

The Magazine for LEGO® Enthusiasts of All Ages!



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Brick Journal

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people • building • community

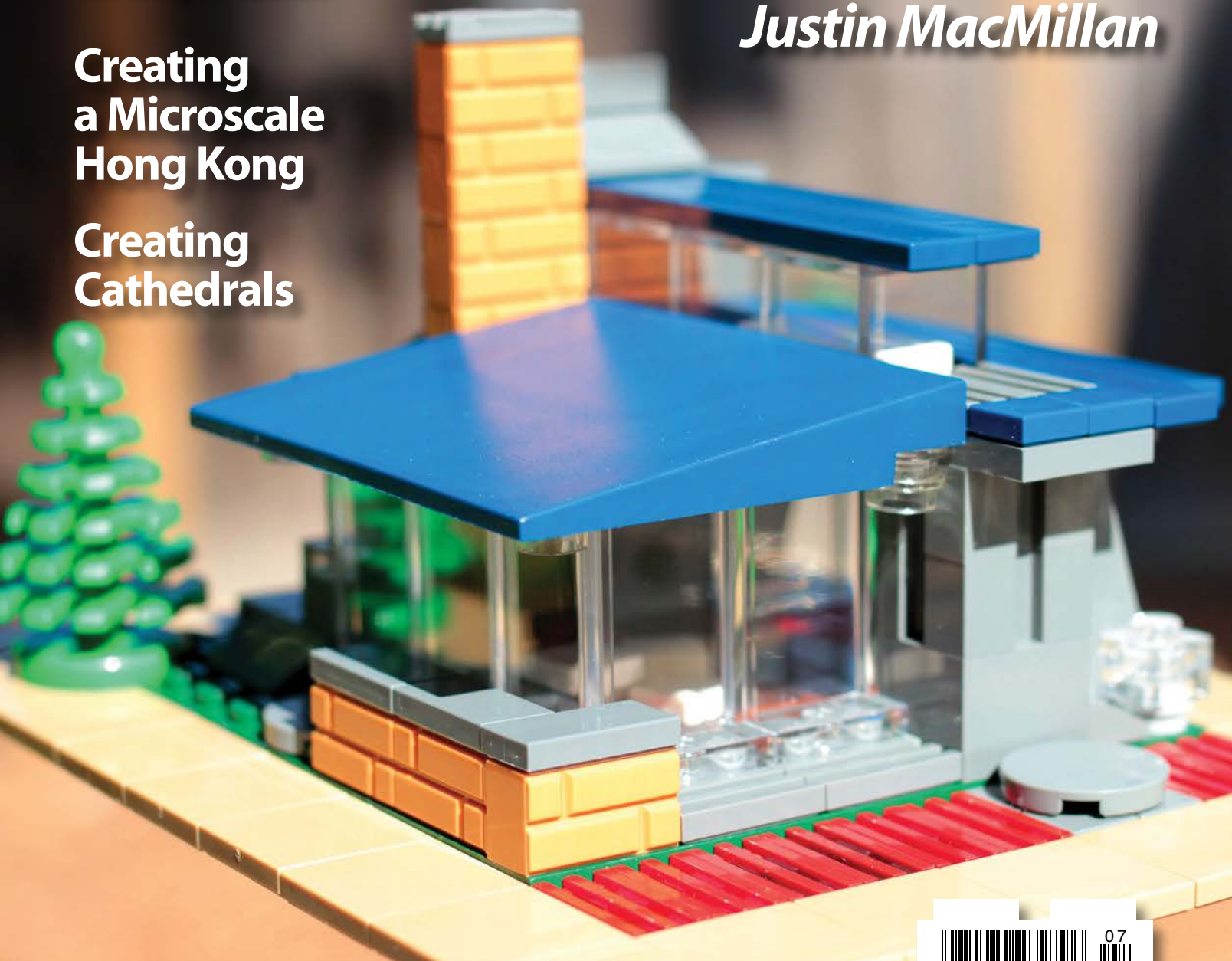
EXCLUSIVE:
We Talk Ten Years
with The LEGO
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a Microscale
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Building Small with Microscale Building

*A Talk with
Justin MacMillan*



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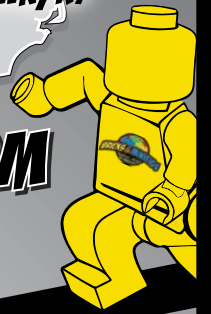
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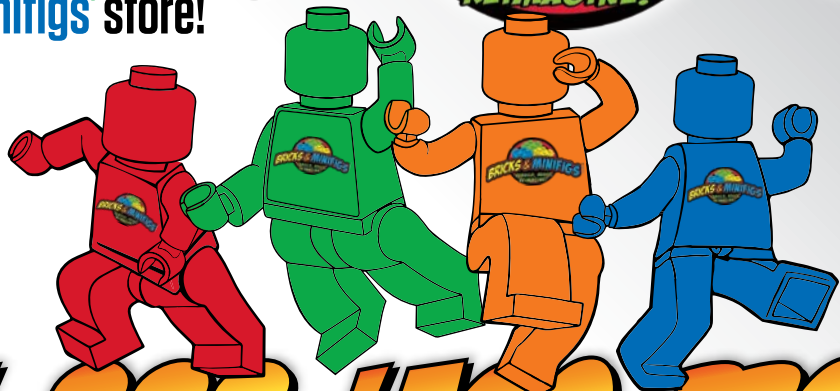
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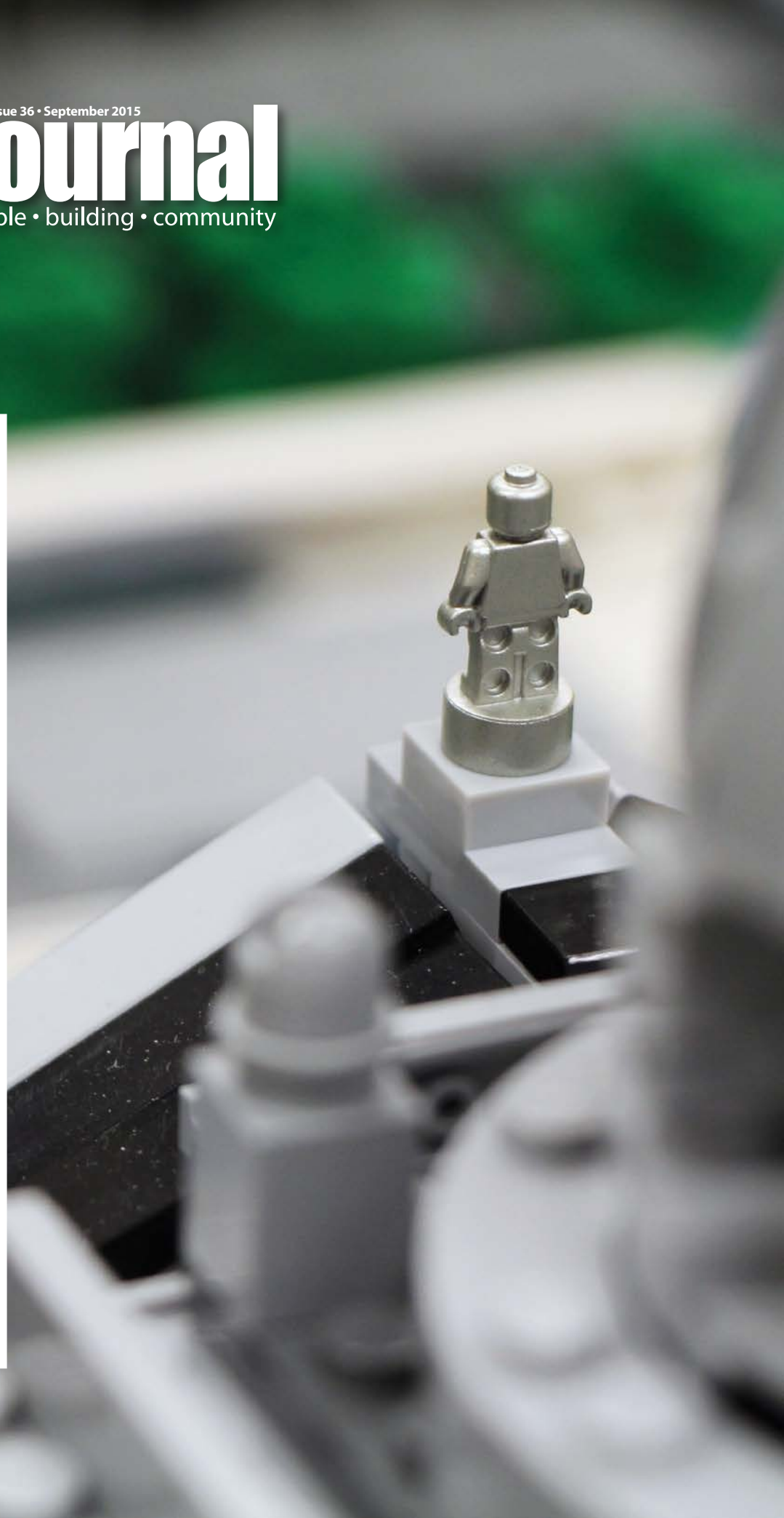
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About the Cover:

Justin MacMillan's Autumn House. Photo by Justin MacMillan.

About the Contents:

A closeup of Jared's Chan's Supreme Court Building. Photo by Jared Chan.



From the Editor:

We're getting small in this issue.

Microscale building has been one of the fun themes to build for me because of one reason.

It's LEGO origami.

I have more than a few hobbies, such as drawing, building, and paper folding. I used to do pop-up cards before I started building. I loved to make things, and origami taught me to find the essence of

an object and to depict that in my work—detail is nice, but if it can't be fit in, find the essence and show that.

Microbuilding is a lot like that. In the article in this issue, you'll see a common thread in every builder—they love the challenge of building small.

Hopefully, they will inspire some or all of you to try building in micro. You'll find it's a challenge, and a fun one!

Enjoy!

Joe Meno, Editor

P.S. Have ideas or comments? Drop me a line at admin@brickjournal.com. I'm open to suggestions and comments and will do my best to reply.

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Glossary

AFOL (Adult Fan of LEGO)

NLSO (Non-LEGO Significant Other)

MOC (My Own Creation)

TLG (The LEGO Group)

BURP (Big Ugly Rock Piece)

LURP (Little Ugly Rock Piece)

SNOT (Studs Not on Top)

POOP (Pieces—that can be or should be made—Of Other Pieces)

LUG (LEGO Users Group)

LTC (LEGO Train Club)

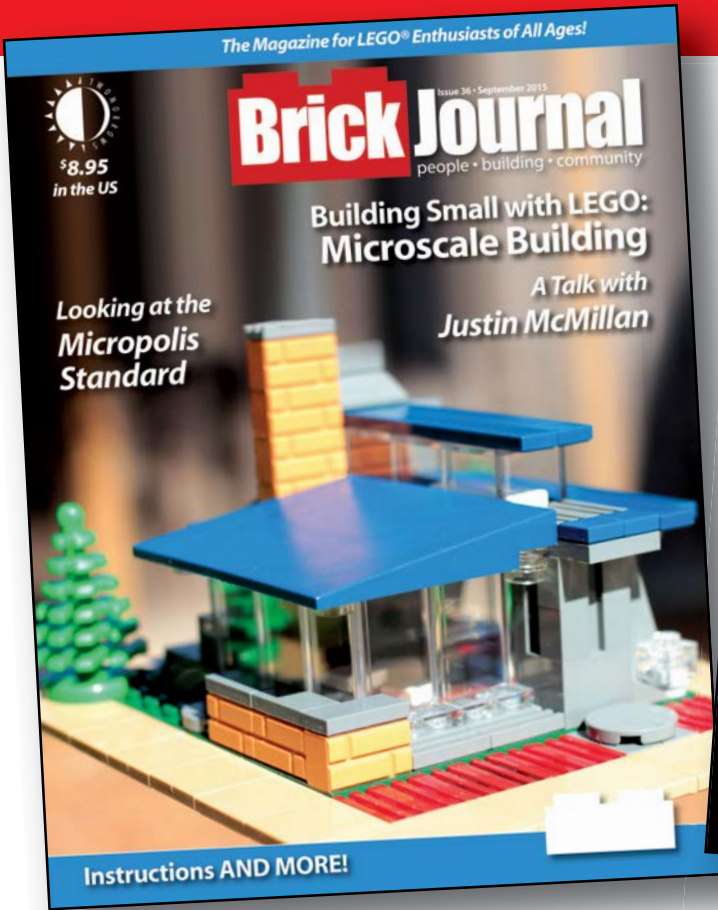
DARK AGES (usually teen years, when you drift away from building)

STUDS OUT (building where the studs on bricks face the viewer)

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Harry Nijkamp and His Brick City!

Article by Joe Meno





Some views of Nijenkamp's LEGO city.

Harry Nijenkamp's first LEGO experience came as a 5-year-old growing up in the Netherlands. Years later, as a free spirited 20-year-old, he traveled the world and settled down in Atlanta, Georgia. Now married and settled, he and his wife Kristy have 2 children: Nikole (21) and Austin (20).

Harry's interest for LEGO kicked back in when his son Austin got his first bricks as a child, and quickly ran out of control. Eventually, they started showing their creations to the public and raised money for charities. Several years ago they decided to build an entire city using over one million bricks. Austin planned the layout and built several buildings, parks and their DRAGON CON parade while Harry dreamed up the bigger structures.

The city measures 225 baseplates built on 25 separate panels. Each panel fits in one of 40 custom-built crates. The taller buildings separate in 4 or 5 sections. All this makes it possible to transport the entire set-up in a very large truck and assemble it in about 5 hours.

The city was enhanced by adding over 1000 Brickstuff LEDs. This was a 4-week project that created a complete new set of challenges; according to Brickstuff's owner Rob Klingberg, a lighting project of this size had never been done.

The city as well as a lot more LEGO creations will be shown off at Celebricktion, October 10 and 11, 2015 in Atlanta. You can find more information at www.celebricktion.com!





Builder Brief: Justin MacMillan

Article by Justin MacMillan

Justin MacMillan is a builder that specializes in microbuilding. With only a few parts and elements, he manages to create buildings, homes and even vehicles. BrickJournal asked him to write about his building process and what inspires him to build.

When I was a kid, every holiday represented a new opportunity to undermine anyone who had painstakingly wrapped a perfectly rectangular box by shaking it vigorously. I still remember the lightning rod of excitement that would shoot through me whenever I heard that unmistakable rattle.

“This is a new LEGO set!” I would yell, immediately trying to rip the paper off to see the magic inside. My mom is good at wrapping gifts, so that would take some time. As I tore at taped paper corners that seemed like they would never end, my mind would race. A new Blacktron ship or rover to explore the outer reaches? Or, would it be something more terrestrial? Perhaps the latest Town set, like the awesome Coastal Rescue Base. Inside that Schrödinger’s moment, what was really inside the box didn’t matter. My excitement hinged on the possibilities in my imagination, and the promise of new spaces and shapes to explore; it was about creation itself.

Fast forward twenty-something years, and I’m still shaking boxes. Today it is just a habit, since I almost always know exactly what sort of joy is inside.

