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BrickJournal

Issue 25 • September 2013

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The Castle Issue

Builder Spotlight: Bob Carney

Features
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EXCLUSIVE: A Minifigure rollercoaster? You can build it with the Rollercoaster Factory!

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Contents

Paal Smith-Meyer (left) and Adam Reed Tucker show off the Rollercoaster Factory.

LEGO Coasters? Maybe.....

Article by Joe Meno
Photography by Joe Meno
Additional Art and Photography by Adam Reed Tucker and X-LABS

As a LEGO® Certified Professional, Adam Reed Tucker has a lot of dreams. One of them was starting the convention for LEGO fans in Chicago, Illinois that became Brickworld. Another was opening a firm devoted to LEGO related projects, named Brickstructures. Still another was developing and launching a LEGO theme, "LEGO Architecture." It seems fitting that Adam is beginning another dream concept at Brickworld: a LEGO-based rollercoaster. Brickworld 2013 was the place where he veiled his collaboration with CoasterDynamix and LEGO to create the Rollercoaster Factory set. This particular dream, though, was hinted in, of all things, Adam's company's logo and some sparring with Paal Smith-Meyer from the LEGO Group.

In talking to both Paal Smith-Meyer (Adam's LEGO collaborator) and Adam, the idea for a rollercoaster had been present for some time. Smith-Meyer talks about the beginning of the rollercoaster collaboration: "I think actually the rollercoaster idea started for Adam, all the way back to the beginning (of working with the LEGO Group). He had the desire to make a rollercoaster, and he said that it was part of his dream to work with the (LEGO) brick and make rollercoasters come alive."

Adam chimes in: "When I created Brickstructures in 2007 I wanted to celebrate all the structures, not just tall buildings that I had been known for, so if you notice in my logo, there is an image of a cityscape containing a skyline, and there's a bridge and there's a rollercoaster. Being one of the creative forces behind LEGO Architecture with Paal, I was able to fill the first part of the logo, the skyline. Now, I am working on the other two. At Brickworld 2013, I had the privilege of unveiling three years of work on my rollercoaster concepts to fill a void in the LEGO system and hopefully bring a full new dimension to the LEGO brick as a creative medium."

Looking at the logo, Adam continues: "The last part of the logo is the bridge. All I have to say is stay tuned in 2015."

Above: Where is all started: the Brickstructures logo.

Right: Adam sets up his rollercoaster at Brickworld 2010.

Bottom Right: A closer look at the track, which is modified from a CoasterDynamix set. This was the proof of concept for the track system.

Way back in the beginning, however, Paal was a bit surprised. He mentions, "When Adam made his updated Brickstructures logo, I asked why are you adding a rollercoaster? And bridges? He answered that he wanted to add all the things he wanted to achieve. I remember telling him at the time, 'Adam, maybe you should be focusing on getting LEGO Architecture off the ground, before we start talking about rollercoasters.'"

Adam's reasons for wanting a coaster system are pretty simple. He explains: "There's a few things behind the coaster system. The first is that I am a little bit of a aficionado—I love all coasters like the wooden rollercoasters and I love all the hypercoasters, so aside from being a fan, there is a heck of a lot of engineering and structure and math and science and physics and believe it or not, architecture that goes into designing a rollercoaster, especially themed rollercoasters. It is an area that I'm really big on being original. One of the great things about our LEGO community is that originality seems to be something that people strive for—not really doing things that have been done before, and this rollercoaster project hasn't been done before to the level that I think it ought to deserve the attention it deserves. Based on the fan aspect of it and the engineering and structure aspect of it and the fact that the LEGO Group had never really done or tried to create a set, I went forward. Maybe they had tried or attempted it, but it never made the shelves." Paal concurs, "We (the LEGO Group) have tried many times ourselves because making coasters with LEGO bricks is something that everyone wants to do. People have tried it with train tracks and they have tried with Technic tubes."

By 2009, Adam was working on LEGO Architecture, but devoted some time thinking about the coaster idea. He made a design breakthrough when he went to the 2009 International Hobby Expo (or iHobby), which was held in Chicago. Adam takes the story from here: "I was at this convention walking around and I saw these two guys pitching a scale model rollercoaster made out of plastic that you had to glue and assemble yourself. To the unskilled patron that would enjoy that type of model, it would have been a disaster to put together. I noticed that they engineered an HO-scale model coaster and instantly in my head I was able to take their parts and, with knowing LEGO's building system, had a vision for how the two could work together." The two guys Adam met were Jack Rimer and Dan Linden of CoasterDynamix, and from here, the coaster idea began to come together.

Adam continues, "Snipping away some of the stuff that CoasterDynamix had for their system, I added the LEGO brick 'flavor' to it, I approached Jack and Dan and said, 'Let's hold hands together and do this' because they had the experience and the engineering background to help make this vision possible." As a result, Adam's Brickstructures teamed up with CoasterDynamix to begin work on the Rollercoaster Factory.

Jack Rimer with a coaster in progress at Brickworld 2013.

Making Tracks!

Article and Photography by Joe Meno

The Rollercoaster Factory is the result of the work of Adam Reed Tucker of X-LABS and Jack Rimer and Dan Linden of CoasterDynamix. *BrickJournal* spoke to Jack about CoasterDynamix's involvement in the project and their plans for the set.

***BrickJournal:* When did Adam first start discussing with you the idea of combining coasters with LEGO® elements?**

Jack Rimer: We actually first met Adam in 2006, I believe. We were exhibiting at the iHobby Expo in Rosemont and he came into our booth. I was busy with another customer so he talked to my partner, Mike. When he left, Mike filled me in on Adam's vision to someday make a LEGO rollercoaster. He was picking our brain about the design process of our models and how we overcame some of the obstacles inherant in constructing a rollercoaster model. I was a bit skeptical about sharing what took us years to learn, but Mike said Adam seemed professional and sincere so he said they had a productive conversation. Years later, Adam approached us again at the show and we started to discuss the idea of integrating our modeling system with LEGO bricks. While it seemed like a far-fetched, yet intriguing idea at the time, we never dreamed it might actually come to fruition.

What were the biggest challenges you had to address when designing the parts for this set?

When we started to discuss how to integrate our system with the LEGO building system, I remember having about an hour-long phone conversation with Adam where we literally threw ideas back and forth at a frenetic pace until we came up with the idea for what we termed "the missing link." This was the piece that allowed the user to connect LEGO bricks to our track system. While it seems so intuitive and basic now, it actually went through many iterations to make it practical and "LEGO ish". Throughout the design process, it was the relentless desire to make the parts appear and function like LEGO parts that posed the biggest challenge. The quality and precision of the LEGO molding process is very difficult to emulate.

There's a Map for That!

The LEGO Group joins the celebration of the past, present and future of London Underground in a way only they could do—by mapping the Tube then, now, and in the future!

Article and Photography by the LEGO Group

London Underground is celebrating its 150th anniversary this year and LEGO has marked the occasion by recreating five Tube Maps made entirely out of LEGO bricks that will be displayed in major London Underground stations throughout the summer months.

Mike Ashworth, Design and Heritage Manager at London Underground, said: "LEGO has done a wonderful job of recreating our internationally recognized Tube map. I'm sure our customers of all ages and backgrounds will enjoy looking at the five different LEGO maps that show the history and development of the Underground.

"The Tube network, like the famous Underground map, has constantly evolved to support London's growth and prosperity. The 2020 map at King's Cross St. Pancras shows the new stations and rail links we want to deliver—we hope this fun LEGO map will inspire the young engineers of the future to help deliver our vision."

Emma Owen, PR Manager at LEGO UK, commented: "We are delighted to be part of London Underground's celebrations by building the iconic Tube Map with iconic LEGO bricks. With LEGO you can build anything your imagination desires—from a simple tower to a London Tube map that helps people plan their journey around London!"

The X-Wing® Lands in New York City!

Article and Photography by Joe Meno

Additional Photography and Art provided by the LEGO Group and LEGOLand California.

This LEGO® X-Wing is *huge*.

Built to promote the Cartoon Network show *The Yoda Chronicles*, this model is the largest LEGO model ever built.

I got to visit the model in a media preview before it was unveiled at Times Square in New York City over Memorial Day weekend. Hidden in a hangar in Long Island, I got a close look at the X-Wing with some other reporters. Our hosts were the team of people from LEGO's headquarters in Enfield, Connecticut who set up the life-size model. And yes, it's huge.

