The last couple have been focused on the LEGO Factory concept; 1.3 to meet the requirements of last year's design competition on LEGO.com and 1.4 to support the full 'Create, Share, Buy' Factory concept. The 1.4 release represented about 9 months of development on top of 1.3, during which time we introduced new networking functionality, multi-set support, improved building instruction playback, overhauled the underlying database and made a number of interface improvements - not to mention the addition of a large number of new brick types. While meeting LEGO's specific requirements, with each release we also try to get as many general improvements in as possible to keep the whole system fresh.

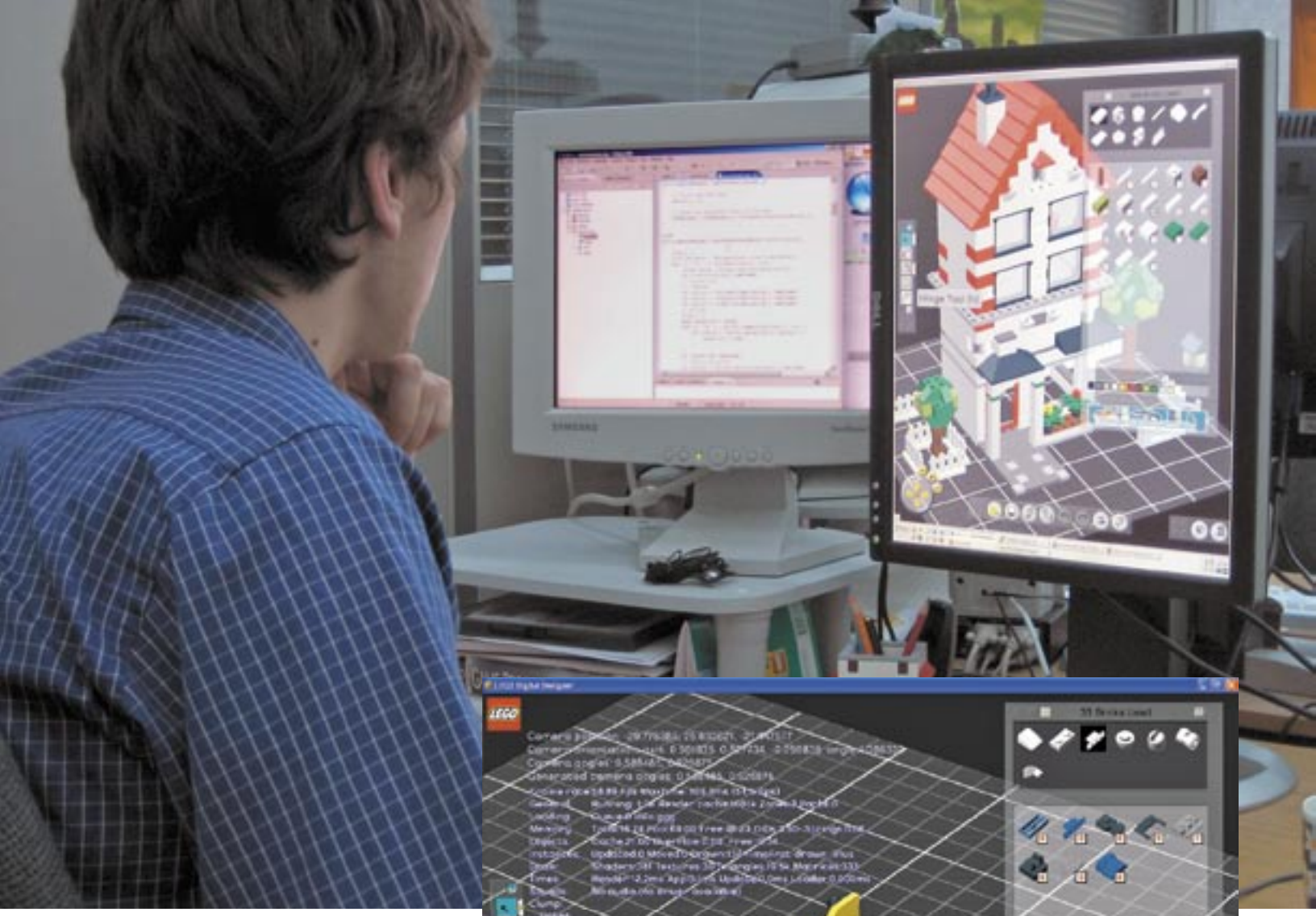
BJ: When was LEGO Factory first considered by The LEGO Group?

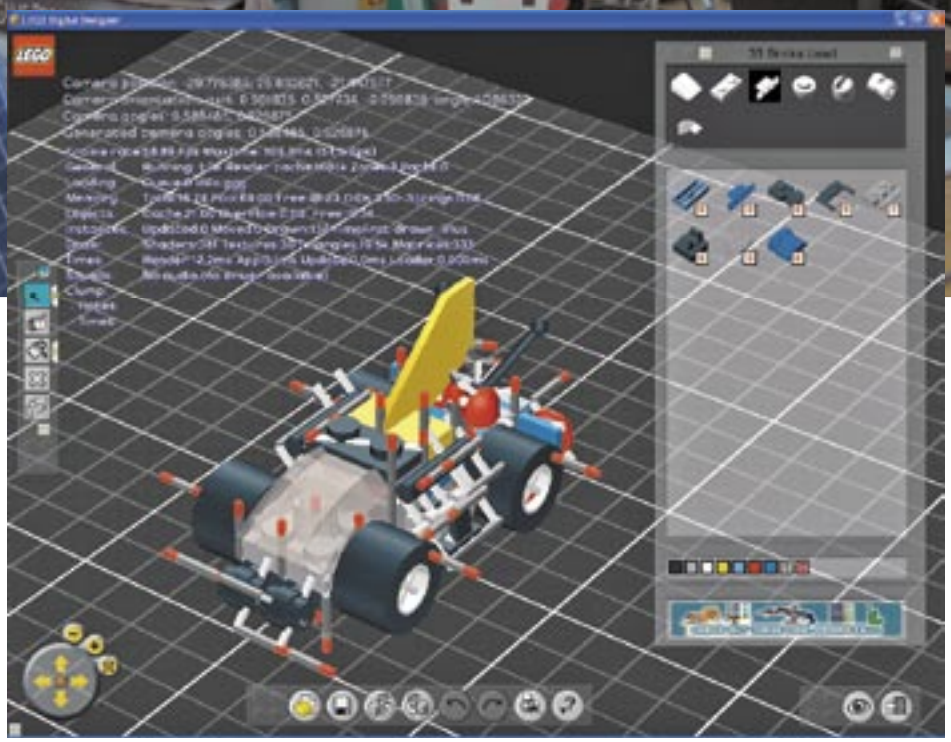
Ronny Scherer: The idea of having LEGO enthusiasts create their own products probably goes back as far as 1999. However it probably wasn't until the summer of 2003 where it really started to come together. The first version of LDD was complete July 11th 2003 (after approximately one year of development).

BJ: What were the challenges that you faced while developing LEGO Digital Designer?

MG: For each release we have so many ideas that the first challenge we face is always how to crop the list down to fit the time available to us. You always need to leave sufficient time for tuning and testing so it's important to be realistic right from the start. The features we choose for each release have to meet LEGO's requirements and also compliment each other as much as possible. Between LEGO and Qube we've probably got enough ideas to cover the next few years of LDD development already! Once the specification is finalised we roll-up our sleeves and start the development, making sure to always keep an eye on the delivery date. I'm lucky to be working with a very experienced team here at Qube, with the lead coder (Marc Sutton) having worked on every release of LDD so far.

LEGO Digital Designer, a program available for download from the LEGO website at http://www.LEGO.com/eng/factory/design/howto.asp, allows users to create a set, like this F1 racer by user Batbendon, age 8 (top left), create the box art (above) and order their own sets, allowing the users to be set designers!





Top, a developer works on LEGO Digital Designer at Qube Software, with coding on the left screen and the program display on the flatscreen on the right. Above, a development screen is displayed, with the little (matchstick) markers on the car model showing the positions and directions of the connection fields (i.e. the information which the code needs to determine where and how two bricks should snap together).

BJ: What feedback did you receive from the initial release of LDD?

RS: Kids (of all ages) loved the ease of building and that they could build with an unlimited number of pieces. I also clearly recall a boy in a focus group stating that 'the bricks in the game doesn't hurt my fingers as the real LEGO blocks sometimes do'.

MG: We're receiving feedback all the time from both adults and kids. Comments can cover everything from "Can you make it easier to upload models to the web?" to "When will a Mac version be available?" (both now achieved). When it comes to testing we try to get kids involved whenever possible to help us tune the interface. They always spot things we'd never think of, press buttons they shouldn't and break things in ways you'd never dream possible! Kid testing is invaluable.

BJ: What do you like best about LDD?

MZ: I like the core building experience of LDD best - we call it Click-Stick. I think it's the best virtual building system currently available on any system and allows both kids and adults to pick up LDD and start building like they'd build with real LEGO - without having to read the manual. People seem to find it very intuitive.

RS: I have to agree. We really feel we pioneered virtual building when we developed Click-Stick. It was the first critical step towards LEGO Factory. At the time we did know if we would be able to make 3D building easy enough for kids. No 3D building, no

LEGO Factory. Even though Click-Stick is still far from perfect I think most people can imagine how it will work when we get time to perfect it. I also think that the new 'Send model to LEGO.com' feature is pretty cool - very easy to use and nicely integrated with the LEGO Factory packaging application.

BJ: What are you working to improve?

MG: The next development phase is planned to concentrate on the core building tools. We're hoping to spend some time tuning Click-Stick and will probably introduce a couple of new tools to handle more complex manipulations. We're always looking to improve the ease of use of the system and will be listening to the users to hear where they'd like to see changes made.

RS: We will also be looking at expanding the range of bricks. We are planning to release more brick types through out this fall.

BJ *(to Mike Gott):* How is your interaction with The LEGO Group?

MG: We (Qube) have a great working relationship with LEGO. They're an excellent company to work for and the management are very supportive. Qube and LEGO are able to work closely as a team to design and plan each phase of the work. We communicate with LEGO on a daily basis to ensure everybody knows how things are coming along.

(To Ronny Scherer): How is working with an outside firm?

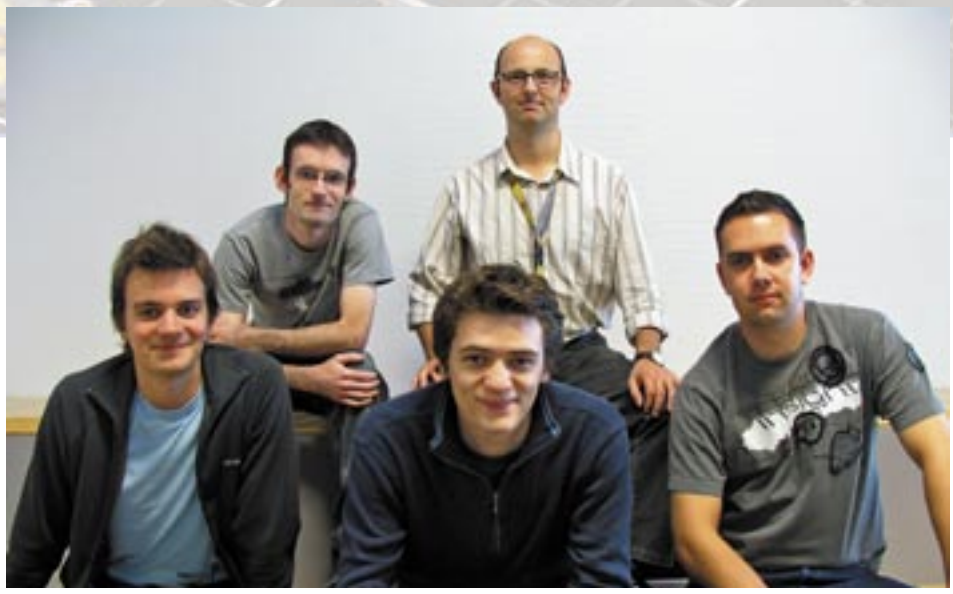
RS: It been a very good experience working with Qube. They have been very easy to work with and they are very good at what they do. This type of setup has also allowed us to focus on the project and make good progress while the company has been restructured. In that regard the changing nature of the company and the industry hasn't slowed us down.

BJ: LDD is the first step toward what I would call LEGO on Demand...what do you see happening with LDD in the future?

MG: We all hope that LDD will continue to grow to include new brick types along with new tools and features. The way in which LDD develops will be very much governed by how the public respond to it.

RS: As Mike says it is really up to the fans of LEGO. Short term more bricks and ease of use will be top priorities. Other than that we can just say stay tuned. A new major version of LDD will be heading this way within 12-18 months - for both MacOS X and Windows of course...

Next issue of BrickJournal will go deeper into LEGO Digital Designer, with a look at the first public version of LDD, with more interviews with Mike, Ronny, and some LEGO builders who were given the opportunity to work on what was originally going to be a microtown plan!



LDD Timeline and Facts:

May 1, 2002 LDD development starts under the code name "Arena".

July 11, 2003 LDD 1.0 completed

Oct 1, 2003 LDD 1.1 completed

Feb 6, 2004 3D online gallery went online

June 15, 2004 LDD 1.2 completed

Oct 4, 2004 LDD 1.3 for BrickMaster completed

Nov 8, 2004 LDD 1.3 for LEGO Factory completed

Aug 25, 2005 LDD 1.4 for LEGO Factory launched

Sept 25, 2005 1 millionth copy of LDD officially downloaded

from Qube's website, www.qubesoft.com:

Qube was founded in 1997. The company's aim is to develop technology for the creation of high quality games and other 3D interactive applications. Qube's long-term ambition is to enable internet-based broadcast of 3D content.

With the skillful hiring of experienced staff to create tight and unified teams and a sustained commitment to excellence, Qube is well positioned to achieve its goals.

Qube is based in London, England, and currently employs 30 fulltime staff and a number of contractors.

The LEGO Digital Designer Development Team:

Top row, left to right:
Mike Gott: Producer,
Ronny Scherer: Senior Producer.

Bottom row, left to right:
Marc Sutton: Lead Programmer,
Hugo Hudson: Programmer,
Eddie Hayden, QA Lead.

A Panoramic Portrayal with Philipe "Philo" Hurbain

Philo is a technology enthusiast. That's why he has early been interested in digital photography applications : panoramic and spherical photography, VR Virtual Reality, and kite photography. As a techie, Philo has been a LEGO Technic fan from the beginning and his creation of LEGO tools for photography was the first subject of his website: http://www.philohome.com.

But as you're going to discover, Philo is also a very productive LEGO robot builder and his latest creations for Steve Hassenplug's Great Ball Contraption are amazingly efficient and aesthetic.

Article by Didier Enjary
Photos by Philippe Hurbain

BrickJournal : Hi Philippe : Could you tell us who is Philo ?

Born in 1956, I live in France near Paris. Electronics engineer, I design communication boards in a small company based in Paris. "Philo" is the nickname given by my classmates when I was 14...

I had few LEGO sets when I was young, and though I played a lot with them, I was not a great builder. I went out of my dark ages first in the late 80's, when I discovered Technic. But even the Control Center that I bought at that time was not enough for my taste (painful to teach it movements, no input feedback), and I had no time to create my own controller. So I lost interest and had a second dark ages period, enlightened only by my daughter's LEGO!

Then in 1999 I bought a MINDSTORMS® kit for my daughter's birthday, and soon played with it a lot more than she did (she still insists to say that it is HER RIS!!!). Since then I have been addicted to LEGO again... But it is no longer a solitary activity. I discovered the great LEGO fan Internet community and I can share ideas and show them creations. I also joined FreeLUG (www.freelug.org) since its creation, where I met many friends with the same LEGO passion...

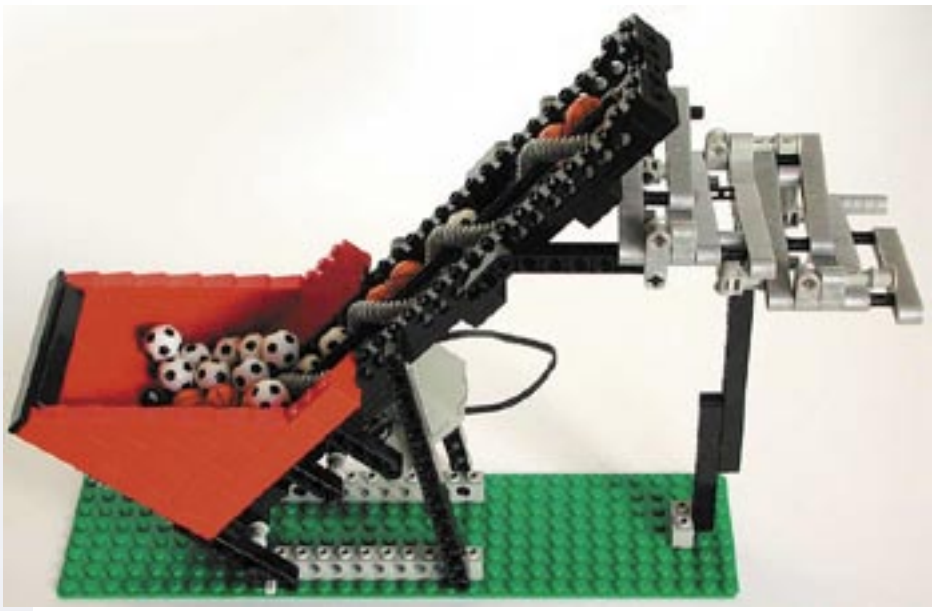
BJ : What do you like so much in LEGO Technic® and MINDSTORMS™?

I like to build things, especially devices that interact with their environment. When I was much younger, I created a rover car, built from plywood, with motors and sensors (bumpers and light sensors). Everything was controlled by a re-wireable logic using parts

Great Ball Contraption Modules by Philo

Above: Shovel - this module moves balls using a geared shovel. Instructions are available online at:
www.philohome.com/gbc/gbc-shovel.htm
Left, below: Archimedes Screw. Video can be seen at:
http://www.philohome.com/gbc/gbc-screw.htm

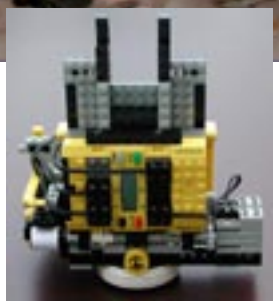
More modules can be seen at his GBC page:
http://www.philohome.com/gbc/gbc.htm



Panobot2

A panoramic camera mount using a MINDSTORMS RCX brick for rotating a camera.

Above: A panoramic picture from Panobot2.
Right: Panobot2 without camera.
Far Right: Philo preparing Panobot2 for a photo.



scavenged from old IBM mainframes... Of course, when I discovered the RIS I had to play with it. It could do much more, with easier construction and much better programming environment! As an added bonus, you can easily create aesthetically pleasant constructions.

BJ : You've created some GBC modules. Could you explain what is GBC ?

GBC is an acronym for Great Ball Contraption. This is a very successful attempt to offer Technic/MINDSTORMS builders a cooperative building opportunity, similar to Moonbase or Train layouts. The concept, devised by Steve Hassenplug and his friends, is very simple: route, by any (preferably spectacular) means, LEGO soccer balls from your module input bin to the next module. A few rules (see http://www.teamhassenplug.org/GBC/) insures that all modules will be compatible and can form a never ending loop. Each module has its own personality imprinted by his creator, but assembled GBC create a colorful patchwork, in the spirit of Rube Goldberg contraptions.

BJ : You have created seven GBC modules, and by writing article on FreeLUG(http://www.freelug.org/article.php3?id_article=407) you have popularized GBC among french AFOLs and recently organized a GBC party at home with friends. What is appealing you in GBC much than any other LEGO project ?

Sharing huge mechanical constructions with friends from everywhere is quite exciting... but almost impossible to do if the design is not modular, with precise interface specification. GBC enables just that. GBC are also fun, and kids loves them as we discovered during our last meeting. Moreover, building each module is both challenging (trying to obtain good reliability is no easy task), but not overwhelming.

BJ : Your GBC modules don't use RCX. Could you explain to our readers why GBC are not necessarily complicated Technic creations ?

In its simplest form, a GBC module has to LIFT balls above next module input bin. Horizontal transfer is often a by-product of the lifting mechanism, but if needed a simple slope can be used to trim module length. So nothing complicated is needed and simple mechanisms used for centuries to lift grain or gravel can be used. Technic parts are not even mandatory, apart from a motor and some gearing. Of course if you feel like, you can use much more complex machines. My latest module is a Spybot shuttle that loads balls at one end of a train track and delivers them at the other end. It uses all Spybot's resources: one motor provides propulsion, the other one is used to lift the ball bucket. The touch sensor is activated when the bucket is fully up or down, and the light sensor and LED are used to detect white bricks placed at the ends of the track. Fighting against Spybot's lack of modularity was rather tough...

BJ : Would you tell us what is your next idea for a GBC module ?

The next one should be a ball counting module. A high throughput serializing lift mechanism will feed a ball counting sensor. A RCX (yes! at last a RCX-based GBC-module!) will provide all kinds of statistics during a GBC event.

BJ : Before you created GBC, you have participated in (and won) MINDSTORMS Community Contests. It seems to me your robots are simple in their complexity, all parts are plainly useful. When looking at your creations, we feel as if none of the parts could be replaced by a simple one. Am I wrong ?

When I began Technic building, I had few parts so I had to use them wisely. Moreover, economy of means is good engineering practice. Combine that with my natural thriftiness (some might say stingyness...) and you have the result!

BJ: Could you give us some tips and tricks you use to make your robots both good looking and technically efficient?

I tend to be an adept of functionalism: form ever follows function. My building style reflects that - simple shapes, little or no decorations. In the same spirit, I try to keep color count low as my collection of parts permit.

Most of my creations go through many iterations. The first step is to build feasability models of the main mechanisms. These models are generally very flimsy and quite ugly... I then rebuild them trying to use a low count of perfect fit parts, while achieving a strong enough structure. "Strong enough" is important: my first constructions were quite fragile. I then learnt how to reinforce them, but I overused these tricks and got sturdy but clumsy constructions. I still have to fight against this overengineering tendancy...

The next step is to assemble all these modules. I know that my style could progress with better integration, but I have trouble figuring out complex mechanisms as a whole. Parhaps another reason why I like my simple GBC modules...

Too Many Castles, Not Enough Time!