My LEGO work is mostly small-scale architecture, and it is inspired by the places I’ve lived. Over the years I’ve called three coasts home. In my time moving from one side of the United States to the other, I have seen a lot of buildings and infrastructure. As a kid, my parents’ professions also exposed me to several building styles, while their approach to life allowed me to experience different cultures and a diverse set of experiences that would shape my vision and understanding of how different people live together on this little blue ball we collectively call home.



Growing up in the Northeast, catalog-perfect suburban neighborhoods housed hustlers who spent their days in glass skyscrapers. From pristine hedge-lined mansions bathed in silver summer sun along Long Island's South Fork, to the row houses in rough-and-tumble industrial towns in central Massachusetts, I took it all in. I watched how snow stuck to peaked roofs in winter and learned to love the first sight of flowers in the spring. But I didn't know much about summer until I moved to Texas.

In the south, low-slung ranch houses sprawl across multi-acre spreads. Spanish oaks and mesquite trees dot the landscape all the way to a horizon that seems so far away. From agricultural landscapes to big city skylines that jut right out of the prairie and into an enormous sky, in Texas I saw a harmony with nature that was truly unique.

Today I live in northern California, where you would have to work very hard not to be inspired by beauty both natural and man-made. Within a few hours I can drive from a beach to a forest, from the city to the desert, and then cross back over mountains that are blanketed in fog every night.

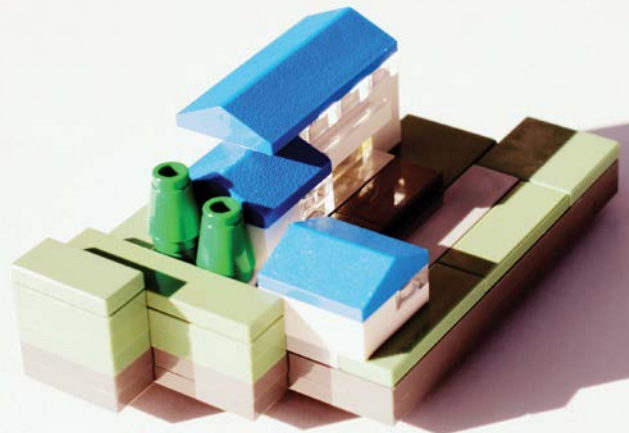
Nature here demands respect. The architectural styles must incorporate earthquake and fire safety. In San Francisco, skyscrapers are a bit lower than in other cities, but they are no less iconic than their more massive counterparts in sister-cities around the world. In Silicon Valley, vast office complexes sprawl from block to block, housing enough amenities to fuel kids in hoodies who build more Internet for the rest of us. Out here, design is not a simple function of aesthetics. It is critical for people to live. On the West Coast the pioneering spirit plays itself out over complex geography and across a multitude of building styles, which mirror the very diversity of Californians themselves.

My work strives to represent what I see, and to convey how impactful the shapes around us are to our most fundamental human experiences.

My focus on the smaller scales of LEGO design, particularly microscale, stems from my reductionist process and my minimalist values. When creating a new model, I aim to

Chateau House

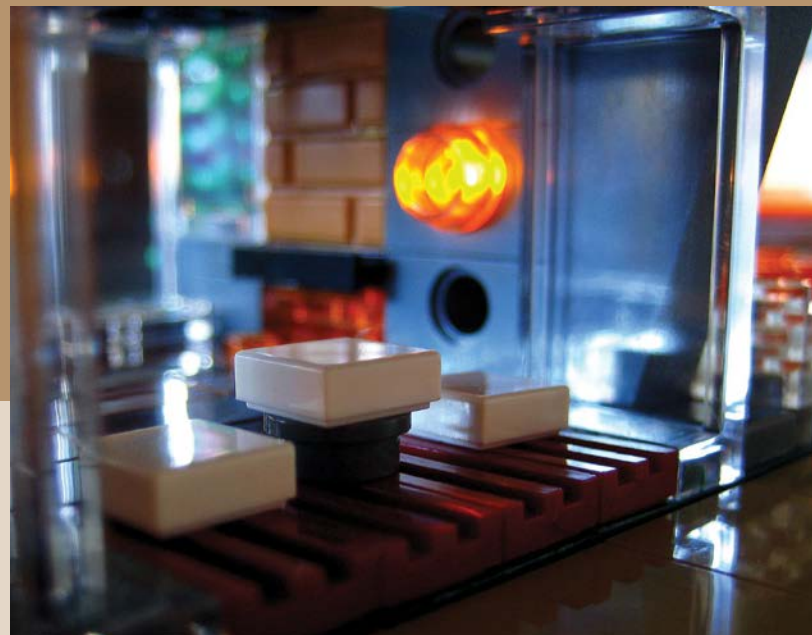
This model is a study of a building and its environment. Using just a handful of parts, a building and its grounds are sketched out with minimal detail.





Autumn House

This model was one of my first attempts at something larger than microscale, but smaller than minifig scale. Maybe we call it midiscale? I began with the fireplace and trees outside, which established the proportions. I wanted to incorporate the infamous Rock Panel Rectangular brick and preserve the sense of geological largeness it offers, while still being true to my typical style of modern interiors. The colors that came together were warm, but the natural environment I built felt cold, so I focused a lot on making the interior cozy. The loft-like upstairs bedroom is a place I could spend a lifetime with a cup of coffee, a copy of *BrickJournal*, and no regrets.



maximize the minimal. I want to convey large spaces with small shapes and tricky angles. I use unorthodox methods and 'illegal' connections. I try to capture lightness by using as few pieces as I can.

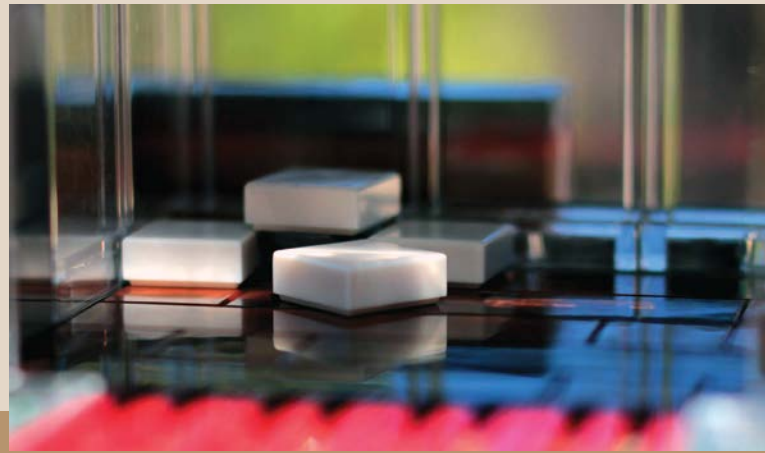
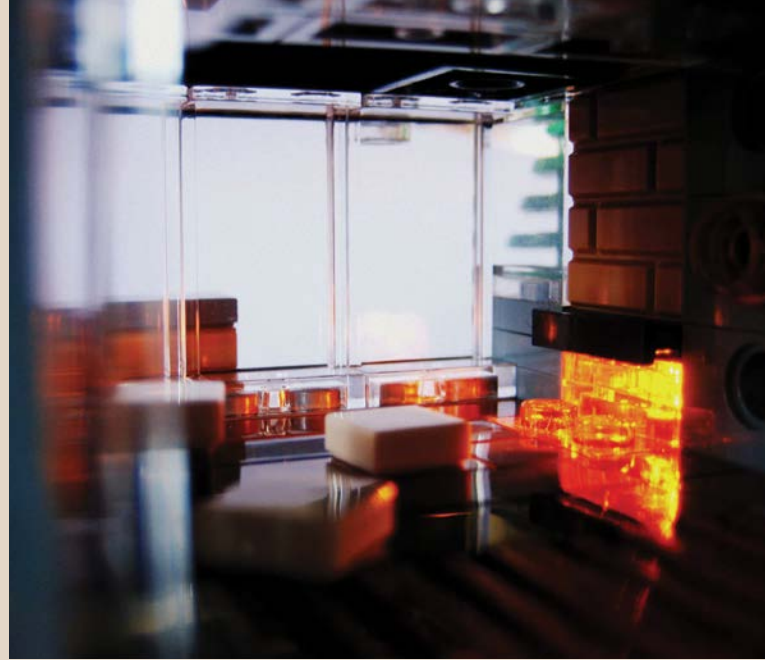
Four themes guide my LEGO design and building: nature, emergence, ritual, and constraint.

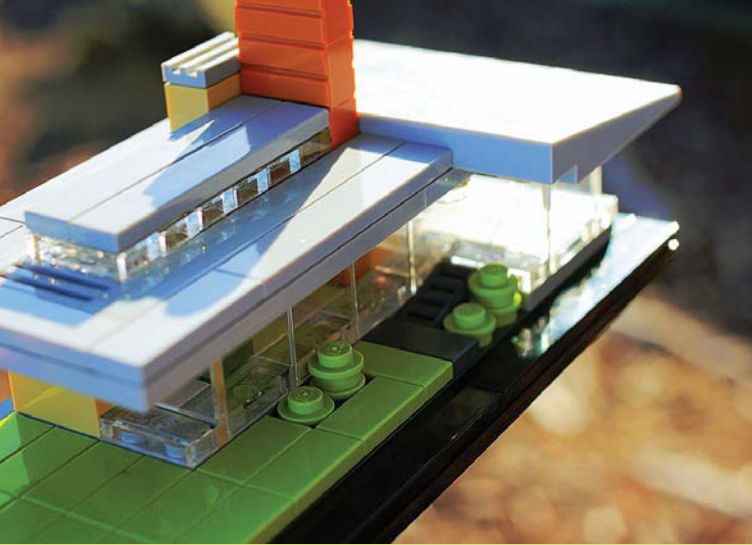
Nature

For most of my buildings, or architecturally-themed models, nature is the starting point. LEGO builders know you need a solid base for a good final build. When I think about how to start a new model, the first thing I ask is, 'What sort of landscape does this structure want to fill?' This allows me to choose solid base pieces and a general shape for the foundation.

From there, I often incorporate a multi-layered base building method. Sometimes this means I want to show the viewer the underlying geological strata: the layers of dirt and rock underneath the grass and trees. In another model, it might mean building an entire mountain of grey bricks before even thinking what might be built on top.

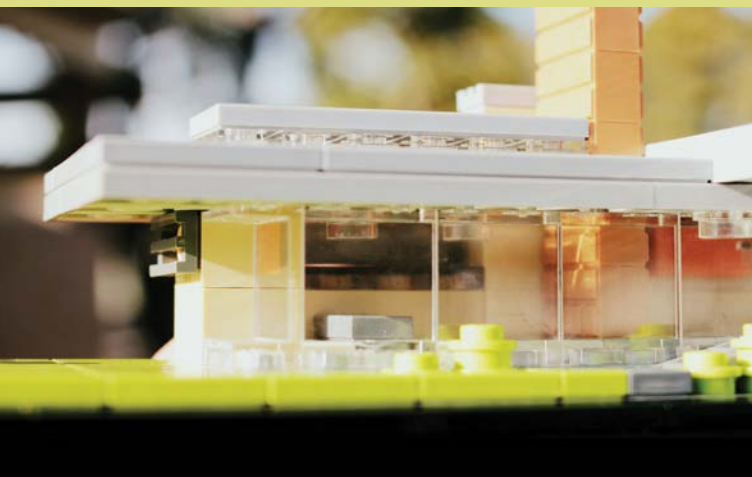
Tree lines, expanses of grass, and landscaping features often find their way into my model designs. It is important for me to show how the little slice of earth I am representing with the model would fit into a real, non-LEGO landscape. Organic shapes are not easy to model in microscale, but I try to capture the lines and warm feelings of natural forms when expressing every physical detail becomes impossible. I want the viewer to experience my work as an object moored to a specific context, and a focus on nature allows me to work this context in from the beginning.





New House

This model (also seen on the first page of this article) uses many of the same elements of the Autumn House, but creates a longer, lower building.



Emergence

Emergence is a phenomenon in science and in art where larger patterns emerge from the interactions of smaller patterns, often exhibiting new characteristics that don't exist at the component level. A good example of emergence in nature is the formation of snowflakes: beautiful patterns emerge from small ice crystals. Another example is how huge flocks of birds can act as one cohesive entity and take on the properties of a cloud or an ocean wave.

When building a LEGO model piece by piece, I often have no mental image of the final product. My build process takes a long time, and for each new piece I add, I spend time thinking about how that component affects the larger design. If it vibes with what I am trying to convey or capture—perhaps adding one more white 1x1 cheese wedge to get the angle of the snow right—then I stick with it and pick up another piece, without much anticipation of where it might land.

It is through this iterative process that I discover new patterns and respond to emerging qualities. Often I notice something that I did not intend in the model only after I photograph it, or when someone else points it out. The greatest reward is spending hours agonizing over a model from every conceivable perspective, only to have it show me something new when it is finished.

Ritual

A clean workspace, a focused mind, and a drive to express myself in three dimensions are my prerequisites for starting a new LEGO build. These aren't that easy to come by, and it is part of the reason I often take long breaks in-between builds.

Preparation is critical; comfort is not. I often sit on the floor with a small pile of random bricks in front of me. I typically choose one piece as the focal point. It may be a 4x4 black square, almost asking to lose its symmetry as I envision it as the base of a cascading landscape. More often than not, however, the piece I will pick up first is the inspirational keystone. It is this piece that I will go back to during the build for reference and for focus. It may disappear into the design during the build, but it rarely gets scrapped altogether.

I iterate until the build is finished without taking breaks. My wife knows I won't leave until it is finished. I know when it is finished because adding or changing anything after that point would take away from what I want to convey. At microscale and nanoscale in particular, it is important to me to use as few pieces as possible. At the end, I am tired physically but clearer mentally.

Constraint

My first microscale LEGO builds were created from necessity. A few years ago, I found an old box of random bricks that happened to all be dark stone grey. There were maybe 30 bricks in total, and I thought it would be fun to build a modern style house.

What happened after that was a bit of a blur, but after an all-night build session, I had used each and every piece to build a little modern house. Each brick found a purpose in the model. Nothing was wasted, and nothing was extraneous.



Casa Dell'auto Rossa

This house is a modern building that would be at home in California, except for the sports car in the garage. Below is a look at the interior from the rear of the building.



To me, it is critical to be constrained when designing and building LEGO models. Just as is true in real-life, in microscale nothing is unlimited, and things are often more complex and interconnected than they appear on the surface. By adopting a framework of constraint—a minimization of factors that can take away from the meaning of the final product—I can focus on distilling the true forms I am building.

Today, I build with a larger variety of bricks. My focus, however, continues to get smaller. I no longer jostle wrapped presents in anticipation of big LEGO sets, but as I sit on the floor and wonder how I can remove something from what I've built, I often shake a container of little bricks.

I still love the way they sound. 



The View from the Top... 10 Years Later

**An Interview
with Jørgen Vig Knudstorp,
CEO of The LEGO Group**

Article by Geoff Gray

In the summer of 2005, at George Mason University outside Washington DC, a few hundred AFOLs gathered for BrickFest, the largest AFOL convention in the US at that time. Also present were the owner of the LEGO Group (Kjeld Kirk Kristiansen) and the new CEO (Jørgen Vig Knudstorp). During a packed session, I had the opportunity to bring Joe Meno up to the stage and present to him a printed copy of *BrickJournal* Magazine, Volume 1, Issue 1. The particular copy was very unique because it had been autographed by Kjeld and Jørgen. But it was even more special because it was the very first copy of the magazine that had *ever been printed*. When Joe was presented with the copy, he received a standing ovation for the work he had done to make the magazine possible (see the sidebar entitled “View from the Sidelines: How *BrickJournal* Came to Be.”).