Getting to the hidden hangar turned out to be something of a challenge. Because of secrecy, the invitations for the preview gave no hint as to where the model was, but only to meet at New York City. I got there and was given a limo ride with reporters from a *Star Wars* fansite, Jedinews.uk. After an hour-long trip, we finally arrived at a small airport. There, in its hangar, rested the X-Wing. The only thing that was curious was the LEGO logo on the door.

We were greeted by members of the team that helped set up the model, including LEGO Master Model Builder Erik Varszegi. He and fellow Model Builder Dale E. Chasse were the main tour guides to the model. Both of them led us around, into, and eventually over the model.

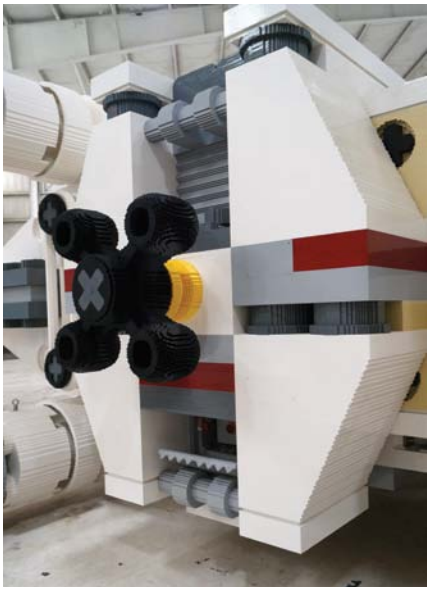
Erik explained most of the information: The model is actually an enlargement of an actual LEGO *Star Wars* set, the X-Wing #9493. Expanded 42 times the size of the original, the X-Wing stands 11 feet tall, 42 feet long, and has a wingspan of 43 feet.

During the weekend that the X-Wing was on display, the Times Square Toys 'R Us store sold a exclusive version of the set that included a special minifigure of Yoda wearing an "I Love NY" T-shirt and box sleeve about the display. There were only 1000 of these available, so needless to say, this was a popular item.

X-Wing Specifications

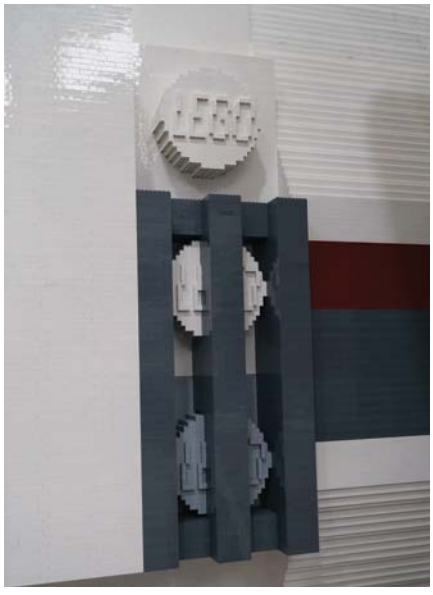
Number of Bricks Used:	5,335,200
Weight:	45,979.61 pounds
Height:	11 feet or 3.35 meters
Length:	43 feet or 13.1 meters
Wingspan:	44 feet or 13.44 meters

Some details of the X-Wing.



The forward landing gear bay.

Studs on display.



The X-Wing powers up for a flight.

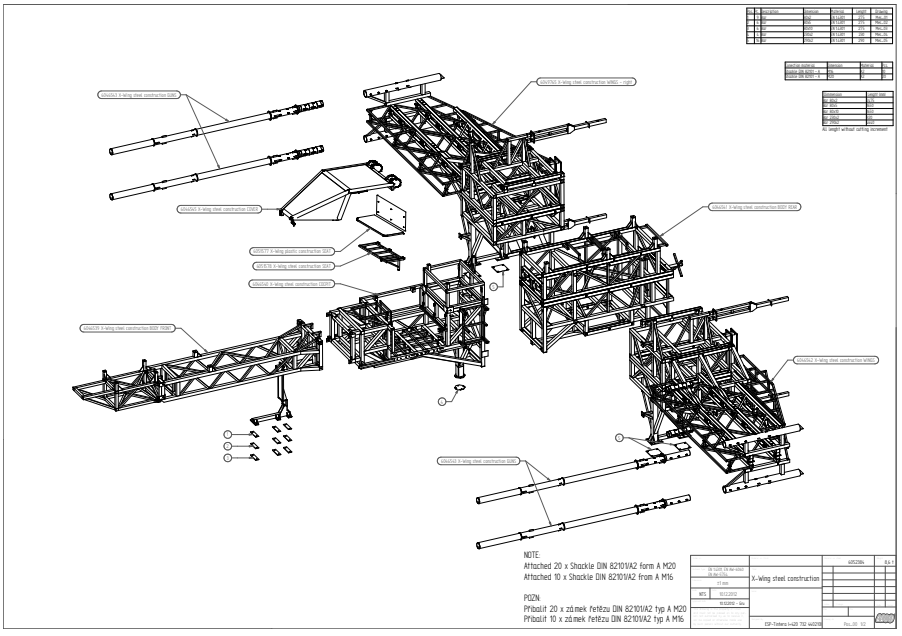


Diagram showing the metal frame for the model.

Dale E. Chasse stands by the X-Wing.

Walking around the model, I only got a couple of hints of the scale of the model. Like the set, studs are bare, but at the expanded scale, they were over a foot wide! With this scale, details were also magnified, such as the LEGO logo on the top of each stud. Technic parts that were used in the set are seen inside the front landing gear bay and by the engines in their proper color. Even the rubber bands at the rear of the wings were built, which resulted in a total of over 5.3 million bricks being used. After looking over the fighter, I asked Erik if there were any plates used. He replied, "Not many at all—most of the model was built with bricks."

Under the bricks, there is a metal superstructure designed not only to handle the weight of the bricks but also seismic shifts, as this model is ultimately destined for California. The metal work itself is a work of art, along with the laser cannons, which are aluminum pipes with attachment points for bricks. The X-Wing cannot open its wings into attack mode, as that would require mechanization that would render the fighter unstable for use as a display piece. By Erik's suggestion during the model's design phase, the wings are held together with a layer of gray bricks, which helped stabilize the wing structure.

The full sense of scale is only experienced when you see the entire fighter, or rather when you realize how far *back* you have to go to see the entire fighter. Erik commented with a smile as I stepped further and further back to take a photo, "We should have told you to bring a wide-angle lens!" Dale then invited me to get in their improvised lift (a front end loader with a wood box firmly strapped in its liftarms), and after a few moments, I was 18 feet above the X-wing.

For a brief moment, my mind went back to the scene in *Star Wars: A New Hope* where the X-Wing was first shown: in a hangar, with pilots and crew preparing these and Y-Wings for their battle over the Death Star. And seeing everyone walking around the model told me one thing; *this model is huge!*

The fighter is not just an idle sculpture, though. A light and sound system is installed into the engines so a launch cycle could be 'performed' by the X-Wing. With a low rumble by the subwoofers in the wings, the engine exhausts glow to life, as if to power up the fighter for a mission.

The Hobbit

An Expected Review

Article by Geoff Gray

On April 29, 2013 I received an email from Jack Sadler, who was the first person to respond to my LEGO *Lord of the Rings* theme review. He thanked me for the review, asked if I would be doing a *Hobbit* theme review, and provided me with a list of his desired minifigs. Naturally I could not pass up the opportunity to review more sets derived from J.R.R. Tolkien's Middle Earth, so I got in touch with my contact and had the sets shipped out. I also rented the movie (in high definition, played through my xBox 360) to refresh my memory about it. I had seen the movie in the theaters, but (like the *LOTR* series), I want to wait until all three flicks are released in their extended cut, so I did not buy the disk. I also went back to my copy of the *Hobbit* on audio CDs and listened to the story again. I felt I was prepared to build the sets and evaluate them for my review.

Overall Design:

The *Hobbit* sets follow right along in the footsteps of many of their theme sets, where they mix "playability" with the portrayal of a story. There are plenty of moving and projectile pieces, good modular design, and (as with the *LOTR* sets) excellent accent pieces like the ring, varying swords and daggers and plenty of food, bowls, jewels, bones, etc. The sets are broken into numbered bags for simpler assembly, and there isn't much in the way of surprises with how the build progresses. The more delicate minifig accessories (such as Bofur's hat from the set "An Unexpected Gathering") come in their own bags and some of the wood grain details are added through transparent stickers.

