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Brick Journal

Issue 30 • August 2014

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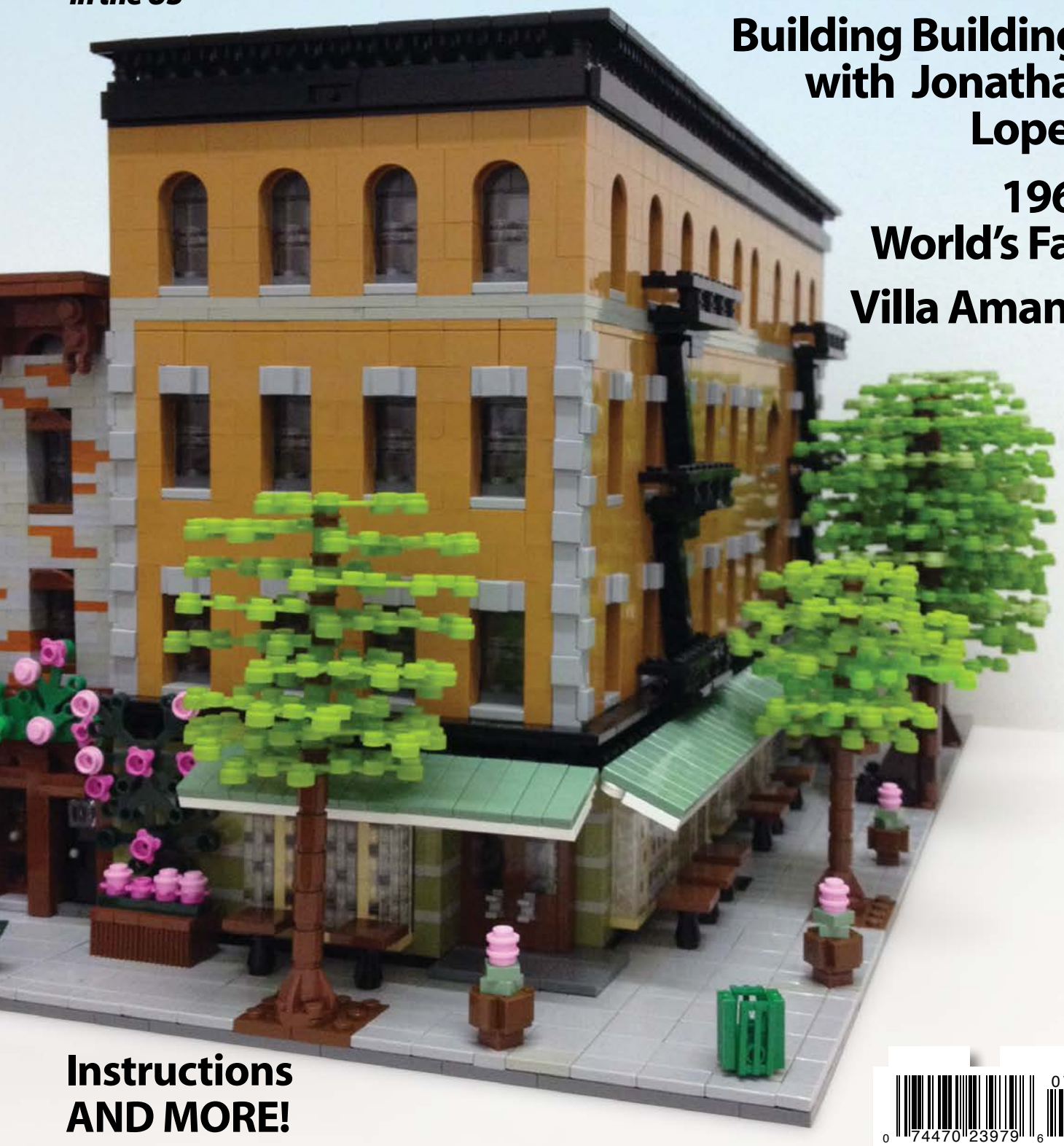

Building Buildings with Jonathan Lopes!

1964 World's Fair

Villa Amanzi

Instructions AND MORE!

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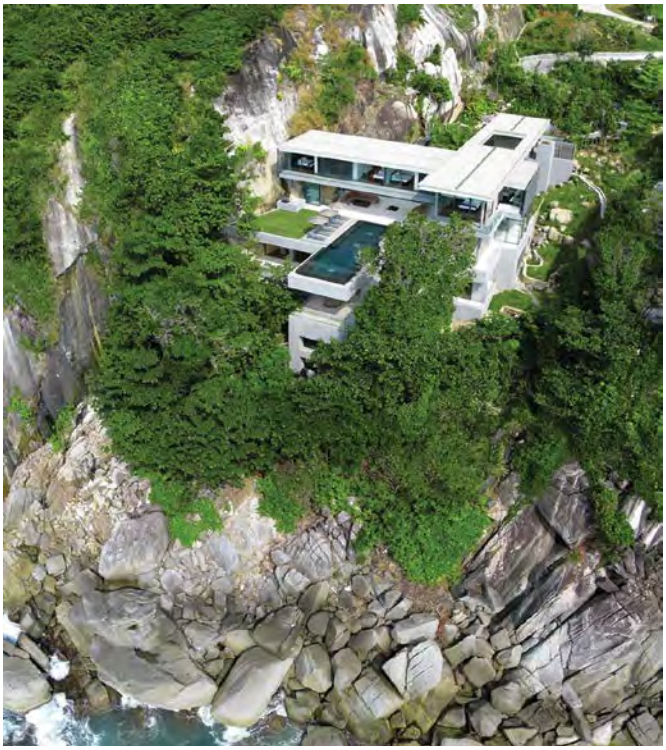
Villa Amanzi:
LEGO Modeling a Luxury Thai Villa

Article and Photography by Robert Turner

Before we get into the details of modeling the villa, let me briefly introduce myself. My name is Robert Turner and my Flickr handle is rt_bricks. By day, I am a computer software developer, although more recently I have been managing software teams and overseeing software architecture for mobile and embedded operating systems. Outside of work and LEGO, I have interests in sports, largely soccer/football which I have played, coached and refereed.



Villa Amanzi. Photo courtesy of Original Vision.

The overlay grid for the second floor, used to determine size and scale. The floor plan was found on a Google image search.

I have had an interest in architecture since I was a young child; it was my desired profession until high school. I used to draw buildings, design floor plans, and even make foamboard models of some of my designs. As I got into LEGO building as an AFOL and watched what impressive works the LEGO community created, I developed a strong interest in building some of my own creations in the architectural theme. I wanted to pick something that hadn't been modelled in LEGO before, and I wanted to do something that was impressive in its own right, both in the design of the building and the setting.

Site Seeing

To select the subject for this MOC, I spent a few evenings over a few weeks searching the Internet for cool buildings, browsing architectural media and firm websites, and cross-checking against existing LEGO builds. I discovered many interesting buildings and some really neat projects by talented firms and architects. During the search, I discovered Villa Amanzi, designed by architectural firm Original Vision (http://www.original-vision.com), and immediately thought it would be a good building to model, and a nice place to stay for a bit, should the opportunity ever arise.

The building is located on the prestigious Millionaires Mile, on the west coast of Phuket Island in Thailand. It sleeps up to twelve occupants in six rooms, all with en-suite bathrooms. The villa is an ultra-modern design, nestled into the edge of a rock face, with large expanses of glass in each room facing the ocean; with the second floor sliding glass doors completely retracted it gives a completely open-air feel to the building. It also features a stunning fifteen-metre infinity pool which appears to blend into the ocean.

Villa Amanzi has many straight lines, which is well-suited to LEGO, but it also has some more challenging aspects, like the infinity pool, thin rooflines, and the fact that it's designed into the rock face. It is also situated on a site which incorporates water, vegetation and an impressive rock face and small ravine. Finding sufficient pictures and floor plans was a key aspect of selecting the building, and both of these existed on a combination of the architectural firm's website and the operating resort's website. This made the Villa Amanzi a good choice for my first significant architectural LEGO model.