Later that day, I spoke with Jørgen and asked if we could do an interview with him for a future issue. He graciously agreed. We released the article “A View from the Top” in Volume 1, Issue 3, December 2005. Since then I have conducted five other interviews with Jørgen for the magazine. For our 10th anniversary, I wanted to revisit some of the old interviews and see how things have changed, as well as what things have not changed. As always, Jørgen was very accommodating with his time.

BrickJournal: Welcome back Jørgen. Looking back over the last 10 years, it has been an exciting ride for both companies. In 2005 The LEGO Group was starting to recover from several years of losses and the possibility of being broken up and sold. At the same time, BrickJournal was just starting as a fan-run online magazine with no idea if we could succeed. Ten years later, The LEGO Group is at least seven times larger than it was and BrickJournal has become a print-based magazine that is successful enough for the Editor in Chief/Owner to have this as his only job. What are some of the highlights and lowlights for you in particular during this time?

JVK: It's been an incredible journey, and I have learned so much and had so much “hard fun.” The highlight is clearly how the LEGO Idea based on the LEGO Brick and the system-in-play has been revitalized and shown to have enduring appeal, and also ever broader appeal. We know

now with a strong basis in neuroscience and our many activities in the LEGO Foundation that play and learning through play are not only powerful ways of developing the whole human being, but perhaps the most effective way to develop. I have come to appreciate that next to love, food and health—play is the most important factor in childhood. The development through childhood irreversibly impacts that rest of our lives as human beings, so we are talking about something very critical here.

“I have come to appreciate that next to love, food and health—play is the most important factor in childhood.”

It has surprised me how well the company is doing and how strongly it is growing, and it a testament to the strength of the LEGO Idea but also to my many colleagues' playfulness and creativity. Today, I get a lot of credit for the Group's development. However, most of the fantastic things that have happened were not my idea; some were here before I arrived in 2001, and others were developed by great colleagues who didn't even ask for my permission to pursue them. This is something that makes me proud to be a LEGO person and a leader of the pack of LEGO people.

There are actually very few low lights. I cannot think of anything that I regret or spent energy on wishing it had been different. Obviously, a lot of mistakes have been made and I take that as part of learning and experimentation. There are a lot of things that I wish I could have done earlier or faster. But such is life. When you look ahead it is daunting, yet in hindsight it seems like you should have acted faster because of course now you know what to do.



Part of the audience at BrickFest '05 during the Q&A with JVK and Kjeld.

With the reworking of the business and logistics side of the company, you and your teams have made the brand very successful again and have really put the company at the forefront of the toy market. Because of this success, I know the company has grown and the fan base has also grown. I asked you in our first interview, "Have you been accepted in the eyes of the employees and the residents of Billund?" Part of your reply was "On a global scale this is not a big company and it should not feel like it is to all of our employees and communities." In the summer of 2012, we talked about this again and you talked in-depth about how you work very hard to keep the company feeling like a "nice small, close-knit family." [See the full interview at www.brickjournal.com] It is obvious that you have managed to keep that feel for the employees, retailers and customers throughout the years. However, with the popularity of the brand and with the subsequent growth of the AFOL community, there has been a large increase in the amount of fan-based clubs, events and gatherings. What are you and the company doing to try to keep strong bonds with the core AFOL?

It is a matter that is very important to not only me and the owner family, but for the entire LEGO Group. The open dialogue we have with the fan communities around the world is handled by a special department who is in ongoing dialogue with LEGO User Group Ambassadors around the world, and being active, visiting and listening to fan communities around the world is something that is very important to us as a company. For me personally it is a great joy when I get the opportunity to visit the different fan events around the world and really experience not only the amazing models that are created, but also the dedication and inspirational insights that AFOL fan communities have. I always answer all questions and e-mails personally because

the direct interaction is critical to me.

"I always answer all questions and e-mails personally because the direct interaction is critical to me."

In the LEGO Ambassador Network (LEGO.com/lan), we have ongoing dialogue with representatives (LUG Ambassadors) from well over 200 Recognized LEGO User Groups globally. The dialogue taking place can touch all aspects of the LEGO experience and nothing said is confidential. All Recognized LEGO User Groups have equal opportunity to access community programs, which are provided to support local LUG and event activities.

In our 2006 interview, I asked you, "A lot has happened [in the last year]. What do you think are the more significant changes to the company and your role in particular?" You replied that: "LEGO had lost its way. We are no longer in an identity crisis. We are all about creative building and creative role play within the unique LEGO System that is founded on the three core platforms of Duplo, Technic and LEGO. [...] My main concern therefore has shifted to our integrity towards this clear identity." [For a complete history on the transformation of the company and the role JVK played in that change, see the book "Brick by Brick: How LEGO Rewrote the Rules of Innovation and Conquered the Global Toy Industry"]. Another point you made while answering that question was: "One of the fundamental shifts in our long term development is the decision to be very 'open source', to open up our business and be transparent. This is a crucial principle for me. It is a very delicate balance of managing property rights and disintegrating our company. It is a process I will continue to personally sponsor because it is so crucial and has become almost the hallmark of my management style." Is this still true today, and can you give us an example of this transparency?

I think the most specific and tangible example is LEGO Ideas, where we invite consumers to submit their ideas for new LEGO sets. Since 2012, this experience has resulted in 10 new LEGO products based on brilliant user ideas and supported by a crowd of at least 10,000 people. An additional three LEGO Ideas products will be brought to market later in 2015 and the pipeline of new, popular ideas is growing.

This is not a replacement of classic product development of LEGO sets but an add-on to the way we develop and innovate the LEGO play experience year over year. We have 200 very skilled designers based in Billund who are doing an excellent job and develop great products every year that really appeal to the imagination of children all over the world.

In the development process we continue to source ideas openly from many different people that we engage with, whether it is the likes of Lucas Entertainment, children, retailers, LEGO fans of all ages, and so on. We get inspired by talking to others. Right now we are learning a lot from digital companies and their approach to connectivity and launching services on the go; this is very different from our long term history and culture of superb tried and tested, high quality products that pose zero risks for children.

Since we are talking about the recovery of the company, one of the questions I was asked to share with you is “LEGO is becoming a media group as well as a toy maker. Seeing how this was a factor when LEGO nearly went bankrupt, how is the company dealing with this differently?” (Question submitted by Joe Meno)

I actually do not agree with the idea that we are becoming a media group or an entertainment company. We remain focused on the LEGO brick and the LEGO System and our core expertise is manufacturing billions of LEGO bricks every year and combining those bricks into great play experiences year after year—so the LEGO brick remains at the core of what we do. However, what we are doing in addition is collaborating with selected partners that can bring the physical LEGO experience to life on other platforms and in other ways. *The LEGO Movie* is a great example of such a collaboration. We did not make the movie—Warner Brothers did, and I am certain that had we made *The LEGO Movie*, it would not have been as great as it ended up being.

Therefore, the difference between the past and the present is that we very carefully select partners that are experts in their fields—while we remain focused on the areas where we are experts. We are very careful of not diversifying too much or losing our focus, while still ensuring that consumers can experience, explore and further engage with our brand in many different ways.

But of course we engage heavily with these partners to ensure a great mutual understanding of the LEGO Brand and the LEGO Play experience such that the new experience, whether a movie or something else, is well aligned with the LEGO brand and all that it stands for.

Another topic of our 2006 interview was the push to reduce the numbers of unique elements being manufactured. Your target goal had been to reduce the total unique element count down to 7,000 maximum (a unique element is defined as a combination of a specific piece and a specific color, so a red 2x4 Brick and a blue 2x4 Brick would be considered two different elements). You had reduced the count to almost 6,000. You then said: “I think in the future, we will see about 6000 active components every year, with 1000 being new that year, and about 4000 being stable for at least three, or maybe even more years. So there will be a hard core, and then rotation on top of that.” With the explosion of sets over the last few years, is this still a fairly accurate target for production?

We remain focused on not introducing too much design variety into the product because it goes against the idea of the versatile LEGO Brick. As we have grown by more than 5 times since 2006 there has been a growth in number of elements, though much, much less than the revenues have grown. Today we have approximately 3500 active shapes in the assortment, and adding to that a lot of

John Bucy snapped this picture of JVK hanging out with me in the exhibition hall. He has always enjoyed being a part of AFOL shows.

View From the Sidelines: How BrickJournal Came to Be...

INTRODUCING BRICKS™ MAGAZINE— THE LEGO® FAN MAGAZINE.

January 4, 2003—BrickMedia™, LLC is proud to announce *Bricks™ Magazine*, premiering in Quarter 1, 2003! Free preview issues are available upon request at the official publication web site at <http://www.bricksmagazine.com/>.

Bricks will be the first LEGO® fan magazine ever published... created by the LEGO fan community for the LEGO fan community.

Several fans read the above announcement on LUG-NET back in 2003. We were ready for the magazine and embraced it. Unfortunately, the vision that was promised did not come to be, and the community became disillusioned by the idea of a fan-based magazine.

In the fall of 2004, I received a call from Joe Meno. He wanted desperately to realize the dream of a fan-based magazine and so we talked for a couple of hours. Joe talked with others as well and over the next couple of months, we started to come up with plans. Joe decided that he would put the magazine together and offer it to people to download for free. On February 14, 2005, Joe sent the following to all of us: “*BrickJournal* is now in “blue sky” mode, which means that we (that’s right, we) are beginning to form the magazine from the ground up.” With that, we went to work and uploaded the first issue on June 23. We had set a deadline of BrickFest 2005, and we made it. 9 self-print issues and 36 published issues later, Joe’s dream is still alive and well. Congrats, Joe!



“The internal message is clear to designers—and true to the core idea behind the LEGO System: Be creative with the bricks you have.”

color variations—more than 60 to choose from. Every year we introduce new elements and take old elements out—and these may be reintroduced later. The internal message is clear to designers—and true to the core idea behind the LEGO System: Be creative with the bricks you have.

Naturally, special elements are needed for some specific purposes—a good example is the hairpiece for Marge Simpson, which is very difficult to use in any other LEGO set—nor could you make a Marge Simpson character without that specific iconic hair. As we grow and expand the product assortment, we may increase complexity, but the key is that we are obvious of when we do so, and we are very careful of doing it only when it makes sense.

In our fourth interview in the fall of 2009, I closed the interview by asking you what your thoughts were looking forward to the year 2015 and beyond. Your response was: “Well thank you for raising a question very much on my mind as well. We have already laid out the plans for 2015. We think the company will continue along its current track, which means even more expansion in new economies in Central and Eastern Europe, more expansion in all of North America, Mexico included. And finally a large step forward in China as well. On the product side you will continue to find the classic lines you know today, however you will also see exciting new themes such as Power Miners, and LEGO Games System that is being test launched this year in Germany and the UK (in full global launch in 2010). You will also see us expand with DUPLO in a number of countries. Finally and importantly we will step up our digital efforts, which also will benefit the LEGO® fan community.” Reading that now and reflecting back on the plans you had already laid out, how close were you and your team to meeting your longer term goals, and what goals did you miss?

I think no one could have predicted where we are today, but we have continually adapted to the development and we continue to do so. We have year after year grown organically, and currently we are constructing our first factory in China, which is a signal that Asia is a future region of high importance to us. But we have also continued expansions in core markets such as Europe and North America where many children still have not played with LEGO bricks. We have also opened up main offices around the world to further support the globalization of the LEGO Group. Digitalization has

been—and continues to be—an area where we experiment and try out new ideas and technologies not only in products such as LEGO Fusion and Ultra Agents, but also in new business areas such as LEGO Ideas, where the Internet and online communities can be used to generate great ideas that would before not have been possible. Product wise, we have since then also introduced LEGO Friends and further expanded this year with LEGO Elves, really bringing LEGO play to children that are new to construction play—an achievement I am proud of.

I remember you answering questions at BrickFest 2005 about many of the efforts toward allowing customers to build their own creations online and order them through the company. You were very passionate about the desire to make this a reality. The company had a few different programs it tried like “My Own Creation” and “LEGO Factory (later called Design By Me)” to try to realize this business model. It was also something that had been discussed at length with the teams that were developing LEGO Universe as early as 2006 (I was part of the original fan-based focus group that provided ideas and feedback on the game when it was called LEGO World Online). You remained passionate about this every time I spoke to you. In our fifth interview (Fall 2010), I asked you about a specific feature of the newly released “LEGO Universe” online game: “[it] allows you to import creations from LDD into your personal property in the universe. This leads me to believe that there is going to be a place for using LEGO Universe as a way of expanding the LEGO Factory offerings. Can you tell us a little bit about how the two will be tied together?” You said: “I share your dream... but that’s all I can say for now.”

Since then, both LEGO Factory and LEGO Universe have been shut down because they were not profitable. The company did launch LEGO Cuisoo in 2008, which eventually became LEGO Ideas. While this is a very cool way to get some fan-based sets, it is still nothing like the vision you shared in 2005 and the offerings through “Design By Me”. Are you still trying to find ways to make a workable “LEGO Factory” for fans to create their own kits?

The Q&A with JVK and Kjeld.





"Beyond the Brick—A LEGO Brickumentary"—the documentary that JVK says has good information on LEGO Ideas. It released on July 31, 2015 and can be purchased through various providers like Amazon, iTunes, etc.

An interesting reflection on Design by Me seems to be that unlike most other products, the attraction of making customized LEGO product (one product unique to every user) is less relevant, probably exactly because LEGO bricks are so versatile. You don't need The LEGO Group to make your own MOC! So there you go, some aspects of LEGO Digital Designer are fun to use for fans, but there is no reason for us to manufacture exclusively to you. Relatedly, we are seeing LEGO Ideas enjoying great success. If anyone gets the opportunity I would encourage them to watch the documentary that is coming out about the LEGO Group and the LEGO Brick as it has specific focus on LEGO Ideas as well, and there is an interview with some of the makers of LEGO Ideas.

What is really important here is that ideas change in relevance over time as technology and interests develop. So we keep developing our pipeline and get at "the same ideas" from different lenses and approaches. Unfortunately, I cannot share any news about what we have in the pipeline—all I can say is that we never rest on our laurels and all the learning we gain from our experiments are carefully integrated in product development.

Another question submitted to me for this interview which relates to this topic is: "How will the LEGO Group be addressing the growing use of 3D printing for making custom LEGO parts or extra LEGO parts by the public?" (Question

submitted by Joe Meno)

3D printing is an interesting technology we have used for years for prototyping purposes, and we naturally follow the development of this technology as we do with other technologies. 3D printing of official LEGO elements is for our part not interesting currently, as it does not meet the high demands we have for product safety, quality or durability. Nor is it interesting for mass-production—we make more than 50 billion bricks every year, and they all need to fit with bricks made years ago and the bricks we make years from now—so the ability to have a consistency in manufacturing is key to the entire building system. I am not sure you are aware but as a toy manufacturer we monitor more than 2000 substances in our products and test/evaluate on hazards related to safety and compliance to legislation all over the world. So from a number of perspectives, I don't see ourselves selling LEGO brick made through our own or users' own 3D printers.