An Interview with Bob Carney

Interview by Magnus Lauglo
Photography and art provided by Bob Carney

Bob Carney has been fascinated with medieval Europe since childhood and discovered LEGO building almost forty years ago. He built his first castle for his son from wood and cardboard rolls, but moved to using LEGO bricks in 1986 after the release of the classic # 6074 Black Falcon's Fortess LEGO set. Bob's collection includes an estimated 30,000 classic gray bricks and his biggest castle Caerphilly required 31,950 bricks total.

BrickJournal: You've built over a hundred castles. How long have you been doing this?

Bob Carney: Pretty close to two decades: I built my first castle in July 1986 just after the Black Falcon's Fortress came out. With the advent of the diagonal corner wall pieces, I immediately saw that classical castles with round or D-shaped towers could be built - and the rest is history.

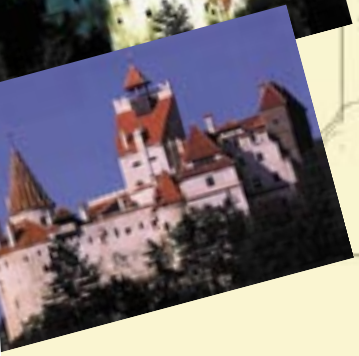
BJ: There must be thousands of castles in Europe. How do you choose which ones to build?

BC: The first criterion is the beauty of the castle. But the very important second criterion is the availability of plans and photographs. Most castle books in the US in the 1980s featured English, Welsh and Scottish castles - thus 9 of my first 10 castles were from the United Kingdom. The internet greatly expanded my possibilities. I built Ballytarsna in Ireland because the interested American owner mailed me 25 pages of architectural drawing of the original tower and the planned refurbishment. People in Etampes, France, Bolzano, Italy, and Portugal emailed me digital pictures and/or plans of their castles, so I could proceed better with a project. Thus some of my models are of very famous castles and others more obscure, though often just as interesting.

BJ: How do people react when you request such information? Are they really helpful (as in this case) or not?

BC: The owner of Ballytarsna actually offered to mail the plans to me which was very generous. I mentioned to the administrator of Mareccio in Italy that I could find no digital pictures of the courtyard residential range and he kindly surprised me with digital pictures and emailed them to me. A college professor in Etampes, France sent me pictures of that tower because internet info was so sparse, and two Portuguese people have provided plans and translations of history for Almourol. People are just plain nice. It's another joy of being an AFOL!

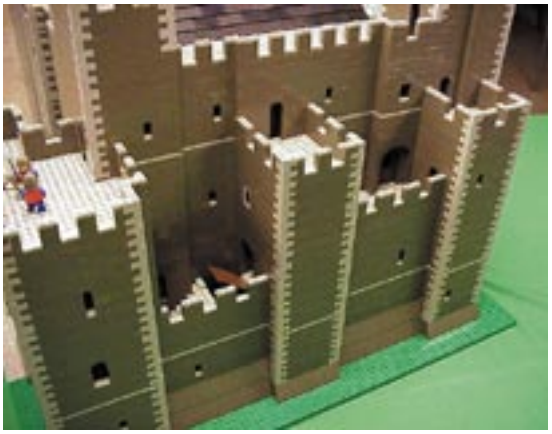
Above: Bob Carney with one of his models.
Below: Ballytarnsna, a castle in County Tipperary, Ireland, was built by Carney in 2001.



Building Castle Bran

Carney builds Castle Bran, situated in present day Romania and often associated with the infamous folk hero/villain Vlad the Impaler. Carney starts by researching with photographs, either personal or from research (right). From there, he draws up plans (background) and begins building.

Below: Dover Castle, located in Kent, England, was built by Carney April 2002.



BJ: Do you ever have opportunity to visit a castle before you start building?

BC: While I have an extensive collection of my own pictures taken of about 40 Scottish and 60 Irish castles (from my two wonderful vacations to those countries), only a few were built from my post-visit plans and photographs. Most of the castles are entirely from pictures in books and on the internet.

BJ: Have you ever tried to build a castle from your own imagination, without using an actual castle as a model?

BC: I've done a little designing of several such castles, but I fairly quickly refocus on my love of modelling.

BJ: Your LEGO plans are clearly very detailed. How much is planned in advance, as opposed to figured out along the way?

BC: I now try to have the castle 99% designed before I build - a large castle is far too complex to build without a very good idea how everything will fit together, and the smaller castles are more relaxing as well. But the landscaping and the infrastructure that makes the castle appear to sit on a motte (man made hill), hill or rocky crag is designed as I build.

I have a drawer of partial plans - about two dozen castles which I never fully planned. But it's just because I discovered my information was inadequate or the shape was just too unusual. I've never quit once I got rolling, except when building and being surprised by a parts shortage.

BJ: So you're basically modelling from a detailed plan, and with a very clear idea before you start of how you want it to look in the end. Do you find that building castles is a creative process for you the way it is for other AFOLs?

BC: Imagination comes into play in two different ways. The first is the inevitable task of converting the castle or ruin into "LEGO". A plan with dimensions makes this job much easier, but consideration of the size and shape of towers, battlements, and even gates and windows may dictate the scale of the castle. While I work toward 1 foot = 1 stud (a lovely size for minifig knights and their ladies), sometimes that's not possible - notably with huge castles like Beaumaris or Caerphilly, which were designed to fill my building table.

The second area of imagination is ruined castles. It is pretty much impossible to accurately recreate that which is completely gone, but often upper floors are missing, windows have been changed from the originals or entire wings are merely foundations. Then you have to imagine what the castle might have looked like. The important thing for me is making the castle come alive, if only for minifigs. Glancing through issue #1 of *BrickJournal* I note often other AFOLs do much as I do - whether its Star Wars, Biblical scenes or just a beautiful rose.

Building Castle Grounds

Using his plans for the castle and the castle grounds (background), Carney builds up his model.

BJ: Which castles were the most fun or challenging for you to build?

BC: Big castles are big fun, and castles on rocky terrain are very challenging - first you must build the "rock" then the castle on it! Also Caerlaverock, the triangular castle in southern Scotland comes immediately to mind. To this day I cannot imagine what possessed to pick it as my first castle - triangles are tough in rectangular LEGO. My second attempt at it was much more accurate, and thus a real challenge.

BJ: Building triangles and walls at non right angles is always challenging. You've tried your hand at it quite successfully, but you've also chosen to simplify some castles by making all the walls right angles. How do you make that call?

BC: Since accuracy is a goal, shape is important - but not infrequently it's just impossible. I've wanted to redo Provins in France for years, but I cannot come up with a better, larger scale that works. I totally reject many castles because that shape is just too irregular. You can hinge LEGO at any angle, but it won't necessarily be solid or stable.

I built more than a dozen castles before I built one I am now proud of...Now I never start a castle I don't wish I could keep around forever.

BJ: How has TLG's (The LEGO Group's) recent color change (specifically light and dark gray) affected your models and building techniques?

TLG has to think about the bottom line - we all know that. That said, I personally think the switch to light and dark "bluish gray" was a travesty - the old and new colors do not look good together, especially if you're building in earth-tones as I am. It means I can no longer buy LEGO from LEGO, which seems very sad to me.

BJ: If you had a chance to design your own set, what would it be and what would it have?

BC: It would be a castle! And it would somehow incorporate all the castle parts LEGO never made, such as a 3-stud wide arch for doorways, arrowslits, etc.

BJ: Have you ever thought of trying your hand at a cathedral or perhaps a non-medieval castle or fortification?

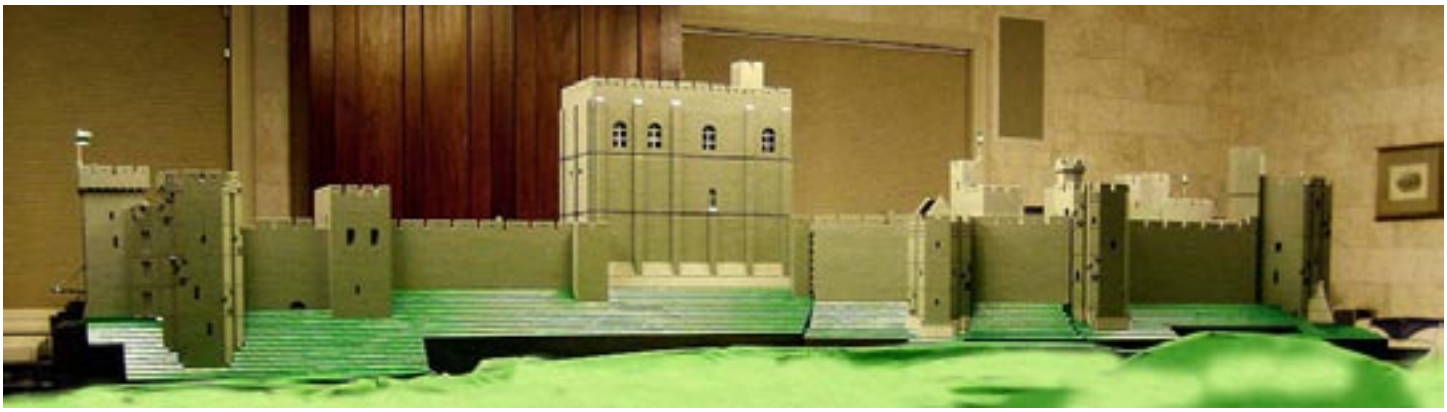
BC: The answer is a resounding "yes". In addition to my dozens of castle books, I have 3 devoted to cathedrals. Every time I look at a cathedral, temple, monument, etc., I look at

(continued)

Above and below: Caerlaverock Castle, in Dumfriesshire, Scotland was built by Carney in 1997.

Castle Construction

The castle walls and interior details are put in place. Each floor is planned out (background) by Carney before construction.



The Chepstow Castle, in Gwent Wales. Built by Carney in 2004.

it in terms of "could this be modelled in LEGO?" Many times the answer is "Very nicely" -- I just haven't done it yet. Too many great castles - not enough time for them.

BJ: Do you have any particular favorite castles?
BC: I really love all my castles -- especially those starting with my rebuilding of Newcastle-upon-Tyne. That's when my castle modelling really matured. I am particularly fond of great military structures (e.g. Edward I's Welsh castles). That's what castles were really about - offensive preparedness and defensive protection.

BJ: Have you gotten any attention from the owners of any of the castles you have recreated or any historical societies in Europe?

BC: The people of Etampes, France were particularly hopefully they could have their castle, and the owner of Ballytarsna in Ireland hoped my model would grace his tower in Tipperary, but even before the color change, light gray 3x3x6 castle corners and 2x2x3 75° slopes were scarce, and I couldn't be sure of ever replenishing my collection. Now that problem is even greater.

BJ: What suggestions would you make to anyone who wanted to try their hand at building a replica of a castle?

BC: Start small and get some experience. I built more than a dozen castles before I built one I am now proud of - but as my experience grew, so did my collections of plans and photographs...and my collection of LEGO bricks. Now I never start a castle I don't wish I could keep around forever.

BJ: Is there anything else you'd like to add or share with the Adult Fan of LEGO community?

BC: I really appreciate this *BrickJournal* interview. This is a beautiful and meaningful magazine expounding the joys of LEGO. There is virtually nothing one cannot create with LEGO or recreate in LEGO. It's a super hobby - no matter what your interests. To paraphrase Ole Kirk , "Build well"!

You can find Carney's castles at:
http://12.223.136.182/index.htm

Castle Bran Completion and Final Details

The top floor and roofing is added. Right: The completed Castle Bran interior.
Far right: The exterior of the castle, which was completed August 2005.

LEGO: Changing Lives

When the LEGO® Fan website relaunched, a message was posted by a person who overcame special challenges to build. His story is one of courage and determination in the face of adversity.

That person is Scott Warfield, and BrickJournal *is proud to present his inspiring story.*

Scott at his workstation

Ever consider what could happen if you dive into the shallow end of a swimming pool? I never did until two years ago when I accidentally dove into the wrong end of my folks' pool. This dive resulted in a complete spinal cord injury. Sometimes it is easier to just say that I broke my neck.

After spending a few months in the hospital, the final diagnosis was paralysis at the 6th cervical vertebrae. A C6 level injury means that I am paralyzed from the chest down. I have use of my shoulders, biceps, and wrists. Biceps are muscles located on the front of the upper arms. They are used to flex the elbow joints. I have no function in my triceps or fingers. Triceps are muscles in the back of the upper arms. They are used to extend the forearms. I use an electric wheelchair and will occasionally use a manual chair to exercise my shoulders and arms.

Most of my time in the hospital was spent doing therapy. I learned to eat on my own again, put on a shirt, and use my wrists in such a way that I could pick up items. The occupational therapists also gave me exposure to adaptive technologies to use a computer and writing on paper.

After a year I was finally able to go back to work as a software developer. Luckily, the only thing I needed to do was learn new ways of using my computers. This was actually fairly easy because of the therapy I received. A small typing tool on my left hand, a trackball near my right, and speech-recognition software combined to allow me to easily use my computers.

Before my accident I enjoyed activities such as motorcycle riding, airbrushing, and occasionally building a LEGO model. After my accident it seemed as if I would never enjoy any of

I was wrestling with placing a 1x1 plate without a stud onto an equally small surface. It took me several minutes of trial and error and a little frustration to get it on. I felt almost euphoric once I had it in place.

my hobbies. I started feeling that my daily activities were limited to computers and television. At times, it became really depressing. I really needed something else that could take me away from looking at screens all day long.

After doing a number of my daily routines, I realized something very interesting about one of my medical tools. I have a device that is secured to my right hand and by pressing a small paddle that extends out, I can open a small claw. I normally use one of these tools for medical procedures and one for connecting computer cables to my laptop.

After taking a very long look at this tool, I wondered if it would be possible to pick up and build LEGO models by using it.

I decided to buy a small set to see what I could do with it. I flew helicopters in the Army for a short time so I chose a helicopter model for my first attempt. To my surprise, I successfully built it which included some of the Technic pieces. I sat in disbelief looking at the model, feeling a great sense of accomplishment. My family and friends were even amazed at my accomplishment due to the intricacy of many of the pieces. I decided then that I wanted to move on to something even more complicated: The Millennium Falcon.

Interestingly enough, my wife bought me the Millennium Falcon as a wedding gift. I worked on this for a number of weeks and, after many mumbled curses, I finally finished it. That model is fairly fragile; just ask my wife who I asked to put it on the shelf. Then, I went on to build the collectors edition Snow Speeder. Again, my family and friends sat in awe at the final products. Everyone has been dumbfounded and intrigued by my ability to assemble the tiny pieces, all without the use of my fingers.

Scott now builds with building software, including MLCAD.

So, how exactly does someone without the use of their fingers build an intricate LEGO model? The answer is actually very simple; very slowly. A thousand piece set could take several weeks. Obviously I won't be competing in any speed building competitions. Each and every piece requires patience. Attaching bricks takes slow and deliberate movements; and many times, it takes several attempts before two pieces are finally put together.

My biggest asset is obviously my claw. I can easily pick up most bricks with the tool as you can see in the photograph. It's really a simple tool that I can use to do a number of other things aside from its original design such as inserting cables into my laptop. The studs on a LEGO brick make it very easy to use the claw to pick up most pieces.

Once I have a brick, I have to consider where my leverage is and where I need to attach the brick. I use a tray with raised edges that allow me to "pull" pieces together against a surface. I place one piece against the side of the tray, place another piece along side it, and then pull the second one into the first. The tray also allows me to keep the bricks in a controlled area. The tray prevents pieces from falling off the table and onto the floor where they would be very difficult for me to retrieve. The fact that a small colored brick looks like a treat to my ravenous dogs is not lost on us either; therefore, keeping them off the floor becomes doubly important.

Another factor I found in building the models is that the LEGO Group never had quadriplegics in mind when designing their instruction manuals. Not that I fault them for that, after all, who would have thought a quadriplegic would be building models? But, I find myself skipping ahead in the instructions to find out what the intent behind an assembly is. Then, I figure out what it will take to build that particular construct. On many occasions I have found that I needed to build a small support structure out of extra pieces just to be able to attach the bricks to another assembly. Putting the wings on the Snowspeeder is a prime example.

Levin loves LEGO [bricks] as much as I do, so it's something that he and I can do for hours. It is truly heartwarming to be able to interact with him through a hobby that we both love so much.

I remember at one point thinking, "Just how small can they make some of the bricks?" I was wrestling with placing a 1x1 plate without a stud onto an equally small surface. It took me several minutes of trial and error and a little frustration to get it on. I felt almost euphoric once I had it in place. That one simple piece gave me an intense feeling of accomplishment.

With his computer, Scott can build complex models

Because of my extensive computer experience, I have also begun using software such as MLCAD and LDraw to design my own models. I hope to be able to purchase the pieces I need for my custom models to build them as well. I'm currently working on designing the Buck Rogers Starfighter.

One other very delightful and wonderful thing that LEGO's has given to me is the ability to interact with my 11 year old stepson. Being quadriplegic and confined to a wheelchair makes it very difficult to take part in most activities, such as baseball or throwing a football, that involve an 11 year old boy. Levin loves LEGO's as much as I do, so it's something that he and I can do for hours. It is truly heartwarming to be able to interact with him through a hobby that we both love so much.

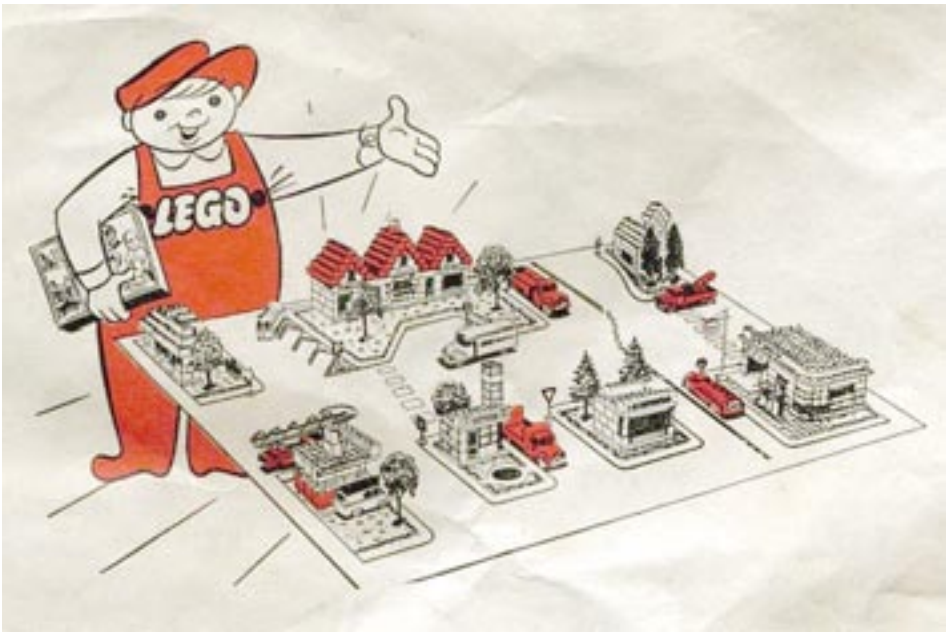
It has been incredible to rediscover this hobby and to enjoy it once again. LEGO has really changed my life. I no longer feel as if my computers, which I use everyday for my career, and television are the only leisure time activities that I can enjoy. Thank you, LEGO Group!

The LEGO® Town Plan 1955-66

2005 is the 50th anniversary of the LEGO Town System, and to celebrate, BrickJournal *takes a look at the beginning...*

Article by Gerhard Istok
Scans by Eric Strand

The basic sets (#700/1 thru #700/6) of various European countries. From 1955-58 the language on the boxes was the local language where the set was sold. By 1958 all boxes were changed to the universal "LEGO System". The 3 children on the box tops are LEGO founder Ole Kirk Christiansen's grandchildren, Kjeld Kirk Kristiansen and his sisters Gunhild and Hanne.



This early Town Plan scene came from a 1957 German LEGO brochure

The Town Plan, forerunner of the Town System today, was the first of the LEGO "Systems" that the LEGO Group (TLG) produced. The idea of having a "system" started in 1954 with that now famous exchange of ideas between LEGO executive Godtfred Kirk Christiansen and another businessman on that fateful North Sea ferry ride between Denmark and Britain. GKC made note of those 10 ideas and the result was "The Town Plan", the Group's first "System of Play", which came out in 1955.

The Town Plan started out with a streetscape roadway board. The first boards that came out in 1955 were made of soft plastic, but by 1956 TLG also produced a Masonite wooden fiberboard. TLG also produced an assortment of specialty parts for the Town Plan. Among the first of these in 1955 were 7 different 1:87 trucks, 5 different LEGO trees and one bush, 16 different road signs, a garage set with a flip-up garage door, 4 different types of "macaroni" bricks, LEGO plates, 1x6 and 1x8 beams with names on them, and an Esso freestanding sign with Esso gas pumps. By 1958 more specialty items joined the Town Plan scene: cyclists/motorcyclists, traffic police with traffic lights, street lights, flags, and a 1:87 VW Bus and Beetle.

Probably the most useful of the Town Plan items were the new classic LEGO windows and doors that came out in 1956. These matched those produced since 1954, but they no longer were designed to fit into the slotted LEGO bricks of the era, since those slotted bricks were also discontinued in 1956. There were 9 windows and 1 door (both right and left handled doors were produced). This "system" of windows/doors was very versatile in that the windows could be mixed and matched to make over 100 different useful windows, everything from Frank Lloyd Wright type windows, to tall cathedral windows.

Those first 1955 LEGO elements for the Town Plan were mainly sold in spare parts packs. LEGO models for the Town Plan didn't come into production until late 1956, when the Esso Service Station Set (#310/#1310) came out (central/northern European set numbers). This was followed in the next year by a VW Service Garage (#306/#1306), VW Sales Showroom (#307/#1307), Fire Station (#308/#1308) and church (#309/#1309).

In late 1959, the older 1950's style Town Plan board was replaced by a new design. The new Town Plan board was also made out of cardboard, 2 folding pieces held together by a fabric spine. Several of the Town Plan parts, such as the trees/bushes and Esso pumps, underwent design changes around that time as well.

In 1960 TLG finally produced a Town Plan set, known as the continental European #810. In 1961-62, a different style Town Plan board and #725 Town Plan set came into production in USA/Canada. By 1963 another different Town Plan board and

This scene is of the continental European Town Plan set #810 (1960-66)

This scene, from a 1963 USA Montgomery Ward's mail order catalog shows an alternate model of the USA/Canada Town Plan set #725. This is a unique picture, because none of the Town Plan sets (#725/#810) ever came with alternate model diagrams

Streetscape art on the cover of the 1955 Danish catalog

#810 Town Plan set went into production in Britain/Australia. The Town Plan board and set were different in Britain and Australia because they drove on the left side of the road, unlike continental Europe and USA/Canada.