Sizing the Villa Up

Before starting to build and acquiring parts, I first set out to validate if I could build the villa in LEGO. To do this, I took the plan of the second floor (which I chose because it had the pool and outdoor areas and was the most complex), and generated an overlay grid using a picture editor. Very briefly, I considered building at minifig scale, but very quickly realized that it would be enormous and extremely costly. As such, I quickly switched to microscale (using the floor plans and the size of the bed as the basis for my scale). I chose a scale so that a bed was two studs wide; the walls would also need to be no less than one-stud wide. From that overlay, I examined all the objects on the floor plans to see how well I could line walls up, build the furniture, stairs, and other details. Once I had gotten a good feeling about the model, I then used LDraw to build up a model of most of the second floor of the building. This process took a few days, but it gave me a very good idea of the parts and quantities I would use for the core of the building, and how well the alignment of walls worked. While I was doing this, I was also evaluating the basic structure to ensure it would be somewhat structurally solid. However, as I found out later while actually building it, you really need to build things to determine how well they will actually hold together

Urban Building

Article and Photography by Jonathan Lopes

Coronado Building.

Jonathan Lopes, from BKNY Bricks, is a New York City based creative who works within the medium of LEGO Bricks.

Background:

As a child, LEGO was the toy that kept my imagination busy at play for hours. And "imagination" had a lot to do with it, too. I had a limited collection of mostly basic bricks, plates and wheels, but that did not stop me from building, imagining and dreaming. I have always been a creative in many areas: drawing, music, writing, and LEGO building, among others. In my teens through my mid-twenties I focused my creative energy on music. This focus brought me from my hometown on the south shore of Massachusetts to New York in 1990. I have lived here since. I first got back into LEGO as an adult in 1997, after I read about The LEGO Company obtaining the *Star Wars* license.

I have always been attracted to city living: the hustle and bustle, being anonymous, the diverse cultures and having everything I need just a short walk away. And, living in New York City is what enabled my creativity to flourish and also what first peaked my interest in architecture and infrastructure. It is difficult not to be influenced in these aspects while being in an urban setting on a daily basis. Further, because of the age of the city, there are all kinds of architectural styles to take in. Many buildings combine the varying styles of different eras, as well. It is amazing what one can see from a short stroll around one block, and even more so around 20 blocks!

Urban Landscape, one of Jonathan's layouts.

My Early Focus:

Early on, my initial main focus in building with LEGO was building town and train layouts. I've built two of them so far.

I had my sights set on a layout back in 1999 or so and started planning one on paper. I immediately realized that there would be no space to allow for skyscrapers. I did not have a large enough display space to accommodate a skyscraper and also, I didn't have enough bricks to build one. So I focused myself on building the shorter commercial and tenement style buildings that now comprise my MOCpages, Flickr and Brickshelf accounts. I focused on all the details and strived to attain as much realism as I could while refining my building skills with each new building.

I acknowledge each step in my involvement with LEGO as having an effect on the builder I am and the design choices I make today. For example, early on, I did not have many earth-tone bricks in my collection. So, the sidewalls of my buildings, which were hidden by the adjoining building, were usually made of the easier to obtain, bright colored bricks. This actually brought me to a discovery that I follow today: In many cases, the side and back walls of NYC buildings are a different color or shade than that of the building's front facade. They are typically not bright green or bright yellow, as in my early work, but I've included this detail in my buildings for years now, usually in gray or dark gray. It adds a very important element of realism and gives each of my buildings the feel I want them to have.

Another aspect of creating buildings with LEGO that I developed over time is using the bricks in a brick-like pattern. This started when bricks in the color of sand red were available in bulk bags. I bought only 1x2 and 2x2 brick bags and noticed the realistic pattern when using only these two shapes created on the sides of my buildings. Additionally, I experimented with a studs-out tiling effect seen below in my Faile Street building.

More recently, I've been using 2x2 plates to achieve this same effect in my Hoyt Street Building and Portland Mechanics Shop, which are on the following pages. I am really pleased with the way these came out.

Changing With the Times

In the early 2000s, the LEGO Company changed the gray color of its bricks to a blue-gray, now called bley. I embraced this change and considered them to be new colors being introduced into the existing color palette. Though they are replacement colors, I did not view them as such. I regularly mix (old) light gray with (new) light bluish gray to add realism and a weathered appearance to my creations.

Faile Street.

For my typical work, achieving realism is my goal, so these little details are paramount. Everything from the texture of bricks to details such as fire department standpipes, cornices, lights, security cameras, and now bushes and trees, are of very high importance to me.

Over the years, I've built two fully working layouts—each with many buildings and architectural details. One detail that I think may get overlooked in these layouts is scale. The first layout, my Urban Landscape, had buildings with commonly sized 4-wide windows. That set the scale for me. With the second layout, Urban Landscape 2011, many of the buildings had

Truck and Trailer

Design by Jonathan Lopes
Instructions by Joe Meno

One of the really neat aspects of Jonathan Lopes' structures and layouts is that he builds 4-stud-wide vehicles. These are not minifigure scale, but they are not exactly the scale that was used for the Tiny Turbos cars that were released by the LEGO Group. They are a great showcase of clever building techniques and we have instructions to make the yellow truck and trailer in the photo. Have fun!

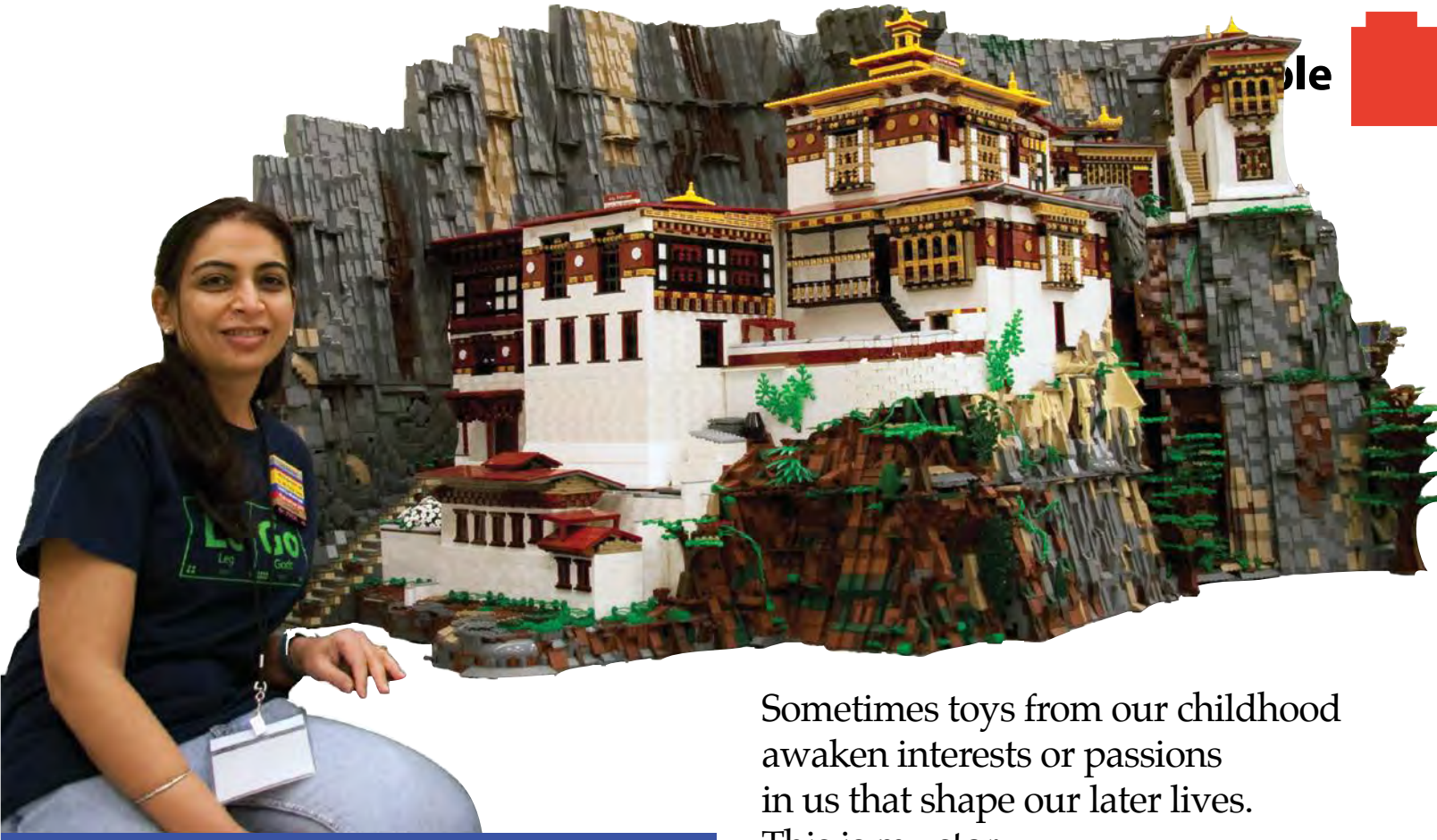
Yellow Truck Parts List

(Parts can be ordered from Bricklink.com by searching by part number and color)