We are aware that fans and consumers are making 3D printed elements, and here there is a distinction between private use and commercial use, where we have fair play policies in place. Naturally, our main concern is that a consumer may never be in doubt when he or she is having a high quality LEGO play experience, and when they are seeing or playing with something else. Here we will naturally take the steps necessary to hinder such confusion. I'm sure we will see even more building activity where people combine LEGO bricks with other materials, including 3D printed parts and make exciting ideas out of it, and nobody will suggest that these additional materials are LEGO Group products, and as such should comply to our standards. I find such extensions quite fun and interesting. I learn a lot from them.

My last fan-based question submitted to me for this interview is: "Does Lego have any plans for coming up with a software program to work Lego MINDSTORMS through an iPad?" (Submitted by Philip Eudy, Charlotte NC)

I'm unfortunately not able to answer that yet, but I share the ambition, of course.

(Editor's Note: An iPad app for creating MINDSTORMS programs has been released for the LEGO Education edition of the MINDSTORMS software. A retail version has not been released as of press time.)

As we have done in the past, I want to offer you a chance to share any information you desire with the readers about upcoming news, products, or just thoughts in general.

I'm currently very pre-occupied with the following observation: We believe last year about 100 million people had an experience with one or more of the products we released into the market. Of course many more played with the existing base of LEGO play materials.

We think that is a big number. And it is, especially in light of the fact that it was for sure much less ten years ago. Now the issue of course is that it is still a relatively small part of the world's population, let alone a small part of the children of the world.

So how do we bring the LEGO Idea to many more people all over the world? Through our play materials, through LEGO Education and through the LEGO Foundation (the 25 percent owner of the LEGO Group)?



JVK with Sebastian, Filippa and Zacharias at BrickFest 2005


I think this is the great innovation challenge. So people call it globalization and digitalization, and we are of course deeply engaged in those challenges. But I think it has also to do with responsibility and sustainability.

It has to do with a moral obligation that is founded on if you believe you are contributing positively to the world, mainly but not exclusively by influencing positively the childhood of children all over the world, well then I'll be damned if we are not increasing our reach with high quality play experiences. But that contribution also involves thoughtful leadership on play. It involves responsibility and being a company that is a great contributor to society.

Now, in terms of specific launches I very much look forward to the opening of the LEGO House—the base for LEGO Fans from all over the world, which is due to open in 2017.

In closing, I wanted to see how life as a parent has changed with LEGO. When we started our journey together, my two kids were 8 and 11 and very involved in playing with LEGO. Both boys have entered their "dark ages" (where they no longer play with LEGO), but they come around to their senses from time to time and help me out. My older boy (Cameron) is finishing up his degree in Mechanical Engineering and recently spent a few weekends helping me with the physics and kinematics calculations for a large Great Ball Contraption device that uses a massive crankshaft drive to control 12 pounds of "piston towers" with only three NXT motors. My wife said it was wonderful to watch the two of us sit down with calculators, paper and a floor full of TECHNIC and work through mechanical designs. He was able to help me out and we had a blast.

Your children (Sebastian 4, Filippa 3 and Zacharias 1 ½) were all still very young and just starting to play with LEGO; "Frankly, 90 percent of what I do is DUPLO with my three kids. Filippa is very much into Belville and Clikits but really not old enough for that. Sebastian loves pirates and castle but is also a bit too young yet. At night with a good friend, we build most new models but in particular all the Make and Create, Racers and Star Wars." What is it like at your house 10 years later?

That was fun to read. I remember that time very well. Those were happy days with very small children. I now have four children; Fiona is 8 years old and into LEGO Friends and all Creator/Junior, i.e. classic free building activities. Zacharias is 11 years old and a real master builder of all advanced stuff. Several MINDSTORMS robots are walking around his room's floor during holidays, and the shelves are packed with big Creator Expert sets, and the cupboards are packed with all sorts of LEGO memorabilia. Filippa is 13 years old and looks like she has almost forgotten about LEGO play. Yet, she enjoys a long weekend in LEGOLand or a 2-3 day participation in LEGO Events such as LEGO World in Copenhagen. But she rarely builds on her own. She never did. She is a very social creature, unlike her younger brother. Sebastian finally, at 14 years has definitely left LEGO products behind... and then one day, he and his friends starting making cars and got all excited about Speed Champions, and then extended into a full city layout across two big tables, and those are now all sitting in his bedroom. 



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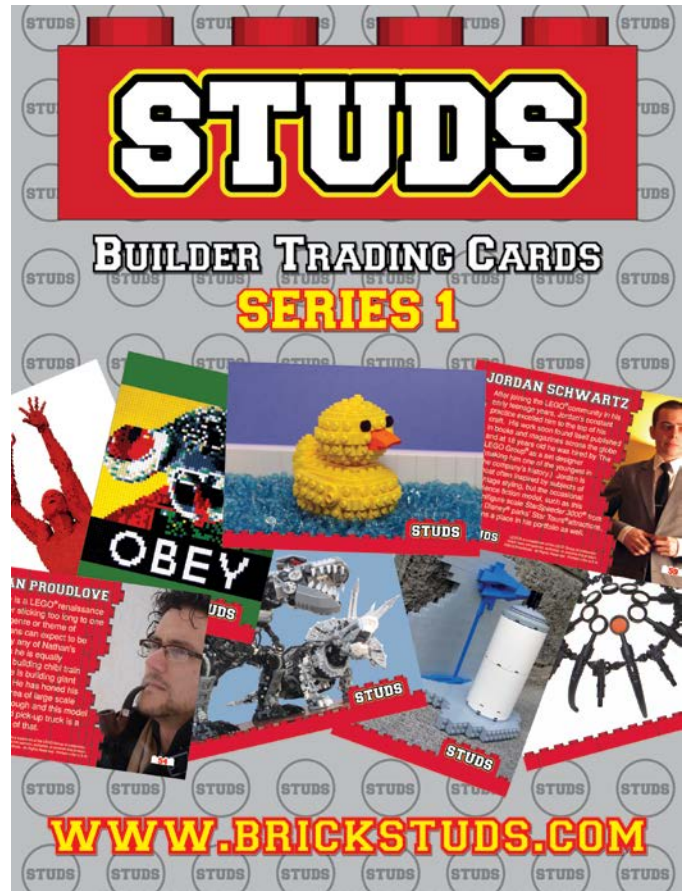
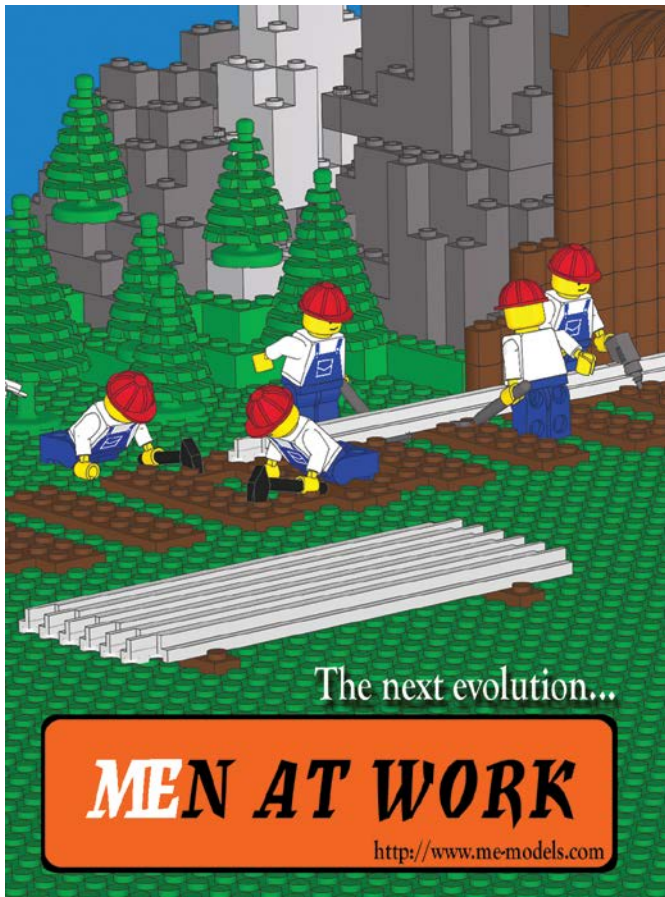
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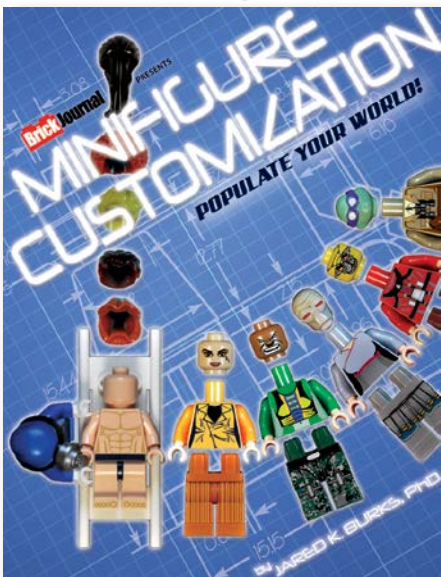




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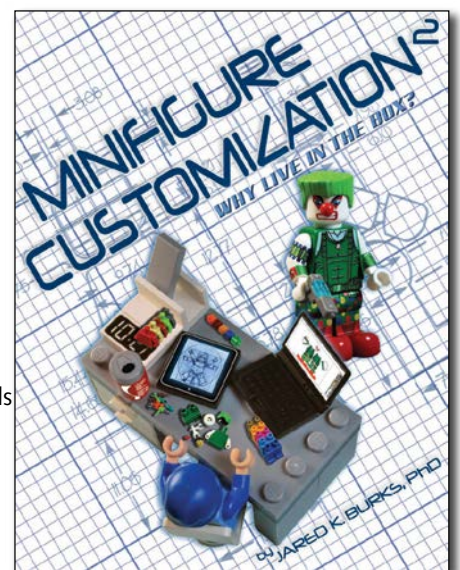


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Building



Some of the initial LEGO sets, with small-scale figures and cars.

A Brief History of Microscale

Article by Ashley Glennon

Microscale building is the art of creating tiny models that contain the detail and realism one might expect from a much larger creation. In its broadest definition, microscale building means any creation smaller than minifigure scale where, frequently, a cylinder brick is assumed to be about the size of a person. For this reason many AFOLs originally called microscale building, “microfig” scale.

But like so many other LEGO themes, the popularity and definition of microscale has exploded and folks from around the world are now building models in nano and pico scales. For the sake of this article, though, we will call everything smaller than a minifig, “microscale”

I mentioned that microscale has been around since the beginning, so let’s take a brief look at its history.

One could argue that microscale building was born back in 1949 when Automatic Binding (LEGO) Bricks were introduced. The structures depicted on the earliest boxes were frequently smaller than minifig scale and were mostly buildings and towers.

By the mid-1950s microscale was in full swing! Nearly all the sets during the 1950s depicted creations smaller than minifig scale, and some sets included plastic cars manufactured by the LEGO Company. These plastic cars were approximately HO (1:87) scale and are highly sought by collectors.

Throughout the 1960s and early 1970s, dozens of small scale sets were released. As new parts were introduced, the level of micro detail was improving dramatically. Townscapes, ships, airplanes, buildings... nearly everything was micro-sized!

But suddenly everything changed.

By the mid 1970s the LEGO Company began producing LEGO people (set 200 is a good example) and armless minifigures were produced as well (set 770 was my favorite from the era). Suddenly there was an implied scale, and it was surprisingly much larger than everything from the previous twenty years.



A Homemaker set, which was first to introduce figures into the LEGO bricks.

In 1978 the LEGO Company began producing the articulated minifigures we know today. The arrival of these new figures proved incredibly popular as it opened up new levels of play and inspired the LEGO designers to begin producing themed sets.

It just so happens that many of today's adult fans were introduced to LEGO during this golden era of the minifig, and Castle, Town and Space sets flew off the shelves.

For about 10 years it seemed as though microscale building was lost. The LEGO Company kept a few small scale sets alive via a European promotional program (1992 Stena Set 1548 and Viking line ferry (1924) sets are good examples) and produced a variety of polybag sets, but the art of building small was nearly forgotten.

As the late 1990s and early 2000s arrived, the Internet was getting to a point where photos could be shared and LEGO fans and LEGO clubs began to emerge. Fans could connect with each other and inspire each other in new ways.

In 1999 I invited a few Utah-based LEGO fans to my office near Salt Lake City. This was the beginning of the Wasatch Area Fans of LEGO group (WAFOL; which has evolved to present day UTAHlug). A gentleman named Jeremy Sproat and his wife Barbara showed me a tiny, blocky church diorama that was about 10x10 studs wide and I was floored. Cylinder bricks represented people, green 1x2 plates created a tree and 1x1 white tiles squeezed in between studs on the baseplate represented tombstones. I had never seen anything quite as small, cute or challenging, and right then and there I became a microscale fan.

It seemed as though from 1999 through early 2001, Jeremy and I were about the only ones I could find that were really pushing hard on microscale. I was so enthusiastic that I put together a presentation on the topic and started presenting it at some of the earliest LEGO fan conventions. Meanwhile, Jeremy went on to produce a variety of excellent microscale CAD renderings. Then, at nearly the same time, our jobs moved each of us out of Utah. I believe Jeremy and his family moved to Texas and I moved to Washington State, where I remain today.

By February 2002, microscale had gained so much attention that I had a full audience to hear my presentation at the BricksWest LEGO fan convention near LEGOLand, California. Dan Parker kindly produced a short section of the Death Star trench for me (out of LEGO of course) and each audience member was given the parts to create a microscale X-Wing, modeled after an online version I had seen by Steve Batch. Together we created a diorama that proved to be a lot of fun. This effort foreshadowed some interesting developments that would appear in late 2002 and 2003.

LUGNET was *the* place to find like-minded LEGO fans during the early 2000s and, before long, a variety of us were posting and sharing microscale creations in the "announce" forum. I lobbied for a microscale building group and became the moderator in 2003. By this time I had seen or been introduced to dozens of other microscale builders and this new, yet old, building style started growing in popularity once again. Sean Kenney launched MOC pages and a microscale area quickly developed.



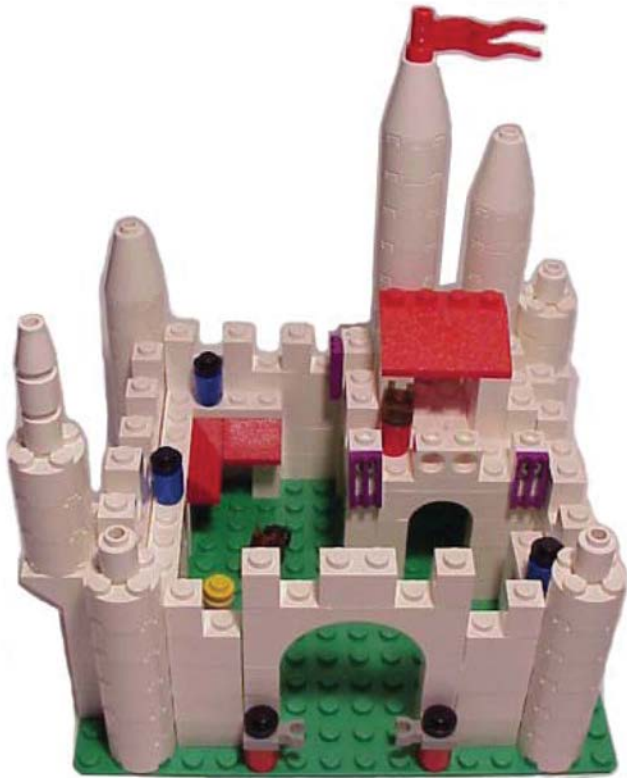
One of the first sets with minifigures. At this time the arms and legs were not articulated.