There are a lot of characters in the *Hobbit* story, so there need to be a lot of minifigs as well. Given the fact that this story has a full troupe of dwarves that are together for almost the entire story, it is difficult to pinpoint only one or two dwarves to be the main focus for any of the scenes depicted by these sets. However, LEGO has done a good job of making sure that you get one copy of every dwarf if you pick up all of the sets (see the sidebar on minifigs for more details).

There are plenty of little hidden things to discover as you build and play with the sets. For instance, the fires that are burning the tree in "Attack of the Wargs" can be knocked off with built in sliding axles. I am not sure if these are to simulate burning embers as they fall off the tree or if they are supposed to be the burning pinecones that the dwarves toss at the goblins and wargs. The beauty is that it doesn't really matter. You can pretend either one, or something else completely if you wish.

Details:

The details, both in the set designs and in some of the individual pieces, is excellent as expected. The company is definitely investing heavily in this theme, and I believe it will really pay off.

My favorite set is Bilbo's hobbit hole ("An Unexpected Gathering"). The inclusion of the rune scraped onto the door is a nice touch, as is the inclusion of so much food. Given hobbits' proclivity toward food, you would expect to see a bunch of it in this set. There's even a pretzel, which is indeed a rare item right now, showing up in only 4 sets, one of which was an exclusive set for the opening of a LEGO Store in Germany.

One of my favorite constructed items is the wrought iron window in the study of Bag End ("An Unexpected Gathering"). The window uses a transparent 4x4 round plate with 2x2 round hole as the base, a 2x2 clear round plate with rounded bottom, and 4 black turntable 2x2 base parts. These fit inside a couple of arches and provide the illusion of an intricate window. This item also shows good use of SNOT design and the use of incorporating construction where a constructed item can be integrated into the main model by simply sliding it into place and holding it by surrounding it with other attached pieces (to see the steps I am talking about, you can view the building instructions on LEGO's website: http://service.lego.com/en-us/buildinginstructions/).

There are also some very nice details directly in several of the molded pieces. For instance, the elven daggers wielded by Tauriel have a golden inlay on the silver blade area. The hair/beard piece for the Bombur minifigs includes printing that mimics his shirt inside the braided beard, as well as the round bald spot on the top of his head. Bofur's hat and Oin's hair/beard show similar detail and use of multiple colors. Bifur's beard is especially impressive since they managed to make the braids inside the beard have a mix of black and silvery/gray hair. There is plenty more to discover as well.

There is even a non-minifig specific piece designed solely for the theme; the netting that is used to hold the dwarves ("Escape from Mirkwood Spiders"). By the way, if anyone is aware of other pieces that are available only in the Hobbit/LOTR theme that are *not* minifigs specific, please send me an email (geoffgr@brickjournal.com) and let me know.

The detail on Bombur (above) and the inlay pattern for the Elven daggers (below) are good examples of the attention to detail.

Conclusion:

If you are a fan of Middle Earth and a fan of LEGO creations, this theme is well worth looking into. And if you are a collector, then it is a must-have. I stated in my last review that I was planning to make the LOTR/Hobbit theme the one theme I collect every item, and TLG has not made me regret that decision with these sets.

I should also mention that I have completed the LEGO LOTR video game, managing to acquire every single player achievement available. So I am ready for the Hobbit video game (and I will bet that is coming soon too!). As a side note, I found the LOTR video game to be the best game in the LEGO series I have played yet. I liked the way they used real audio tracks from the movies to help augment the cut-scenes (even though some were a bit cheesy) and I think they did a good job following the storyline. I had difficulty with a couple of the sections (involving jumping onto and off of ropes and platforms way up high), but I finally finished. Of course, that now means that T.T. now needs to release the Hobbit video game. I assume that since the LOTR game covered all three movies, they will have to do the same for the Hobbit game. Hopefully we do not need to wait until they are all 3 released, since that will likely be at the end of 2014.

Photography Setup: Using light sources on opposite sides reduces the presence of shadows.

Minifig Customization 101:

Photographing Your Customs

by Michael "Xero" Marzilli & Jared K. Burks

Photographs by Michael "Xero" Marzilli

It has been some time since this series has covered capturing images of custom minifigures. Don't have a fancy DSLR or even a digital point and shoot camera? No problem! Almost everyone has a cell phone, tablet, or hand-held gaming device that has a camera. Here are a few suggestions on how to get the best pics possible out of whatever device you have. Remember, the best camera is the one you have with you! Several different tips and tricks will be presented to help capture your work the best way possible.

1. Take Care Of Your Camera Phone/Device.

Keep the device's camera lens clean, especially free of fingerprints. Most of us carry our cell phones in our pockets with keys, change and several other items. Dirt, pocket lint or any number of other items can scratch, smear on or cover the camera lens. The first step in a clear image is shooting through a clean lens!

2. Lighting, Lighting, Lighting!

To take good pictures with your phone/device you need light, and a lot of it. The reason is that the sensors inside phones/devices are very small compared to the ones you find in point & shoot cameras and big DSLRs. Smaller sensors capture less light which leaves the potential of getting a lot of "noise" or grainy, unclear images. The more light you have available, the clearer and brighter your pictures will be. However, avoid getting direct light into the lens or putting your subject too close to a light source. Your pictures will be overexposed, meaning one side is too bright while the other is too dark. With that being said, if possible, avoid direct sunlight.

3. The Closer To Your Subject, The Better

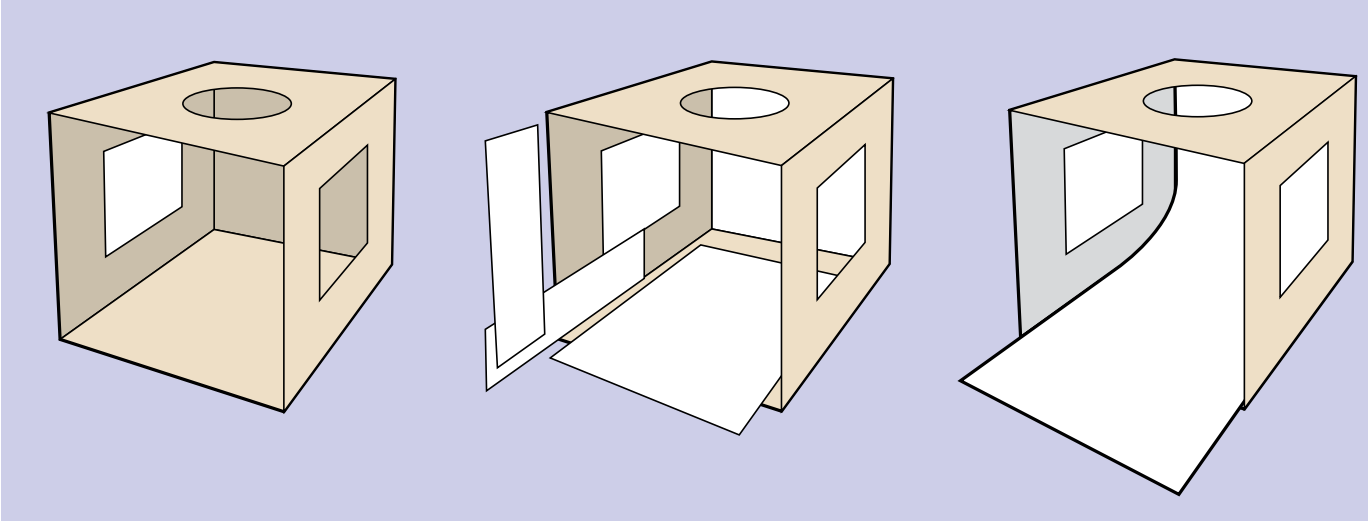
One of the most common mistakes with images is that their subject ends up being a tiny, unrecognizable object in the distance. Remember that most LEGO figs are approximately 2 inches tall to begin with. It's difficult to see and appreciate

DIY Light Tent: Take Lighting to the Next Level!

Building a Do-It-Yourself light tent (also called a soft box) is very simple, inexpensive and will create a method to properly light your customs for photography. Most of the items needed to make a light tent are lying around your house. Here's a quick list:

Materials
Cardboard box
Construction Paper
White Bristol board
Wax Paper / Fabric
Light Source (Various colored bulbs)

Tools
Tape (scotch, double-sided, masking, painter's tape)
Glue / Glue stick
Ruler / Measuring Tape
Pen / Pencil / Marker
Scissors
Knife (X-acto)



The cardboard box can be any size you want as long as you have enough light(s) to fill it. First, take the cardboard box and measure 2 inches in from each side using a marker on two sides: left and right. Connect the marks, which will result in a square (or rectangle, depending on box size) in the middle of the box. I cut out these regions on both sides of the box. Do not mark or cut the bottom of the box. As for the top, mark and cut it based on the size of the light you will be using. Once you have your all your marks connected, use your X-acto knife to cut these center sections out and remove them. Take your time and do your best to make the cuts as straight as possible. At this point you can remove the flaps of the box on one side; this makes the box open on one side.