Qty	Color	Part	Description
2	Dark Bluish Gray	99780.dat	Bracket 1 x 2 - 1 x 2 Up
1	Light Bluish Gray	2436b.dat	Bracket 1 x 2 - 1 x 4 Type 2
4	Yellow	4070.dat	Brick 1 x 1 with Headlight
2	Trans Black	3004.dat	Brick 1 x 2
1	Black	4522.dat	Minifig Tool Mallet
1	Yellow	3024.dat	Plate 1 x 1
1	Trans-Neon Orange	4073.dat	Plate 1 x 1 Round
2	Trans-Clear	4073.dat	Plate 1 x 1 Round
2	Light Bluish Gray	4073.dat	Plate 1 x 1 Round
1	Yellow	4085c.dat	Plate 1 x 1 with Clip Vertical (Thick U-Clip)
1	Trans-Black	3023.dat	Plate 1 x 2
1	Yellow	3023.dat	Plate 1 x 2
2	Dark Bluish Gray	3023.dat	Plate 1 x 2
1	Yellow	32028.dat	Plate 1 x 2 with Door Rail
1	Yellow	3710.dat	Plate 1 x 4

Qty	Color	Part	Description
1	Light Bluish Gray	3710.dat	Plate 1 x 4
1	Light Bluish Gray	3022.dat	Plate 2 x 2
2	Yellow	2420.dat	Plate 2 x 2 Corner
2	Light Bluish Gray	4600.dat	Plate 2 x 2 with Wheel Holders
1	Yellow	3021.dat	Plate 2 x 3
1	Light Bluish Gray	3795.dat	Plate 2 x 6
2	Yellow	54200.dat	Slope Brick 31 1 x 1 x 0.667
1	Dark Bluish Gray	2412b.dat	Tile 1 x 2 Grille with Groove
2	Dark Bluish Gray	3069b.dat	Tile 1 x 2 with Groove
3	Yellow	3069b.dat	Tile 1 x 2 with Groove
1	Light Bluish Gray	2431.dat	Tile 1 x 4 with Groove
1	Black	4150.dat	Tile 2 x 2 Round
1	Black	3680c01.dat	Turntable 2 x 2 Plate (Complete)
4	Light Bluish Gray	30027ac01.dat	Wheel Rim 8 x 8 with Tyre 8 / 40 x 8 Slick Smooth

Rendering by Geoff Gray.



Anuradha Pehrson:

Childhood Interest, Adult Passion

Article and Photography by Anuradha Pehrson

Sometimes toys from our childhood awaken interests or passions in us that shape our later lives. This is my story.

I grew up in India where LEGO wasn't easily available. An aunt visiting Europe bought a Creator set as a gift for my brother who was just one year old than me. I was eight, so I helped myself to it. A gift he couldn't appreciate turned out to be a windfall for me. I quickly built all three versions and yearned to build more. There were so many ideas running through my head but I didn't have the option of going out and buying more bricks, so every time I sat down to build, I'd take just this one set and manage to build something new, something different. Scarcity inspired improvisation.

On some unrealized level my brain was being primed for a lifelong passion for architecture and of course, I had fallen in love with LEGO.

LEGO building continued until my early teens and then waned, but my love of architecture as a subject persisted. I borrowed books from the library and even thumbed through trade magazines. When it came time to pick a career, architecture was the obvious choice. Unfortunately one of the prerequisites was a drawing examination, which I failed. For some reason they felt I needed to be able to draw flowers in a vase before designing buildings!

My life changed in 2001 when I moved from a country that had a warm climate, vibrant colors everywhere, and great food, to Seattle, a place that was cold, rainy and grey, and I found most of the food tasteless. Finding my bearings here was going to be an uphill task! One day walking around downtown, I happened upon an FAO Schwarz toy store with piles of LEGO buckets in the window

A tree creation, and inadvertently, a new treebuilding technique.

display. Without hesitating, I went in and bought a few. I had found something to connect me to my former life; something to hold on to, in this grey and rainy place. It was probably the happiest day of the first few months of living in Seattle!

Being able to build with LEGO, I delved deeper into my passion for architecture and studied different styles from around the world. Each hobby fed the other. This process continues even today.

I built by myself until 2004 when, accidently, I discovered the worldwide LEGO community, BrickCon and various LUGs. It was a relief to learn that not only was I not crazy, but there's actually a descriptive acronym for me: AFFOL (adult female fan of LEGO)—although, personally I would like to change that to AFBOL (adult female builder of LEGO).

In one of my first MOCs, I tried to capture the look and feel of a typical small southern Indian house, including a couple of trees in a homey backyard. I brought this MOC to my first SeaLUG meeting and was told this tree technique had never been done before to anyone's knowledge.

Since then my ambition has been to employ a new technique with every MOC. It's a goal not always achieved, but I strive to use parts and elements in unique ways, and my childhood habit of building with available parts has stayed. Of course I've purchased specific parts for many MOCs, but generally challenge myself to work with what I have. Building within constraints pushes the boundaries of my creativity and sometimes inspires unique solutions to problems.

Inspiration can be drawn from almost anything—strolling in a garden, on city streets or completing a puzzle. For example, while absorbed over a jigsaw puzzle depicting Venice's iconic Rialto Bridge, I got the idea to build the entire diorama.

The Rialto Bridge.

The Chapel of the Immaculate Conception

Article by Rafe Donohue
Church Photography provided by the University of Dayton
Other Photos and Art by Joe Meno

The Chapel of the Immaculate Conception at the University of Dayton was constructed in 1869. The Chapel reflects and incorporates Greek revival architectural elements, with tall support columns framing the windows and front face, a triangular pediment with the round window, and dentil details. Building the model with the window panels removed reveals a fundamental structure that evokes the Parthenon.

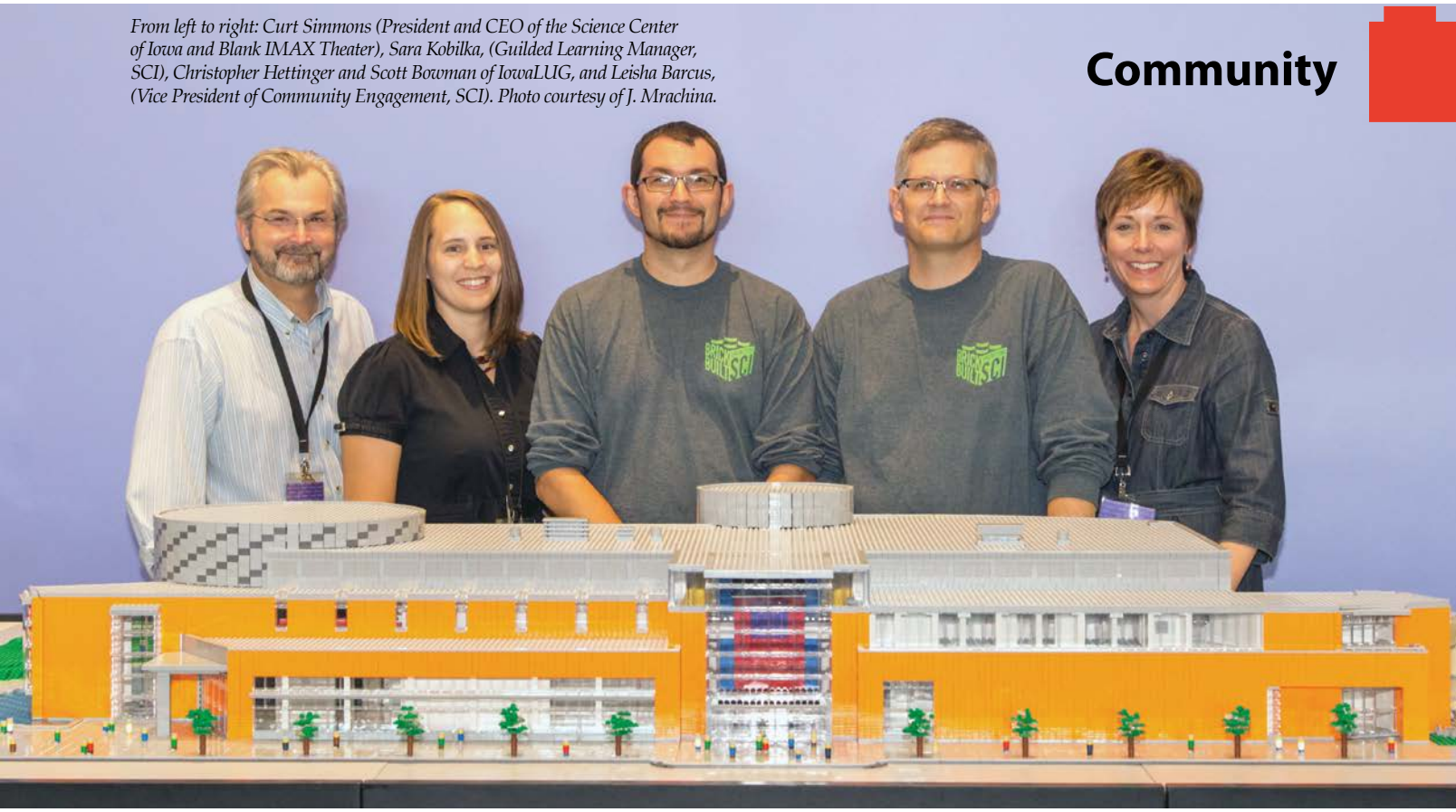
The Chapel was renovated in 1949 and 1979 and is undergoing another renovation presently, this time to increase space and improve accessibility. The 1971 renovation revealed a hatchet concealed in the base of the main altar, a feature reflected in this model (no renovations are planned for this model!).