Some small-scale sets released in Europe.



Ashley Glennon's microscale church, inspired by Barbara and Jeremy Sproat.



Ashley Glennon's castle (above) and cottage (below).



Some of the earliest microscale builders I recall were Jeremy and Barbara Sproat, Brian Muzas, Sean Kenney, Shiri Dori, Chris Maddison, Steve Batch, John Neal, Don Bruce, Daniel Jassim and Dave DeGobbi. This was followed by a strong second wave which included Joe Meno, Arthur Gugick, Janey Red Brick, Justin Major, Peter Reid, Jason Allemann and dozens of others.

In late 2002 the LEGO Company released the Imperial Destroyer set and it included a microscale Rebel Blockade runner. Microfans were elated! A British comic book also included a microscale Tie Fighter. Shortly thereafter in early 2003 the LEGO Company released the first of several mini *Star Wars* sets (4484) as well as Micro-Wheels and Robots sets (4096 and 4097). The 20-year quiet period for microscale sets was over and they have been appearing ever since.

Benefits of Building in Microscale:

One of my favorite aspects of building in microscale is that the creations will not take up so much space. When it comes to storage and transport, micro is the way to go. I recall traveling to BrickFest DC with a carry-on bag full of micro, only to arrive and meet folks who had rented a U-Haul to bring their models to the show.

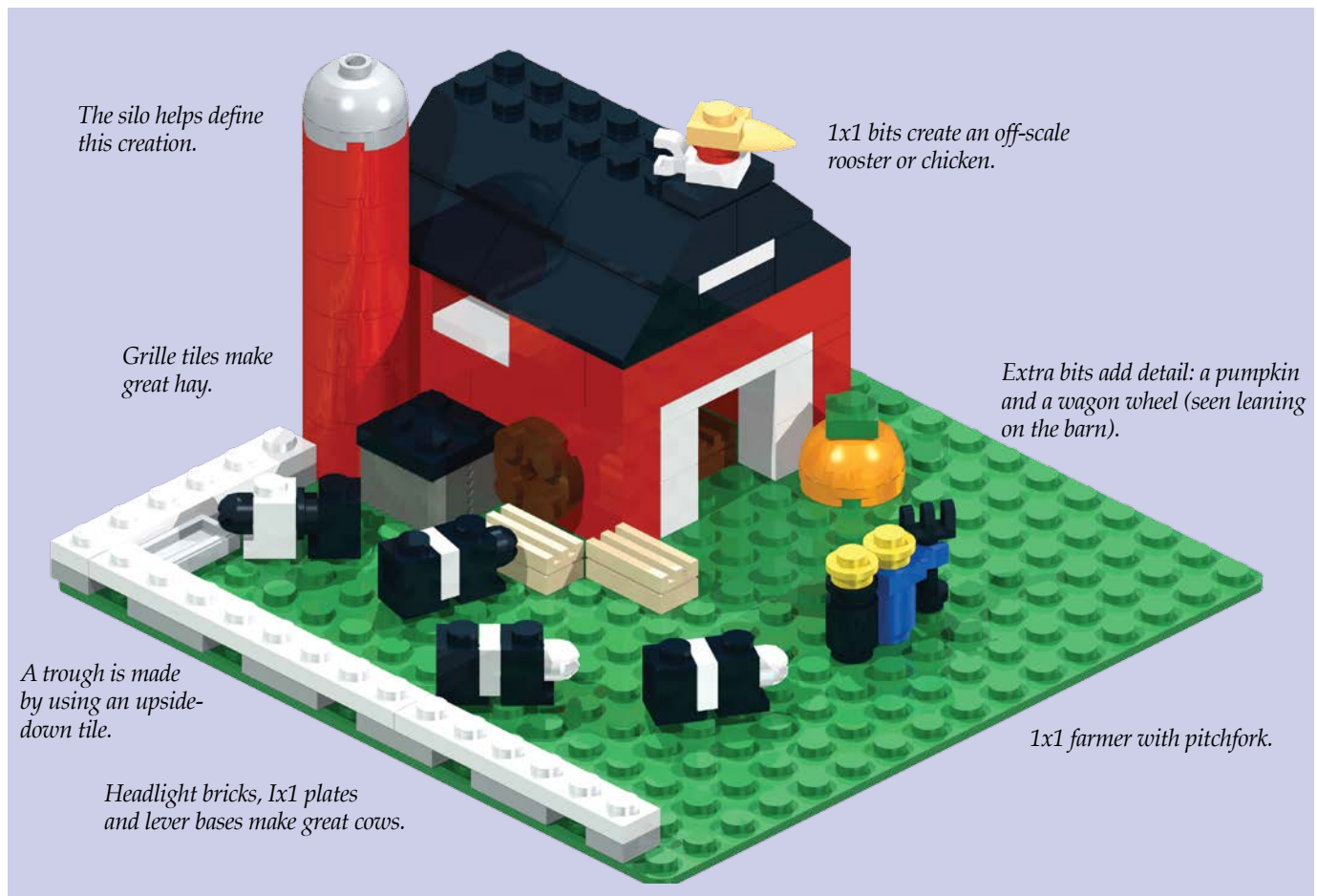
Another big benefit of microscale is that you don't have to have a huge collection of elements. While you do need the right elements, you don't have to dedicate a room in your home for parts storage.

There's a financial benefit to building small as well. In most cases, micro creations use far fewer bricks than other scales and it allows you to save big money. This concept of using fewer bricks has a further benefit of forcing you to really think about every element in new ways. Turning elements sideways, upside-down or connecting parts in different ways has yielded some very interesting micro-creations.

Perhaps one of the more subtle yet powerful aspects of building small is that the structures appear to be within reach of just about every modeler. While a model may be complex in nature, the fact that there are so few pieces usually means that even a beginner builder believes they could replicate it. This perception powers much of the optimism that continues to produce some great micro-models because people will try to build something even when just a few parts are available. Micro-models are often harder to build than they might first appear, but as you might imagine, it's easier to build a 20-piece tugboat than a 2,000-piece tugboat. As a final note, to my surprise, small MOCs aren't always as fast to build as you might expect. I've spent three hours trying to perfect the wheels or wings on a tiny plane or car, even though the end result might be a 15-piece MOC.

Despite all the fun and benefits of micro-building, there is one drawback: the viewing angle. Because microscale models are so small, they tend to get lost or overlooked on display shelves or at fan conventions unless they are displayed at eye level. Unfortunately most conventions still present micro-creations at normal, tabletop height. This has resulted in many micro-creations that are larger scale scenes or dioramas rather than just pure, 20-part MOCs worthy of standing alone. For optimal viewing and appreciation, micro-creations tend to look best when displayed between chest and eye level.

Breaking Down a Microscale Model



Microscale Building Applications

While building small has its specific benefits of saving time, space and money, there are some unique applications for micro-building as well.

Microscale is a great complement to minifig, miniland or even larger building scales. Complete dioramas can be constructed rather than just single units. It's easy to imagine a monster crushing a tiny town.

Tiny creations are great for setting the location of a scene or for building an aerial view or map or for forcing perspective or simulating distance.

More often than not, tiny creations look great when multiples exist. Fleets, flocks, convoys and armies always tend to look better in larger numbers, and micro-building makes it easier to create more.

Microscale can be good for prototyping. If you can build it small, then you will most certainly be able to build it big.

Tips and Tricks for Building in Microscale

A good place for beginners to start is to build air or sea transportation vehicles because planes and ships look good at nearly any size. Our brains are used to seeing planes in the sky and ships on the horizon and readily accept them at all sizes.

Look at the object you wish to model or replicate and select its most unique or determining features to recreate. Focus on mastering these items first before moving on to any other


facet of your model. For instance, a giraffe has a long neck. A barn needs to have a silo. A plane needs wings. If you can recreate these attributes using the right LEGO elements, the rest will fall into place.

Don't worry about exact scale when you are building a microscale creation. The parts will not be available to get everything right so just focus on the most important attributes.

Extra bits, more often than not, will add realism or spark someone's imagination to fill in the gaps with their mind.

Inspect your parts and try to look at them from every angle, including upside-down and not connected to another element. Look at them up-close and at a distance. Do they look like something else?

Color is critical when creating something in microscale. Do everything you can to match the stereotypical color of the real object to your tiny creation to help the viewer resolve the item in their mind. For instance, a barn needs to be red. A steam locomotive should be black. A tree trunk should be brown.

Don't forget to display your creations closer to eye level. 

Building

Creating a Microscale Hong Kong

Article by Jared Chan

*Jared Chan's landscape
of Hong Kong, which includes:*

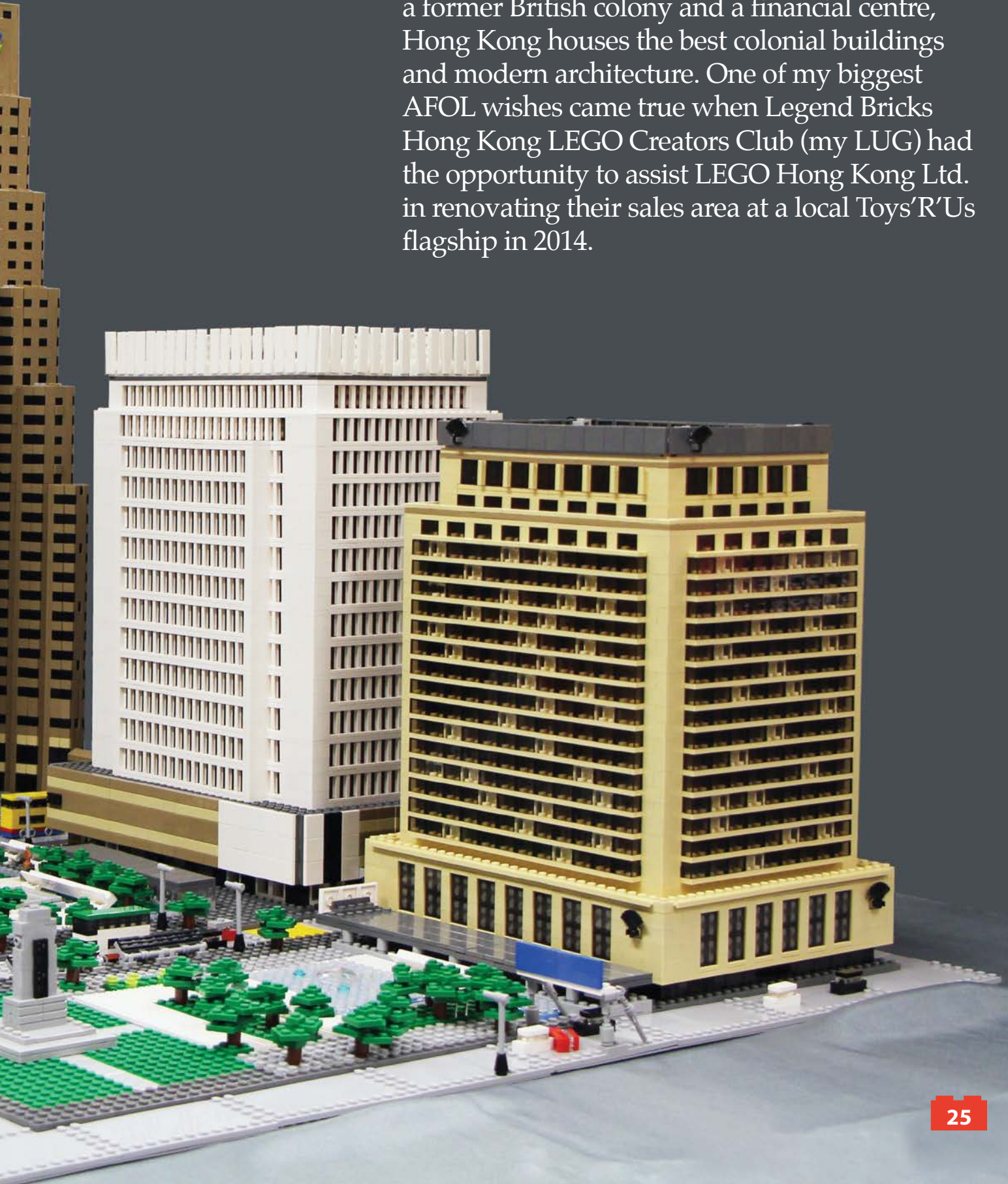
- Bank of China Building
- Former Central Government Offices
- HSBC Main Building
- Mandarin Oriental Hong Kong
- Prince's Building
- Standard Chartered Bank Building
- Statue Square

*Also displayed are the following
Declared Monuments of Hong Kong:*

- Former French Mission Building*
- Old Supreme Court Building*
- St. John's Cathedral*
- The Cenotaph*



I love admiring real-life buildings and recreating them in LEGO, and Hong Kong is one of the best places in the world to do both of them. As a former British colony and a financial centre, Hong Kong houses the best colonial buildings and modern architecture. One of my biggest AFOL wishes came true when Legend Bricks Hong Kong LEGO Creators Club (my LUG) had the opportunity to assist LEGO Hong Kong Ltd. in renovating their sales area at a local Toys'R'Us flagship in 2014.





*Prince Building and Statue Square seen from HSBC building roof.
Statue Square.*



The idea was simple—to recreate the landmarks on both sides of Hong Kong’s renowned Victoria Harbour for permanent display in the shop. Wow! I jumped at the opportunity and volunteered for building HSBC Main Building, which I had wanted to build for ages after Legend Bricks completed a scale model of the entire Tsim Sha Tsui district of Hong Kong in 2012 (<https://www.flickr.com/photos/jaredchan/7182279934>).

I replicated four buildings in LEGO form for the renovation project: HSBC Main Building, Standard Chartered Bank Building, Central Plaza and CITIC Tower, but I just couldn’t stop at that because it was so much fun! So I decided to build an improved version of HSBC Main Building and a layout of the most important section of central Hong Kong.