The Town Plan sets and accessories were produced until 1965-66, when the Town Plan System was retired. The cyclists/motorcyclists and traffic police were retired in 1965. The leftover Esso sign/pumps were retired in 1966. The remaining Town Plan boards were sold until 1968. The Town Plan 1:87 cars and trucks were produced until 1970; the flags until 1973; the road signs, street signs, named beams and streetlights until 1972. The versatile classic windows/doors were slowly retired until 1987.

Today the only Town Plan elements still produced from that era are the 1x2x2 classic windows, and the 2x2 "macaroni" bricks. Although many different LEGO systems have come and gone in the last 50 years, it is the Town Plan System that has provided us with a rich assortment of unique old sets and accessories.

1955 Danish catalog picture shows the first appearance of a Town Plan board

1955-58 spare parts packs showed a traffic policeman along with (from left) Kjeld, his older sister Gunhild, and an unidentified older boy (probably a cousin)

The USA/Canada Town Plan set #725 of 1961-66

A German LEGO fan magazine of November 1959 announces the new (1960's) Town Plan board #200. This same scene was later slightly modified as the model for the British/Australian #810 Town Plan set of 1963-66

Mecha Building: An Overview

Ever wonder how to build mecha? BrickJournal *asked a mecha expert to find out!*

Article and photos by Soren Roberts

Building mecha isn't really all that difficult, or particularly special, despite the attempts of certain notables in our community to make it seem that way. It just calls for a certain comfort with SNOT (studs not on top) and a willingness to make mistakes and learn from them: not much different from building well in any other theme.

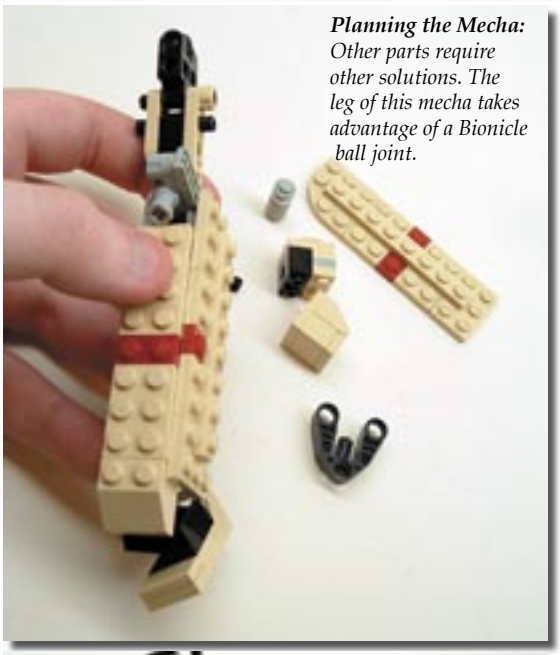
If you're willing to take some time to experiment, I think you'll enjoy it. Here's how I do it...

Starting off: I like to start with a rough design in mind, or a set of basic proportions. Sometimes I look through a bunch of concept art to gather ideas for limbs, torso shapes, etc. I don't look at other LEGO mecha much anymore (although I recommend that you look at every LEGO model you can), mostly non-LEGO mecha art. At this stage I'm just trying to get myself thinking about what parts I want to use and how I want the finished product to look: I try not to get too attached to a specific design yet. Sometimes while I'm thinking I put on music or grab a snack.

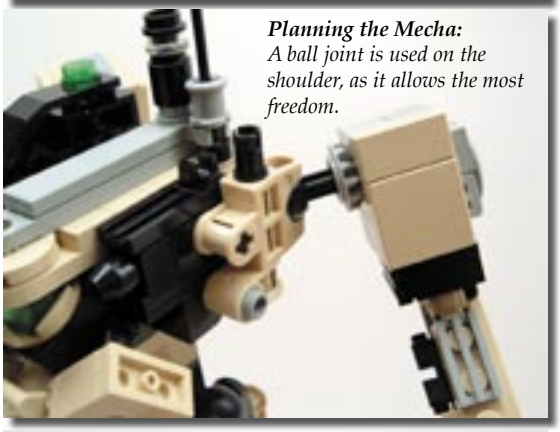
Planning the Mecha: Once I know roughly what I want, I start thinking about weight and joint structure: how is the darn thing going to stand, and where will it be putting most of its weight? Generally I try to plan for as much articulation as possible, so I can shift weight around later to balance the model as I'm working on it, and get interesting poses out of the final model. Lately, I always try to work a complex joint of some kind into the waist, so I can shift the weight of the torso in relation to the hips. I find that allows for much better balance, and opens up a number of options for posing. Other areas I try to give special attention to are the hips (no matter what, this is the main load-bearing joint), shoulders (I find this joint almost has to rotate through all three axes of motion), and ankles (good ankles tend to require a lot of high-tension flexibility in a small space). Finding the right joint for a given application is a different process for every model; I try to vary the techniques I use.

Details, details details: Cosmetic touches are important to me, too, and I try to plan as many of them beforehand as possible. Getting a design to stand is all well and good, but if it doesn't look dynamic I'm going to scrap it. I start thinking about colors at this stage, too: how many, where, and in what balance. If I'm going to give the model weapons, I plan them out here.

Planning the Mecha: *The toughest part of mecha building is making strong joints. Here, the solution is SNOT joints.*



Planning the Mecha: *Other parts require other solutions. The leg of this mecha takes advantage of a Bionicle ball joint.*



Planning the Mecha: *A ball joint is used on the shoulder, as it allows the most freedom.*

Details, details, details: *Does the mecha have weapons?*

Putting it all together: *Now's the time to make sure that everything fits and works together.*

Putting it All Together: When I start building. I find I work best if I start with the section of the body I had the clearest impression of. This is compromise time, and a lot of the ideas I had are just not going to work. That's not a bad thing, though, and I always come up with a few things while I'm building that make up for any features I end up leaving out. If I can get around 70% of my initial concept, I'm happy. The important thing here is to see how many of my ideas are workable and how many were pipe dreams.

Finishing up: I like to stand back and look at the model once I've gotten it together. Sometimes I'll put a preliminary picture up on Flickr and AIM/IRC it around to friends to get their opinions before I take a set of pictures to publish. I make a lot of quick little modifications and try out poses for a while.

I don't do all of this for every model. Sometimes I'll toss an idea around in my head for a while, and build it slowly over a couple of days, or sometimes I just sit down to build and something interesting happens. I hope the description of how I go about building mecha will help you plan out your next mecha project!

Soren Roberts is a student who is a LEGO builder in the space and mecha themes. You can see his models on his webpage:

www.neutronbot.com/soren

or in his Flickr account:

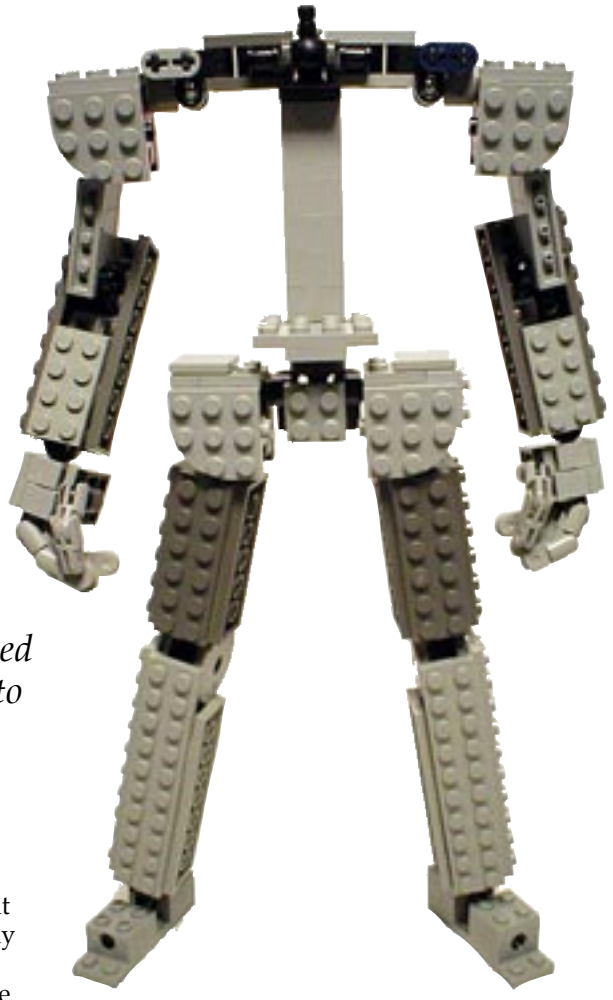
http://www.flickr.com/photos/44124312001@N01/

Finishing up: *Final touches and modifications, and the mecha is ready to go!*

Introduction to Mecha Building: Making Movable Joints

Building mecha robots is challenging, as a good model has a balance of design and function. The builder also needs to understand building movable joints. BrickJournal *is pleased to have a premier mecha builder to present some insight into this aspect of building.*

Article and Art by Adam Silcott



Silcott's mecha frame ALM018 is a good model to demonstrate the finer points of joint construction

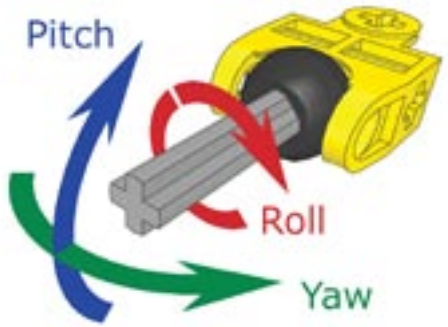
Introduction

The difficulty of building LEGO mecha comes from combining the aesthetic challenges of making it look good, with the engineering challenges of making it stand and pose. When I started building LEGO Mecha many years ago, I simply built parts that I thought looked cool, then tried to fit them together somehow. After a long time, and many mistakes, I finally decided to sit down and analyze each joint piece by piece. It was a turning point for me.

This article will introduce you to mecha building by discussing some of the considerations that play a part in joint design. The goal is not to show you how to make a specific design, but to help you think about the problems in a way that will allow you to come up with your own solutions.

Terminology

There are six types of movements that a joint can make. The labels for these movements are called "degrees of freedom", or DOF. Only the three rotational degrees are of interest to us, which are pitching, yawing and rolling. Though the labels are somewhat arbitrary, in general rolling is rotation around the long axis of a segment, pitching is tilting up and down, and yawing is tilting side to side (see illustration).

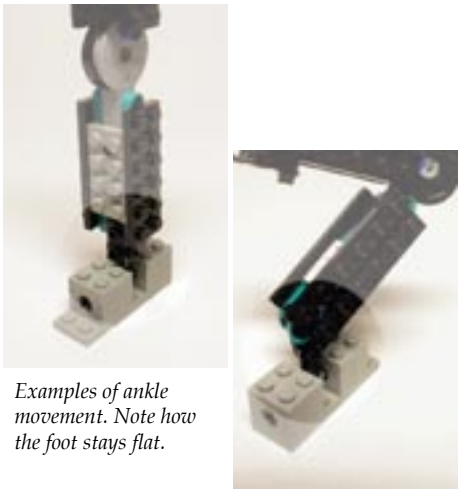


A Specific Example

The ankle joint is usually not the hardest joint to build, but it is an important one, since in a typical standing pose it carries most of the weight of the model. You should be able to apply the same type of analysis to more difficult joints such as hip joints.

To begin, imagine you have a basic humanoid shape built. The ankle can have anywhere from zero to three degrees of freedom, so how many should it have? For an answer, you look to your point of reference, in this case the human body. A human ankle has three degrees of freedom, which allows you to keep your feet flush against the ground regardless of the angle of your legs.

The next question is a typical one in mecha design, is it worth adding extra complexity to the design in order to get a realistic range of movement? The simplest ankle design would be one with zero degrees of freedom. The model is unlikely to fall over (assuming it's center of gravity is over it's feet and the feet aren't too small), and the design can be made very strong.



Examples of ankle movement. Note how the foot stays flat.

The problem becomes apparent when you try to pose the mecha. If the legs aren't perfectly vertical, then the feet won't rest flush against the ground. Try standing with your legs vertical-- it's not a very natural pose. The only way you can make it better is to roll the legs outward. That will make the feet point away from each other at a diagonal, which at least makes the pose look a little better.

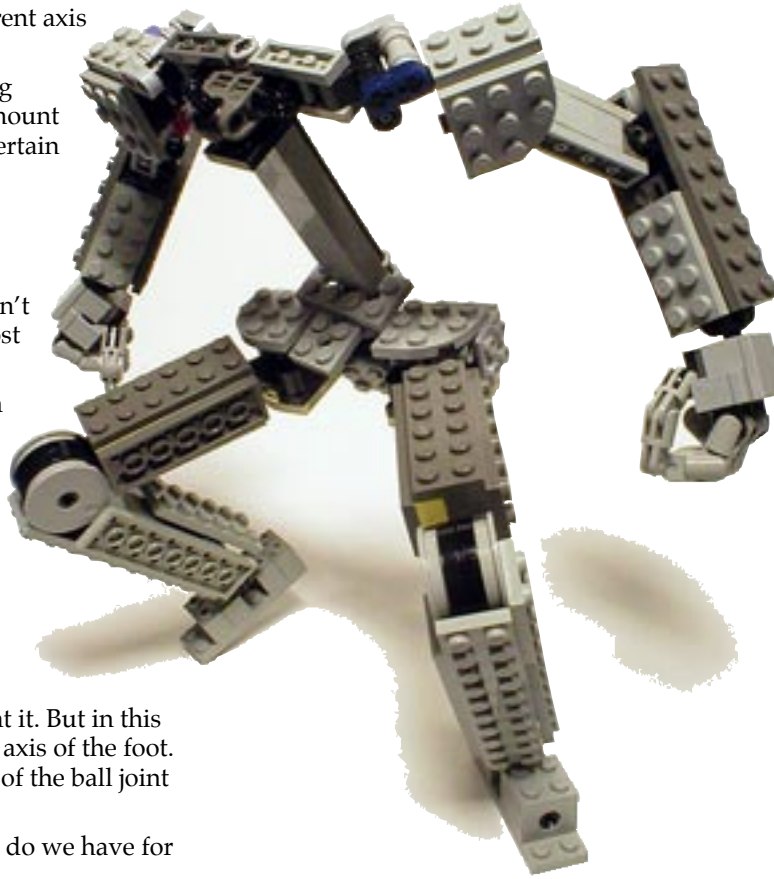
In some cases that may be good enough, but let's assume you want a more realistic pose. You try adding one degree of freedom, allowing the feet to tilt (for feet, I consider this to be yaw) from side to side. Now you can spread the legs out some, and as long as the hip joints are strong enough to keep the mecha from doing the splits, it should stand fine. In fact, since there is still no forward or backward movement, you don't have to worry much about it falling in those directions.

Since either yaw or roll makes the pose look better, you decide to try them both. But you find that when you roll the legs, the axis on which the feet yaw are no longer parallel to the axis on which the legs yaw. To put it simply, it doesn't quite work. The mecha leans forward. This might be okay, for example if the upper body can be tilted back to keep it in balance, but depending on the mecha, it might put the center of gravity too far forward for it to stand. The center of gravity, or balance point should be between and above the feet for the mecha to stand without support.

So you decide to add another degree of freedom to the ankles. Now they can pitch forward and backward. The movement is much closer to that of the human ankle joint, but you have to worry more about it falling.

Here's one of the key points. When you added yaw to the ankle, it almost didn't matter how you did it. As long as the hips are tight enough to hold the leg position, and the ankle assembly doesn't fall apart, the connection could be as simple as a non-friction technic pin in a pin hole. But if you try to use the same method for the pitch movement, the mecha will simply fall over. Sometimes a different axis on the same joint will have much different requirements.

Above and below, different poses of the frame. Even though the poses are very different, the shoulders are above and aligned with the feet, balancing the mech and preventing it from falling over.



Two common mistakes I see (and have made many times) are adding unnecessary degrees of freedom to a joint, and adding the wrong amount of friction to the wrong axis of a joint. A good example of this is in certain uses of ball joints. An examination of ball joints will reveal why.

Ball joints

A ball joint is a simple mechanism consisting of a ball and a socket, which has all three rotational degrees of freedom. LEGO mecha wasn't the same before ball joints. They've become an important part of most medium mecha designs.

In the case of ankles, the ball joint has the benefit of simplicity. It can replace the whole construction with two pieces, while the third degree it offers is simply a bonus.

But they do have a weakness. To see for yourself, assemble a ball joint as shown in the illustration, then test each axis in turn. You'll probably notice the least resistance when you pitch the axle up and down. Roll and yaw have more resistance.

Now consider that the most common way to use the ball joint as an ankle is with the ball in the leg and the socket beneath it in the foot, with the lower axle hole facing the toes and the heel. The socket is usually mounted this way for a reason-- it's the easiest way to mount it. But in this configuration the pitch axis of the ball joint corresponds to the pitch axis of the foot. Going by what we've found so far, that means that the weakest axis of the ball joint is being used for the axis of the foot which needs the most strength.

Now that we understand the specifics of this problem, what options do we have for a solution?

• Build smaller

One solution is simply to build lighter. If your mecha is light enough, you can have the ball joint in any configuration and it won't matter. That can free you to think more

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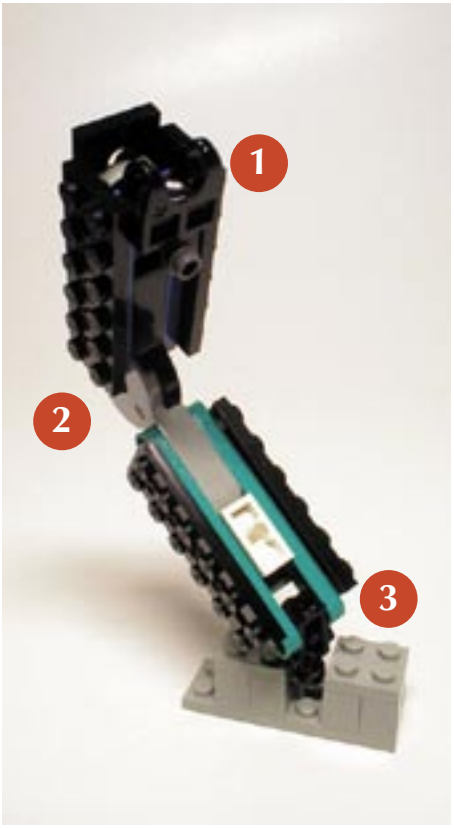


Above: Just in the mecha frames leg, you can see the many examples of joint construction: 1. The ball joint, for the waist. 2. Knee construction, using a Technic click hinge. 3. Ankle joint, using a nonconventional hinge design.

about making it look good instead of worrying about it falling over and breaking.

It may not sound like much of an answer, but it is an important part of any mecha designing-- know the limitations of the pieces, and plan ahead. The joint that works while it's under construction might give out once you add the rest of the body.

• Build smarter

If building smaller doesn't appeal to you, then you'll just have to make the joints stronger.

Do you remember when you tried all the axes of the ball joint? Since some of them were stronger, maybe you could use those axis instead. Turning the socket so the the yaw corresponds to the pitch of the feet is one thing you could try.

Another, much more complicated option is to abandon the simple ball joint and try to design your own compound joint to take its place. This requires a lot of trial and error, and a great deal of creativity. It's not a good option for someone who just wants to get it done, but perfect for those who like to tinker with new ideas. I plan on covering some of the more useful custom compound joints in a later article.

• Research

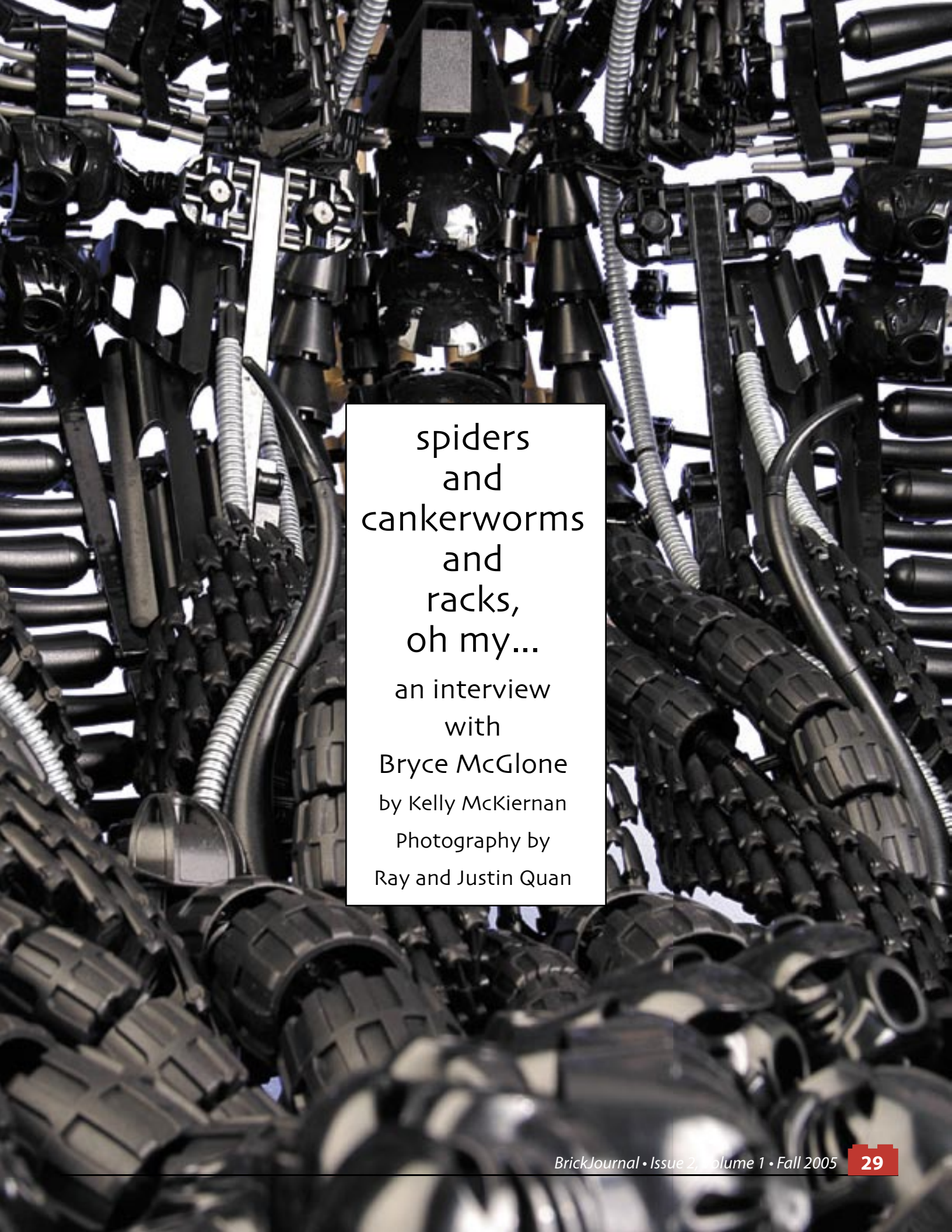
You'll be missing out on a lot of good ideas if you never venture beyond your own collection. Looking at what other people have done can be very helpful. Most people are willing to share what they've learned, and some even have instructions.