The model features removable roof components and interior details including the reredos, altar, and a pipe organ in the choir loft. The model opens with the removal of a few key pieces, allowing access to the treasures inside.

This article describes this model and its development and planning.

Design Plans

I started designing the Chapel in early 2014 and spent the better part of the next



From left to right: Curt Simmons (President and CEO of the Science Center of Iowa and Blank IMAX Theater), Sara Kobilka, (Guilded Learning Manager, SCI), Christopher Hettinger and Scott Bowman of IowaLUG, and Leisha Barcus, (Vice President of Community Engagement, SCI). Photo courtesy of J. Mrachina.

Building a Community Brick by Brick

Article by Joe Meno
Photography provided by Christopher Hettinger

One of the large displays at Brickworld 2013 was a model of the Science Center of Iowa. This model, which was approximately 7 feet long by 5 feet wide, was the result of years of effort by Chris Hettinger and Scott Bowman. BrickJournal *talked to Chris about this project and how it came about. He tells us the story from the beginning…*

I attended my first Brickworld in 2010. My wife and I both have birthdays in June and my birthday request that year was to attend Brickworld. I had been in my "Dark Ages" for a while at this point. My wife helped renew my interests in building when she gifted me some LEGO for the previous Christmas. I began looking up creations online and was blown away by the existence of this community, and more so by what builders were creating.

Upon returning home to Iowa, I was lonely, as there wasn't a LUG that I knew of anywhere close. Microscale had really grabbed my attention, and in particular Micropolis. As a result, I reached out to TwinLUG (a LUG in Minneapolis-St. Paul) and through them I dug into the AFOL community. I also became determined to create a community in Des Moines. We don't have a LEGO store and only two Toys 'R' Us stores. Des Moines is a town of nearly 700,000 so there's not a huge culture for the 30-something and higher LEGO fan present, and I wasn't sure how to find them.

For Brickworld the next year, I brought a Micropolis scale model of the 801 Grand Avenue tower in Des Moines. It was also my agenda to talk to friends in TwinLUG and anyone else I met to find out how they started their LUG. It was actually Ryan McNaught (a LEGO Certified Professional from Australia) that gave me an important piece of advice. While speaking with him, I shared my idea of organizing a public build event. Having done 801 Grand, I had several ideas about other Des Moines landmarks that I'd like to attempt. He told me, "Yeah, it's a good idea. If you've got a subject and have a willing venue, it's certainly a great way to get in front of the public." My next challenge was to pick a building that would make a good microscale model, a fun venue, but also would most likely be receptive to such an idea. I envisioned that I would pre-engineer the model, then having it all prepared for assembly; I would come down and build the model in their lobby on a Saturday. At this point, I was thinking of a Micropolis scale model — it would be nothing too big.

Chris' rendition of 801 Grand Avenue, a landmark in Des Moines.

Renderings of SCI using LEGO Digital Designer.

It was my wife who suggested the Science Center of Iowa would make a great choice. The building has some very unique characteristics, and would certainly present a fun challenge to recreate. Most prominently is the cylindrical IMAX Theater and smaller Star Theater structures. The Southwest wall is curved, and the Northeast and West corners have some very interesting angles. And the building is practically orange. I also had to agree that, as an audience for this idea of building it for the public—they would likely be a good organization to approach. I knew, from having to explain my idea a few times, that I would need something visual to help sell this idea.

It was February 2011 when I decided to create the initial concept of the Science Center of Iowa and Blank IMAX® Dome Theater. To capture all that character and detail, I decided to build digitally. This was the first project that I used LEGO Digital Designer (LDD) for building. I had no plans to work from, so I used photographs that I snapped from several angles, Google Maps to get the general length and width of the building, even Google Street View came in handy. I based my building scale on a guesstimation: the center has a pretty distinct foyer with a large glass entryway, so I guessed that one of the entry panes was 6 foot square. I had nothing else to go by.

I knew that there were only a few transparent parts that would get me that appearance I was after, so I used the 1 x 4 x 3 transparent panel. Counting the panes of glass, I began there and built the model starting at the lobby, scaling the whole structure from that initial guess.

It was this same time that I met Scott Bowman. We met through our wives—they worked together at DuPont Pioneer, and it turns out we shared some hobbies. When we met for dinner, I discovered he was Danish and he also loves LEGO! Scott became an essential part of the project as it progressed, as you'll see.

Scott, at the time, was a Principal of KJWW Engineering Consultants, a firm in Des Moines. He's also an alum of the Iowa State University Engineering program. This made a difference, as I showed him my completed design in an e-mail. I had a vague understanding that blueprints were public record and I could possibly go to the city and request them, but I didn't know if that was true. I reached out to Scott, sharing with him my LDD concept, and an explanation of this idea. He replied, "Well, it is possible, but it's probably best to get permission from the Science Center if you are going to request their blueprints… and I happen to know somebody at the company who did them. I also happen to know the current president of the Science Center. Do you want me to give him a call?"

Scott gave the president a call; it was about a 30-minute call and he pitched the idea essentially that I would be building in front of the public. At this time, we didn't know funding or even the scale of the project, but we wanted to start with permission to go forward and request blueprints and go from there. The president was very enthusiastic about the idea and immediately agreed and sent us a letter with permission. We then requested and got the blueprints. This wouldn't be the first time that Scott's contacts would come in to push the project forward.

With copies of the architectural plans in hand, I compared the blueprints to my LDD file. I found that I had come

Building Copenhagen

Article by Joe Meno
Photography provided by Ulrik Hansen

A creation making the rounds in Europe is turning heads not only because of its size, but because of its subject. 41-year old graphic designer and builder Ulrik Hansen focused his love of Copenhagen to create a map of the city. The scale is smaller than microscale, but the map is large enough to show small landmarks and streets. Talking to Ulrik online about this creation revealed much of the thought and detail that he placed in the model.

Ulrik is a member of the Danish LEGO users group Byggepladen, and started a magazine for the club about the time he began to build as an adult. As he remembers, "I was watching it from the sidelines and then realized that there was a big community. I remember looking at LEGO in the mid '90s, when I was starting to search the Web, just thinking: what should I look for? I started looking for these incredible pictures of LEGO, but I didn't understand how they were built. Like everyone else in their Dark Age, I didn't understand building techniques."

Joining the group in early 2008, he built his first models. He built three creations before he made the Copenhagen map. When asked about the number of MOCs he has made, Ulrik points out, "I like to put something out that is new and fresh and hasn't been done before. I don't make tons of MOCs because I wait until I get the right idea."

Little Computer People.

Hiroshima Peace Memorial.

Copenhagen Youth House.

Starting to Build

His previous ideas included building the Youth House (Ungdomshurset) in Copenhagen, which was a building that was a "left-wing punk house." There was a big controversy around that house, with the police ultimately raiding the place; and since it was being torn down, the building itself solved his problem of not having enough dark red bricks. It was instantly recognizable to the locals and was shown at the first Danish LEGO World in 2009.

It was then that Ulrik realized that building something people could recognize was a good idea. He wanted a niche for himself, so he started working on building something historical or with some background.