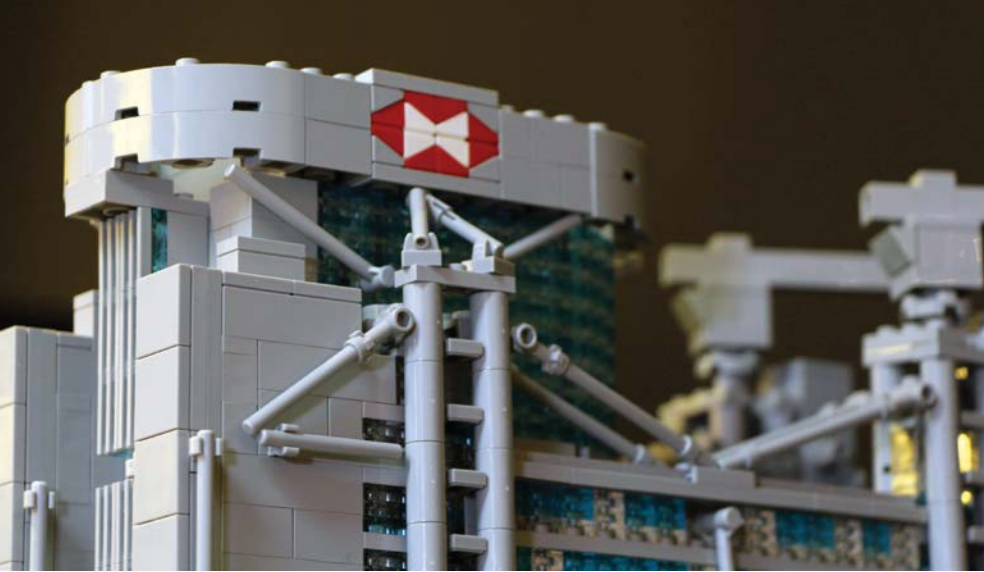
The layout was in 1:265 scale, which was largely the same as the Tsim Sha Tsui project. Construction took approximately 3 months and countless bricks. While the layout was merely 96 x 240 studs, it covered Hong Kong’s former Central Government Offices, the current/former headquarters of Hong Kong’s only three note-issuing banks, as well as three of old Hong Kong’s key judicial, legislative and religious buildings, which were declared monuments of the city. All these different buildings vary in architectural style yet they look really good when put together; I guess this is what makes Hong Kong special.

A tram making its rounds.





Three note issuing banks in Hong Kong, from left to right: Bank of China Building, HSBC Main Building, Standard Chartered Bank Building.



The roof of the HSBC building.



Sun reflection mirror on the HSBC building.

Fungshui cannons on the HSBC building below and at right.



To make sure that I captured the essence of the eleven buildings and structures, as well as the details on the streets—from MTR exits to street lamps—I conducted site visits and hunted photo and building plans. It turned out that drawings of the really famous buildings were not that hard to find on the Internet.

HSBC Main Building was among them and the drawings helped me so much that I didn't have to worry about scaling issues and could focus on refining details, such as the fungshui cannons on top of the building, the lions at the entrance, and different reflections and shades for each of the windows, which were achieved by building in three and even four layers of trans-light blue tile, trans-clear plate, white/dark grey/light grey/black bracket pieces.

While HSBC Main Building stands out from the layout as it is the centerpiece and has the most details, I personally think Standard Chartered Bank Building is the most challenging model. The building was a flat, stepped pyramid with the narrow sides facing the harbour and Victoria Peak. Each stepped section is a polygon, with the lower sections skewed to one side of the building to maximize the number of harbour-facing windows. Getting all the edges and proportions right in a narrow width of approximately eight studs was one big challenge. The entire exterior of the building was done using SNOT technique and composed of tiles



Old Supreme Court Building.

and cheese slopes. The difficulty was exacerbated as the color of the actual building didn't really exist in LEGO form, so I had to resort to dark tan, which has a limited selection of parts.

I learned a lot about my city through this project and I had a hard time when I couldn't build more due to time constraints last year. I hope that I will have the time to expand on it, or even make a model for another city in the future! I also would like to take this opportunity to thank my family and friends, who have always been supportive of my LEGO passion, and last but not least, LEGO Hong Kong Ltd., for their wholehearted and continuous support of the local LEGO community for over a decade. 🧱



Former Central Government Offices.



You can see more of Jared's work at his Flickr gallery:
<https://www.flickr.com/photos/jaredchan/>
or you can scan this QR code!

Building

Creating Cathedrals: Notre Dame de Strasbourg and Notre Dame de Paris

by Daniel Stoeffler
(DanSto on Flickr)



A couple of views of Dan's
Notre Dame de Strasbourg.

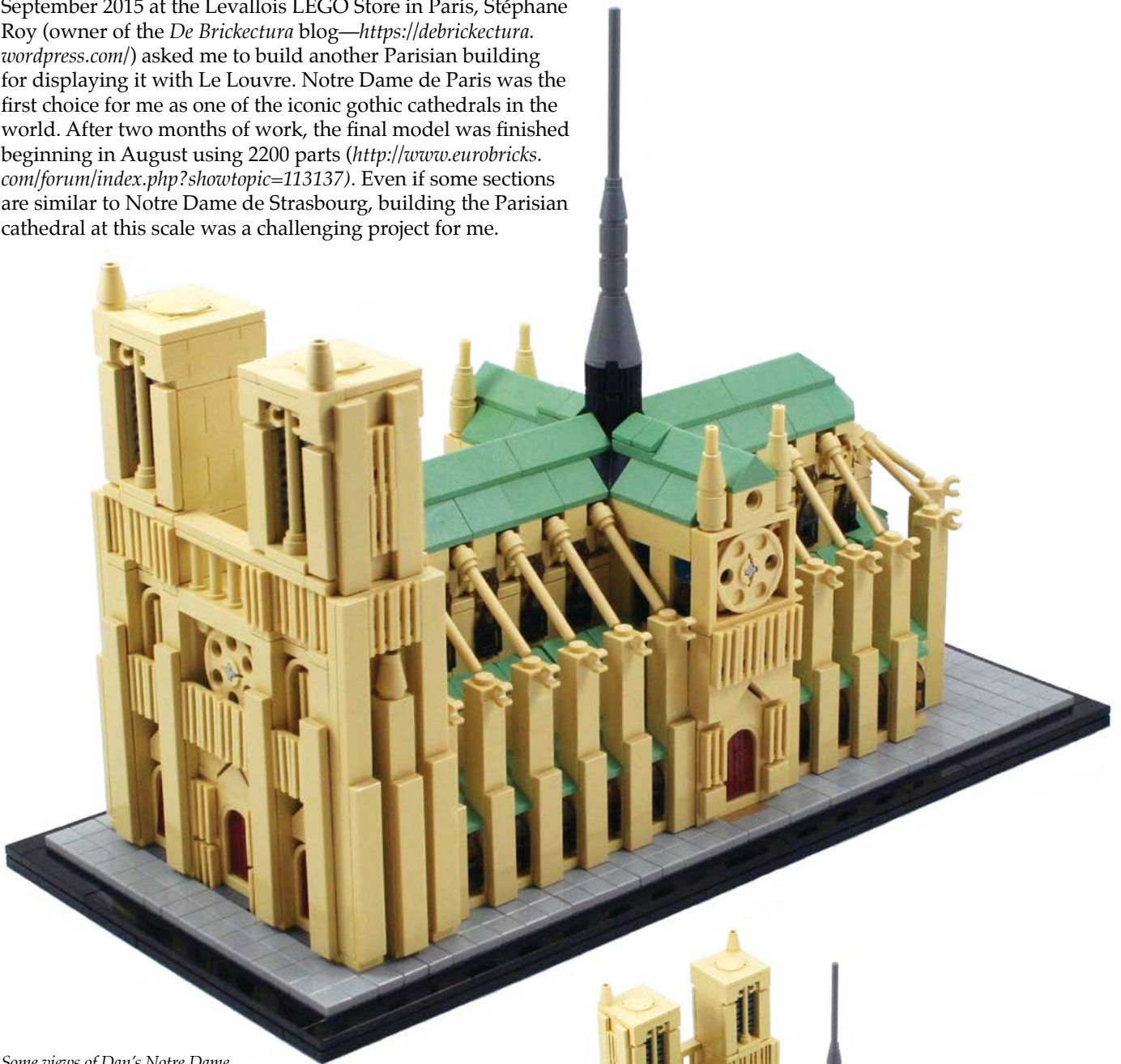


As a French AFOL born in Strasbourg but living outside the town, I was always fascinated by its cathedral each time I went back to the city.

This cathedral is very impressive with its detailed facade and its very characteristic unique tower making it the highest remaining middle age building (it was the tallest in the world from 1647 to 1874).

In December 2012, a movie devoted to the history of the build of Notre Dame de Strasbourg was shown at the ARTE TV channel (<http://cathedrale.arte.tv/le-film.php>) displaying detailed 3D models of the cathedral. This movie was the beginning of my Architecture-like project which I finished in September 2013 (<http://www.eurobricks.com/forum/index.php?showtopic=87065>). The model, built with 1350 parts, depicts the cathedral between 1945-1991, before the reconstruction of the transept tower.


For the official presentation of the 21024 Le Louvre set on September 2015 at the Levallois LEGO Store in Paris, Stéphane Roy (owner of the *De Brictecura* blog—<https://debrictecura.wordpress.com/>) asked me to build another Parisian building for displaying it with Le Louvre. Notre Dame de Paris was the first choice for me as one of the iconic gothic cathedrals in the world. After two months of work, the final model was finished beginning in August using 2200 parts (<http://www.eurobricks.com/forum/index.php?showtopic=113137>). Even if some sections are similar to Notre Dame de Strasbourg, building the Parisian cathedral at this scale was a challenging project for me.

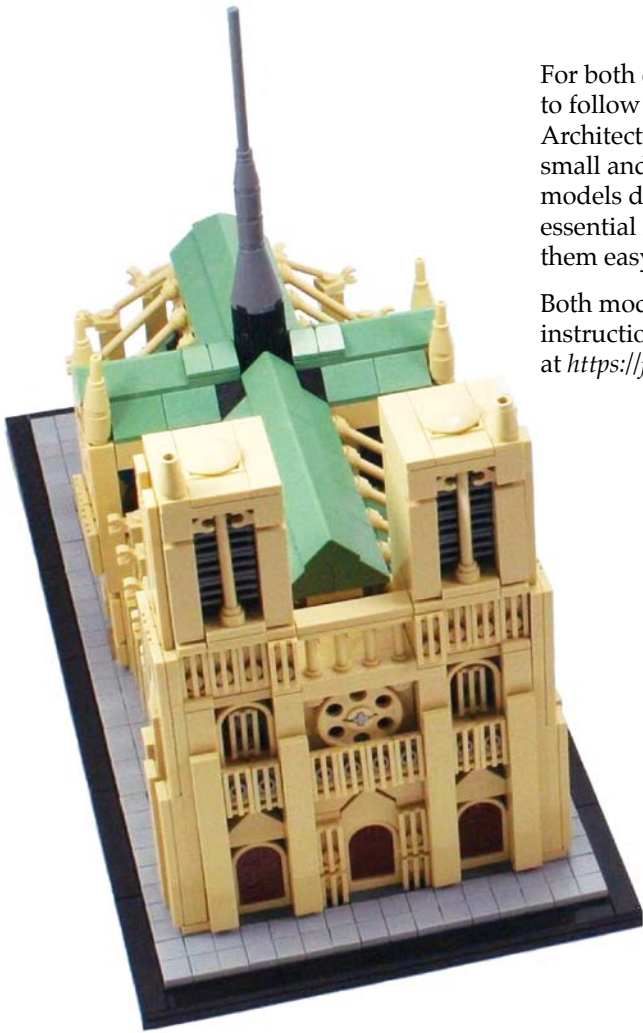


Some views of Dan's Notre Dame de Paris.



For both cathedrals, I have tried to follow the style of the LEGO Architecture theme by building small and relatively simple models displaying most of the essential features which make them easy to recognize.

Both models have free building instructions, which are available at <https://flic.kr/p/x1Rgpy>. 



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One Penn Plaza, New York City

Builder Brief: Jens Ohrndorf - Micro Builder, Micro Modular Builder!

Article by Jens Ohrndorf



Merchants Tower 01 Shanghai

My name is Jens Ohrndorf, I'm 42 years old and I live next to Karlsruhe (Germany). My daily occupation is to teach young people in the fields of sports, technology, music and computer science. I'm interested in architecture, graphic design, music, sports, the Web, and for over 5 years I'm primarily concerned with building LEGO models in my free time.



Lakepoint Tower, Chicago



MetLife Building, New York City

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My initial contact (after my 'dark ages') with LEGO was a local exhibition in 2010, where I took notice of the first LEGO Architecture models (Empire State Building, Space Needle, John Hancock Tower...), which excited and inspired me a lot. So I decided to execute my own stuff in architecture—respectively microscale, and started to build my first one: The Messeturm Frankfurt. Gradually I executed more models in that scale and became infected with the LEGO-virus.

By this time, I liked other LEGO themes as well. But the microscale section is still my passion and I always come back to it. With every model it's a new challenge to capture the original as well as possible with only a handful of bricks. My greatest successes are several top rankings in different Eurobricks's contests and of course the publication of my MetLife Building model in Mike Doyle's *Beautiful LEGO 2: The Dark*.



Find more LEGO work of Jens Ohrndorf (alias moctown) here: <https://www.flickr.com/photos/moctown/> or by scanning the QR code!

At the moment I'm working on a freestyle model (no original one for it) which consists of round about 3.500 pieces, and of course—it's microscale! 

Jens Ohrndorf is a founding member of the charitable registered association Schwabenstein 2x4, founded 2015 in Stuttgart (Germany).

Facebook page: www.facebook.com/schwabenstein2x4

Micro Modulars

Inspired by the Mini Modular (#10230) set that was released in 2011, one of Jens' specialties has been building microscale modular buildings. Here are some of his buildings, both in a layout and also separate.



Public Library.



Public Library rear.



Green Apple Store.



Green Apple Store rear.



Blue Avenue #7.



Blue Avenue #7 rear.



Haunted House.



Haunted House rear.



Minis on display.



La Villa Bleue.



Cafe Royal.



Cafe Royal rear.



La Villa Bleue rear.





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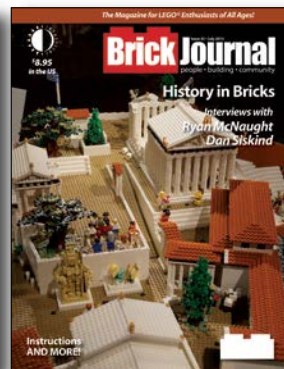
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LEGO ARTISTRY with builder/photographer **CHRIS McVEIGH**; mosaic builders **BRIAN KORTE**, **DAVE WARE** and **DAVE SHADDIX**; and sculptors **SEAN KENNEY** (about his nature models) and **ED DIMENT** (about a full-size bus stop built with **LEGO** bricks)! Plus Minifigure Customization by **JARED K. BURKS**, step-by-step "You Can Build It!" instructions by **CHRISTOPHER DECK**, **MINDSTORMS** building, and more!
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The Batcave Playset.

Building a Bite-Sized Batcave!

Article by Matthew Hocker

Riddle me this, riddle me that... how shall I build a small but fun bat? This is the question I asked myself while building my latest MOC, a microscale Batcave playset. When I was a child, a collection of Batman action figures was among my favorite toys. I loved them because they had a diverse range of hidden surprises and play features. This nostalgia inspired me to create a Batcave that would be both detailed and fun for children to play with.

Just like any superhero, this MOC has a unique origin story. Back in April I was visiting my brother, and he invited me to build together with his collection. I was dealing with a case of "builder's block" until he mentioned wanting to build a minifig scale Batmobile. Right then and there, I decided to make a microscale Batmobile!

It's the Car...

Having grown up with Tim Burton's *Batman* (1989) and *Batman Returns* (1992), I wanted the finished model to resemble the Batmobile from those films. The original vehicle is famous for its swooping curves and fins, a design element that proved to be the most challenging to replicate at such a small scale. Could it be done?