Another good reason to do some research is to learn about pieces that you didn't know about. For example, there is a newer ball socket available, which has a rubber insert that greatly increases its friction. If all you needed was more friction in the joint, the solution may be as simple as that.

Conclusion

LEGO mecha is a complex subject that I can only scratch the surface of in one article. However this complexity shouldn't deter anyone who is interested in giving it a try. The breadth of techniques it covers actually makes it easier to find the right one for you, while the range of subject matter, from giant robots to humans and mythical creatures, makes it something that can appeal to anyone.

Future articles will cover specific examples of basic and unorthodox joint types, different classes of LEGO mecha, and frame design considerations.



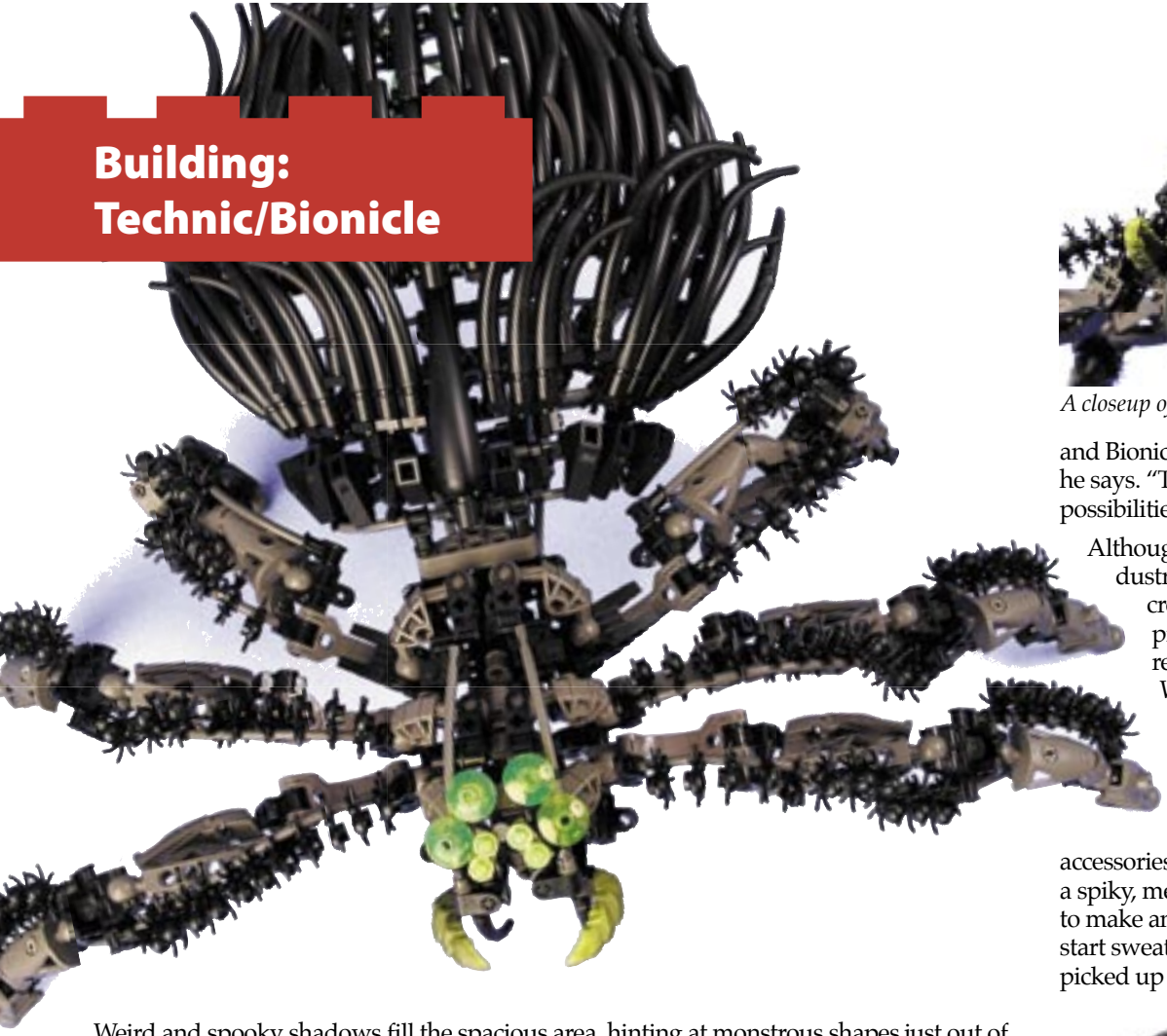
spiders and cankerworms and racks, oh my...

an interview with Bryce McGlone

by Kelly McKiernan

Photography by Ray and Justin Quan

Building: Technic/Bionicle



A closeup of the Black Widow.

Weird and spooky shadows fill the spacious area, hinting at monstrous shapes just out of sight. Outlines that defy easy categorization poke out from around containers. Flowing, organic 'things' assault visitors with their strangeness and unconventional forms, even after the bright lights are flicked on.

A haunted house? The latest Hollywood summer blockbuster movie set? A dentist's office?

No. It's just Bryce McGlone's garage.

This otherwise normal abode is McGlone's LEGO-building haunt. By day, this talkative and gregarious builder works at a post-production facility in Southern California's TV industry. At other times, aside from being a husband and father of two, he constructs... well, he uses LEGO elements to form things that have been known to stun LEGO Master builders. Even the LEGO Group's CEO, Jørgen Vig Knudstorp, was impressed by pictures of McGlone's "Cankerworm" creation.

Nominally a builder of mecha and Bionicle-based creations, McGlone delights in branching out and pushing the LEGO construction envelope. His creations are complex trials of shape and construction techniques.

But unlike most LEGO builders, McGlone's work rarely conforms to anything even vaguely rectangular. His preferred design motif is best described as "organic" - full of curves and spirals and swoops, "like the Nike logo," he says. He also counts the works of H.R. Giger among his inspirations. While something like the familiar Nike swoosh is simple, McGlone's LEGO art is anything but.

Like The Rack.

Filled with all manner of dark, repeating shapes, The Rack is an amorphous study in just how creepy one can get with LEGO elements. This disturbing mass of plastic is an experiment in free flowing, organic shapes and uses repetition to create larger themes. For example, the "DNA strand" is actually formed by hundreds of Bionicle claws from Onua sets, strung together and offset slightly. "I love to push the limits of the LEGO system and Bionicle, the red-headed stepchild," he says. "There are some really, really cool possibilities with those pieces. "

Although the Rack is a study in industrial organic form, not all of his creations are as open to interpretation. Another, more easily recognizable model is Black Widow. This familiar shape is obvious from a distance as a giant, hairy spider. Even close-up, McGlone has upped the creepiness factor by including tiny spider LEGO accessories as hair adornments, providing a spiky, menacing appearance guaranteed to make any respectable arachnophobe start sweating. It's large and stable, easily picked up and carried around.

(continued)

The Rack (above) and a closeup (below).

Now available in stores:

Cankerworm The models depicted here are by Bryce McGlone and are used by his permission. Photography by Ray and Justin Quan. Centerfold layout by Kelly McKiernan.

For more of Bryce's models, you can go to www.plasmicbricks.com

Coming Next Issue:

LEGO Home Style

The Widow includes pieces from both Bionicle and the LEGO System. "I like the challenge of fusing Bionicle with system pieces," he says. "You get the best of both worlds that way." McGlone uses no glue and performs no parts modification, apart from trimming some flexible tubes. This tends to amaze people, who often don't even recognize that his work consists solely of unaltered, unglued LEGO pieces.

McGlone's been building for about five years, although he collected sets throughout his 20s. Now, in his mid-thirties, he's got friends constantly scouting possible parts acquisition. Currently, he's using about 1,100 Ewok glider wings from the Star Wars line, and he's also sitting on 1,500 dinosaur tails, which he picked up for a penny each somewhere along the way. Various containers in his spacious, well-lit garage contain similar treasure troves, just waiting to be combined into something very very cool.

His buying habits have puzzled many of his Bionicle acquaintances, who generally buy one or two of each new set - McGlone often buy six or eight of the same set for the color variations. Bionicle sets are ideal for acquiring the same piece in multiple colors, he says.

Many of his creations were built specifically for contests in various community web sites or club events. He enjoys a challenge in building something different: big, small, system, Bionicle, whatever. And he enjoys defying typical building conventions. "What do I care about SNOT?" he asks, referring to the "studs not on top" technique. "Some of my models don't have a single 90 degree angle."

Another example of his monsterish motif is Cankerworm. Although it looks fragile, the model can easily be picked up and hauled around by two people. If they're brave enough to get close to that gaping maw.

McGlone acknowledges that many of his critters are the stuff of nightmares. "Big monsters let me play around with articulation and shapes, and it's also uncharted territory. It's not just the fifteenth version of General Grievous, or the umpteenth version of a particular train car." He also likes to put lots of teeth on his stuff.

"I've got kind of a punk streak," he laughs.

Articulation in his models was an interest that pulled him into building LEGO mecha several years ago. He enjoys mecha, but admits to being anime-ignorant. "I've never seen an episode of Gundam, and I don't know any plotlines or anything. But I love the designs." Throwbots were an early interest, and building with Bionicle pieces presents a welcome challenge. He's also careful to make sure connections on his models are solid, and not forced or awkwardly bent.

McGlone is active in the mecha and Bionicle communities, and often posts pictures of his experimental Bionicle work under the name "Cajun Vayland". These are generally free-flow tests to get all the parts working together. Portions of models often turn out disproportionate, such as heads too big or too small, or sections not finished. But they're meant to just get a form going.

His construction technique is very methodical. "When I get ready to build, I see a piece and figure what it can be; or I'll think about what I can make, and what would be good hands and that scale. I'll usually figure out the scale first, get the smallest detail, then build the scale around that. For example, on the Balrog, the smallest detail is the teeth. Once I figured out the teeth, the scale was set from there." He also tends to use other references, like Hobby Japan (a Japanese science-fiction model magazine) for ideas.

Despite the sometimes ominous results of his labors, McGlone is adamant about his hobby remaining fun. "Don't take it too seriously," he cautions, having seen competition get out of hand from time to time. "Just relax you bunch of LEGO dorks! It's only a toy, not some world- changing movement!"

Tell that to Cankerworm.

You can see more of McGlone's work at www.plasmicbricks.com.

Cankerworm and McGlone.

BrickJournal Is Coming to Your Town...Layout!

In support of *BrickJournal*, ME Models has created a Delivery Truck (ME #1004) and a London Bus (ME #1005). Both models are sporting the exclusive *BrickJournal* logos, with proceeds from the sale of every model going to support the magazine. Each model comes in a sealed collector box with high quality laser printed instructions and decals. The models may be purchased by going to this website: **http://www.me-models.com.**

ALL buyers and multiple orders welcome. PAYPAL, cash, money orders and personal checks are accepted. Postage will be calculated when you place your order.

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Animation and the art of Mecha Building:

an interview with Jeff Ranjo

Article by Joe Meno

Photography and Caricature by Jeff Ranjo

Illustrations by Jeff Ranjo and Joe Meno

In the LEGO community, there are many builders with different interests and professions. BrickJournal *spotlights those builders with unique professions every issue.*

This time, BrickJournal *spoke to Jeff Ranjo, who builds mecha (Japanese-style robots) and also works in the animation field.*

Top: Ranjo's Android Assassin.
Middle: Ranjo's light-hearted self-portrait.

Building: Mecha

BrickJournal: So tell us about yourself.

Jeff Ranjo: The general stuff: I'm 39 (40 by the time this comes out) and have been happily married for 13 years. (I say this because my lovely wife puts up with my hobby) I have three wonderful kids. Caleigh 6, Jack 4, and Quinn 8 months. They love LEGO too. I just moved to Redondo Beach, Los Angeles. I currently work at Sony Pictures Animation as Head of Story for,"Surf's Up" a computer animated documentary about penguins that surf. Previously I was working at Disney Feature Animation as production designer for "A Day With Wilbur Robinson". I also worked on "Chicken Little,""The Emperor's New Groove,"" Tarzan,"" Fantasia 2000,"and "Hercules" (*see sidebar article).* By the way, I designed the aliens for "Chicken Little" and the Titans on "Hercules." I've also worked for Henson on "Muppets Tonight" designing muppets. I'm also an alumnus of Cal Arts and was an instructor there for 6 years teaching Character Design in the Character Animation Department.

BJ: How long have you been building overall?

JR: I've been seriously building since June 2001. Basically since Bionicle came out. I had collected a few space themed sets before that but wasn't in to MOCing *(making custom models, or My Own Creations - Ed.).* As a kid I never had LEGO. I was 31 when I bought my first LEGO set. It was set 6815-1, the Hovertron.

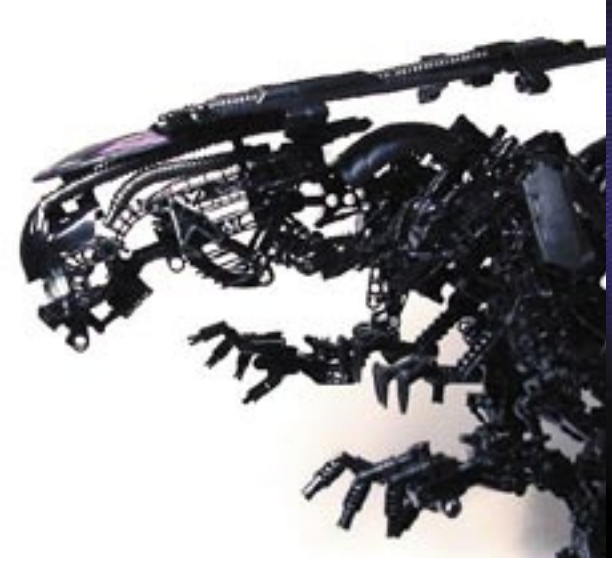
BJ: How long have you been building mecha specifically?

JR: Ever since I started building MOCs. When I started searching the Internet and saw what other people were building, I thought, "Hey, why don't I try that?" I saw the potential of Bionicle and its leaning toward robots so it just grew from there.

What is a Head of Story?

Head of Story means basically that you supervise the story crew. This means making sure everyone gets all the information they need in order to storyboard their sequences, be a liason to the directors if they have any questions or concerns, attend all meetings that involve the story (writing, dialog, story structure, pitching sequences to other departments), look out for the physical/mental health and wellfare of your crew. On top of that you have to storyboard your own sequences too!! As far as character design, I did that at Disney.

In [Disney's] "The Emperor's New Groove: " I did a lot of storyboarding on the movie. The opening song I boarded, the section where he is brought back to the village after turning into a llama through the wacky jungle sequence (I created Bucky the Squirrel and did the voice for the fly that says,"Help Meeeee!"), and the wacky part where Yzma gets beaten up in the village. I did alot of earlier work on the previous film "Kingdom in the Sun" but that never made it to the light of day. Oh well.



Above: Ranjo's rendition of the Queen Alien. Right: Orbital Boost Frame (OBF)-54L7, a custom mecha.

What's your favorite design theme?

Mecha, I guess. If you're talking LEGO sets, then it would be Star Wars and space. Anything science-fictiony.

How many MOCs have you constructed?

About 30. And I try not to cannibalize them for parts. I have most of them intact. Being a married father of three, it's hard to find time to build. I guess that's the problem with being a AFOL.

What do you get out of building? Who do you build for?

Building with LEGO allows me to use my brain in a different way. I draw all day so the last thing I want to do in my spare time is draw. I've always loved sculpting and toys. MOCing seems to be the best of both worlds.

Are you into the whole "Gundam" (Japanese animated science-fiction, mostly noted for giant robots that are called...) mecha thing, and are you a fan of anime?

I've only seen a few Gundam episodes. I don't have the time to watch much TV so I can't keep up with the plot. I do like the designs though. I like anime but not in a fan boy type of way. I like Miyazaki's films, I love the mech designs on Five Star Stories, I like the way anime can be anything it wants to be. I hope animation in the US gets to grow up like that someday. My obsession with mecha came from growing up with Micronauts and Shogun Warriors (Jumbo Machinders).

Where or from whom do you get your inspiration?

The genesis of my plastic journey began with my love for Micronauts. It was originally a Japanese toy from the 70's that had these very small articulated figures. They had a lot of play potential because they were designed so you could take the individual parts and recombine them into totally different ways. When I saw Bionicle, it had the same vibe so I instantly gravitated towards it. I was into collecting action figures and specifically, McFarlane figs but that quickly died and was replaced with Bionicle and LEGO.

I look at a lot of *Hobby Japan* magazines. They have tons of pics and you can look at specific details and use them as a springboard. I check out Brickshelf and MOC pages

Left: Ranjo's design of the Ice Titan from "Hercules" - illustration by Joe Meno. Above: Ranjo's model of Haku, the dragon from "Spirited Away," a Japanese animated feature.

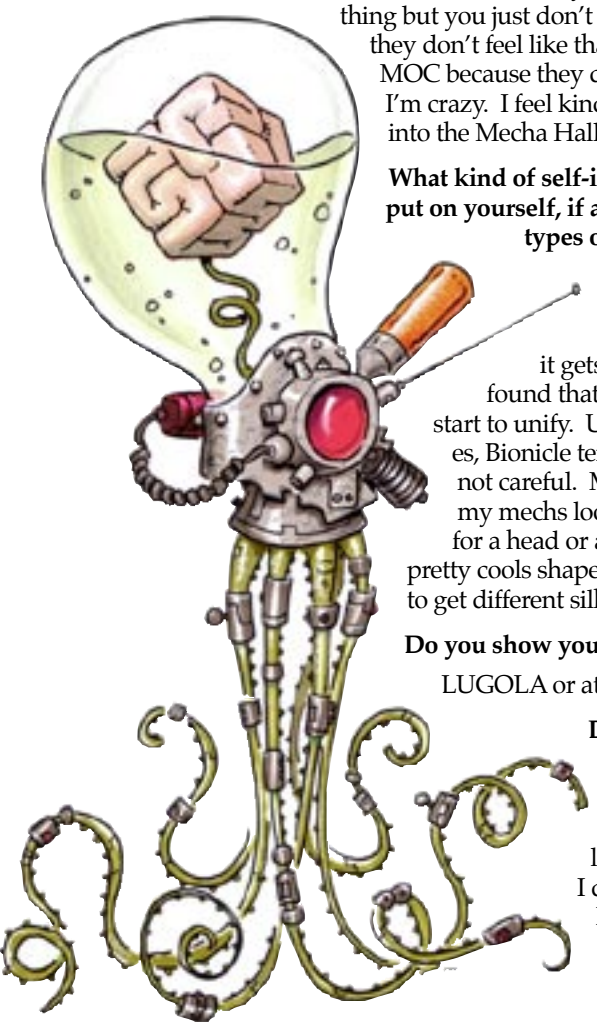
for building inspiration. I lurk lugnet.build.mecha and occasionally post there. I try to get to the LUGOLA (LEGO Users Group of Los Angeles - Ed.) meetings and see what people are building. And in general I just try to keep my eye out for anything that inspires me. Sometimes I just walk down the kitchen aisle of Target and try to get inspiration from the blenders and toasters!! I really get the urge to build when new sets come out that have new parts. I really want experiment with the new pieces and use them in unique ways. As far as people, I really look up to Bryce McGlone. He's insane with Bionicle. He was one of the original mecha guys but has evolved into a hybrid Bionicle/System entity. Bryce really works the organic quality of Bionicle. He gets these really insane shapes through repetition and just plain madness. You look at his stuff and just scratch your head. Other mecha people that inspire me are Gla Gla, Mark Sandlin, Mark Neumann, Adrian Drake, Christopher Snead, Sun Yun, Brian Cooper, Mladen Pejic, Dave Thomas Jr., Soren Roberts. Other general inspirationers: Mike Crowley, Keith Goldman, and Dan Jassim.

Do you get together with other builders who like the same things you like?

I try to. LUGOLA is a good place to go whenever we have meetings. Bryce always has a Friday mech/bionicle building night with Dave Johann, Steve Puckett, Justin and Ray Qwan and sometimes Christopher Snead. I try to make it whenever possible (Bryce will laugh at this because I always say I'm busy). I wish that BricksWest was still happening because that was fun to do. As far as online I usually hang out on In the Bricks, a Bionicle based message board. The guys there are older, more jaded, and funnier than the kids on BZP (Bionicle Zone Power).

What's the "mecha" community like overall, can you describe it?

Well I don't really feel that I can comment on that because I feel that I'm not a part of it. Since I build with Bionicle mainly, (this is my own opinion) I feel that there is a bias toward Bionicle. Not that any of the Mecha guys put me down or anything but you just don't get the response that others do. Maybe they don't feel like that they can comment on a Bionicle built MOC because they don't build with it. I don't know. Maybe I'm crazy. I feel kinda special though since I was inducted into the Mecha Hall of Fame with just Bionicle MOCs.



What kind of self-imposed restrictions do you generally put on yourself, if any (e.g. building only with certain types of parts, of building mecha with X amount of articulation, etc.)?

I try to build with two or three colors. When you build with Bionicle/Technic, it gets ugly when you go nuts with the color. I found that if you limit your color palette the shapes start to unify. Unlike brick where you have solid masses, Bionicle tends to look sticklike and hollow if you're not careful. My goal when building is to try to make my mechs looks solid. Sometimes I use system brick for a head or as an accent. The newer parts have some pretty cools shapes that work well with Bionicle. I also try to get different silhouettes with every mech I make.

Do you show your work anywhere?

LUGOLA or at Bryce's. I don't get out much.

Do you share your work with co-workers?

I did have a show at work when I worked at Disney. They have a monthly art show of people's personal art and I decided to throw a couple of MOCs up. It's funny when MOCs are put behind glass, they become art! I see it more as a hobby though.

Top: Android Assassin.
Above: Phantasm, a stealth mech.
Left: A sketch from Ranjo - an octobot!

Vandy One: A Tomcat in Black

Article and Photos by Ralph Savelsberg

Feeling perhaps a little lost among the large crowd of builders of Jedi Starfighters and other futuristic spaceships, a few adult fans of LEGO build models of existing aircraft. I am one of them.