The next MOC Ulrik created was a model of the Hiroshima Peace Memorial, which was built in red at his brother's suggestion. Ulrik remarked, "I didn't like it at first, and it also scares people when they go see it. They don't understand it at all because it's so scary to look at."

Ulrik's third model was based on a computer game from the '80s called *Little Computer People* for the Commodore 64 computer. Ulrik explains, "It's a simulation game with only one screen: this one guy walking around his house. I thought it would be a nice thing to do and I needed to build something more friendly. I was also getting back into my big interest in yesterday's pop culture."

His next idea was to build a MOC based on SimCity because he liked the microscale models he had been seeing of American cities and skyscrapers. "I thought of making a SimCity with some bridges and a nuclear power plant and all the things one might recognize," Ulrik recalls.

Ulrik swapped out the SimCity idea for building a Copenhagen neighborhood. "I wanted this to be a little more cultural than a computer game from the '90s," he states and adds, " I love Copenhagen. I wasn't born there but my mother is from over there and I have visited many times, so it was obvious that I had to do it. My mother was also a great inspiration for my architectural building."

Freetown Christiania, a hippie neighborhood built on a squatted military area.

The resulting MOC was a map of Freetown Christiania, Copenhagen. He was supposed to expand from that part of Copenhagen, but he decided it was better to take a new part of the city, an area that a tourist would recognize. As Ulrik explains, "I was waiting for my skills to improve so I could do something like that. I am also crazy about maps and stuff like that. When you have the interest already, it makes you want to go and research a lot."

He continues, "If you are an artist, you don't want to add to something you already have done. You want to do something better."

Rebuilding the 1964 World's Fair

Article and Photography by Joe Meno

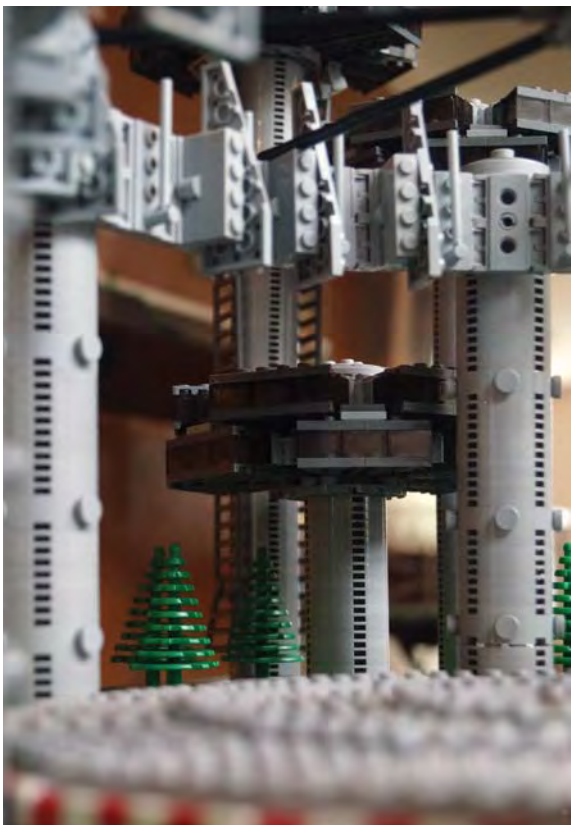
In 1964, the New York World's Fair opened in Flushing Meadows as a celebration of the theme "Peace through Understanding." Occupying nearly a square mile of land, this was the largest World's Fair held in the United States.

After the event, much of the site was torn down. What remained included the Unisphere, the New York Pavilion and the New York City Pavilion, which is now the Queens Museum of Art.

To celebrate the 50th anniversary of the World's Fair, a group of LEGO builders led by Cody Wells of C3Brix were commissioned to build some of the structures seen at the event. Reflecting the international nature of the World's Fair, all of the LEGO models were of parts purchased online from around the world.

Here's a look at some of the models that are on display. If you are in the New York City area, this display will be open until November 2.

An overall view of the pavilion. The large round open structure is the Tent of Tomorrow.



A glimpse of one of the towers.

New York State Pavilion

by Cody Wells
over 1900 parts used from six different countries.

Designed for the 1964 New York World's Fair by architects Philip Johnson and Lev Zetlin, the facility was built between 1962 and 1964. Afterwards, the site was abandoned and went into disrepair.

Moviegoers may recognize the New York Pavilion from the movie *Men in Black*, as the site where a flying saucer was kept... in plain sight! Others may recognize it from *Iron Man 2*, where Flushing Meadows was the site for Stark Expo. In June of 2014, it was announced that restoration of the electrical system and the staircases in the towers would take place over the next year.

A high view of the pavilion.

A overall view of the buildings.

Terrace on the Park/ Port Authority Heliport and Exhibit Building

by Cody Wells
over 1200 parts used from all over the United States.

The Terrace to the Park heliport was commissioned by the New York Port Authority to be the "aerial gateway" to the World's Fair. 102 feet high, this structure had windows that formed the T (for Transportation) on each face. The top floor of the building housed a restaurant named the "Top of the Fair," while the floor below it had the "Drinks Around the World" cocktail lounge.

The Terrace on the Park remains, with a catering service and restaurant at the top floor.

A view from the opposite side of the buildings.

A minifigure's view of the facility.

Mini New York State Pavilion, 1964 World's Fair

Design and Instructions
by Brian Wygand,
Member of ILUGNY

Hello, fellow LEGO enthusiasts! What you have in front of you are building instructions to the New York State Pavilion at the 1964 World's Fair. This building is one of those still standing today during this 50th Anniversary of that World's Fair.

The Pavilion is made of two attractions; the lower section was called the Tent of Tomorrow, which housed a giant map of New York State. The suspension roof was covered in glass tiles (captured in the model with trans red 1 x 1 tiles and trans light blue 1 x 2 tiles).

The other attraction is made up of the three towers. The tallest was an observation tower where visitors could see as far away as New Jersey, Connecticut, the Atlantic Ocean and most of Long Island. The middle tower sold refreshments and the third, shortest tower was a lounge for visiting officials.

Reflecting on my childhood in Queens, many things came to mind which helped lead to the creation of this model. I remembered my family driving along the Grand Central Parkway to Shea Stadium to watch our Mets play ball, and of course I remember passing this cool-looking building that seemed as if UFOs from out of this world were parked on it. (Apparently the creative minds behind the film *Men in Black* thought the same thing, because in that movie the New York State Pavilion was indeed made of UFOs).

On May 18th, 2014, this model was assembled by young builders as part of the year-long celebration of hosting the World's Fair both in 1939 and 1964 by the Borough of Queens. They had a blast and hopefully, you too will enjoy building this model and are inspired to build more mini versions of real world architectural structures.

Enjoy!

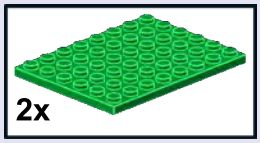
Parts List

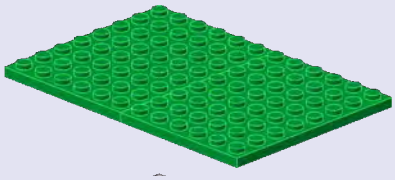
(Parts can be ordered through Bricklink.com by searching by part number and color)

Qty	Color	Part	Description
24	White	3062b.dat	Brick 1 x 1 Round with Hollow Stud
12	Trans-Clear	3065.dat	Brick 1 x 2 without Centre Stud
4	Green	59900.dat	Cone 1 x 1 with Stop
1	White	4285b.dat	Dish 6 x 6 Inverted Webbed Type 2
43	White	4073.dat	Plate 1 x 1 Round
4	White	4032b.dat	Plate 2 x 2 Round with Axlehole Type 2
4	Blue	4032b.dat	Plate 2 x 2 Round with Axlehole Type 2
1	White	3031.dat	Plate 4 x 4
2	Green	3036.dat	Plate 6 x 8
8	White	98138.dat	Tile 1 x 1 Round with Groove
4	Trans-Red	3070b.dat	Tile 1 x 1 with Groove
2	Light Bluish Gray	3069b.dat	Tile 1 x 2 with Groove
8	Trans Light Blue	3069b.dat	Tile 1 x 2 with Groove
4	Light Bluish Gray	4162.dat	Tile 1 x 8
4	White	4150.dat	Tile 2 x 2 Round

If you want to find out more about ILUGNY, you can go to www.ilugny.org or scan the QR code to the left!