Next line the inside of the box with white Bristol board (or white construction paper); this will reflect the light and is more durable than white paper. Using the measuring tape and marker, measure out two-inch strips on your white Bristol board; be sure that the board is long enough to fill the height and length of whatever box you have used. Since you cut two sides of your box you should need 8 two-inch wide strips, four for the inside of each side. As the opening in the top is custom to your light source, be sure to replicate this for the Bristol board that will be covering the inside of the top. A glue stick or double-sided tape can be used to hold the Bristol board in place. Don't worry about overlapping strips or if the strips extend beyond your openings; it doesn't have to be perfect, but feel free to trim them to fit flush.

Now that the inside of the box has been lined in Bristol board (or construction paper) it is time to create the backdrop. Using Bristol board cut it to the inside width of the box, making sure it is much longer than the box. Place the long piece of Bristol board / construction paper into the box to where the piece curves and covers the entire bottom and the one side of the box that you did not cut a hole in. This is your backdrop. Avoid creasing as it will show up in your photos. You're looking for a nice smooth gradual curve here with plenty of room for the subject to sit / stand perfectly flat on the bottom of the box. Trim the excess board / paper that is sticking out the front of the box. Using painter's tape to hold the backdrop in place is a great option as it allows for its easy removal. This way different color backdrops can be used depending on the color of the subject. It can be very difficult to get good separation between a white clone trooper and a white backdrop.

Building Castles

Article and Photography by Bob Carney

I was asked to do a follow-up of my 2005 castle building interview with Magnus Lauglo which appeared in the second online issue of *BrickJournal*. That article can now be found in *BrickJournal Compendium 1*: Issues 1 - 3, pp. 83-6. In that article I talked mostly about how and why I got started modeling real medieval castles in LEGO. In this article I'm going to concentrate on how I build castles—something of a tutorial on my techniques, which have matured, and I think improved, over the past 27 years.

One of great joys of working on this issue has been the chance to see the incredible number and variety of castles that have already been created! I have not been much for connecting with other AFOLs in the castle or any other LEGO realm—possibly it's a manifestation of growing up in the pre-internet days. The fact I have a website displaying photographs of my model castles at all is that it was created as a birthday surprise from my older son Scott and his then-girlfriend Anne Sullivan. Doing research for this issue of *BrickJournal* has not only been eye-opening, but it appears that there are many more AFOLs building fantasy castles than those of us modeling real castles.

Early Plans

I have always used pencil on 1/8"graph paper for my plans and elevations. I experimented a bit years ago with James Jessiman's LDraw software program, but found it too time-consuming when designing a wall containing hundreds of elements. I initially did plans only [i.e. no elevations]

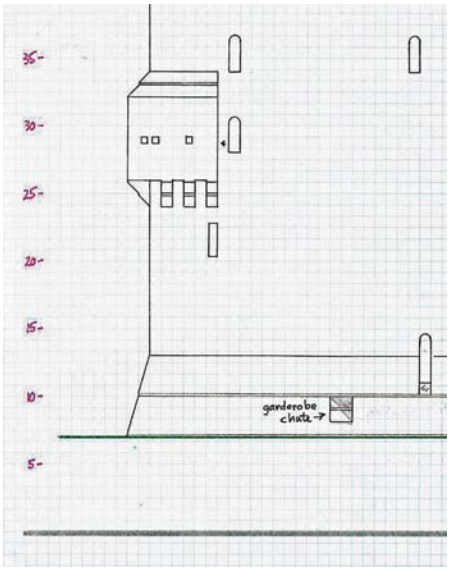


Figure 1: An elevation showing brick levels.

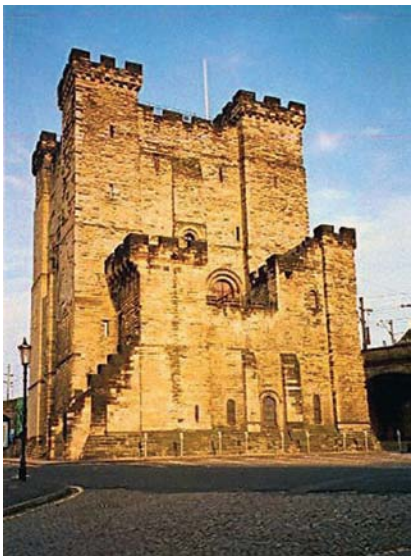


Figure 6a - Newcastle-upon-Tyne.

Figure 6b - my first build.

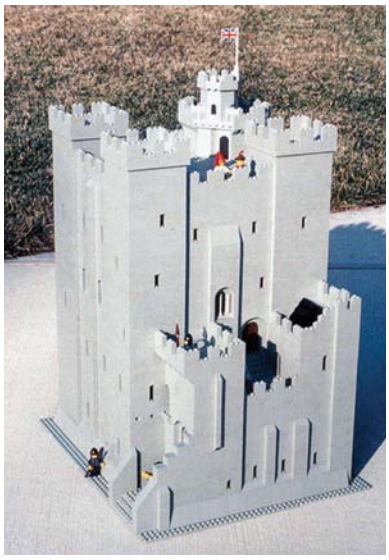


Figure 6c - My second build in 1992.

The first castle I built that I am still proud of was #43, the larger rebuild of the Keep at Newcastle-upon-Tyne, seen in figures 6a through 6c. The gauntlet had been thrown down by me—for me, and thereafter I did not want to build any model that was either inaccurate or less than my best effort. Landscaping could no longer be done with red slopes, bricks and plates. Green was for grass, and dark gray and black (often mixed) for the earth's crusty outcroppings where castles were so often placed, as seen on figure 7.

It's often a nice break to build a water castle just because the terrain is flat by nature! But it's just as often intense fun to spend days and days landscaping a castle before a single stone [well, LEGO brick] is ever laid (Figure 8), hoping you've correctly calculated the dimensions of the mound *and the castle!*

My sole foray into studless landscaping (Burg Prunn #123) was a great success (Figure 9), but very time consuming and brick-intensive, and so far I've not seen the need for a repeat of the process. But I really liked the result.

Figure 7 - Landscaping becomes realistic.

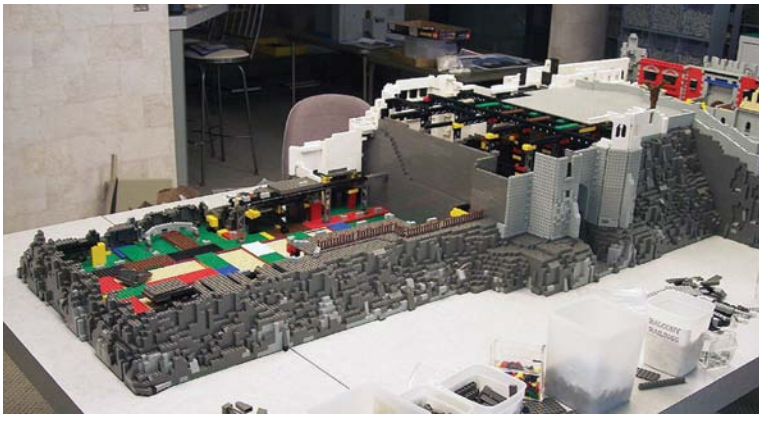


Figure 8 - Landscaping becomes complex.