I have been building with LEGO products for most of my life. I used to be very fond of trains and the town theme as well as classic space. I collected Model Team sets, and used to build my own Transformers, before I turned to building aircraft. That happened probably right after I first saw *Top Gun* way back in 1986. The real star of that particular block-buster wasn't Tom Cruise, no matter what movie-buffs might tell you. Instead it was his aircraft: the Grumman F-14A Tomcat. When it entered service in 1974 it was in many respects the most advanced fighter ever, featuring variable geometry wings for high speed and long endurance, a sophisticated long-range radar, and long-range missiles to match. And it certainly looked the part. Obviously, a Tomcat was one of the first aircraft I built. I have had one ever since.

The mottled grey Tomcat in *Top Gun* was pretty good-looking, but one of the most striking paint-schemes of all is the gloss black worn by "Vandy One". Ever since VX-4, one of the U.S. Navy's test squadrons, painted an older F-4 Phantom II this way the squadron operated at least one black fighter. "Vandy One" is its radio call sign. The tradition was continued when VX-4 became VX-9 "Detachment Point Mugu" in the early 'nineties. During the last ten years the black paint-scheme was carried by the last Tomcat delivered to the U.S. Navy, a more modern Tomcat version called the F-14D Super Tomcat. This particular jet served its entire career as an operational test aircraft and was retired from service in 2004. It is the aircraft represented by my current LEGO Tomcat.

I have a somewhat embarrassing picture of myself as a skinny teenager in 1990, wearing shorts and holding my LEGO Tomcat up to the camera. The aircraft is recognisable as a Tomcat, but the design of my MOC has slowly evolved in the years since. It now hasn't undergone a major rebuild for several years, although I have been gradually introducing some new parts. The aircraft is mostly built out of parts that were available before 1992, which is when I entered my "dark ages". I never completely stopped building with LEGO bricks, but only started buying them again when the Sopwith Camel became available in a local toy store. I just had to have one of those, no matter what other people might think, and it still is displayed in my living room. As a bespectacled physicist who prefers mathematics over sports, and is crazy about aircraft I could probably be considered as a bit of a geek. I figured that adding building with LEGO elements to this mixture would not make much of a difference to my image. My friends, who are mostly fellow physicists, used to play with LEGO products themselves and seem to think that the Camel is actually rather neat.

Over the years I collected several books on the Tomcat, which proved very

A closer look at the cockpit, including the heads up display (HUD) and canopy, made with plastic sheeting.

A closeup of the functioning landing gear of Vandy One.

useful for studying the aircraft and its details, such as the landing gear and its doors, formation lights, and various antennae. Building those details can take a lot of time and effort but the hardest parts of building an aircraft like this are getting the overall shape just right and including working features. The Tomcat's shape is a complex blend of very smooth curves and hard edges and the real aircraft is said to have more moving parts than just about any other fighter. As a result it is by far the most difficult aircraft I have ever built, and I have built quite a few.

The Tomcat in Detail

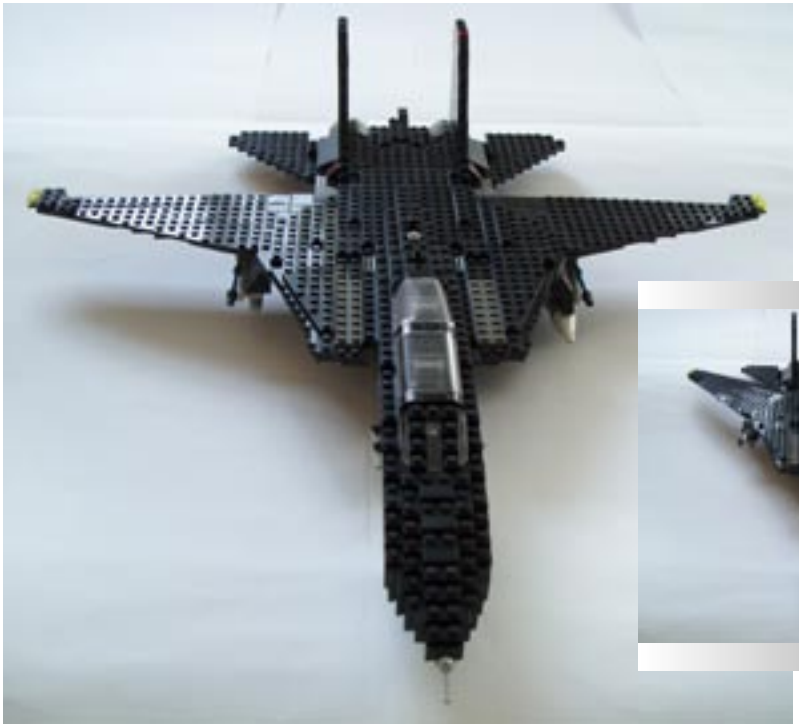
Very important on any aircraft are obviously its wings. The wing area on the Tomcat consists of a large fixed area, called the pancake, connecting two movable plank-like "swing-wings". The pancake is the major structural part of my model, and was built out of several layers of fairly large plates. Since they are plank-like anyway, the swing-wings on my model are very straightforward, consisting of only two layers of plates. Using several hinges their trailing edge flaps can be lowered and raised. The wing sweep mechanism, which interconnects the swing-wings, might look a little complicated but its principle is quite simple. Using an arm each wing is attached to a sled that can move back and forth inside the pancake, synchronising both wings' movement. The difficulty in building the variable geometry wings lies in making sure that there are no large gaps around the wings no matter in what position they may be.

I tend to only use SNOT (Studs Not on Top) whenever I cannot possibly think of a simpler way to get the right shape and you won't see much of it on my MOCs. The "wing glove", the part of the pancake between the swing-wings and the intakes, is one of the few bits where I had to resort to SNOT techniques. Another part of the model that I couldn't do properly without SNOT is the aircraft's nose. It was fairly easy to get that to look right when seen from the side, but when seen from below it originally was too blocky. I used SNOT to smooth it a little bit.

The aircraft's engines are housed in long nacelles underneath the pancake, with sharply raked intakes. These nacelles are tapered gently towards the front of the aircraft. On my model they go from four studs wide near the jet exhausts to 3.5 studs wide near the intake. A fortunate consequence of this is that, just like on the real aircraft, there is a small gap between the intakes and the forward fuselage. It is only half a stud wide. You've simply got to love jumper plates (1 x 2 stud plates with 1 stud).

The main landing gear and two of the aircraft's weapons pylons are mounted outboard of the engine nacelles. The main wheels themselves fold forward and rotate ninety degrees to lie flat inside the wing glove. When folded each undercarriage leg is covered by no fewer

(continued)



Vandy One folding its wings to supersonic mode. Note the movable control surfaces.

Left: The author poses with his model.
Top and above: More angles of the F-14.

than three doors. I had very little room to play with here and getting it right took a lot of trail-and-error. In contrast the folding nose-gear and its doors were a rare easy bit to construct. Folding the gear takes a little effort, but it works.

The weapons attached to the aircraft are a mix of air-to-air missiles and laser-guided bombs, reflecting the Tomcat's modern day task as a multi-role fighter. On the wing stations it carries a single AIM-54 Phoenix radar-guided long-range missile, two AIM-9 Sidewinder short-range IR-guided missiles and a LANTIRN targeting pod. On the fuselage stations it carries two GBU-12 laser-guided bombs, as well as a centre-line AIM-7 Sparrow medium-range radar-guided missile. In addition to these weapons, the aircraft carries two external fuel tanks under the intakes.

LEGO purists are likely to be horrified by my use of flexible plastic for the cockpit canopy. Since my supply of transparent plates is rather limited and I don't really like the shape of Star Wars canopies for my Tomcat, I chose this compromise. In my opinion it looks fairly convincing. The cockpit canopy can be opened. The cockpit's interior is fairly detailed, including ejection seats and various controls and displays for the crew.

Real Tomcats are literally covered with markings, some specific to a particular squadron, many warning of various dangers such as hot jet exhaust and jet intakes. For the overall look of the aircraft they are very important. On the scale of my model it is practically impossible to make them out of LEGO elements. Not unlike the LEGO Group and perhaps once again to the dismay of LEGO purists I used decals to make the markings instead. The decals are made the old-fashioned way, using paper, pens, pencils, and liberal quantities of adhesive tape.

Lately I have been building more and more cars and trucks. Building those can be very satisfying, since you get results quickly. I can build a fairly convincing looking car within about half a day, which makes it a great way to spend a Sunday afternoon. Scratch-building an aircraft comparable to the Tomcat's size, such as my Corsair II, generally takes me about a week. That amount of time requires taking up leave. Refining my Tomcat took years. It is not the most impressive looking MOC out there and at about two feet in length it certainly isn't the largest. After three decades of service the Tomcats are now being retired, their movie-star days long gone. However, for me my LEGO "Vandy One" is here to stay.

Ralph Savelsberg works and lives in Eindhoven in The Netherlands. He is currently finishing his PhD thesis in applied physics. Pictures and descriptions of more of his MOCs, including the A-7E Corsair II can be found in his Brickshelf folder at http://www.brickshelf.com/cgi-bin/gallery.cgi?m=RalphS

Kubrick Universal Monsters

Following up on last issue's article on LEGO® Studio's monsters, BrickJournal *takes a look at another maker of figures.*

Article and photos by Greg Hyland.

Last issue I did an article about LEGO's line of Studio Monsters. In the article I lamented the fact that the line was never continued, and wouldn't it be great if it had. I said that a look at "what could have been" could be seen in Medicom Toy's line of Universal Monsters Kubrick™ figures. I received a lot of e-mail asking me what were these Kubrick figures, and for a look at them.

Kubricks are a line of "trading figures" that were originally sold in Japan and Asia, and are definitely inspired by the LEGO mini-figure. They are almost twice as big as a LEGO mini-figure and have a little more articulation (they twist at the neck, wrists and waist and have ball-jointed arms and legs). You can take them apart and the company does sell generic blank body pieces in various colours, which seem to encourage you to build your own figures. But what have made them popular with collectors are the lines of character related figures they've done. Medicom has gone after some pretty diverse licenses, from video game characters (too numerous to mention) to superheroes like Batman and the X-Men to Disney characters to American Breakfast cereal mascots (like Tony the Tiger) to Star Wars and, most bizarrely for a toy line, movies like Reservoir Dogs and The Blair Witch Project. They also did an Andy Warhol figure!

A couple of years ago, they came out with an official Universal Monsters line. The first assortment contained Dracula, the Frankenstein Monster, Dr. Frankenstein, the Bride of Frankenstein, the Mummy and the Wolfman. The figures were sold in boxes that didn't let you see which figure you were getting, and here were two "secret" figures that you might get instead of the six known figures. One was the Invisible Man and the other (not really a figure!) was Frankenstein's operating table. About half a year later, a second series of figures came out that had the Invisible Man (done in clear plastic, but with a lab coat), Phantom of the Opera, Hunchback of Notre Dame, Creature From the Black Lagoon, Mole Man (from 'The Mole People') and the Metaluna Mutant (from 'This Island Earth'). The two "secret" figures were Dracula's Bride and Dracula's coffin (again, not really a figure!). The line didn't continue, but with the line up of characters they did, you really got everyone you'd really want.

While these figures aren't readily available in North America, many comic book stores do carry some Kubrick lines, and a search on eBay will get you a wide variety of figures, including most, if not all, of the Universal Monster figures.

Top and middle: The Universal Monsters lineup, including (top photo) the Metalunan Mutant from This Island Earth, the Hunchback of Notre Dame, the Creature from the Black Lagoon, the Phantom of the Opera, the Invisible Man, a Mole Man ,(middle photo) the Mummy, Count Dracula, the Wolfman, Frankensten, Dr. Frankenstein, and the Bride of Frankenstein.

Above: While associated with minifigs in look and style, a Kubrick is larger, as shown in this photo

Taro Unit

Mark II MegaTurtles

Building Better Bots

One of the enduring subjects for building in the space theme is the robot, or the 'bot,' for short (Bots are those robot models that are the same scale and size as a minifigure).

One of the more prolific bot builders offers a little insight and advice to those interested in trying building these. There's also instructions to build a MegaTurtle elsewhere in this issue!

Article and Photos
By Peter Reid

As a child, I was utterly in love with Classic Space. I followed the range as it evolved and grew through the 80s, often leaving my grubby handprints on toyshop windows, or being asked where my parents were by concerned shop assistants. I wasn't a neglected child, by any means. It's just that, back then, my idea of a good time was to be left in a toyshop while my Mum or Grandma did their shopping.

Although I never had the money for any of the big Space sets, I always enjoyed studying whatever was on the shelves. I also got a small set as an occasional treat, so I can't really complain.

The set that really ignited my interest in LEGO robots was the Xenon X-Craft (set 6872), a one-man spacecraft, which came with a small robot. I found the little mechanoid almost unspeakably delightful, the nearest thing to perfection LEGO had ever produced. I couldn't help modifying it, just a little bit.

The robots in those old sets were truly inspiring. LEGO never really took the idea further (although there are some interesting concepts in a few of the old ideas books), so I decided to see what I could do myself.

As time went on, my interest in the brick showed little sign of abating. I passed the upper age limit for town and space (12 years old), then trains (14 in those days), and finally Technic (16). Feeling guilty but not, as I had feared, disdainful of LEGO, I continued to build. Of course I had raging hormones, a new interest in girls and trying to be cool, so I had to be discreet regarding my LEGO interest. But I never let growing up stop me from loving the brick.

When I hit my twenties, things really got going. I decided to stop hiding my hobby, and began devoting some serious time to messing around with robots.

The models began to get better. I started building in a vaguely obsessive way, aiming for slight improvements with each consecutive robot. Whenever I made a design I liked, I'd follow it up with another, in slightly different colours, or with a variant weapon. It was a good way to learn about what worked and what didn't.

I also developed my own storylines for them, shamelessly ripping off ideas from Star Wars and other popular science fiction; integrating them with existing LEGO themes like Blacktron and Futuron. The plots were corny, the characters clichéd, but I make no apologies for the way I played with my robots. They were brilliant adventures.

When I look back on some of the models I made back then, I can't help but cringe a little. Some

SuperNova Series Mechanoid

of the part choices were, frankly, absurd. I went through a phase of using town trash-cans as torsos, which isn't something I'd do again. The colour schemes also left a lot to be desired. But we live and learn from such experiments.

It's only over the last five years or so that I've started to really get the hang of this whole robot-building thing. It's taken me an astonishing amount of time to reach any sort of standard, and there's still so much to learn.

Making contact with the adult LEGO community helped. It's made me a much better builder. Nowadays I have enormous freedom of choice...so many opportunities to get hold of desperately needed parts. It's amazing that I managed to make anything at all when I was young, considering my entire LEGO collection fitted in a shoebox.

There are no hard and fast rules to successfully making a LEGO robot. I've always played it by ear, and it's served me well so far. It's important to accept that, in many cases, they way the bricks are going together just isn't working. Don't be disheartened if it's not going right. Sometimes things work, sometimes they don't. I probably abandon around 90% of all robots I make, for one reason or another. But that leaves me with 10% that I really like. And when you really like a LEGO robot, you'll never dismantle it.

There are a few things you can do to increase your chances of success when building robots. It is essential to have a good stock of small elements at your disposal. They are, when used correctly, the very essence of what makes a model look good. Make sure you have enough small bits, then get hold of some more, just in case. You don't want to run out of parts that could make the difference between a good concept and an awesome model (as I have, on numerous occasions). Hoarding is the key.

If you plan on building several robots, you'll probably benefit from re-organising your LEGO collection slightly. Try and keep track of your small parts, and memorise where they are stored. That way, you'll avoid unnecessary hunting during those magical periods of inspiration.

I've visited the homes of numerous LEGO enthusiasts; people who are true devotees of the brick. Whenever I see someone else's LEGO room, I invariably ask myself two questions:

1 - Do they have more LEGO than me? (The answer is nearly always yes)

2 - How easy would it be for me to build a basic robot in this person's house? (The answer is nearly always not very)

I've found that the average enthusiast's LEGO collection simply isn't geared up for robot building. They may have vast quantities of Maersk blue, trans glitter pink or other exotic brick, but when it comes to basic supplies like the 1x1 tile (modified) with clip, these people are lost. Perhaps it's unfair for me to make comparisons, as the majority of LEGO enthusiasts in this country are Trainheads (and there's nothing wrong with that). But I can't help wondering if their lives might be a tiny bit more pleasurable if they built, say, six or seven robots, gave them some wicked guns, and spent an afternoon making them fight.

It's worth noting that many extremely useful elements aren't being produced any more. Don't be afraid to delve into the LEGO Group's back catalogue and use parts which are considered obsolete. LEGO is never obsolete. And some of those older elements are much better than their modern day equivalents. The old two and three fingered hinges, for example, are infinitely superior to those new-fangled click hinges. And maxifig hands are always fun to use.

I'm still building with old grey, partly because it's a better colour, but mostly because so many of the parts I use regularly aren't yet produced in bley (the newer grey, which has a blue tinge to it - *Ed.*). But I can wait. They'll be out eventually, I'm sure.

If this feature has inspired you to try your hand at robot building, then I salute you. If you need more inspiration, there are plenty of pictures in my Brickshelf gallery (search for Legoloverman).

Good luck, my friends. And have fun!