1





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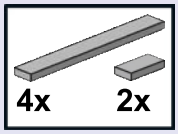

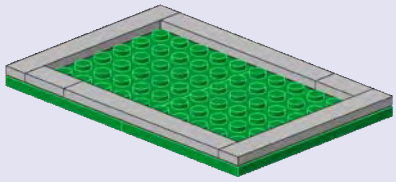

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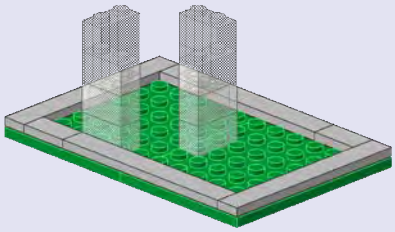

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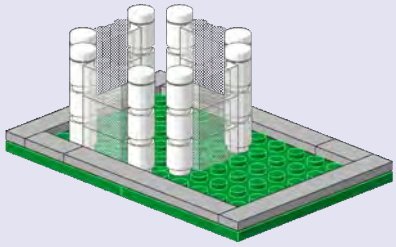

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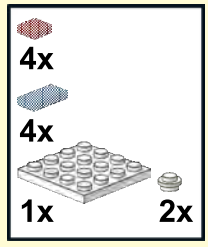

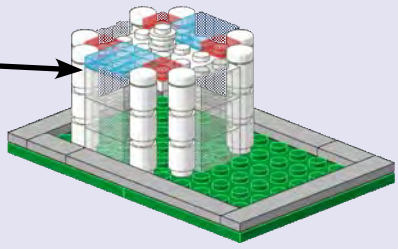

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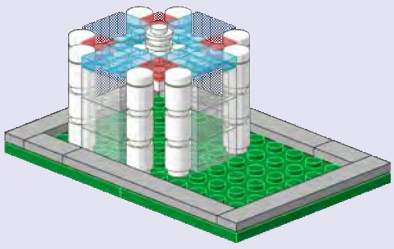


BrickNerd DO IT YOURSELF FAN ART!

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 column for *BrickJournal:* DIY Fan Art. Here, Tommy takes a little time out from his busy schedule at BrickNerd.com to make a model of his choosing for the magazine.

Bronson Gate

Design and Instructions by Tommy Williamson

About this issue's model:

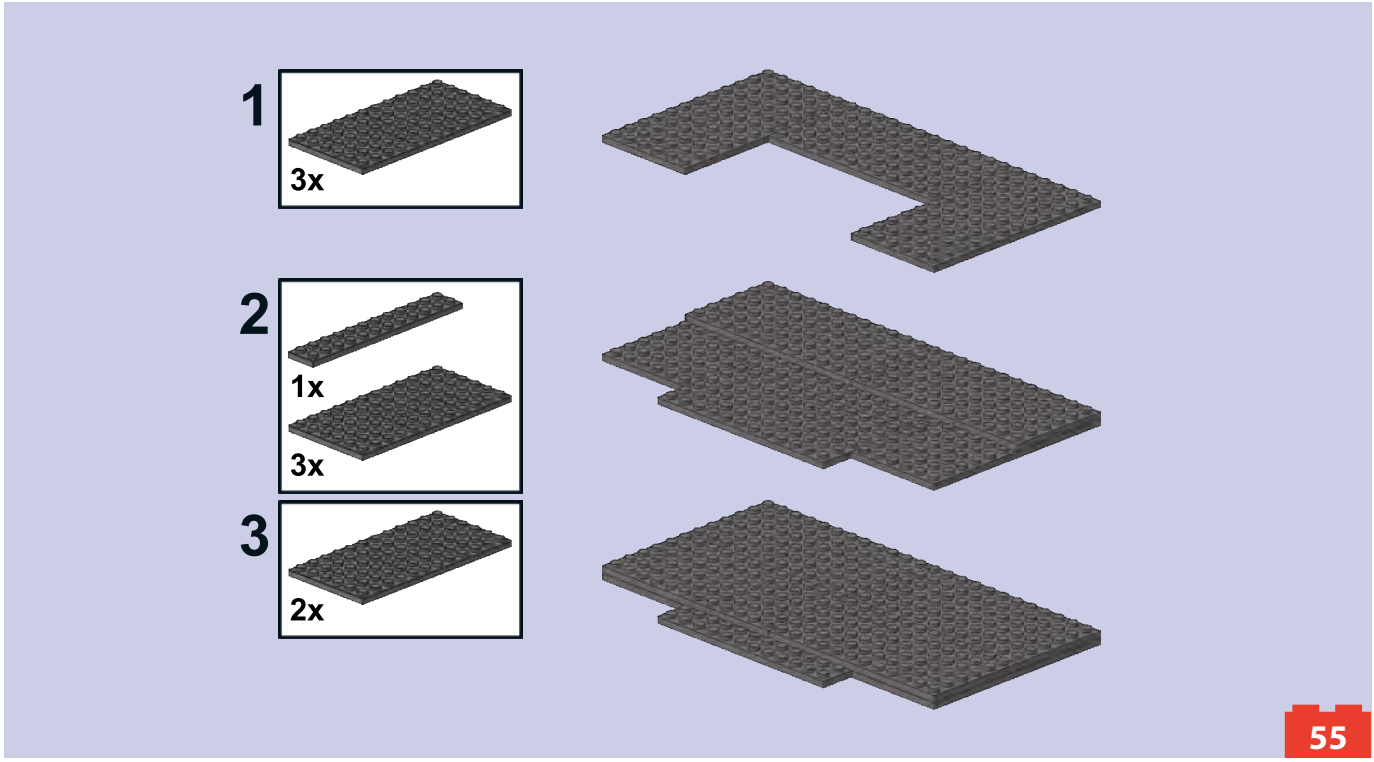
I know after over a quarter century in the motion picture industry I should be jaded and bitter. And while I'm making a big effort to get out of the industry, it's not because I don't still love it. And I still get a thrill when passing through the main gates of a studio. Not too long ago I was lucky enough to work on the Paramount Studios lot for several months, and when I heard the theme of this issue of *BrickJournal* was going to be Architecture, I knew exactly what I would build. It harkens back to the golden age of Hollywood, and it's as iconic as you get as far as studios go. It's the classic Bronson Gate of Paramount Studios. I hope you like it.

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

Qty	Part	Color	Description
1	30039.dat	Light Bluish Gray	Tile 1 x 1 with Groove
4	3957a.dat	Tan	Antenna 4H with Rounded Top
1	6182.dat	White	Arch 1 x 4 x 2
4	3308.dat	White	Arch 1 x 8 x 2
2	3005.dat	Light Bluish Gray	Brick 1 x 1
9	3005.dat	Trans Clear	Brick 1 x 1
11	3005.dat	White	Brick 1 x 1
2	87087.dat	White	Brick 1 x 1 with Stud on One Side
2	3004.dat	Dark Bluish Gray	Brick 1 x 2
15	3004.dat	White	Brick 1 x 2
3	11211.dat	White	Brick 1 x 2 with Two Studs on One Side

Qty	Part	Color	Description
8	3622.dat	White	Brick 1 x 3
12	3010.dat	White	Brick 1 x 4
1	3009.dat	Reddish Brown	Brick 1 x 6
9	3009.dat	White	Brick 1 x 6
5	3008.dat	White	Brick 1 x 8
1	6111.dat	White	Brick 1 x 10
2	3003.dat	White	Brick 2 x 2
6	2357.dat	White	Brick 2 x 2 Corner
1	3002.dat	White	Brick 2 x 3
1	3001.dat	White	Brick 2 x 4
1	3001.dat	Reddish Brown	Brick 2 x 4
4	48092.dat	White	Brick 4 x 4 Round Corner
1	3024.dat	Green	Plate 1 x 1
1	3024.dat	Light Bluish Gray	Plate 1 x 1
7	3024.dat	White	Plate 1 x 1
7	3024.dat	Tan	Plate 1 x 1
1	4073.dat	Blue	Plate 1 x 1 Round
4	4073.dat	Tan	Plate 1 x 1 Round
29	4073.dat	Green	Plate 1 x 1 Round
30	4073.dat	Trans Medium Blue	Plate 1 x 1 Round
1	3023.dat	Green	Plate 1 x 2
2	3023.dat	Tan	Plate 1 x 2
6	3023.dat	Trans Clear	Plate 1 x 2
8	3023.dat	White	Plate 1 x 2
1	32028.dat	Light Bluish Gray	Plate 1 x 2 with Door Rail
2	15573.dat	White	Plate 1 x 2 with Groove with 1 Centre Stud, without Understud
1	3794a.dat	White	Plate 1 x 2 without Groove with 1 Centre Stud
4	3794a.dat	Dark Red	Plate 1 x 2 without Groove with 1 Centre Stud
1	3623.dat	Tan	Plate 1 x 3
1	3623.dat	Green	Plate 1 x 3