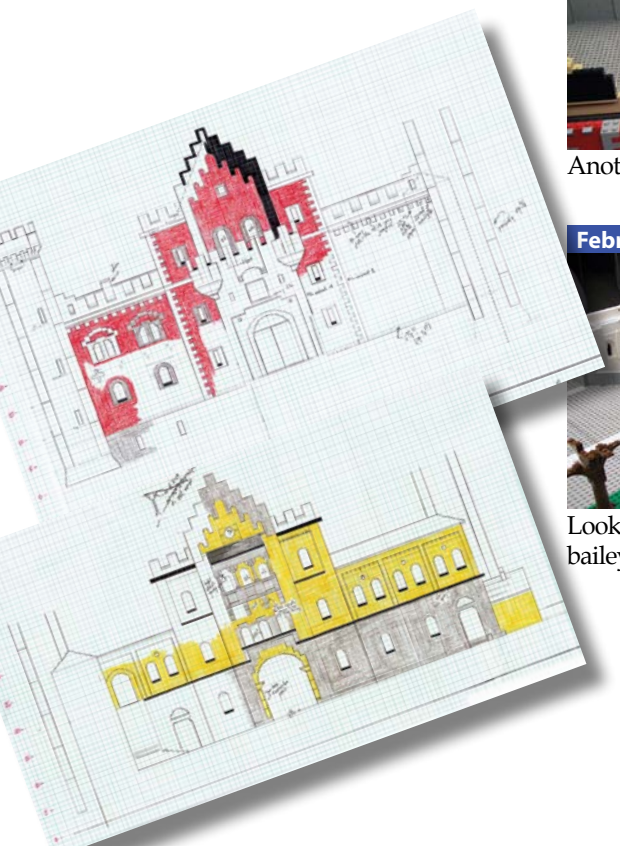
Figure 9 (left) - Studless landscaping.

Building a Castle: A Timeline

Article and Photography by Bob Carney

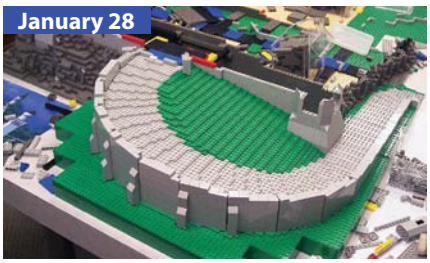
In 2010, I built one of the most well-known castles in the world, Schloß Neuschwanstein. This is not my usual type of project as I tend to stay away from palaces and cannon forts. However, this proved to be a challenge that I couldn't resist.

Here, you can see the timeline of construction to this model. This will give you an idea of how a project of this scale is completed. I started on January 3, 2010 with the goal of presenting a completed castle at Brickworld 2010 in June. As I mentioned in my castle building article, I start with drawing elevations, which you can see below.



Setting up the layout and landscape.

Work begins on the entrance ramp.



The ramp nears completion.

The gatehouse is next to be built.


The other side of the gatehouse, with the lower courtyard.

The walkway from the gatehouse to the watchtower is taking shape.


Another look at the courtyard.

Landscaping resumes with the Palas end of the mountain.

Looking at the courtyard and lower bailey.

The gatehouse is complete.

Building the Perfect Castle: Windows and Arrow Slits

Article by Bob Carney
Art by Joe Meno

To be a worthwhile defensive structure, a castle must have windows which provide some light but do not allow the entry of the unwanted or pugnacious. It must also provide protected defensive parapets for the often undermanned garrison to hold their fortification against aggressors. In these two regards, I give The LEGO Group grades of **C-** and **F,** respectively.

Windows

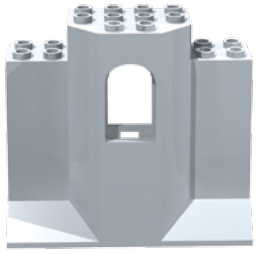
The lower levels of castles generally sport very narrow apertures, often called window slits, which serve the purpose of dimly lighting the room but being too narrow for enemies to pass. [Fig. 1] Over the past three decades, The LEGO Group has provided six categories of wall panels with a window which are suitable for castles:

4444 Panel 2x5x6 Wall With Window *(1984-2008)* light gray, light bluish gray, dark gray & black (including several in various colors with stone patterns)

6055 Panel 6x6x6 With Window *(1995-1997)* black only

30100 Panel 3x6x6 Double Wall With Window *(1997 only)* dark gray

30246 Panel 3x4x6 With Window *(2000-2012)* light gray, light bluish gray, dark gray & black



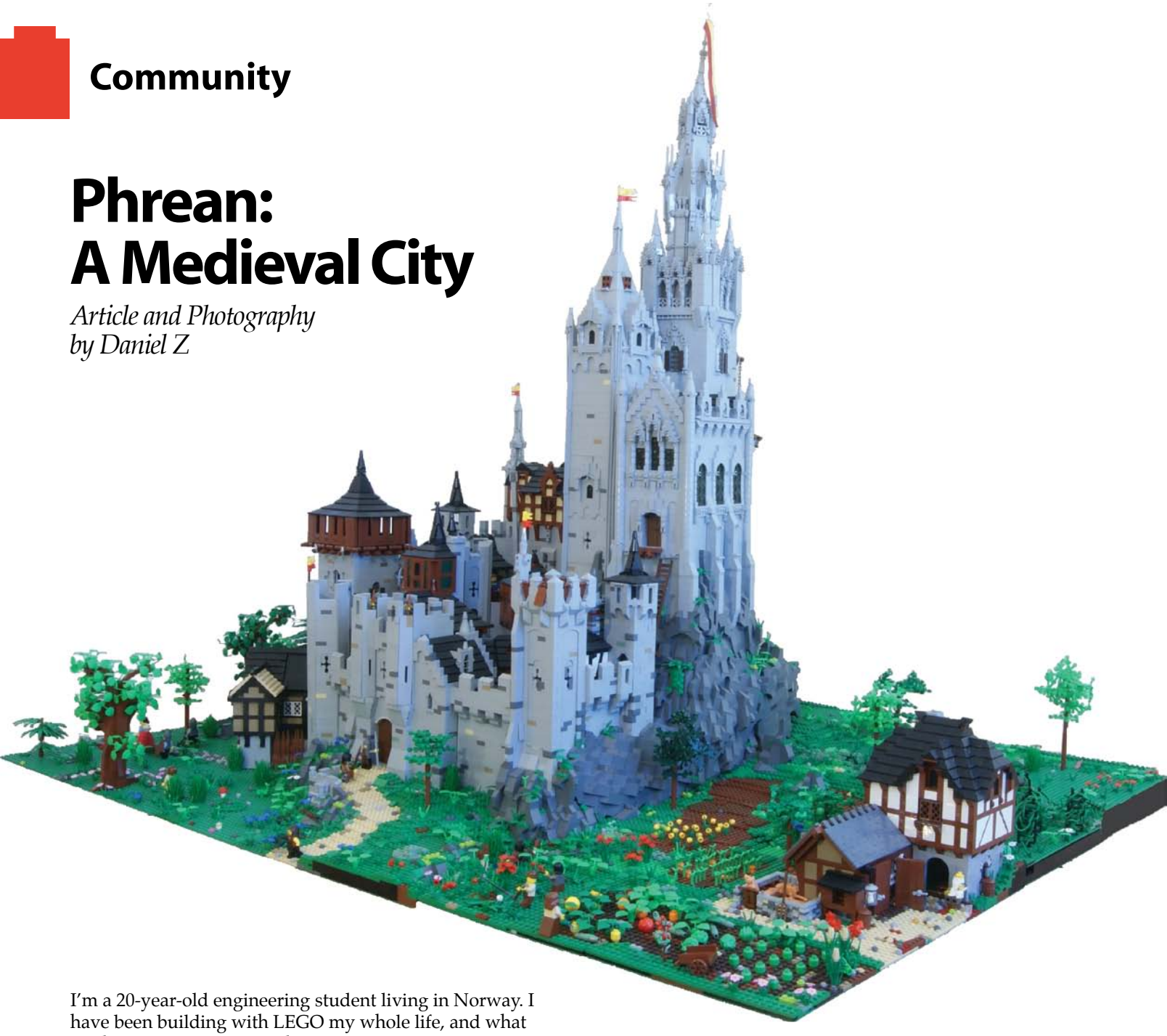
48490 Panel 3x8x6 With Window *(2004-2006)* light gray & light bluish gray

60808 Panel 1x4x5 With Window *(2009-2013)* light bluish gray, dark gray, dark bluish gray & black (plus a stone pattern)

Only one is still made, and none are currently available at LEGO's Pick-a-Brick section. In addition none of the classic 3x3x6 corner panels, premiering in 1986, with or without bottom indentations, seen below, has ever featured a window (though stone patterns were available).

Phrean: A Medieval City

Article and Photography by Daniel Z



I'm a 20-year-old engineering student living in Norway. I have been building with LEGO my whole life, and what might not surprise you is that medieval cities and castles have always been my favorite things to build. When I was younger I was always a little scared of reaching the maximum age on the LEGO boxes, because I couldn't imagine losing interest in LEGO. Fortunately I didn't lose interest and kept building, though less frequently than before. Then I discovered the online AFOL community and I got seriously infected with the LEGO virus. Over the next couple of years I built over fifty medium and large sized MOCs, took part in many contests and attended several lego conventions and shows.