Nova Series Mechanoid

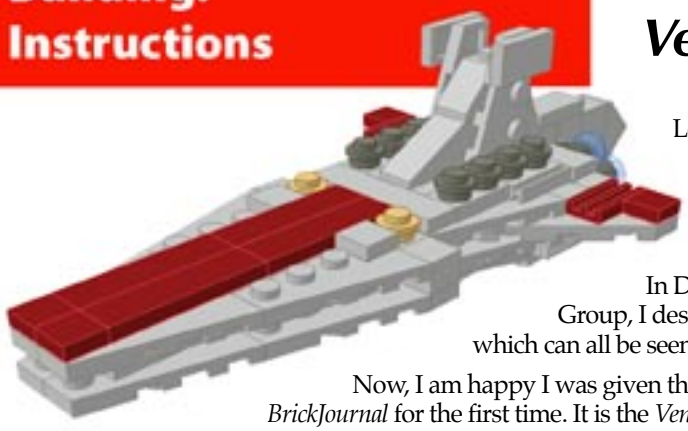
Crusader Series Mechanoid

Building: Instructions

You Can Build It

Venator Class Republic Cruiser MINI

by Christopher Deck

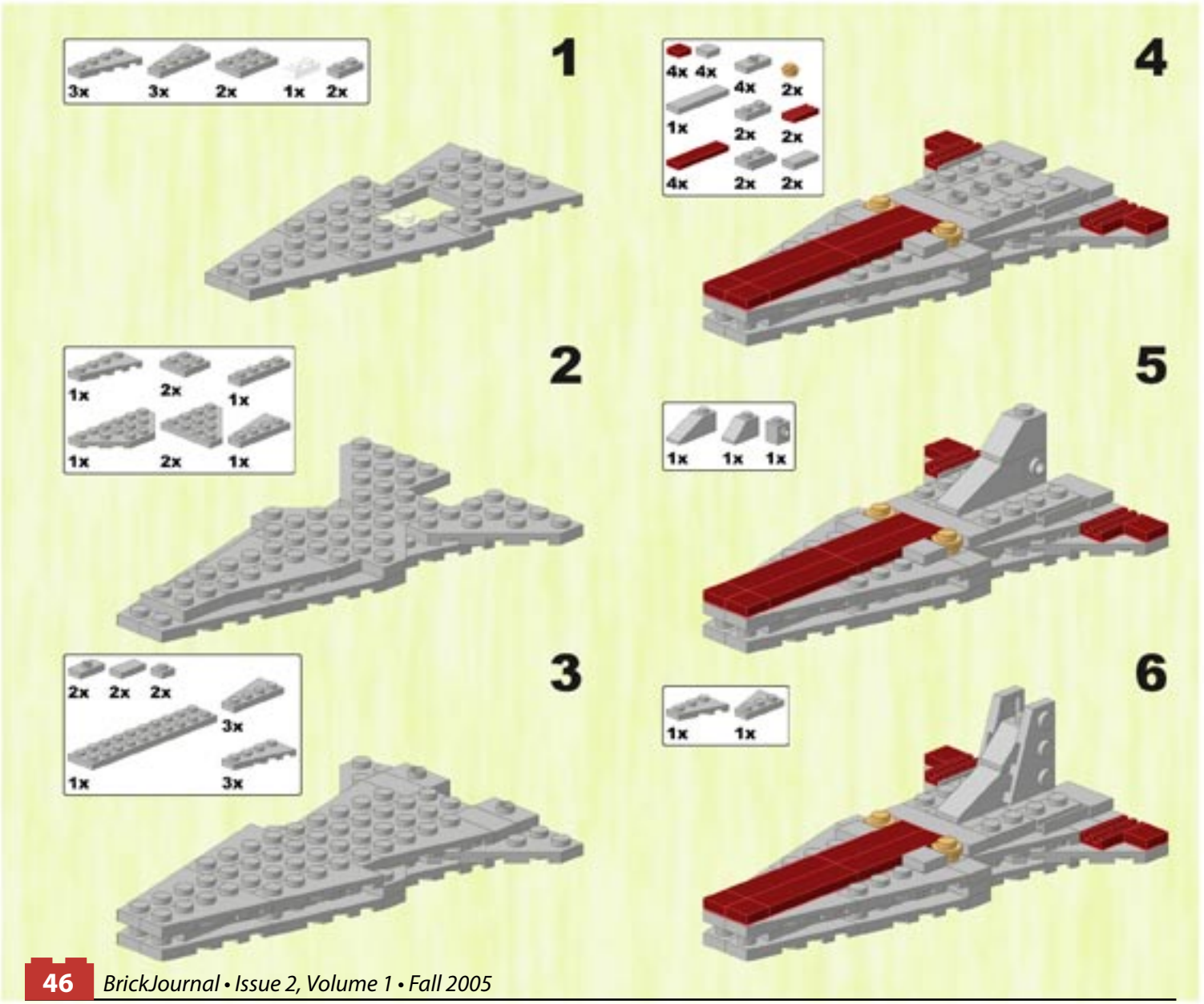


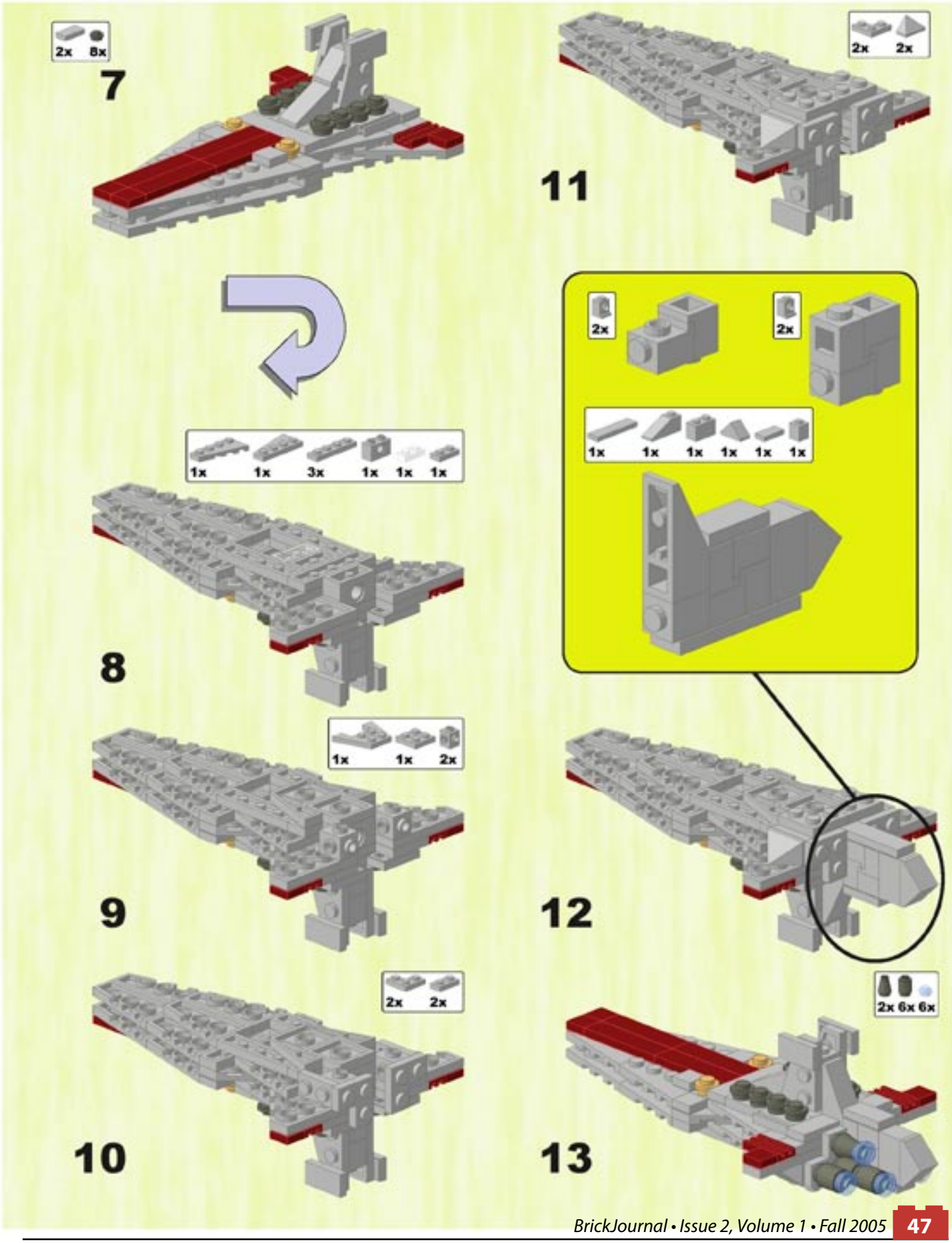
Let me briefly introduce myself. My name is Christopher Deck from Germany. Since my early childhood, I love building with LEGO bricks. During my school time, I came in touch with Star Wars. And since the release of the first Star Wars set, I was able to combine these two hobbies, where the MINIs quickly became my favourites.

In December 2002, before the release of the official MINI line by The LEGO Group, I designed my first own MINI model. Today, there are more than 60 models which can all be seen on my homepage: *http://bricks.highadmiral.de*.

Now, I am happy I was given the chance to present you the newest MINI model, which is shown in *BrickJournal* for the first time. It is the *Venator*-class Republic Assault Cruiser from the new Star Wars movie, "Revenge of the Sith."

The *Venator*-class Assualt Cruiser is probably the most spot-on capital ship in this movie. It is a fascinating ship because it acts like a bridge to the modern Star Destroyers. It still has the fin of the Acclamator Cruiser from "Attack of the Clones," but has already a more pointed wedge-shape like Imperial, Victory or Super Star Destroyers. Have fun building!

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You Can Build It

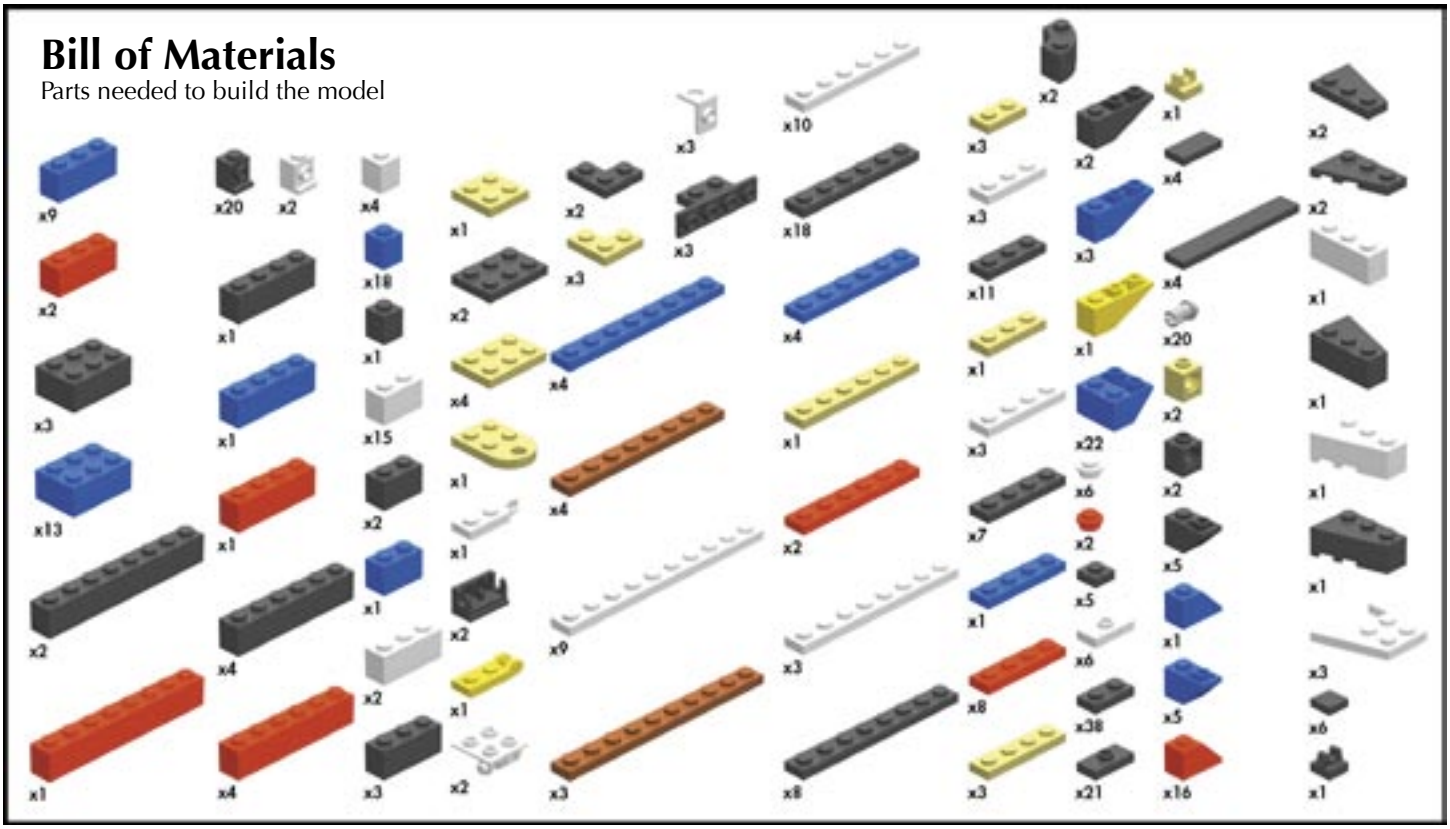
The Seven Seas Will Never Be The Same

Mini Constellation
by Allan Bedford

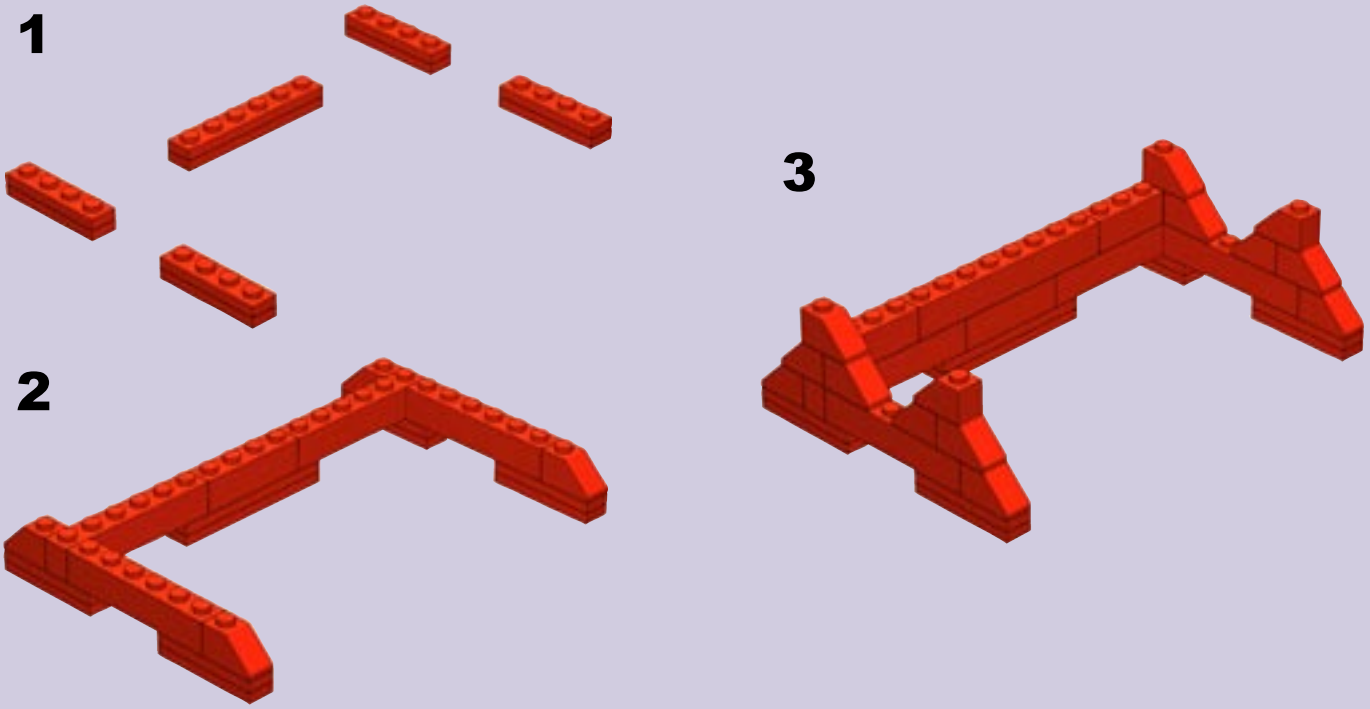
What happens when you take a classic LEGO set, shrink it by half and give it an up-to-date color scheme? You end up with the Mini Constellation, of course! I've always been a fan of set #398, the U.S.S. Constellation. But the official set is much too big to sit on top of my computer monitor. To get around that problem, I built a scaled down version using colors taken from the actual ship following its restoration in the late 1990s. The result is a mini-version of the ship that easily fits on a computer monitor or a small shelf. To build your own copy start with the display stand, then move onto the hull and masts.

Bill of Materials

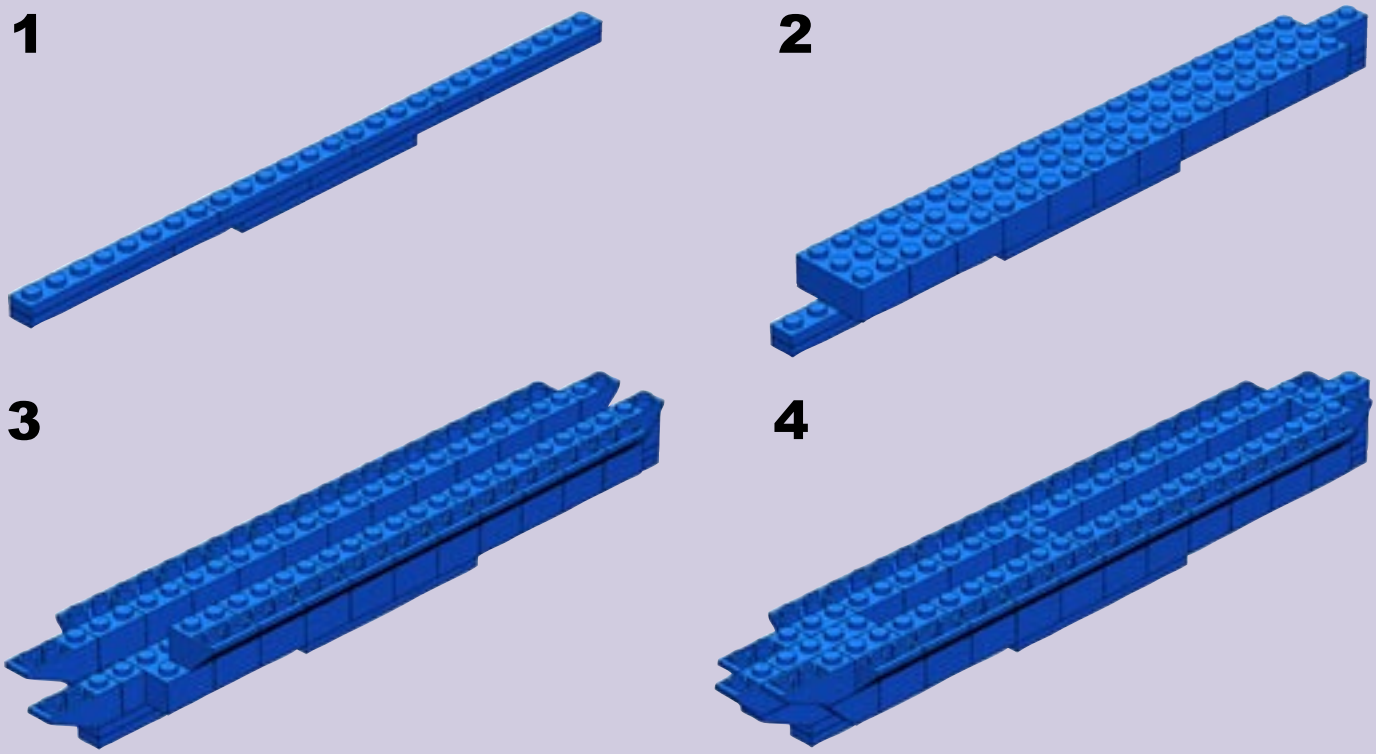
Parts needed to build the model

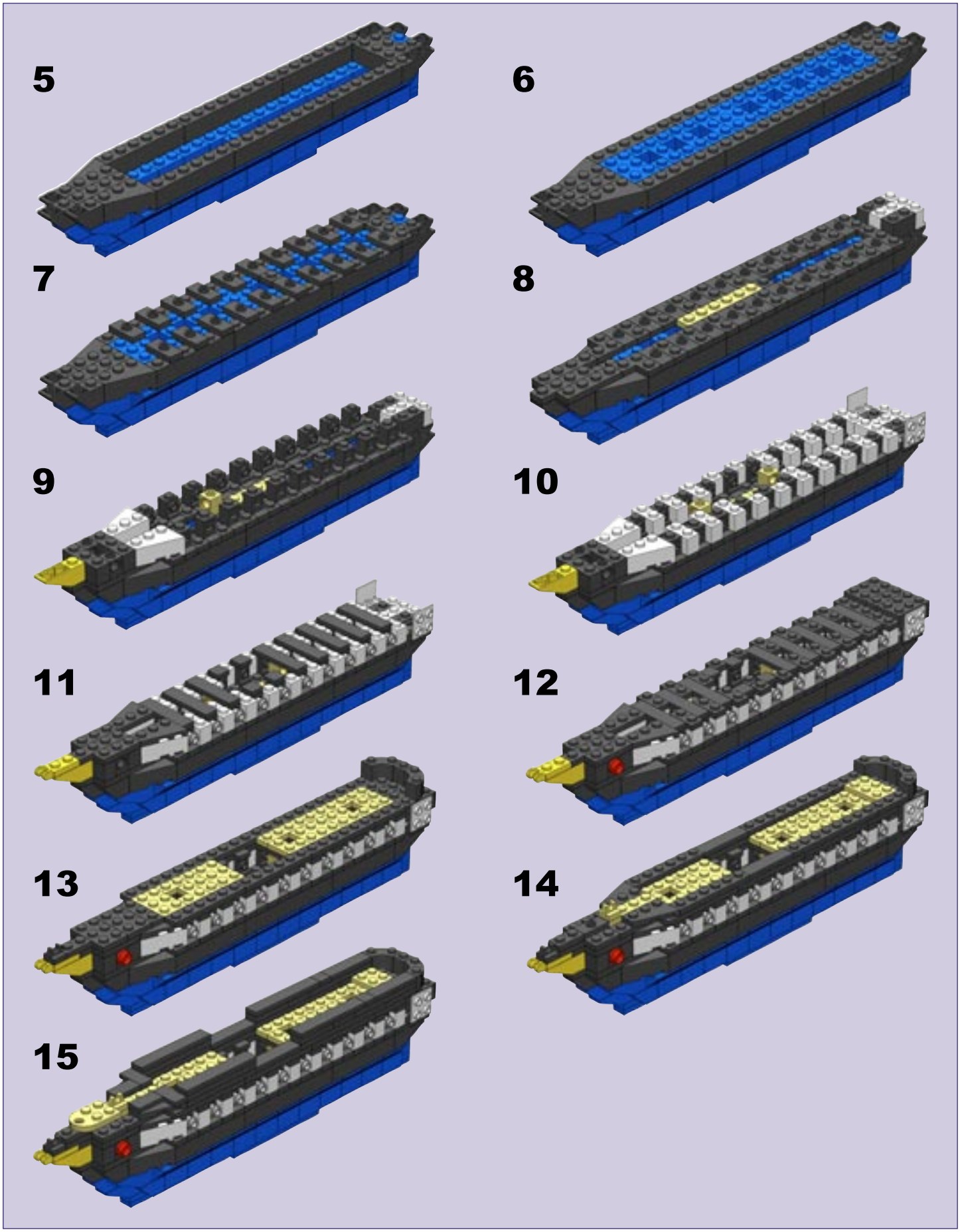


Ship's Stand



Ship's Hull

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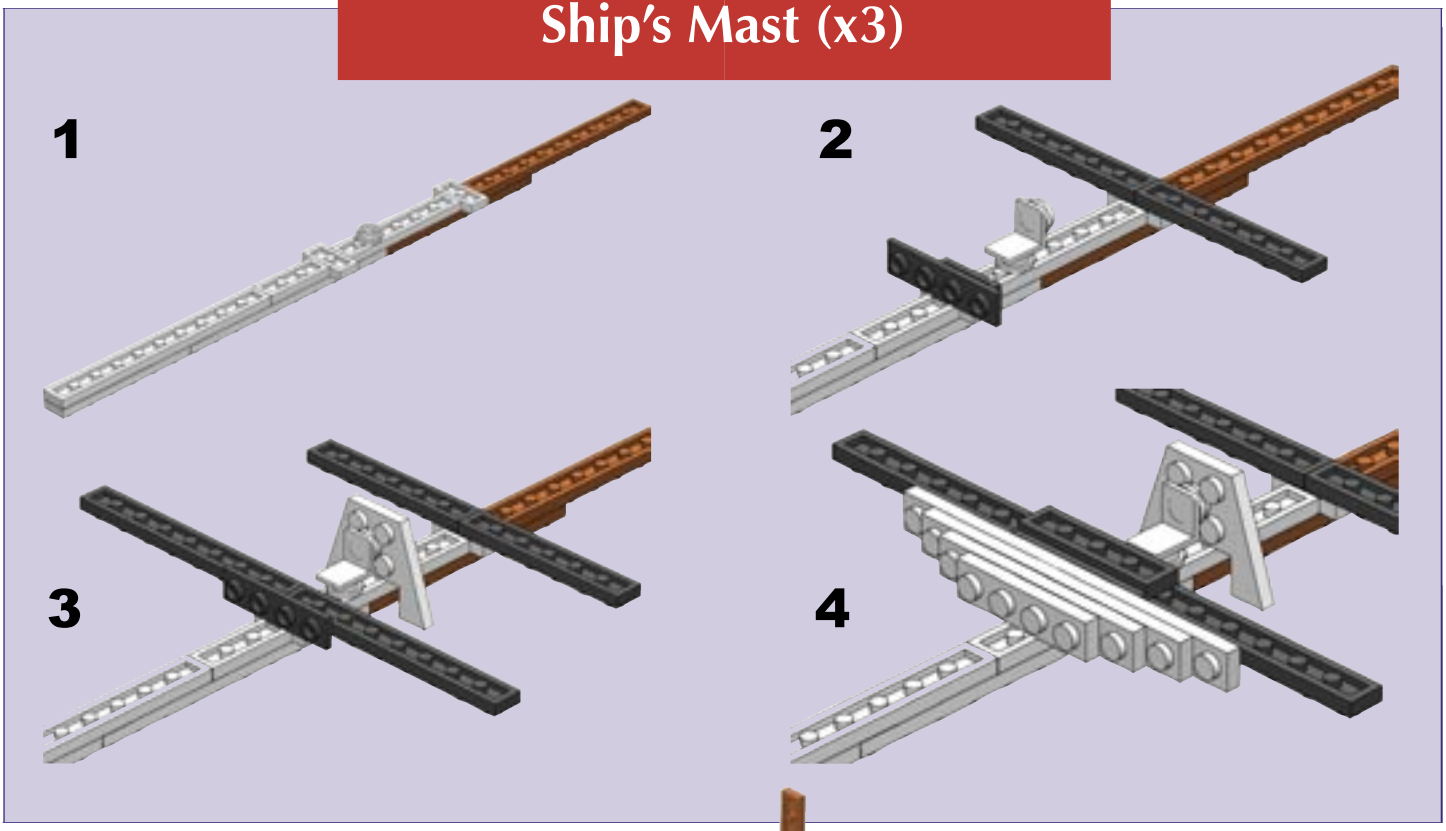
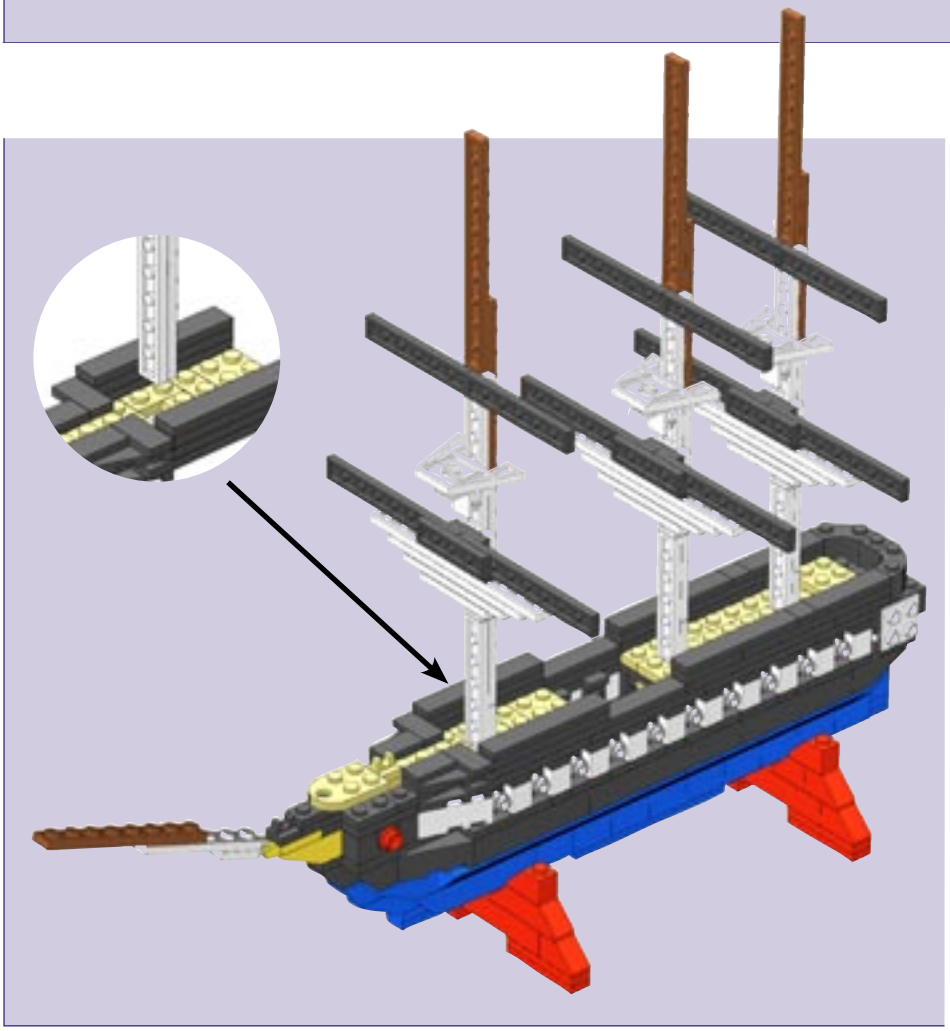
Ship's Mast (x3)





Insert each mast into the hull and push down until the mast won't go any further. This is about the distance of six studs on the mast itself.