Qty	Part	Color	Description
1	3710.dat	Green	Plate 1 x 4
2	3710.dat	White	Plate 1 x 4
2	3710.dat	Blue	Plate 1 x 4
2	3666.dat	Tan	Plate 1 x 6
5	3666.dat	White	Plate 1 x 6
1	4510.dat	Light Bluish Gray	Plate 1 x 8 with Door Rail
1	4477.dat	White	Plate 1 x 10
1	3020.dat	Blue	Plate 2 x 4
3	3020.dat	Green	Plate 2 x 4
1	3832.dat	White	Plate 2 x 10
3	2445.dat	Dark Bluish Gray	Plate 2 x 12
2	2450.dat	Green	Plate 3 x 3 without Corner
4	30565.dat	Tan	Plate 4 x 4 Corner Round
1	3032.dat	White	Plate 4 x 6
1	3032.dat	Tan	Plate 4 x 6
1	3030.dat	White	Plate 4 x 10
11	3028.dat	Dark Bluish Gray	Plate 6 x 12
1	30385.dat	Trans Dark Blue	Rock 1 x 1 Crystal 5 Point
2	3040b.dat	Reddish Brown	Slope Brick 45 2 x 1
6	3039.dat	Reddish Brown	Slope Brick 45 2 x 2
8	13548.dat	Reddish Brown	Slope Brick 45 2 x 2 Double Convex with Cant
6	3037.dat	Reddish Brown	Slope Brick 45 2 x 4
4	32123a.dat	Tan	Technic Bush 1/2 Smooth with Axle Hole Reduced
1	3069b.dat	Trans Clear	Tile 1 x 2 with Groove
3	3069b.dat	White	Tile 1 x 2 with Groove
7	2431.dat	Black	Tile 1 x 4 with Groove
1	6636.dat	White	Tile 1 x 6
4	6636.dat	Black	Tile 1 x 6
5	4162.dat	Black	Tile 1 x 8
1	3068b.dat	Tan	Tile 2 x 2 with Groove



You Can Build It

MINI Model

Endor Shield Generator Bunker

Design and Instructions
by Christopher Deck

Hello everybody! I'm glad to join you again for this fantastic issue of *BrickJournal*! The leading theme of this issue is about architecture, and hence we want to build one of the core locations of the *Star Wars* movies—the Shield Generator Bunker on Endor. The shape of the little building is more complex than it seems, as it features sloped walls and has a trapezoid base layout. To prevent gaps and holes in the ceiling due to the unusual shape, we will use door rail plates and wedge plates. The entire bunker will be set up in a little forest diorama scene with a new micro AT-ST walker as a bonus. I wish you happy building and see you next time!

You can go to Christopher's webpage by going to www.deckdesigns.de or scanning this QR code!

Parts List

(Parts can be ordered from Bricklink.com by searching by part number and color)

Bunker

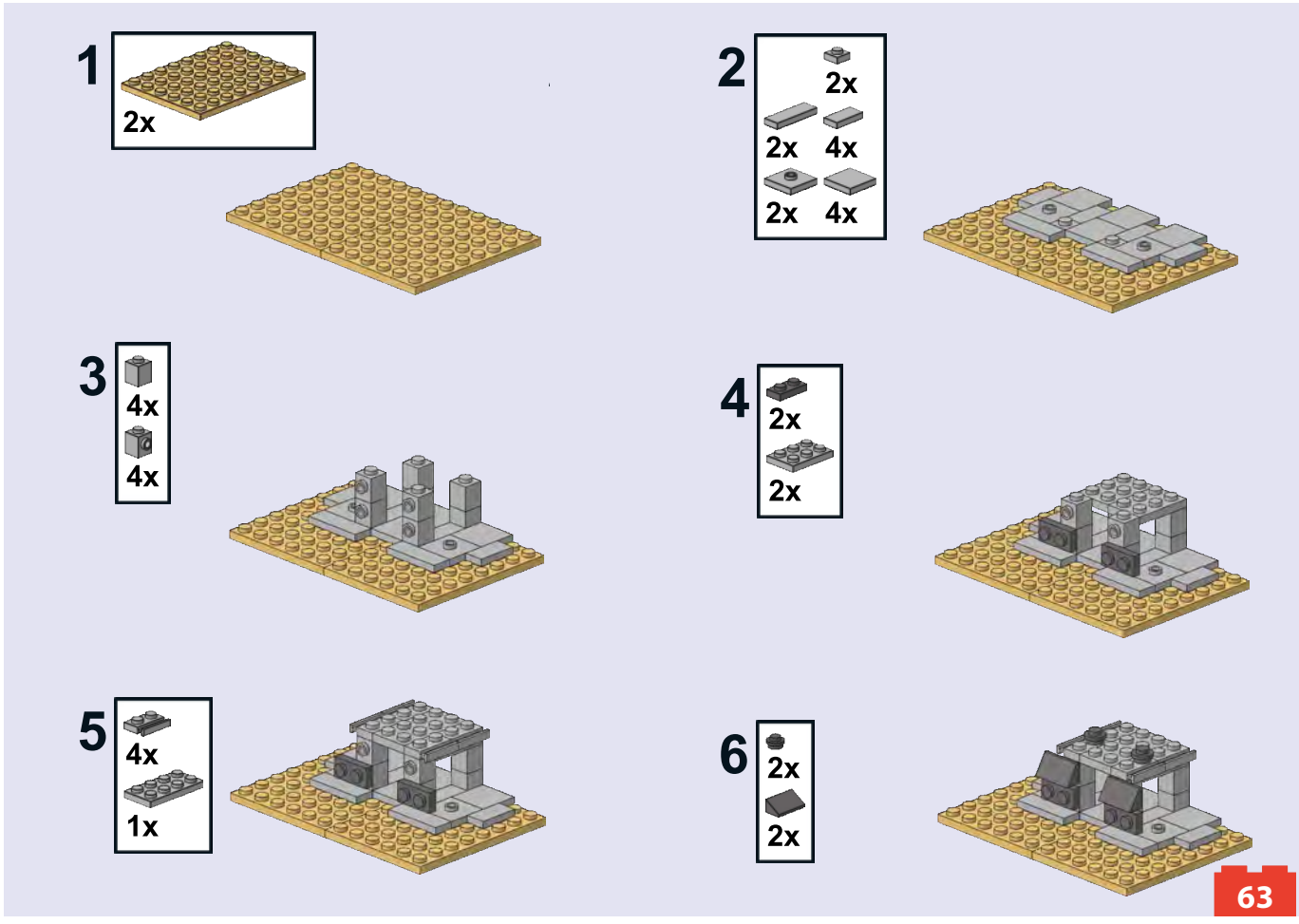
Qty	Color	Part	Description
4	Light-Bluish-Gray	3005.dat	Brick 1 x 1
8	Light-Bluish-Gray	87087.dat	Brick 1 x 1 with Stud on 1 Side
4	Light-Bluish-Gray	11211.dat	Brick 1 x 2 with Two Studs on One Side
2	Light-Bluish-Gray	4740.dat	Dish 2 x 2 Inverted
2	Light-Bluish-Gray	3024.dat	Plate 1 x 1
2	Dark-Bluish-Gray	4073.dat	Plate 1 x 1 Round
2	Dark-Bluish-Gray	3023.dat	Plate 1 x 2
2	Dark-Bluish-Gray	3710.dat	Plate 1 x 4
4	Light-Bluish-Gray	32028.dat	Plate 1 x 2 with Door Rail
2	Light-Bluish-Gray	87580.dat	Plate 2 x 2 with Groove with 1 Center Stud
2	Light-Bluish-Gray	3021.dat	Plate 2 x 3
1	Light-Bluish-Gray	3020.dat	Plate 2 x 4
2	Dark-Tan	3036.dat	Plate 6 x 8
12	Dark-Bluish-Gray	85984.dat	Slope Brick 31° 1 x 2 x 0.667
4	Light-Bluish-Gray	3069b.dat	Tile 1 x 2 with Groove
2	Light-Bluish-Gray	63864.dat	Tile 1 x 3 with Groove
4	Light-Bluish-Gray	3068b.dat	Tile 2 x 2 with Groove
1	Light-Bluish-Gray	43723.dat	Wing 2 x 3 Left
1	Light-Bluish-Gray	43722.dat	Wing 2 x 3 Right