Lately I haven't built as much as I used to, but I have started planning my next MOC, which I'll hopefully build this fall.

The Medieval City of Phrean

I built this MOC to bring to LEGO Fanwelt 2010 in germany where it was part of a large castle-themed layout by the dutch LowLUG. I knew there were going to be many amazing and huge creations at Fanwelt, so in order to make my MOC noticeable at all it had to be big. It was and still is the biggest landscape and building I have built, with the tallest spire reaching a height of more than a metre (3 ft) and a footprint of 1.5 square meters.
It took me a few months of off and on building to complete and I would guess I used more or less 20,000 pieces to build it.

The Walls of Arkusa

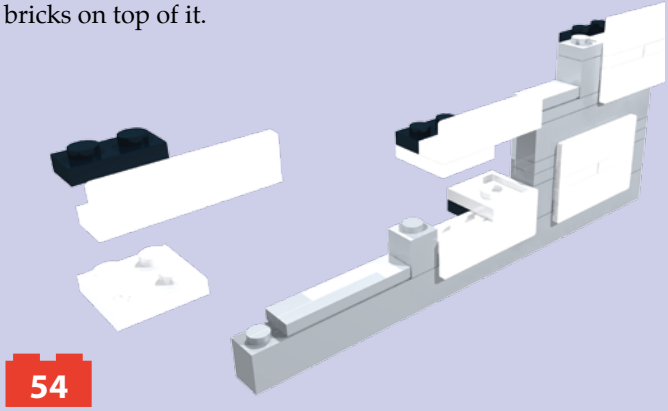
This MOC was part of a secret collaborative MOC release organized by siercon&coral (Sean and Steph Mayo). The 11 participants all made MOCs depicting an anthro-polar bear race and telling their history. The project was called the Flash-MOC Blitz-zard and we all released our MOC at the same time on flickr, flooding everyone's contact streams with polar MOCs. We decided on some typical architectural styles for the buildings, one of which was walls made of huge stones. To give the walls more depth I came up with a technique using panels to make stones that portrude a little from the rest of the wall, corners included. It is a very parts-intensive technique, but the parts used are inexpensive and look great.

An overview of the model, with a polar bear guard.

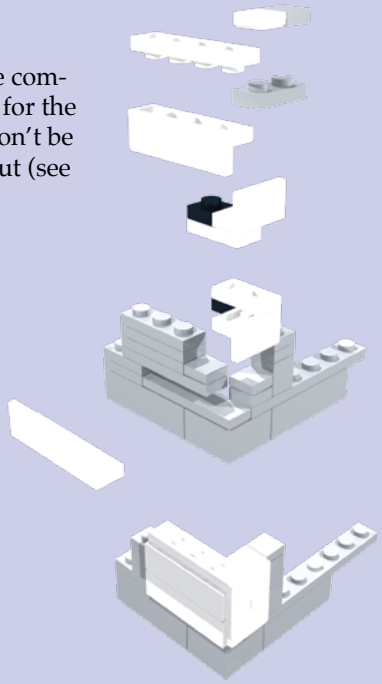
A look at some of the details of the wall.

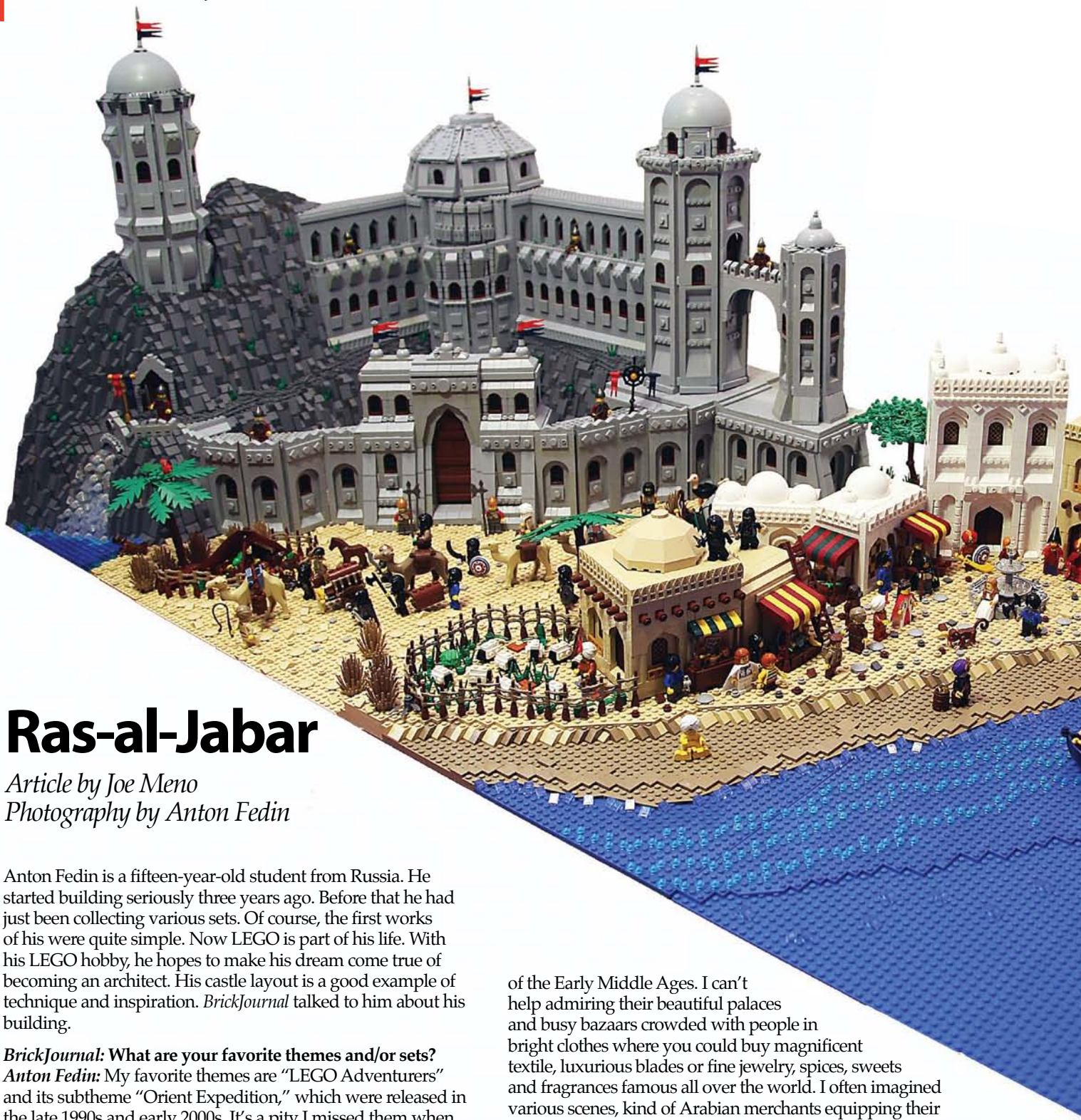
Wall Building

Each 1x4x1 panel is attached to a 2x2 plate which in turn has a 1x2 plate attached to it. The space between the studs of the 1x2 plate and the thin part of the panel is exactly one stud, so the panel can be attached firmly upside-down to the brick underneath it. The next panel is then placed on top of the first panel, and later secured by the next layer of bricks on top of it.



A similar but a little more complex method can be used for the corners, although they won't be as stable and might fall out (see the diagram).





Ras-al-Jabar

Article by Joe Meno
Photography by Anton Fedin

Anton Fedin is a fifteen-year-old student from Russia. He started building seriously three years ago. Before that he had just been collecting various sets. Of course, the first works of his were quite simple. Now LEGO is part of his life. With his LEGO hobby, he hopes to make his dream come true of becoming an architect. His castle layout is a good example of technique and inspiration. *BrickJournal* talked to him about his building.

***BrickJournal:* What are your favorite themes and/or sets?**
Anton Fedin: My favorite themes are "LEGO Adventurers" and its subtheme "Orient Expedition," which were released in the late 1990s and early 2000s. It's a pity I missed them when they were first released, but eventually I was lucky enough to get them all. What I really like is "Scorpion Palace" (#7418). Had it not been for it I wouldn't have been able to build my Ras-al-Jabar. It was sort of a catalyst for the idea of this diorama.