As I tinkered around with a mixed pile of black bricks, the solution revealed itself in the form of the “large barb,” a part often used as claws or teeth in ferocious animals. When tilted inward toward the body of the vehicle, these little spikes looked just like the Batmobile’s famous fenders. When tilted outward they also made for great fins.

After finishing the little Batmobile, I didn’t have any plans to take the concept further. It sat on a shelf for three months before I touched it again. I picked up the model with a fresh set of eyes, and the idea suddenly hit me; it would be really cool to have a little Batcave playset.

Making a Playset!

The first step was creating a rough sketch of the idea and making a list of play features to incorporate. My original drawing consisted of the Batcave and Wayne Manor, with Wayne Manor being placed on top as a removable module. While the Batcave would house Batman’s vehicles, Wayne Manor would serve as the grounds for the ultimate battle between the Dark Knight and the Joker. Moreover, everything would need to fit within an area of 16x32 studs.

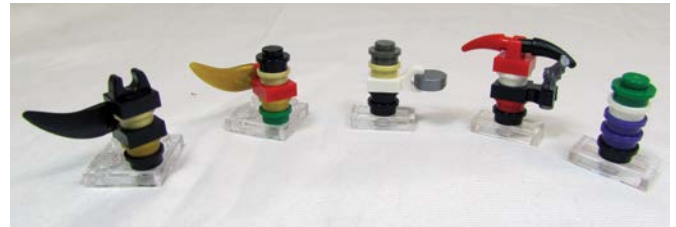
Before working on the Batcave and Wayne Manor, I built the microfigures and vehicles first. The reasoning behind this was that the playset needed to serve the needs of these elements. After all, the characters and vehicles are the biggest stars in the Batman universe!

Four microfigures were built for this project, including: Batman, Robin, Alfred (carrying a tray), the Joker and Harley Quinn. The “large barbs” used in the Batmobile found their way into Batman and Robin, this time as capes! Harley Quinn’s iconic jester cap was achieved by placing two “small barbs” in a 1x1 modified tile with clip. A 1x1 modified plate with clip allowed her to carry around a pistol.

After finishing the figures, I set out to design more vehicles. For Batman, I concentrated efforts on building the Batboat and Batwing and, once again, drew inspiration from their counterparts in the Burton films. The Batwing in particular is both swooshable and functional, with firing bat missiles. This feature was incorporated by placing the new 1x2 plate with mini blaster (found in some 2015 Ultra Agents sets) within the body of the model.



The Batmobile.



The playset's microfigures: Batman, Robin, Alfred, Harley Quinn and Joker.



The Batboat.



The Batwing.



The Batwing at its landing pad.



The Joker van with weapons out.

For the Joker's vehicle, I turned to some of The LEGO Group's past sets for reference material. Specifically, I borrowed ideas from the Joker's ice cream truck in set 7888-1 (2008) and his steam roller in set 76013-1 (2014). These two ideas were joined together to create an ice cream truck with the front end designed to look like the Joker's twisted smile. I also incorporated my own whimsical features, including a Joker card license plate and doors that fold down to reveal a pair of hidden guns.



The Joker van's rear.

Building the Manor

The next portion of the project involved building Wayne Manor. Instead of making an exact replica of Wayne Manor from a given comic book or film, I decided upon a more stylized approach. Two of my favorite elements from this module were the brick-built Batsignal and shade trees (made using lime green hairpieces from the clown minifig). Glow-in-the-dark stars were also added to give Wayne Manor more playability.

Wayne Manor with Batsignal.





A closer look at the Batcave.

With Wayne Manor out of the way, the time had finally come to make the Batcave module. This was the most challenging component of the playset to build because it required balancing the needs of detail and playability in a compact space. When all was said and done the finished Batcave contained enough details to be recognizable on its own, stations for all three vehicles and five key play features.

To the Batcave!

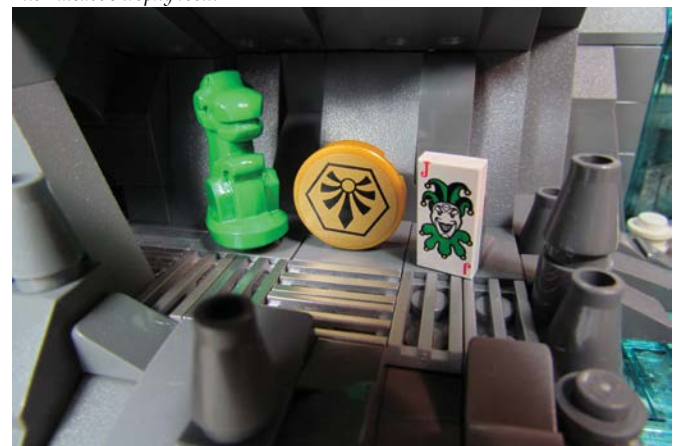
Like Wayne Manor, my version of the Batcave was a stylistic interpretation of Batcaves from many different comic books and films. Several different SNOT building techniques were used to create a cavernous look. Inside Batman's lair, you will find a control room, complete with swivel chairs and a main screen with an image of the Joker. I also included the trophy room where Batman stores some of his most prized possessions from past cases. Three of these items made their way into the playset: the giant penny, giant Joker card and animatronic T-Rex.

With the Batcave, the biggest hurdle was incorporating play features. Sometimes, it seemed as though adding details might come at the expense of sacrificing playability. Fortunately, I was able to include every play feature I originally wanted. Doing this, however, required placing some of them in areas other than where I originally envisioned.

The Batcomputer.



The Batcave's trophy room.





The Batboat's docking cave.




The Batboat's docking cave closed.



The Batmobile at its station.

The Batboat docking station was one of the first features I made, and it quickly became my favorite. This area was hidden under the Batwing landing pad and behind a secret door. In building the door, I wanted it to look like Batman's head and fit in with the style of the cave wall.

As for the other play features? I built a ramp piece that connects to the left side of the Batcave, allowing the Batmobile to make a quick exit. In the Batwing area a working prison cell was built into the wall, as well as a ladder leading to Wayne Manor. Turning the model around reveals a transformation chamber behind the waterfall; by spinning a turntable, Bruce Wayne becomes Batman. There is even a corridor connecting the chamber to the trophy room!

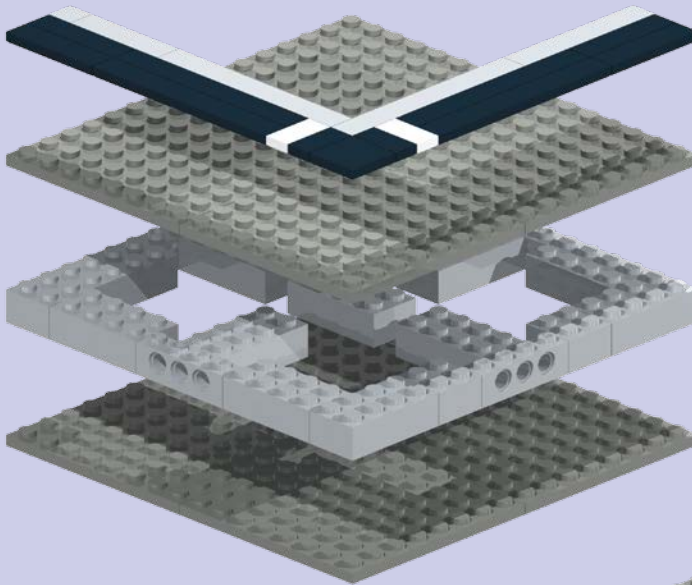
When I first started working on this project there was an element of uncertainty, as I was relatively new to the world of microscale. All in all though, I was really satisfied with the finished product. If "the night is darkest before the dawn," then I guess finishing this MOC means I'm ready for breakfast! 

The Batmobile exits the Batcave.



Building in the Micropolis Standard

Article by Joe Meno



Road and Sidewalk Tiles

The road is 2 tiles wide. Sidewalk is 1 tile wide. Use tiles to fill area. The white tiles on the street are crosswalks.

Upper Plate Layer

16 stud x 16 stud plates—you can use one baseplate or four 8 stud x 8 stud plates or any combination to make the upper layer.

Brick Layer

The middle of the modules have Technic bricks, so they can be fastened together in large layouts.


Baseplate Layer

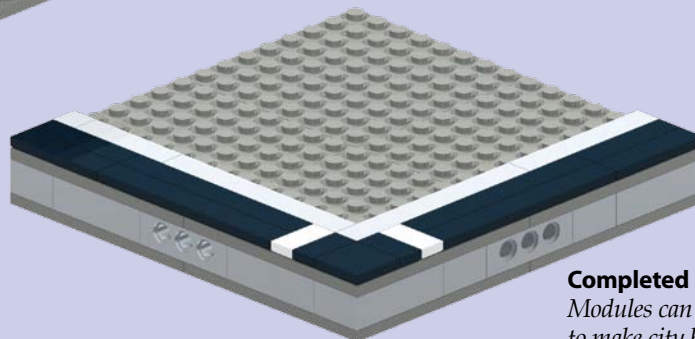
16 stud x 16 stud baseplate—you can use one baseplate or four 8 stud x 8 stud plates or any combination to make the lower layer.

Way back in 2010, the idea of a modular standard for microscale was developed by members of TwinLUG, based in the Minneapolis-St. Paul, Missouri area. The idea was simple: Make an easy, portable standard for building for those with small collections or who want to display at conventions where travel may be involved. The result was the Micropolis Standard, which is now used in many conventions in the US.

The scale used for Micropolis is not microscale, but smaller, as a car in this scale is only two plates high. While this makes smaller items tougher to build, it opens up building skyscrapers and other large sites, such as waterfront areas, as seen to the right.

The module standard is also flexible. Since the “ground level” is raised 1 brick, models can go below ground level, so recessed highways and land can be built. Remember that a standard is a guideline, not a rule!

So what are you going to build? 

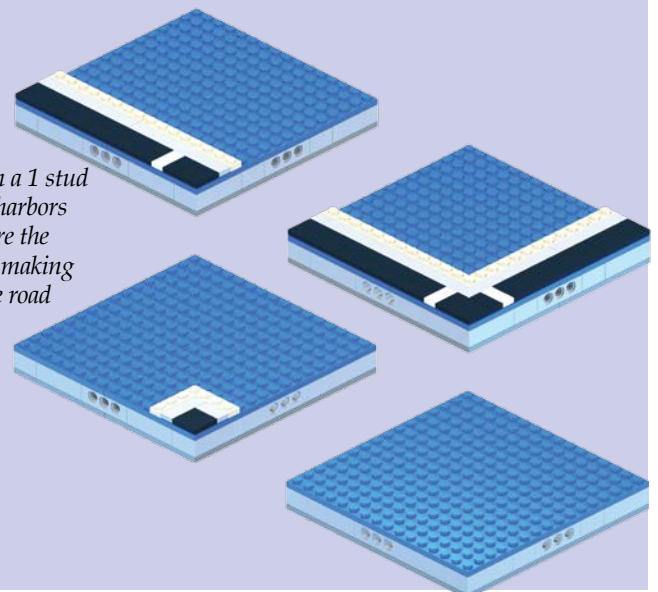


Completed Module

Modules can be joined together to make city blocks for buildings, parks, or whatever is wanted.

Waterfront Module

Modules can be built with a 1 stud beach and water to make harbors and shore areas. Shown are the types of modules used for making a waterfront, allowing the road and beach to define the shore as needed.



Building

Microscale 101: Making Your Next Micro MOC Stand Out From the Crowd

Article by John Stephens



Building in microscale can be a daunting task for first-timers. The thought process about parts selection is quite the departure from building in minifigure scale and above. What was once a telescope is now a tree trunk. A droid head is the bridge of a starship. A wagon wheel now represents a water wheel for a riverside mill. The possibilities are often elusive to newcomers, because building at this scale also means you are limited in terms of part selection, so using uncommon or unorthodox techniques and connections is often your best bet to retain detail and functionality at a small scale. Here's a selection of my favorite parts, techniques, and connections to help you get the most out of your next microbuild.

Connection: Tile in Clip

Once considered an "illegal" connection, it has recently been implemented by The LEGO Group in the UCS SHIELD Helicarrier set. It's a bit finicky, but is a great choice for adding extra detail and can be used in multiple themes.

When replicating a model from existing source material, it's important at this scale to ensure that details which would make the model instantly recognizable are included. For my *Star Wars* T-47 airspeeder, one such feature is the airbrakes so prominently displayed during flight scenes in the movie. Using a 1x1 tile inserted into a 1x1 Modified Tile w/Clip easily achieves this look, and adds an extra layer of accuracy to the model.



But this technique isn't just used for details on spaceships. Here, I've used the same connection for a Micropolis build to generate a detailed fence around this apartment's swimming pool. Instead of the 1x1 tile, here I've seated 1x2 grille tiles. This allows me to include much more detail than if I had opted for standard 1x2 or 1x4 panel elements. Not only do you get the detail from the grill tile itself, but the repetition of the modified tile's clip also adds a great pattern.

Part: The Minifigure Hand

Grab your favorite minifigure, and yank its hands off! You now have an extremely versatile part that can be used to convey a lot of detail. It's one of my all-time favorite pieces to use, and it comes in nearly 40 colors. They can be used for all sorts of things: antennae, weapon sights, tree branches, even laser cannons. Here I've used them as multi-colored flags in front of this condominium complex.



But they could also be used for something more sinister and destructive. Here they represent the feet on a spidery micro-mecha, ready to stomp on buildings and destroy cities!



Part: The Pneumatic T-Bar

Originally a pneumatic Technic element from the '80s, this part has since proliferated into many non-Technic sets due to its excellent versatility. In the microscale world, creating odd angles and connections can often be quite difficult, but these little guys make it possible. They fit in standard clips, hold tight in headlight bricks, and even slot nicely into Technic axle holders. My favorite use for them is on micro mecha. This model contains eight of them, which not only allows me to achieve the look I want by making unusual connections, but it has also made the model fully articulated and poseable.





Technique: Think Big

It may seem counterintuitive, but when building small, you must think big. Parts that once represented small or handheld items are now relatively massive due to the change in scale. Consequently, you must now imagine what a part might represent if it were 100x its size! As you can see in my model of a *Star Wars* Corellian Corvette, there are a couple of key features that have been scaled immensely.

1 – Droid Head: Normally, this is an R5 droid head—which in minifigure scale would be approximately a foot tall. Here, in this application, it functions as part of a spaceship bridge that would be nearly 150 feet long.

2 – Binoculars: My go-to part for a lot of sci-fi weapons and detailing at this scale. They add a lot of great detail, acting as massive turbolaser batteries. Though they don't exactly replicate the source material, much of microscale building involves implied detail.

3 – Wheels: There are quite a few wheel options in the LEGO parts catalog—and because of the extra detail around the center, these wheels act as great engines for a starship.

Take some time to rummage through your collection, and really start to imagine what certain pieces would function as in a smaller scale. It will give you a new appreciation for seldom used parts, and it can often be the inspiration for a whole MOC.



Part: The Travis Brick

An invaluable asset for any builder, the Travis brick is especially useful for microscale. It affords you a small, compact way to build out on multiple sides of a 1x1 area. Aside from being useful on buildings and spaceships, you can also use them to great effect on small characters. This Orc Berserker, Halfling Wizard, and Elf Assassin all utilize a Travis brick for their torsos, but are built out differently to achieve different looks. Can you spot them?