Foliage

Qty	Color	Part	Description
8	Reddish-Brown	3062b.dat	Brick 1 x 1 Round with Hollow Stud
3	Green	3741a.dat	Plant Flower Stem
5	Green	2423.dat	Plant Leaves 4 x 3
2	Green	2417.dat	Plant Leaves 6 x 5
1	Reddish-Brown	2566.dat	Plant Tree Palm Top

AT-ST Walker

Qty	Color	Part	Description
2	Dark-Bluish-Gray	48729.dat	Bar 1.5L with Clip
1	Dark-Bluish-Gray	42446.dat	Bracket 1 x 1 - 1 x 1
1	Light-Bluish-Gray	4070.dat	Brick 1 x 1 with Headlight
2	Light-Bluish-Gray	59230.dat	Minifig Mechanical Arm Straight
1	Dark-Bluish-Gray	30375.dat	Minifig Mechanical Torso
1	Light-Bluish-Gray	54200.dat	Slope Brick 31° 1 x 1 x 0.667

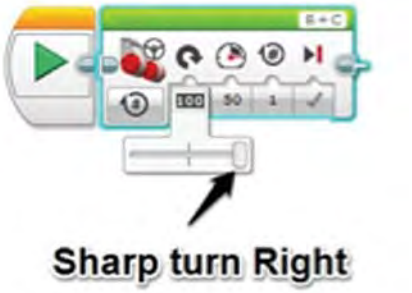


MINDSTORMS 101: Programming Turns for Your Robot

Article and art by Damien Kee

In the last installment of our MINDSTORMS articles, we looked at how to program your robot to drive in a straight line. And while that is a lot of fun to go backwards and forwards, at some point you're going to want to turn corners. To get started, grab your RileyRover or RetailRover that you built for the last lesson. In fact, any two-wheeled robot will be fine for this activity. While there are a couple of ways to get your robot to turn, we'll concentrate on using the **Move Steering** command that we used previously for our straight line.

The Steering input can be used to change how tightly the robot will turn. You can either click and drag the slider bar or type in a number. The direction is defined by the value you enter, -100 gives you a sharp left while 100 gives you a sharp right and 0 will make the robot drive in a straight line.



Choosing numbers and slider positions between these extremes will make the robot turn in gentler arcs. Keep in mind that the way the robot is set-up may have an impact on which way is 'left' and 'right'. If you remember, I had to cross over my motor cables in the RileyRover design to make sure that if I say 'left' in the programming, that the robot does in fact go left! If you find that your robot turns right when you say left, switch the left and right motor cables on your design.

Minifigure Customization 101: Jared K. Burks A History of a Hobby and a Hobbyist!

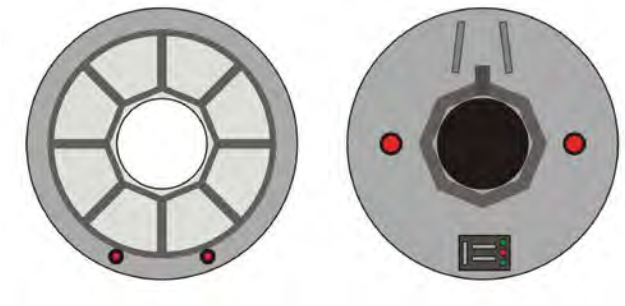
by Andrew Vu and Jared K. Burks

It has been brought to my attention that I have not written any articles or details about who I am or what I do for a living. So I thought I would give a brief background about my professional career and tie that to a short history of the development of my hobby. I am highlighting interactions I have had with others in the development of Minifigure Customization. As many of these photos are from the early days of digital photography, many photos are not great; please forgive these low resolution photographs.

As many of you know, my name is Jared; I attended college in Florida at a small school called Florida Institute of Technology. While in college I was on the Rowing team and pursued Marine Biology, Pre-professional Biology (pre-med), and Molecular Biology. I graduated in 1995 with two Bachelor of Science degrees: one in Molecular Biology and one in Pre-professional Biology. It was during my last two years of college that I left my first Dark Age to delve into the world of Pirates and Islanders. I was captivated by the Skull's Eye Schooner, and being a broke college student, it took quite a while to save up the money for this extravagance. Once this was built, things sort of spiraled and I ended up with most of the Pirates and Islander sets which decorated my apartments for years.

After leaving college I had a mini-Dark Age till the Star Wars LEGO sets emerged. During this time I had started working as a research assistant in a Molecular Virology research laboratory at Texas A&M University, studying how proteins move around inside a cell. This research was performed by engineering small alterations in specific proteins in an insect virus. These engineered viruses were then used to infect insect cells and study how these alterations affected the protein trafficking. During this time I had resumed my earlier woodworking and wood carving hobbies.

In 1998 I started working on my PhD in Biology in this same laboratory, studying a protein called BV/ODV E26. E26 trafficked to the plasma membrane (cell surface) early during infection and to the nucleus later during infection. It was during graduate school that I started building the Star Wars LEGO sets and quickly discovered that LEGO did not detail items to my liking. My first customizations were mini-ships. My first decaled item was the Mini-tie. I wanted the clear radar dish to have the octagonal decoration. During this time I started researching how to create decals and struggled to find a printer that could print with white ink.



First Design: Mini-Tie Fighter Cover.

Shortly after designing the cover for the Mini-Tie Fighter, the bug had caught me and I had found the printer capable of printing in white ink, which at that time had already been taken out of production. I instantly started drawing and created 68 designs to make custom Star Wars figures because I got tired of the small selection of characters made by LEGO. At the time, there were very few people making custom figures, so I had to teach myself how to make custom figures. The prevailing technique to do so was to print out a design on paper, trim it out, and then attach it to the figure in clear packing tape. The tape would wrap the entire torso and have the seams on the edge of the torso to hide the tape. I met Chris "Uubergeek" Campbell during this time as he was taping figures. I was unhappy with this method and uncovered the waterslide decal technique.



Taped and or painted Figures by Chris Campbell using designs by Robert Martin or Jared Burks

Creating custom figures was not widely accepted during this time; people viewed them as inferior and "not" LEGO. It didn't matter that in many cases it simply wasn't possible to create these figures any other way. It was a slow process that was helped when I met Chris "Bertramtalespinner" Howard, a cartoonist. I convinced him to draw several faces for various custom figures. In reality there was only one custom item at that time that was used, and that was the guns that Jeff "Blasterman" Byrd created through The Little Armory. Around this time I created Kaminoan's Fine Clonier, a site where I offered custom waterslide decals. During this time I started creating so many custom Star Wars characters that I drew the attention of Robert "Tothiro" Martin, an incredibly gifted sculptor who was making custom heads for Star Wars Aliens. He and I started creating content for the same figures to help each other complete custom Star Wars Aliens.

Jeff "Blasterman" Byrd's logo for his custom weapons site.




Chris Howard's Faces, Torso Designs by Jared Burks.






Robert Martin Custom Heads, Torso Designs by Jared Burks.

An Interesting Idea: Food Truck

Article by Glen Wadleigh
Photos by Garett Yoshimura

https://ideas.lego.com/projects/937

This food truck, by Garett Yoshimura (SpaceySmoke on LEGO.com, mista_carrot on Flickr) is my favorite overall build on LEGO Ideas.

Sure, I have my favorite spaceship and my favorite mech, my favorite monster, etc…but *this* is my all-time favorite all-around gold medal champion.

…out it so much? Well, I have put a bit of thought into this.

…d just looks like a heck of a lot of fun. It is not often that a …omething new for your figures to do. Most sets have them …, or walking, sometimes playing something, but these guys are …waiting in line to get their food. Also this is one of those sets …o any setting and tweak your perceptions. If you put it with …nly it is some kind of Ren-fest or movie set. Same with the …urse—with Space, perhaps this is a rebuilt classic serving the …early 21st century.

…tures go, this one has a great accent of not only having a …ut also being a hinge open job. This lets you get in there and …in a really tight space without having to reach down into the …

… it looks like this build uses a lot of basic brick for the body. …; if that will carry over into an official build, but as-is, the …ears such that variations in color by the end user would be … to implement. Thus you could pair the basic set easily with …o populate an open lot in your City with a caravan of various …

… I really like about this build is that it is not *too crazy*. We can …tain, that most of the really high quality content on Ideas is just too extreme to get produced: part count, complexity, brand fit, you name it, most of the projects that are mouthwatering to look at are just the eye candy you appreciate at cons or flipping through your LEGO fan sites. Garret has really walked the line successfully on viability.