What inspired you to build Ras-al-Jabar?
I was inspired by the architecture of Middle East and lndia of the Early Middle Ages. I can't help admiring their beautiful palaces and busy bazaars crowded with people in bright clothes where you could buy magnificent textile, luxurious blades or fine jewelry, spices, sweets and fragrances famous all over the world. I often imagined various scenes, kind of Arabian merchants equipping their caravans or fleet. It was during one such moment when I was enjoying this charming and mysterious Middle Eastern beauty, that it occurred to me to build my fantasy in the next diorama. I wonder why such an interesting theme is not very popular with LEGO fans. Besides, by that time I had collected a considerable pile of various items which seemed to be compatible such as domes, camels, turbans, yataghans, etc. and I was looking forward to using them.

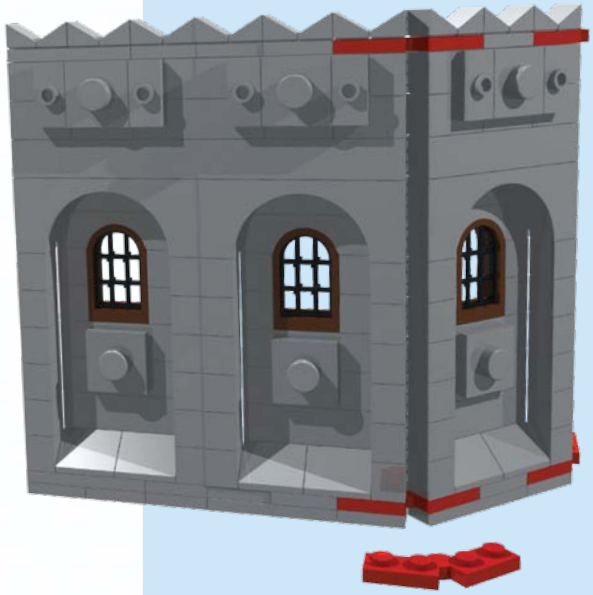
Detail shots of the castle.

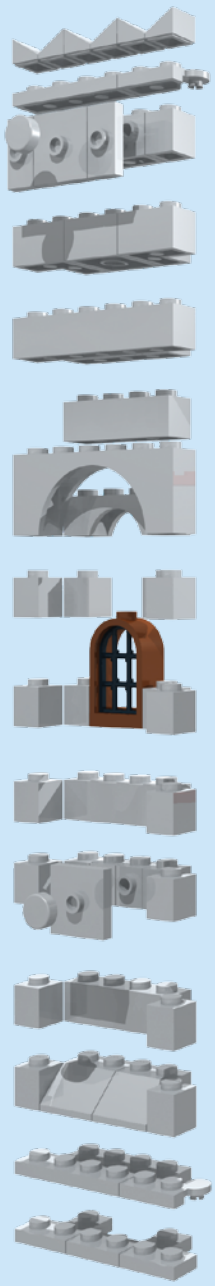
Building Castle Walls

Anton uses some interesting techniques to make his castle unique by breaking from LEGO building conventions.

His castle walls are built with hinges so he can angle them, as you can see below (the red plates are 1x4 hinges). The walls are attached to the baseplate below at certain points, while the angled walls 'float' on tiles.

The walls also have a distinctive design to establish scale. To the right you can see what makes up a lower castle wall. The window is the viewer's reference for size. Make several walls and connect some with hinges and a castle perimeter is created!





An overall look at the layout.

Building Archenval

Article by Stéphane Dely and Nicolas Picot

Photography provided by Stéphane Dely and Joe Meno

One of the displays at Fana'briques 2012, a French LEGO fan event, was a castle layout named Archenval. Built by two LEGO fans, this layout is a great example of castle building. BrickJournal *talked to the builders to get their story and a little about Archenval.*

Stéphane Dely

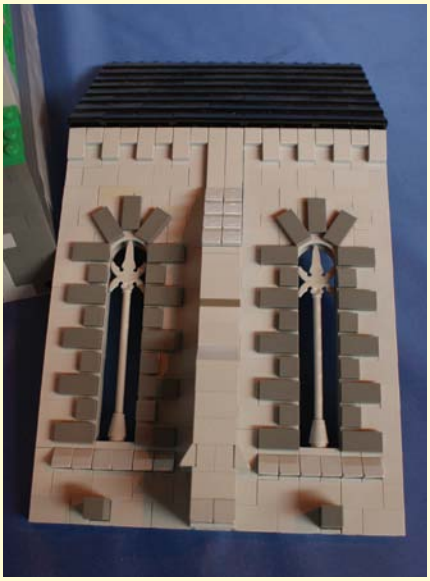
I'm 33 years old, an IT consultant and the father of two children. I started playing with LEGO bricks when I was very young, about 4 or 5 years old. As far as I can remember, I've been around bricks since they have been present in the family for a long time. My godfather and my parents—especially my mother—have always been fascinated by the creative mind that comes with the use of bricks. As a result, I had a lot of sets: City, Classic Space, Technic, and so on... But it was when I got my first castle at age of 7—the legendary 6080—my passion for the Middle Ages and therefore the Castle theme began. At the time, all I did was build the sets I had. At the age of 10, I started to use the bricks to design and create new things: I did not know it yet, but I was starting to build MOCs.

I continued this phase until I was 16, when my Dark Age arrived. With girls, friends, and outings there was no time in my life for the bricks. Years later, in December 2007, while I was taking a walk with my then-girlfriend in Cologne, I discovered a LEGO Store. *What? The brand of my childhood has its own stores?* Intrigued, I went inside and was fascinated by what I found there. My wife gave me a Knight's Kingdom II chess set for Christmas—and that was all.

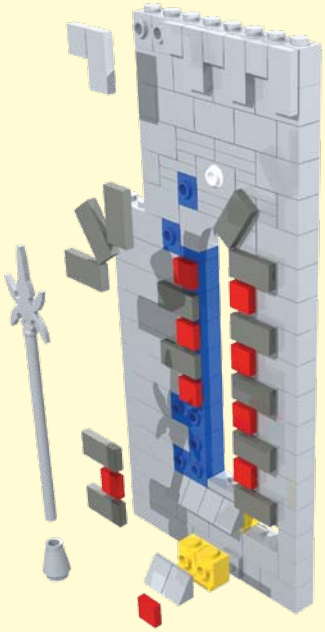
That was all the building I did until the day I visited a toy store and came across the *Star Wars* sets. This was the turning point: I plunged completely back into building. I also discovered, after some research, a community on the Internet. There I could share my experiences with others who had the same 'addiction' I do.

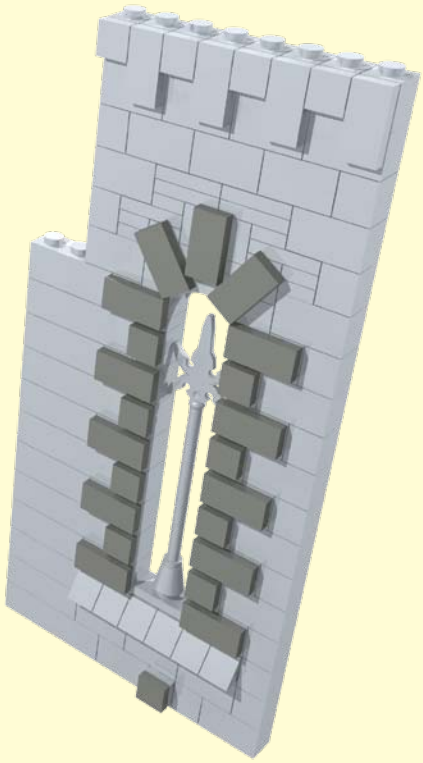
The official LEGO website also allowed me to discover that the theme that I loved so much when I was little still existed: the Castle theme. I joined BrickPirate's French community forum (LEGOPirate at the time), eventually discovering the work of talented international builders such as the incredible Cadarn Derfel, who inspired me to start building again.

This is where I got the crazy(?) or ambitious idea to create an imaginary medieval city: Archenval. Before starting Archenval, I researched a lot on the time period from the eleventh to the fourteenth century. I did not want a church, so I built a Templar chapel as found in the Commandery of Coulsdon near Paris. I wanted an imposing West Gate: part of the inspiration of Riquewihr in Alsace. As for the rest of the layout, everything is imaginary.



The path leading to the chapel door is alive with street vendors.





Inside the chapel.