Allan Bedford is from Stratford, Ontario Canada. He is the author of the Unofficial LEGO® Builder's Guide. *Information about the book can be found on his website: www.apotome.com. The instructions were generated with the Ldraw suite of tools and modified for print with Adobe PhotoShop.*

Next issue, *BrickJournal* will have an article spotlighting the Constellation from Allan - so stay tuned!

New sets at the Toys R Us

Bionicle Gets Studly

The new Bionicle sets step forward...to plates and studs. BrickJournal *looks at the factors behind this change and offers a little speculation.*

Article and Photo by Kelly McKiernan

It's pretty obvious that the Bionicle line of LEGO products is radically different than most other LEGO sets. It's marketed as more of a fad than the 50-year-old LEGO System of Play, and it certainly has its own unique branding and look. Those masks? They're not your daddy's LEGO, no sir.

Masks and color coordination certainly set them apart, as well as their Technic-inspired sturdy construction. But there's one thing most people notice right away, something that diverges from the essence of what most people think of as "LEGO".

Bionicle is, for the most part, studless (without bricks and plates).

That's not a bad thing. It's helped distinguish Bionicle from the rest of the product lines, and indeed, building the sets is only a small part of the entire Bionicle experience. At heart, they're action figures. But it's allowed the line to become a tad repetitive. There were six Toa, six Toa Nuva, six Toa Metru, six Toa Hordika, six Matoran, six Bohrok, six Bohrok Kal, six Rahkshi, six Vahki, six Visorak... well, you get the idea. To be sure, other sets have been released that don't fall into this sextuplet selection, like Turaga Dume or Keetongu (among others), but they aren't really the core of the product line.

So now that Bionicle has successfully made its mark, and started to become repetitive, how can it stir things back up and become innovative? Well, to start, it can go back to using studs.

The newly-released Bionicle playsets (8758 Visorak Tower of Toa, 8757 Visorak Battle Ram, 8759 Visorak Battle of Metru Nui, and 8769 Visorak's Gate) bridge the studs gap. These are the first sets to include significant numbers of studs in the Bionicle multiverse. The playsets break out of the six-by-six mold and expand playing possibilities, providing an environment for kids to place their legions of Toa and Bohrok and Matoran figures.

It also, not inconsequentially, provides a bridge across another gap: studded Bionicle sets may provide a springboard into the overall LEGO System when Bionicle begins to pall.

ME Models "Add a little realism to your hobby"
www.me-models.com

Building the Hobby, One Kit at a Time

by Mike Fetsko and Joe Meno.
Photos by Eric Olson and Mike Fetsko

In the spring of 2003, Mike Fetsko and Eric Olson decided to take custom LEGO set design to a new level in terms of full-scale production and quality, starting ME Models. Its goal: Delivering static models the LEGO hobbyist would find visually appealing and affordable. The company has been tremendously successful in meeting its goal - 3,800 custom sets have been delivered over the past 2 years. The current inventory, which started with a Blue Car (ME #202) and Sunbeam House (ME #807) now totals 36 models, with many more on the way.

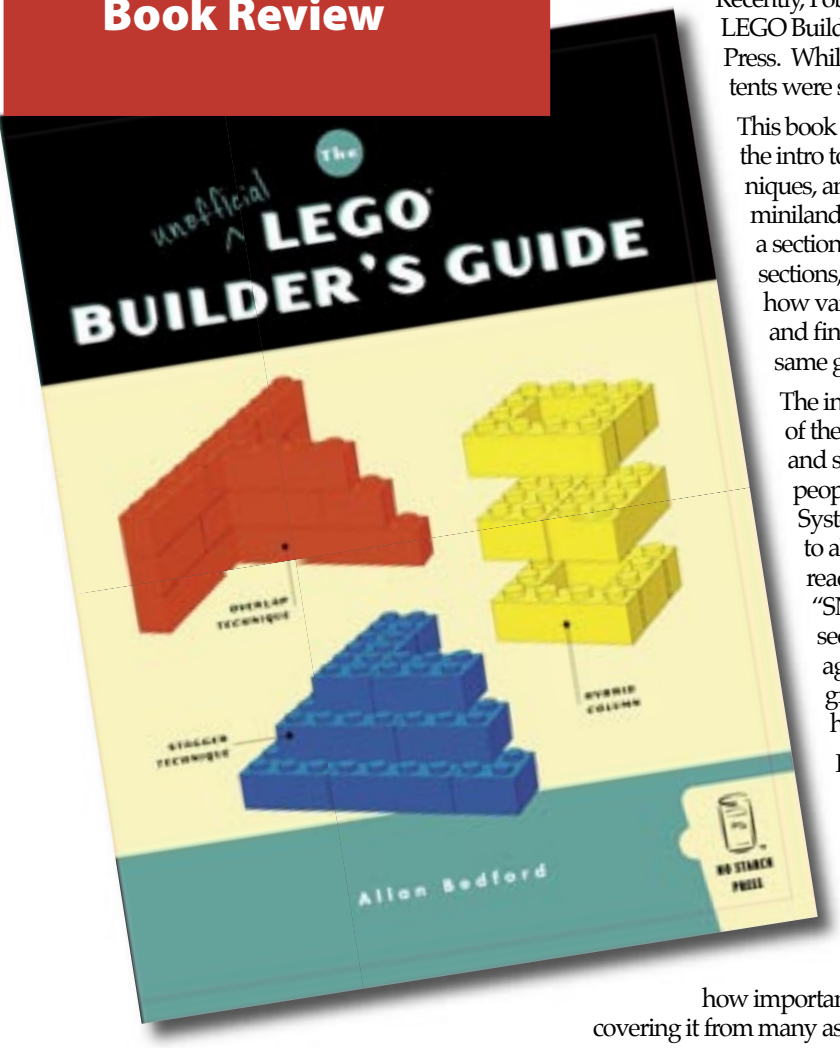
This year, ME Models displayed for the first time at BrickFest with an assortment of sets on sale and display, including a preliminary model for an upcoming airliner series. Attendees were very impressed with the quality of the models and affordable pricing, and sales of kits exceeded Fetsko's and Olson's expectations. Both are very thankful for the support of the AFOLs at the convention.

When asked about ME Model's formula for success, Fetsko answers: "There are endless possibilities to what we do. Our hobby is a very personal enjoyment and there is no one theme for everyone and everything. The individual can express any idea that can be assembled using plastic bricks. The hobby ties community, commonality, expression and art into one medium. The only limits are time, financial capability and the commitment to that idea and/or expression. The ME Models concept is an expression of adding as much realism to our communicative hobby as possible using everyday structures and vehicles as the medium. We hope that young and old alike may relate and participate together in our wonderful hobby because our models are a part of everyday life, can be seen on a regular basis and can always be a point of discussion from the color to the design."

New Fall/Winter models will be unveiled in November, including additional freight cars, homes, car dealership and a full-scale airport, so be on the lookout for them at ME Model's website: **www.me-models.com** !

Above: An assortment of the models now sold by ME Models.

In support of *BrickJournal*, ME Models has created a Delivery Truck (ME #1004) and a London Bus (ME #1005). Both models are sporting the exclusive *BrickJournal* logos, with proceeds from the sale of every model going to support *BrickJournal*. Each model comes in a sealed collector box with high quality laser printed instructions and decals. The models will retail @ $22.00 for the Delivery Truck and $25.00 for the London Bus. The models may be purchased by going to this website: http://www.me-models.com. ALL buyers and multiple orders welcome. PAYPAL, cash, money orders and personal checks are accepted. Postage will be calculated when you place your order. Please e-mail ME Models if you have any questions at memodels@me-models.com .



The Unofficial LEGO Builder's Guide

reviewed by Geoff Gray

Recently, I obtained a pre-release proof of the upcoming book "The Unofficial LEGO Builder's Guide" by Allan Bedford, which will be published by No Starch Press. While the final copy will have a few very minor changes made, the contents were solid enough for me to review the book as if this was the final copy.

This book appears to be aimed at people of all skill levels and interests. It covers the intro to the LEGO System of Play and some basics about building techniques, and then jumps into more targeted topics, which include minifig scale, miniland scale, microscale, jumbo elements, sculptures, mosaics and even a section on Technics. These sections are then followed up by non building sections, such as sorting and storing, tools, a "Brickopedia" (which describes how various elements are cataloged and referenced in the LEGO Hobby), and finally a section on grid paper you can use to help design (this is the same grid paper the LEGO masters use for their design work).

The introduction is an important part of the book, as it sets up the concept of the LEGO System of Play. Many AFOLs will glance through this chapter and say "I already know all this. So what?", but the novices and the new people to the hobby will find it quite useful. Understanding fully the System of Play, and realizing the lengths element designers go through to allow elements to be compatible with all other elements will allow the reader to become more creative with building, and helps to explain why "SNOT" building is so easy and prevalent in our hobby. The second section may also appear to be boring to experienced builders, but is also again, a very important part of the hobby that we AFOLs often take for granted. It is refreshing to see this information covered in great detail here.

I have a train station that I recently showed at the National Model Railroaders Association, and one of the biggest questions I was asked was what kind of glue we used to hold the creations together. As glue is something that is not used at all in LEGO building, I would remove the roof of the station (40 x 48 studs) and flip it over to show them that it was built about 1 to 2 bricks thick the entire way to the peak. They were amazed, and many of them were going to try this when they got home. This type of reaction at a show illustrates to me how important this chapter is in a book of this type, and Allan does a great job of covering it from many aspects and many areas of building types.

The next several chapters go through various building techniques with detailed explanations of the scale and considerations when building at a certain scale. The chapters also include building instructions for creations you can make. Each chapter is self contained and does not rely on the previous one, so you can choose to follow the order of these chapters any way you'd like. The Technic section will be appealing to anyone who has not played with Technic pieces before. It opens up a new area of exploration and takes some of the complexity out of the pieces for newer people. It's also a great section for kids to start learning techniques that will allow for stronger and more modular creations.

I particularly liked Chapter 10, which covers taking all the lessons learned so far, and putting them to use. I often get asked how I come up with my creations, and I really don't have a good answer because my creations come from many different things, so I usually can't really answer the question. This chapter answers those questions nicely. It let's the reader know some limits that should be considered and some processes you should go through when designing a new creation. The author also shows you how to consider your supply of bricks, how to look at the shapes and colors of bricks, and how these can influence your choice of subjects.

The rest of the book has some good information for people new to the hobby or for people ready to move to the next level, and shows that there is more to this hobby than just putting a lot of bricks together. I think the author has done a good job of mixing the levels of information to allow the book to reach to a broad audience. The AFOL will want to have the book to add to their collection and simply to learn one or two new tricks, and non-AFOLs and families will benefit greatly from the book, as it will allow them to move to the next level with a toy that is (in my humble opinion) one of the greatest toys ever invented.

I rate this book as a solid 4 out of 5.

Review Score

4 out of 5

Dinosaurs or Dragons?

BrickJournal *compares a LEGO set with a competitor's set - Which IS better?*

Review by Daniel Jackson
Photos by Joe Meno

The LEGO Group and MegaBloks®. The two companies have had some trouble in the past co-existing, with the lawsuit in the Netherlands and MegaBloks getting confused with LEGO bricks, among other things. The LEGO Group has recently released a new line called Dino Attack ("Dino 2010" in Europe) where MegaBloks has been making their Dragons line for quite some time. Now as I see similarities between these two products, I will be comparing three key points in this article: Price, Construction, and Set Playability.

Price

The price of the 9831 Dragons™ Unleashed set is $4.99, where the price of the 7473 Street Sprinter vs. Mutant Lizard is $3.99. Now which set do you get your bang for your buck? The 9831 Dragons™ Unleashed set has 5 pieces, and the 7473 Street Sprinter vs. Mutant Lizard 42 pieces. That's a whopping 37 more pieces, but the LEGO product has small pieces, and the MegaBloks product has larger pre-molded pieces. The MegaBloks product comes with one Mega-Fig and a pre-molded Dragon, and the LEGO product comes with one Mini-Fig and a pre-molded Dino. One thing that is interesting is that theMegaBlok product has magnetic capability, where the LEGO product doesn't.

Construction

I found it interesting that LEGO decided to pre-mold the Dino. It has been known the MegaBloks products have many pre-molded elements, and this set is no exception, but LEGO sets usually let the consumer construct things rather than give it to them in one studless piece. There is no building in either the Dragon or the Dino, but you do need to build everything else. It took me about 5 minutes to construct the vehicle that is used in the LEGO product, but it took me only 30 seconds to buildthe MegaBloks set. Where the LEGO product lacks in "speed," it makes up for in an intricate build. The MegaBloks, however, looks more "realistic," but that sadly hinders building fun.

Playability

With the LEGO set, there is a lot of playbility. While there are no action features, no magnets, light-up devices, attachable accessories, the consumer can take the LEGO product and their imagination and have fun. The MegaBloks set, does have a neat magnetic piece that is detachable, however, the only thing the MegaBlok product can do is sit there and look pretty - the MegaBloks product has no provision for actual play, I will admit, however, that I did like the magnetic bit in the MegaBloks product.

Overall

Overall, I'm giving the trophy to the LEGO set. Even if the whole idea of Dinos wreaking havoc in the present world is an old idea, the LEGO Group has creatively recycled it into a building adventure theme . MegaBloks has a great idea (one that LEGO Group should use), but I don't think they are taking full advantage of it as TLG is with Dino Attack.

Daniel Jackson is a freshman in high school and the founder/owner of GeekBrick.com, a LEGO fan site.

Review: Vikings

Viking Fortress Against the Fafnir Dragon

Some minor issues, but a good set overall!

Set 7019

1019 pieces, 6 minifigs

Packaging: 4

Piece condition: 4

Ease of building/ quality of Instructions: 3

Final Look of Model: 5

Playability/Usability: 4

Overall feeling: 4

Review and Photography by Jason Allemann

I had the great pleasure of winning this set as a door prize at BrickFest 2005. I couldn't wait to get it home and put it together.

The set looks fabulous. The detailing on the front gate, and the placement of horns, tusks, spears and printed shields really looks sharp. Even the Bionicle pieces add to the aesthetic and I love the Hordika chest cover on the main catapult. I was a bit skeptical about the overly ball-jointed dragon, but it too looks good, and the new head piece is quite cool. The dragon whelp isn't bad either, even if the body is a bit chunky. I'm still not sure why it has six legs though.

The new axe blade, Viking helmets and small horns all look fantastic, and I really like the new speckled black paint job. One drawback of the new helmets is that they don't grip well at all. They easily twist out of place, and even come off, with minimal handling of the minifigs. Some other decent pieces include green plates, dark gray slopes and black mechanical (battle droid) arms.

In the construction department there's a few bits of interesting technic assembly, both in the door hinges for the front gate and the firing mechanism for the main catapult. My favourite detail is the use of the skateboard wheels as sconces. The sides of the fortress are loosely attached for easy removal, but are unfortunately a tad finicky to line up properly. The rest of the construction is pretty standard stuff although there was one error in the instructions. On page 54 there are 2 small click hinge assemblies that are illustrated being put on the wrong way. It isnít until a few pages later that I realized something was wrong and even then it wasn't immediately obvious what the problem was.

As a play set it's quite good, but I feel that LEGO just missed the mark on making it an outstanding one. The catapults are a tonne of fun to play with, and the dragon can whisk in and snatch Vikings away with it's claws or mouth. There's a lot to do as far as attacking and defending goes but not much to do otherwise. With the exception of a small chest of gems and the cage there's really nothing in the fortress. I think a small fire pit, a shelter, some clips and/or barrel for weapons and a ladder or two would have added a lot.

Doing stuff inside the fortress while it's closed is a bit awkward but once you open it up you can easily get right into the action. It's unfortunate you have to completely detatch the side walls to do so though. It would have been awesome if the connections were such that you could just disconnect one of them and spread the fortress open. My pet peeve is that it's quite hard to get a grip on the cage door to open it. This problem is easily solved though by clipping the extra mechanical arm onto it to use as a handle.

Overall I really like this set. It looks awesome, has a nice assortment of pieces and has a lot of play potential, even if you have to do add a few things to get the most out of it.

Vladek's Dark Fortress

Set (8877)

967 pieces, $99.99

8 minifigs plus 1 skeleton

Packaging: 4

Piece selection: 4

Ease of building / quality of Instructions: 3

Final Look of Model: 5

Playability / Usability: 3

Overall feeling: 4

Review by Magnus Lauglo

Even the large lavishly illustrated box Vladek's Dark Fortress comes in doesn't really prepare you for just how big this set is. When you stretch it out in its 80 stud-wide glory it seems bigger and more menacing than any other LEGO castle ever has. Unfortunately, it doesn't close up in a satisfactory way in the same way as classic old castle sets did. The walls have a quasi-modular feel to them; and I would imagine that you could connect it to some of the other Knights Kingdom II sets, although I don't have those sets and haven't tried this myself.

One of the cool aspects is the level of interior detail, rather than the inside being an empty shell, the interior boasts two fireplaces, a table and enough other details to make it seem fully furnished. All the same, as a playset, this seems geared primarily to a siege type game.

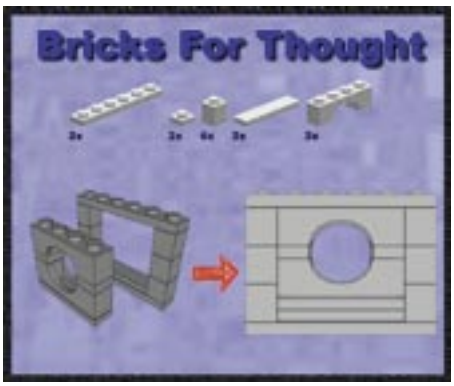
On the positive side, the battering ram and the movable wall is a nice touch and best of all, the mighty gatehouse is equipped with a chain-winched drawbridge and a tub full of hot orangey painful-looking stuff to drop on anyone foolish enough to waste any time in front of the main gate. Surprisingly there is no dungeon, but scorpions, spiders and a skeleton hidden in the wall ensure that this isn't the kind of castle anybody would want to get lost in. Less impressive is the range of catapults included, comprising wall-mounted artillery, various siege engines, and even a horse-mounted mini catapult. The possibilities these contribute to the play value are obvious, but the wall-mounted catapults often end up inadvertently firing into the pikes or shaking open the movable wall section, the ballista -type siege engine has a truly pitiful range, and the mounted mini-catapult often tips the horse over.

On a sober note, LEGO can say what they like about promoting peaceful play, but never before has the Castle line made such a distinction between the goodies and baddies. The contrast between the goofy multicolored Morcian attacking force and the eviler-than-thou Shadow Knights is almost hilarious until you stop to think about how the Knights Kingdom sets depict a world with such simplistic distinctions between good and evil.

That said, the sheer badness of this castle is impressive in and of itself. The black and dark red color scheme looks great and even the new bluish dark gray doesn't look out of place at all.

The set is also impressive as a brick collection – in addition to a lot of basic brick in black, dark red and dark gray, you get a generous helping of 6 by 16 plates in dark red and dark tan, more than enough weapons to go around (including six exotic looking pikes and new mottled armor) and all sorts of new shields. Specialized pieces include two prefabricated stairways, five of the big sloped walls, dark red doors, a heap of the new "tooth" plates, the new brown BURPs (Big Ugly Rock Piece), and two blue headpieces for the horses.