Building a Chapel Wall

Dely's Templar Chapel (seen at the edge of the top left photo and above left) required building arched windows that reflected the building styles of that period. As seen in the diagram above, the window uses 1x1 bricks with studs on the side to attach tiles to. Alternating between 1x1 and 1x2 tiles makes a nice brick pattern for the window edges. For the top tiles, the bricks were shifted to allow angled positioning. The very top tile is held in place with a 1x2 Technic brick with a half-stud pin.

The bars in the window are from a spear inserted into a 1x1 cone, then placed on a 1x2 jumper plate. The result is a window befitting a chapel.

What makes the city unique is that each 48 stud x 48 stud module can be presented independently. The modules led me to detail each as if they were a full-fledged MOC.

This city is designed for display, and at Fana'briques 2012 convention, I was very proud that my friend Nicolas Picot joined me to make the city even larger. More has been added to the project in 2013, with two other builders creating a city more than 2 meters long and almost 1 meter wide !

BrickNerd DO IT YOURSELF FAN ART!

Trojan Rabbit

Design and Instructions by Tommy Williamson

Tommy Williamson is no stranger to *BrickJournal*, having been featured previously for his Jack Sparrow miniland scale figure. Since then, he has gone farther into building, making some remarkable *Star Trek* props and other models. He's now doing a new column for *BrickJournal:* DIY Fan Art. Here, Tommy takes a little time out from his busy schedule to make a model of his choosing for the magazine.

What is he busy on? Tommy's now a LEGO community blogger with his own website: BrickNerd (www.bricknerd.com). As he says, "I've been a fan of LEGO all my life, and got into the AFOL scene about 8 years ago. I decided it was time to take my unhealthy obsession to the next unhealthy level and start a fan site. Not only do I cover great MOCs and LEGO news, I host a bi-weekly web series. I also do reviews and feature artist bios and interviews. If you're nerdy about the bricks, BrickNerd is for you!"

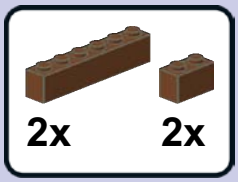
About the Trojan Rabbit:

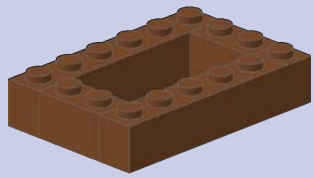
"When Joe Meno contacted me to design a model for the castle issue I didn't have to think very long before the idea for this little creation popped in my head. See, the plan is simple: Lancelot, Galahad, and I will wait until nightfall, then pop out of the rabbit. Catching them totally off guard. Not only off guard, but totally unarmed! When I think castle, I automatically think *Monty Python and the Holy Grail*. Thus I give you, the Trojan Rabbit! I hope you have a decent selection of brown bricks because this one's a little monochrome. The only somewhat rare bricks are the wedge plates in the ears. Other than those, it's all common brick."

Parts List *(Parts can be ordered through Bricklink.com by searching by part number and color)*

Qty	Part	Color	Description
2	47905.dat	Reddish Brown	Brick 1 x 1 with Studs on Two Opposite Sides
5	3004.dat	Reddish Brown	Brick 1 x 2
1	3622.dat	Reddish Brown	Brick 1 x 3
4	3010.dat	Reddish Brown	Brick 1 x 4
4	3009.dat	Reddish Brown	Brick 1 x 6
1	3937.dat	Dark Red	Hinge 1 x 2 Base
1	6134.dat	Black	Hinge 2 x 2 Top
7	3023.dat	Reddish Brown	Plate 1 x 2
3	3794a.dat	Reddish Brown	Plate 1 x 2 without Groove with 1 Centre Stud
1	3623.dat	Reddish Brown	Plate 1 x 3
4	4032a.dat	Reddish Brown	Plate 2 x 2 Round with Axlehole Type 1
4	2817.dat	Black	Plate 2 x 2 with Holes
1	3021.dat	Reddish Brown	Plate 2 x 3
1	3020.dat	Reddish Brown	Plate 2 x 4
8	50746.dat	Reddish Brown	Slope Brick 31 1 x 1 x 2/3
5	3040b.dat	Reddish Brown	Slope Brick 45 2 x 1
1	3665.dat	Reddish Brown	Slope Brick 45 2 x 1 Inverted
2	3037.dat	Reddish Brown	Slope Brick 45 2 x 4
2	32073.dat	Black	Technic Axle 5
2	98138.dat	Light Gray	Tile 1 x 1 Round with Groove
1	43723.dat	Reddish Brown	Wing 2 x 3 Left
1	43722.dat	Reddish Brown	Wing 2 x 3 Right
1	41770.dat	Reddish Brown	Wing 2 x 4 Left
1	41769.dat	Reddish Brown	Wing 2 x 4 Right

1





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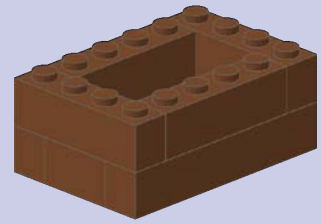

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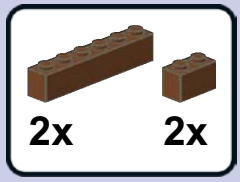

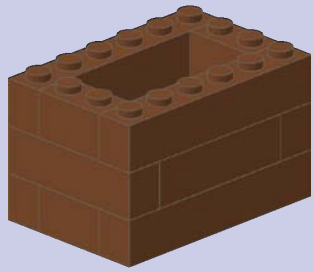

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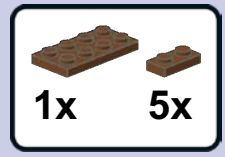

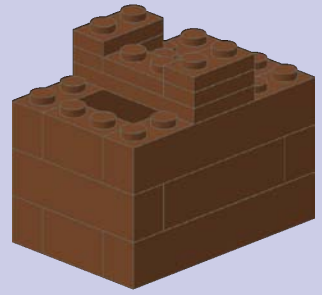

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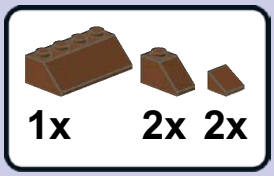

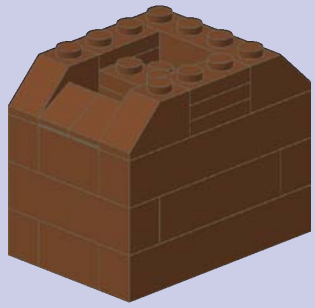

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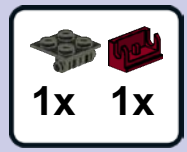

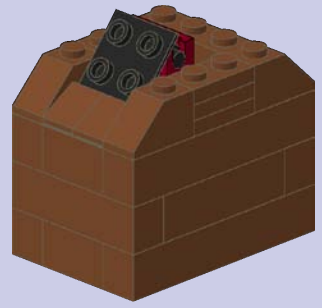

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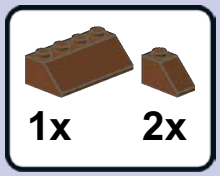

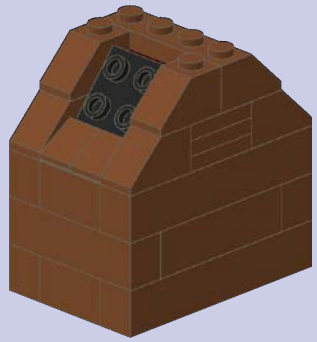

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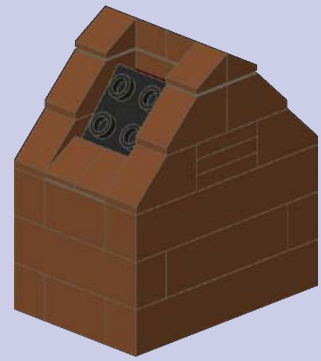

You Can Build It

MINI Model

Micro Guarded Inn

Design and Instructions by Christopher Deck

Hello everybody, I am glad to join again for this exciting issue of *BrickJournal*. As in the last castle-themed issue, we want to build a micro version of an official classic castle set here. This time it's all about set "6067: Guarded Inn", which was first released in the year 1986, and later re-released within the Legends line as set numer 10000. The Guarded Inn is truly one of the most beautiful and popular castle sets of all time, and thus a great object for minimization, although a very difficult one.

It's very hard to describe how the construction worked out finally, as it was really complicated for this compact building. There are SNOT bricks throughout the entire construction. The most challenging details include the bowfront, the gable with the small window, the timer-framework, and of course the microfigures. I really recommend building this micro set to get a real feeling for the building style and what tricks are used to obtain accuracy and recognition value.

Have fun, and see you next time!