Vladek's Dark Fortress makes for a fun, large, aesthetically pleasing and deliciously evil playset, but its playability is tempered by poor design. At $100 (or just over 10 cents per brick) the set is anything but cheap – although if you can catch it on decent sale I think it makes for a particularly good buy. For the more play-minded it should provide hours of fun, a few imperfections aside and for the more building-oriented it's a good way to stock up on bricks in some of the new colors. This is a step back in the right direction as far as large LEGO castles go. It deserves a nod of grateful approval, if not of vigorous glee.



September 10

Promotional poster.

Janey Cook checks over her entry.

Tipping the Balance of Power in Toronto

Article by Calum Tsang
Photos by Rob Antonishen, Dave Koudys and Calum Tsang

LEGO enthusiast group rtlToronto presented an event on September 10th called Balance of Power. The game was to build a robot to tip a 2x4 wooden beam to your advantage, the winner declared with their end up at the end of three minutes. A variety of different robots were built to solve the problem, and builders got a chance to run them against each other during the Saturday event.

Rob Antonishen brought a few entries with his children, the most effective of which was a light but very strong tower that used a ratchet to allow the competitor's end to sink, then never regain advantage after setting a latch in place.

Chris Magno used a different approach: A car that drove across the beam, using the fast new RC motors, smashing into the opponent. The combination of weight and speed sent many a robot to the floor during the day.

Dave Koudys, built a strong and powerful machine, which gripped onto the 2x4 using spring shock absorbers. Its worm geared motors were run at doubled voltage, driving ribbed wheels whose tires were held in place by a small pulley offset just a bit to keep them from slipping. The robot could not only drive vertical when its weight brought the beam around straight, but also push other robots off the 2x4 completely with a set of angled wedges up front.

Others brought simple yet effective entries: Janey Cook came by with a small construction that rolled down the beam and latched onto the pivot pin, keeping competitors from coming around.

All in all, rtlToronto19 was a fun, lighthearted event which brought many different designs in. rtlToronto looks towards February 2005 for its next event.

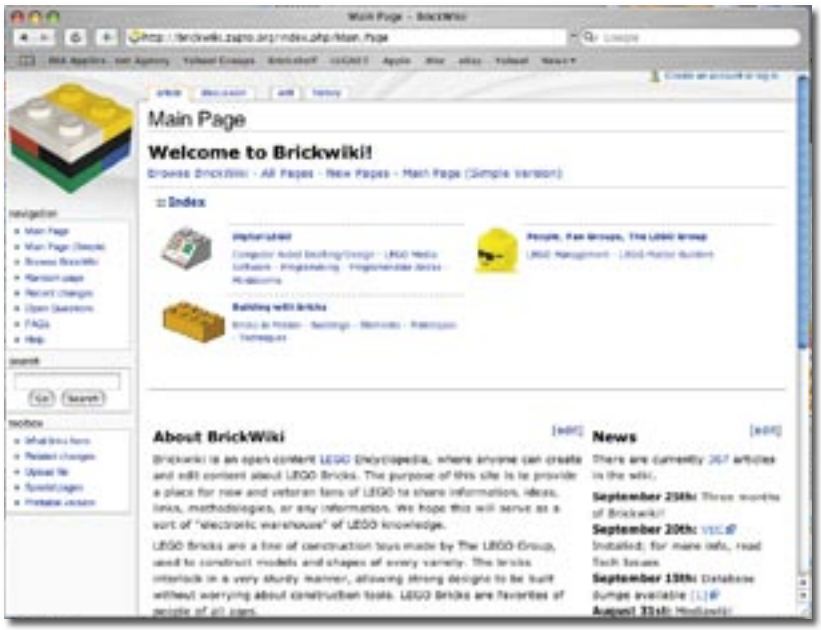
Visit the rtlToronto website at http://www.rtltoronto.org for upcoming events, news, and photos of competitions.

Chris Magno (l) and Dave Koudys prepare for their match.

Harry Astonishen and his entry.

BrickWiki, a MediaWiki based wikiwikiweb site, has recently been launched by Venkatesh Srinivas, with a goal of being an encyclopedia for all things related to the LEGO hobby. Although it is in its infancy, a few dedicated fans have already created a lot of useful and interesting content.

So, what's a wikiwikiweb (or just wiki for short)? Simply put, it is a collaborative repository of information, that anyone can edit. A key feature of a wiki is that each article tends to get heavily crosslinked to many related articles and put in one or more categories to help the reader understand how things relate. Wikis have been around for a long time and you can read more about them here http://en.wikipedia.org/wiki/Wiki.



The BrickWiki homepager

Proponents of wikis say that you get faster knowledge creation by allowing multiple collaborators to edit content, essentially at the same time, with no control, than you possibly can with hierarchical control. They point to WikiPedia (http://en.wikipedia.org/wiki/Main_Page), perhaps the best known informational wiki, as an example of how well this can work. Wikipedia has 650,000 articles (more articles than Encyclopedia Britannica!) and thousands of users, cooperatively creating the most comprehensive and high quality encyclopedic store of knowledge ever. Wikipedia uses the MediaWiki code base just as BrickWiki does.

Some of the key goals of BrickWiki are:

- To provide a repository for information and learnings that have already been developed by fans but that might be at risk of loss for various reasons,
- To document things like the history of the community, key sites, techniques, models, people, and events that have not yet been documented in a systematic way.
- To become a trusted reference for fans, old and new, that have LEGO-related questions.

Editing in MediaWiki is easy and ubiquitous... Any page or article that you are viewing has an "edit" link, and clicking the link puts you into a page with the current page source, and lots of different formatting and tagging buttons to help you. If you've ever edited FTX or HTML you'll find MediaWiki markup to be very familiar. If you've never edited in FTX, it has a rapid learning curve, and there's a friendly community of other users to help you with questions.

But how can this work if "everyone" can edit? Don't worry, you can't mess things up! No change is ever permanent, in that a full history of all changes ever done to the page is retained, and if a mistake is made (or someone makes a malicious change) anyone can "revert" the page to a previous version.

Much of what is going on now is building work around templates (a way to automate formatting and information gathering), categories, and creating content articles. People work on what they are interested in, and several users first got involved by spotting a typo or small inaccuracy in an existing article and just jumping in and fixing it.

If you would be interested in getting involved in BrickWiki, point your browser at http://www.brickwiki.org or http://brickwiki.zapto.org, set up a userid (optional, anonymous editing is allowed, but having a userid is highly recommended) and get started! It's free, easy and fun, and you'll be helping out the community by sharing what you know.

The Ultimate LEGO Resource?

A new online resource, BrickWiki, is beginning to document all parts of the LEGO hobby. BrickJournal takes a look at the ongoing effort here!

Article by Larry Pieniazek

Greetings from Sweden!

Last issue, *BrickJournal* went to Singapore to see a LEGO group. This time, we go to Europe to meet some builders from Sweden. We are also pleased to print the article in their native language!

Article by Olof Dahlberg
Photos by SweLUG members

Allow me to introduce SweLUG, and give a bit of history and an invitation to all interested readers.

The Swedish branch of the LUGNET community started in 1998 and had its first meeting in 2001, hosted by Anders Isaksson. A few models and a space station were among the activities that time. Since then at least one meeting has been held each year. The active membership so far is mostly adults, and our interests are very varied, covering a lot of the popular themes: Space, Technic, Castle, gaming, Moonbase, and many more.

We are very loosely organized, and consequently the meetings are held when a member feels the urge to host one, and at least one other member has the urge to go, so please: feel free to host a meeting, any of you lurkers out there! I did, it was great fun!

SweLUG 6 was held in Jonkoping in 2004, and that time we slept in a church, we built a lot of things: a 7 meter suspension bridge, and a Moonbase with 6 modules.

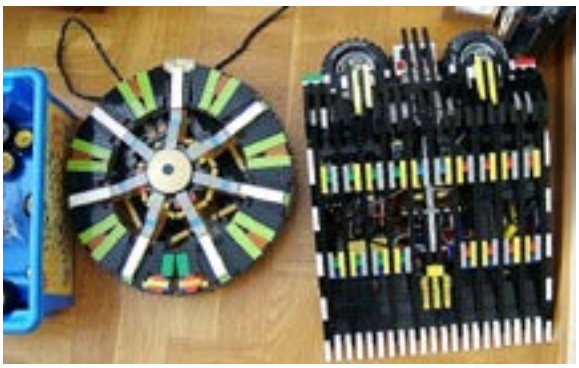
SweLUG 7 was held in March 2005 and we had an Ultimate LEGO Vehicle contest with at least 11 entries (this is really fun, everyone should try it), a blind building competition, the first SweLUG LEGO Robot Wars series (four robots competed!) and a micro-town. And a lot of other stuff, of course!

The next meeting, SweLUG 8, is planned for 29-30 October 2005 and will be held in the Stockholm area. For further information, to join us, and to help us plan it, please check out our little spot on the Net: http://news.lugnet.com/loc/se/ where all of our activities are announced and planned, and when the time comes, shown off to the rest of the world!

A seven meter span suspension bridge loaded with a heavy vehicle.
En hängbro med ett spann på sju meter, belastad med ett tungt fordon.

Models built at the first meeting.
Modeller byggda på den första träffen.

Space station constructed at the first meeting.
Rymdstation byggd på den första träffen.



Two of the contenders in the SweLUG 7 LEGO Robot Wars.
Två av de tävlande robotarna i SweLUG 7 LEGO Robot Wars.

Tillåt mig att presentera SweLUG, och ge er dess historia och en inbjudan till alla intresserade läsare.

Den svenska grenen av LUGNET startades 1998, och den första träffen hölls 2001, då Anders Isaksson var värd. Bland annat byggdes Star Wars-modeller och en rymdstation den gången. Sedan dess har det blivit minst en träff per år. De aktiva medlemmarna är mest vuxna, och våra intressen fördelar sig över de flesta populära teman och aktiviteter; Space, Technic, Castle, spel, Moonbase med flera.

Vi är helt oorganiserade, och träffarna hålls så snart en medlem vill vara värd för en träff och minst en medlem vill komma, så det är fritt fram att anmäla sitt intresse och vara värd för en träff. Jag har varit det, och det var väldigt roligt.

SweLUG 6 ägde rum i Jönköping hösten 2004 och då bodde vi i en kyrka och byggde massor av saker: en hängbro med att spann på sju meter och en Moonbase med 6 moduler för att nämna något.

SweLUG 7 hölls i mars 2005 och vi utförde denna gång en "Ultimate LEGO Vehicle"-tävling med minst 11 tävlande bidrag, tävlade i blindbygge på tid, samt genomförde det första SweLUG LEGO Robot Wars, i serieform med fyra deltagande robotar, vi byggde en mikro-stad. Och mycket annat, förstås!

Nästa möte, SweLUG 8, planeras till den 29-30 oktober 2005 och blir i Stockholmsområdet. För mer information, för att anmäla er, bli medlem, eller hjälpa till med planeringen är alla välkomna att kolla våra lilla plats på nätet: http://news.lugnet.com/loc/se/ där vi tillkännager alla aktiviteter, planerar dem, diskuterar vårat gemensamma intresse och visar upp oss.

This bridge spans seven meters. Only the string is non-LEGO.
Denna bro spänner över sju meter. Endast snöret är icke-LEGO.

The central Moonbase module being constructed.
Månbasens centralmodul under konstruktion.

Line-up for the SweLUG 7 ULV contest.
Uppställning inför ULV-tävlingen på SweLUG 7.

Peering at Peeron

Article by Jennifer Boger
Screen Captures provided by Peeron.com and used with their permission

Peeron's home page is very straightforward

"Where can I get 10 of these in black...how about in red then? Hmm, they don't make that set anymore, can I build it anyway out of my own parts? "Questions like these are what drove us, Dan and Jennifer Boger, crazy enough to start Peeron.com.

Peeron.com is a fan run LEGO inventory database site, including cross-referencing parts and sets, and has recently added Instructions and Catalog scans. The site is owned by Dan and Jenn, who launched the inventory system in 2000 with just a few sets laboriously hand entered.

Back then, Peeron was a simple program running piggy- backed on Dan's university departmental server. Today, Peeron indexes almost 5,000 sets spanning 56 years. It is wholly self-sustaining and runs on 3 dedicated servers with a development and testing server. Peeron now integrates information from other major sites (such as LUGNET, BrickLink, Amazon.com and BrickSet) and our information is available through a number of sites external to the AFOL community - such as Froogle.com, A9.com and others.

We would have never made it this far without the help of everyone in the community. From users who just correct a single line in an inventory to Thomas Garrison and Clark Stephens, our tireless database administrators who review every update, everyone's help has just been amazing.

Recently Peeron was asked to host PICSL (the Peeron Instructions and Catalogs Scan Library), which was the Brickshelf Scan Library. Again, we took on a daunting task with the faith that the community would once again come together, enjoy and contribute.

We have made it a habit to try to donate some of our spare resources to other AFOL sites in need - we're hosting LDraw.org, Isodomos.com, Technica (http://isodomos.com/technica), and help other sites when we can. *(Editor's Note — Peeron is one of several mirrors to* BrickJournal*)*

We never imagined that there would ever be any sort of demand for a LEGO parts inventory site, and were certainly surprised at the enthusiasm we found! The fact that we found it useful was good enough for us. Specialized tools such as 'My Parts' - showing you what parts you have, in what color, in what quantity on the fly from your set list and nifty reports like 'What part has been released in the most colors?', The Peeron Associated Stores program, and keeping tabs on what sets are on sale at certain online sites are my personal favorites. Now if it could only tell me where we put those bricks, we'd be set!

Some Technical Specs on Peeron:

- Peeron uses Perl and MySQL, running on a dedicated FreeBSD webserver, a dedicated database server, and a Linux static-file webserver. A separate Linux server is used for development, source control and bug tracking.
- Most of the scripts on Peeron are basic CGI scripts, some running in a persistent interpreter. Database access is done via a custom DBI library and Class::DBI (and handles over 500 requests per second.)
- The site runs on about 29,000 lines of custom code integrated with many standard CPAN modules.
- Our servers are currently serving about 50GB of data every day, to around 10,000 unique visitors.
- The database is maintained by Clark Stephens and TWS Garrison, and the code is written by Dan Boger, with help from Steve Bliss, Dan Sabath, David Eaton and Jindrich Kubec.
- The Peeron Associated Store program currently has over 100 BrickLink sellers which have their store inventories cross linked to Peeron's database - allowing users to see who has parts, sets and instructions, and for how much.

Some of the pages in Peeron include instructions (above) and set part listings (above right)

Artist Friend of LEGO?
if he's Greg Hyland, definitely!

LEGO Fan and Cartoonist Hyland turns his creative talents to putting AFOLs on the map!

Article by Todd Kubo and reprinted by permission from AFOL News

Art by Greg Hyland used with permission from the artist

Greg Hyland has been involved with the AFOL community since about 1999. The LEGO Star Wars line got him back into LEGO building when looking online for information about when the original Millenium Falcon set was coming out, and if any places had on sale yet. That's also when he discovered the large LEGO community.

In fact he ran across both LUGNET and fbtb.net (From Bricks to Bothans, a Star Wars LEGO fan site) that day!

He also had recently purchased his first MINDSTORMS set, and was looking for information about competitions and other builders, and found rtlToronto – the local robot and train group. Since then he's gotten quite involved with them and still enters almost every contest they hold.

After being on the fbtb message boards for a while, they found out that Greg was a comic book artist and asked if he'd want to do comics for the site. He jumped at the chance, and not long after doing comics for fbtb, he was contacted by LEGO Magazine to do illustrations for them. Later, Star Wars Insider magazine came knocking to see if he wanted to do comics for them, too!

It turned out he had a fan following inside the LEGO Company! Originally commissioned to be a booklet that would be circulated internally through the company to explain what adult LEGO fandom was all about, the AFOL Comic has been a roaring success! A full printed version that would be distributed to the public was created and a few more strips added. The AFOLs book is pretty much an autobiographical comic for Greg:

"-Some strips in there are almost word-for-word conversations I've actually had. However, I've gotten a lot of e-mail and feedback from people saying "that happened to me! This comic is about me!" so it kind of shows how universal LEGO fandom is!"

His own LEGO collection is pretty big, but not nearly as big as some other people I've seen! Of course, he has all the Star Wars sets, but also got into Harry Potter and Spider-Man. And he's got bits and pieces of just about every line that LEGO has done in the last few years, because he needs them for reference for working on the Magazine.

"I'm one of those guys that just builds the sets as they're meant to be, with very little or no modification, because I just love LEGO's design aesthetic. Only recently have I stared building my own things, but when I build things I try to make them as if they were actual LEGO sets, designing things they way LEGO would… so my buildings often only have two walls and lots of playable elements, like secret compartments!"

Besides working as an illustrator for the LEGO Group, he's working on his own comic called 'Lethargic Lad,' which he's done since 1991, and had as an on-line comic for the last five years. This year a third compilation of his on-line Lethargic Lad strips in *LETHARGIC LAD JUMBO-SIZED ANNUAL #3* will be published by Dork Storm Press. Greg has also illustrated a handful of card games all for Steve Jackson Games - Munchkin Fu, Ninja Burger and Burn In Hell.

You can see his AFOLs comic in just a couple of pages!

Last Word

So ends this issue of *BrickJournal*...

and it's 2:30 AM. It''s late.

Some thanks need to go out:

To Mike Gott and Ronny Scherer and the gang at Qube Software, thanks for all of your help in the group interview - the enthusiasm you guys had about this article made it a real joy to work on!

To everyone who wrote an article for me - if it weren't for you, this would be a very empty magazine. While there are a lot of words in this issue, there is more heart, and that is what makes this magazine so much fun to work on (at least most of the time). To those who didn't see their article, I haven't lost them...there's something up and that's all I'll say right now.

Thanks to Olof Dahlburg for writing an article about SweLUG in both English and Swedish - it's a truly bilingual spread.

Thanks to Daniel Jackson for doing the comparative review of a LEGO set and a Megabloks set.

Thanks to Calum Tsang for writing an article in 48 hours(!).

Also thanks need to go out to the many websites that serve as mirrors for the mag: LUGNET.com, Peeron.com, BZPower.com, LEGOFan.org, Northstar.com and Brick-modder.com.

And thanks to all those who read *BrickJournal* - this is truly a labor of love for everyone.

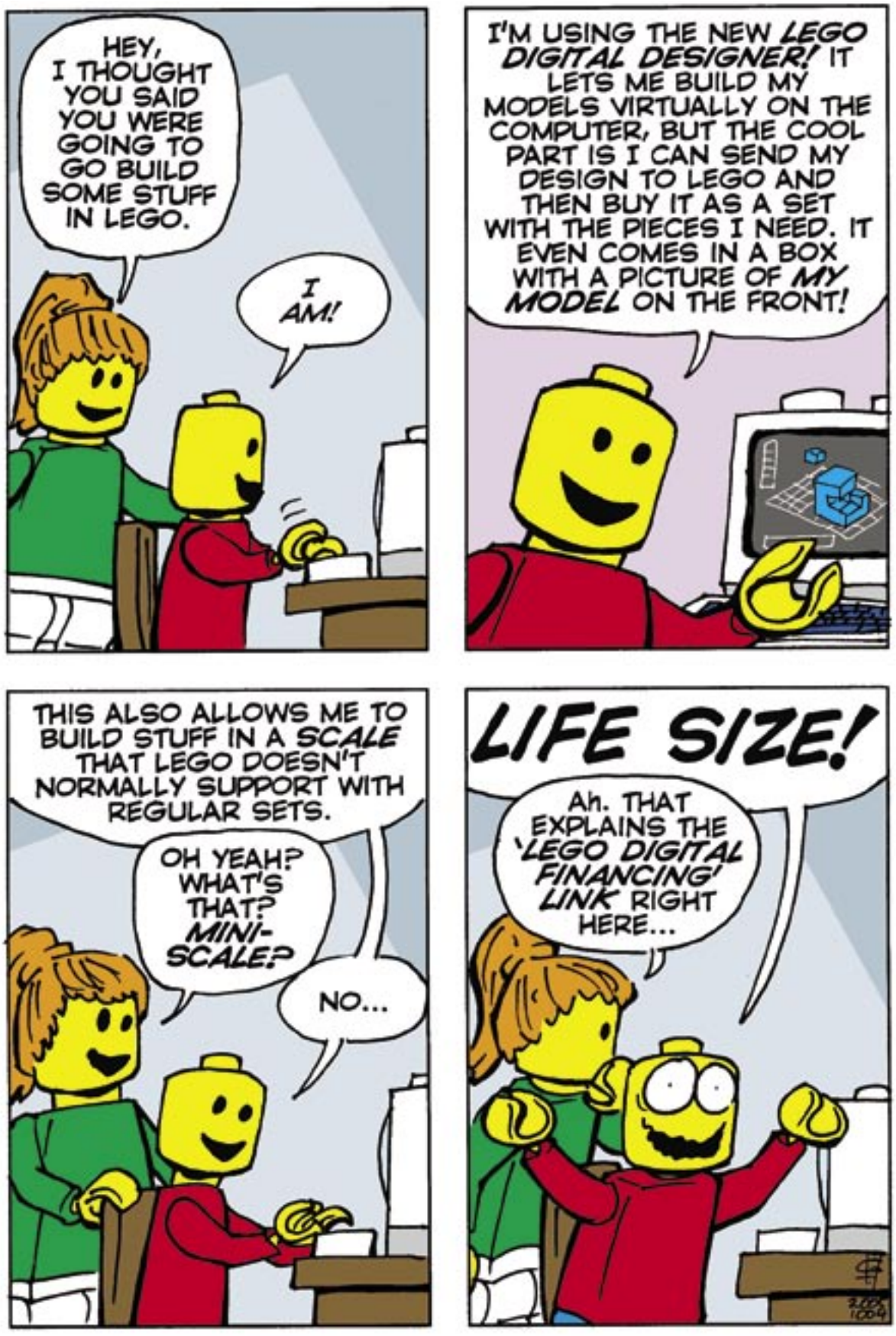
And here's more coming...

'Til next issue,

later!

Joe Meno

AFOLs
by Greg Hyland



NOT YOUR TYPICAL BRICKS.

If you have seen engraved bricks at BrickFest™ and other places, you have seen the work of Tommy Armstrong, the Brick Engraver. He can engrave names and line art directly to a brick, making it a unique item for things like keychains, badges, and models.

A new innovation from Tommy is WoodStitches®, where a wood veneer is bonded to LEGO® elements. These elements can be used with other LEGO bricks and also to create beautiful mosaics (such as the one at left) and desk nameplates.

If you're interested in seeing the wide assortment of brick engravings and finishes that Tommy offers, you can go to **www.brickengraver.com** and browse through his catalog.

You'll see that his work is not typical.

And neither are his bricks.

the Brick Engraver.