Technique: "Brick Spinning"

I'm fairly certain that's not an official term, but that's how I refer to it. The concept is simple. Many builders always align plates and bricks at perfect 90 degree angles with respect to each other. You can't be afraid to work outside this comfort zone.

With the simple change in brick alignment, you can imply a ton of character and movement to a build, even at a small scale. These hulking alien warriors would not look as alive and dynamic if all of the bricks and plates lined up exactly. Just a small change in angle now reflects natural head, leg, and arm movement.

Connection: Lightsabers and Ball Sockets

Due to the unerring mathematical model that is LEGO, and the rigid performance standards of TLG's mold process, you'll find quite a lot of surprising connections within the palette of available bricks. One such connection I discovered accidentally, during a late night tablescrap build, is that the large end of a minifigure lightsaber is the exact diameter of a small ball/socket joint. It works well in crane parts and mixel joints—and I'm sure there's others out there that I've not yet experimented with.

Here, I've combined this connection along with some of the other techniques mentioned in this article to create a miniature squad of martian miners in power armor, revolting against unfair work conditions in the mines!

Also, take note of the great detail that was added by selecting the crane piece for the hands of the power armor. A happy coincidence at this scale was that the ridged edges of the click-joint make for some excellent fine detailing on the claws.

Which leads us to our final tip:


Technique: Implied vs. Actual Detail

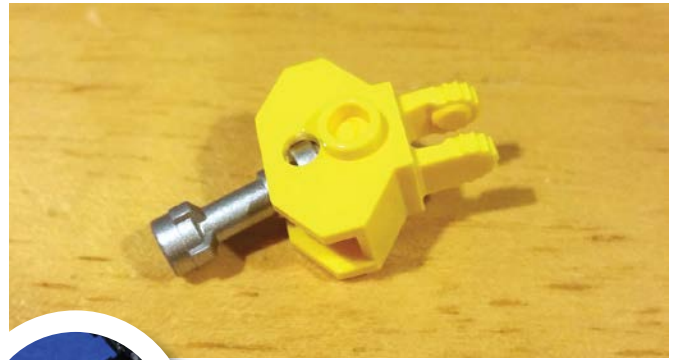
At smaller scales, it's often impossible to convey the exact detail you want without the model becoming out of scale or overcomplicated. In this instance, it's best to keep it simple. Utilizing strange parts and illegal connections can be useful, but it's often the most common, simple part that helps you achieve the look you want. Even something as simple as a color change can imply a specific effect. 1x1 round plates are used in this Micropolis build, achieving two drastically different effects.

1 - It would be impossible at this size and scale to realistically represent any sort of architectural filigree, but repeating 1x1 round plates along the roofline implies that the building has bespoke masonry work.

2 - I wanted this antiques shop to look dilapidated, and using a 1x1 round plate amongst the standard plate here implies this. It's not exactly what broken brickwork or siding would look like, but the break in repetition along with the inclusion of light grey plates leads to a building that looks old and weather-worn.

I hope that this article has inspired newcomers and veteran builders alike to try their hand at microscale. It can give you a whole new appreciation for this small (see what I did there?) subset of our hobby, and can even boost your standard scale building talents by making you think differently about the elements you use.

Dream big, build small. 



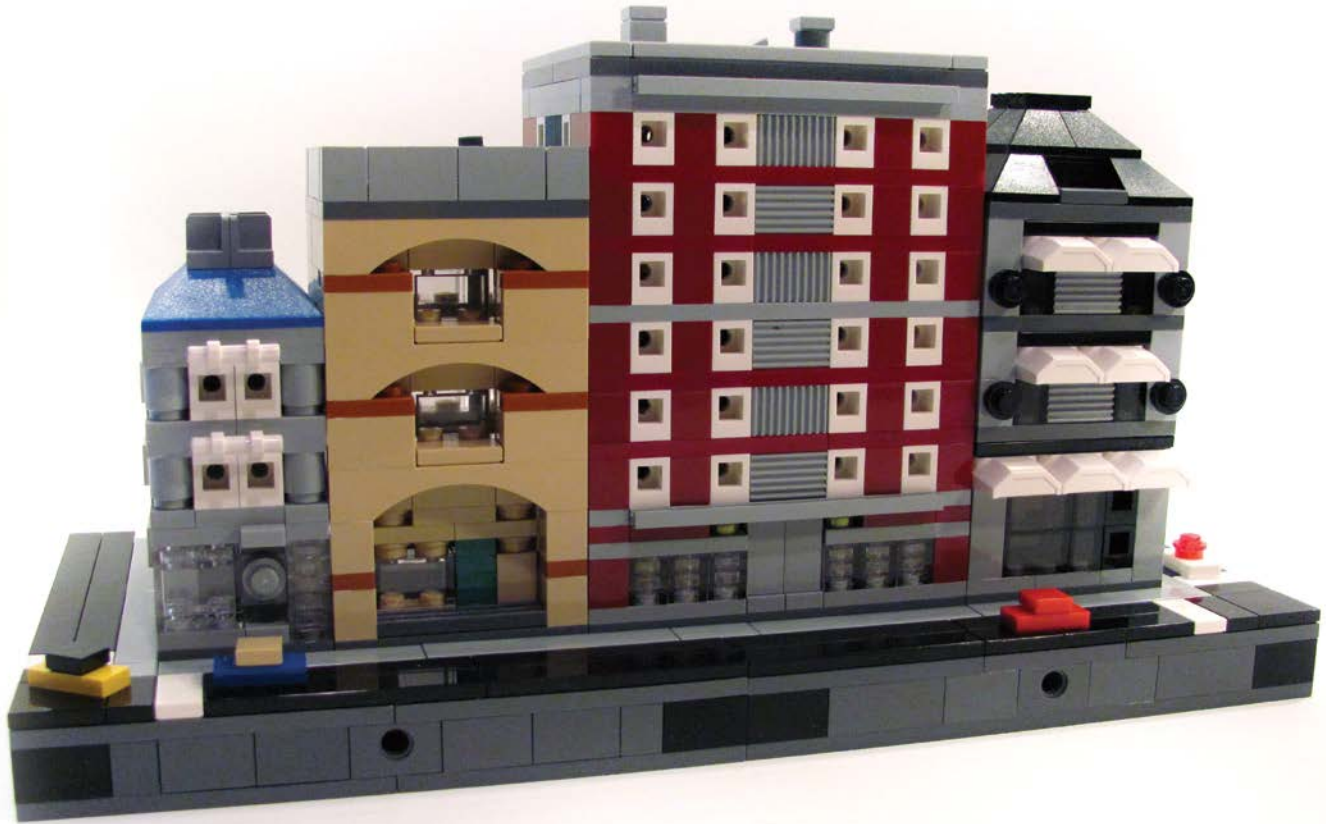
Building

Builder Brief:

Joe Miserendino

Article by Joe Miserendino

Let me give you some background about myself. I'm a 55 year old LEGO fan who came out of his 'dark ages' with the release of the first UCS X-Wing back in 2000. I started collecting sets at that time but not building. I was content to collect and never gave 'MOCing' a thought. In 2009 I attended my first BrickFair event and met several people that helped push me into the world of true AFOLs—Brett Harris and Art Gugick. Brett pushed me to 'just build something' and Art helped spark an interest in microscale building. Further research into microbuilding led me to the TwinLUG Micropolis site and I was hooked—Micropolis became an obsession.



My first builds were limited in scope: a small office tower, a collection of shops and the like (seen above and left).

My first large build (right) was a bit cringe-worthy and is no longer in existence; in hindsight it was a bit of overkill. During this time I discovered the Flickr Micropolis group and began studying what other builders were doing, looking at techniques and styles and refining my own.



My next attempt at a 'big' MOC was a huge leap (at left: the Greystone Tower) in both design and building skills. Over the intervening years I've grown more confident in my abilities and now tackle larger (at right: the Scotts Tower) or more sophisticated (below: the Walters Building) designs without hesitation.



Inspiration

The inspiration for my work comes from the architectural styles found in cities like New York and Chicago from the 1930s onward. While I never attempt to re-create exact copies of any buildings, I do try to re-create the 'feel' of the various styles and eras. The entire display attempts to capture the evolution of the architecture from the small office towers of the '30s to the towering 'super-talls' of the modern era. I love the reactions from AFOLs and the public as they look at the display and tell me 'this is Chicago', or 'this is Boston'; they always think they recognize a couple of the buildings from their hometown.

I love the challenge of microbuilding, the limitations placed on the design by the tiny footprint of the baseplate and making the decisions on what elements to use to best convey the idea I'm trying to get across. Microbuilding really is the principle of 'less is more', the challenge of fooling the viewer into thinking the MOC is loaded with intricate detail when it's really just a few modified plates or bricks in strategic spots.

None of my builds are planned on paper or computer; I find that process actually hinders the build process for me. All of my builds are organic. They grow and change as they are built; it's almost like the building itself is telling me what it wants to look like. The MOC tells me when it is complete, as well as when to stop tinkering and back away. I also never go back and edit a completed building. Sometimes something will happen during the process that causes a building to change direction and move on from what I thought was its original purpose—rather than fight it I allow the change to happen and work with it.



BrickFair Virginia 2015's Micropolis layout. While most of the models shown here and on the next page are Joe Miserendino's, the dark tan roofed building in the center above was built by John Stephens and the white building with blue awning at the middle right edge was built by Stuart Roll.



Building

One of my favorite techniques for getting inspired is what I call 'plate doodling'. I sit at my build table and gather piles of various 4x, 6x and 8x plates in one or two colors. Then I start to stack the plates loosely into piles of varying heights. I stack these piles, twisting, turning, and overlapping them into various combinations. At this point I'm looking for a pleasing shape to the pile, interesting setbacks, overlaps and odd nooks and crannies.


While this is going on I'm starting to build the backstory for what the building might be—office complex, apartment, hospital, whatever. I like for my builds, especially the larger ones, to tell a story about their purpose in life. That way I have a story to tell at shows when I'm talking about my work.

When I finally have a stack of plates that looks 'right', I tear it down and the work begins. I start by selecting my window size and style—clear plate or brick, headlight, or something else entirely. Window design sets the tone for the entire MOC and a bad choice can break a build. The next key decision is the ground floor—height, design, and level of detail (decoration) here are the second major element in the build. Finally I start to build, letting the MOC take shape as it sees fit.

I favor a couple of key elements—headlight bricks, small mod plates, mod tiles, and mod bricks. Almost all of my MOCs are plate-built, with the occasional use of 1x1 and 1x2 bricks as well. My larger buildings have central cores of 2x2 and 2x4 bricks for strength and stability. And tiles, lots of tiles—at this scale exposed studs stick out like, well, exposed studs. Used sparingly for effect, exposed studs are okay, but as I rule I tile over everything. I rarely use SNOT techniques as I find the structural integrity is not always what I'm looking for; if the build calls for it, though, I don't hesitate. Mostly though I stick to standard 'legal' building techniques.

Another favorite activity is finding new and creative uses for different parts to add detail to a MOC. A minifig telescope becomes a tree trunk, or a light post. A jewel becomes the light itself. Green Minifig heads and hair turn into trees. Ice cream scoops become finials on roofs. Minifig chalices can become pillars to hold up a portico. Having viewers find, and point out, these little details to me during a show (especially when it's the kids who catch more of it than the adults) gives me a great sense of satisfaction.

I've built in other scales and genres; at Brickfair VA '14 I collaborated with a great group of TFOLS on a WWII display. I've built modular and minifig scale MOCs for friends and for charity. On occasion I've dabbled in nanoscale architecture, working at the same scale as the original LEGO Architecture series. My next goal will be the creation of a nanoscale city that I hope to display at Brickfair next year.

Building for me is both an artistic outlet and a form of therapy. During the build my mind clears and the only thing that exists during that time is me and the build. Daily stress and tension disappear as I get lost in the process. The completion of a MOC also provides a sense of concrete accomplishment, something lacking in my professional life. In my job I produce electronic documents, e-mails, spreadsheets, and flowcharts—but nothing I can sit on a desk and say 'I did that'. 



Some great examples of microbuilding from Brick-Fair Virginia 2015.

Building



Kingdom in a Box.

It's a Small, Small World!

*Article by Rod Gillies
(TooMuchCaffeine)*

bricks—really look at them. All those tiny little knobs or grooves you've never paid attention to before can suddenly represent whole new levels of detail at a different scale. Minifig utensils and weapons can be a great source of greebley bits for adding richness and depth at small scales, and take a good look at Technic pieces too. Some of those unusual shapes can take on new life in a microscale world. Before you know it, minifig hair starts looking like trees, grill tiles become farm fences, and flippers are superhero capes.

"Hold the Line at Bleaker Street."



While I've always liked building in a variety of scales, I've got a real soft spot for microscale. The way you can create huge scenes with relatively few bricks, or produce a cool little build from a handful of elements—it's unlike any other kind of building.

There's a sense of the abstract to microscale, which doesn't often show up in LEGO building. Most LEGO builders attempt to make things as "realistic" as possible, even when they're building fantastical creations. Microscale is different. The levels of detail you can put into a model are relatively low. The results require interpretation—it's not just the builder who has to look at their bricks in different ways, it also asks the viewer to look at LEGO differently. There's something good about people having to decode your build a little—they look, and then something clicks, and suddenly they're seeing a whole new world of what LEGO bricks can do. My microscale builds are always the ones which prompt the most conversation at shows, because they're not what people immediately expect LEGO building to be.

I love the challenge of looking at bricks in a different way, thinking about what they could represent if you imagine they're massive. There's nothing better than when you spot a new way to use something—the klaxons go off in your head: "NPU (New Part Use)! NPU!" and you're away, fiddling with the bricks trying to use what you've just found.

When you're thinking about microscale, you have to look at your

Dynamic Duo.



One of my most enjoyable microbuilds was *Atlantis Before The Fall*. The idea was born from one of these “Aha!” moments—the realization that minifig binoculars would make lovely little columns for a micro temple. That element ended up being a small part of the finished creation, but it was the seed from which the whole city and the other temples grew.

No matter where my LEGO building takes me, I know I’ll always keep building microscale. It’s just too tempting to tinker with the tiny stuff. I’ve recently been fiddling with how to get motorized and moving elements into microbuilds. It’s a challenge, but an enjoyable one.

Rod Gillies came out of his LEGO dark age about eight years ago, first with Mindstorms robotics before getting back into System building. He builds across themes but has become well-known for his steampunk and microscale creations. He has built chapters for a number of the Dorling Kindersley LEGO books. Away from the bricks, his work sees him developing new beers and ciders for a big beer company, and he writes fiction in his spare time—his trilogy of steampunk adventure novels is available on Amazon.



Atlantis Before the Fall.

Some of my Favorite Microscale Builds by Other Builders...

I also really enjoy seeing the clever ways other microscale builders use their bricks. I remember being stunned at the use of a 2x1 textured brick at a 45-degree angle as little steps (a lovely piece of NPU by the Mayos). It’s such a common brick, of which I’ve got hundreds, and yet I’d never seen it used like that. Or a more recent example was Vitroleums’s use of the new *Star Wars* blasters as Easter Island statues—genius.

Sean and Steph Mayo’s Micro Falls fortress.



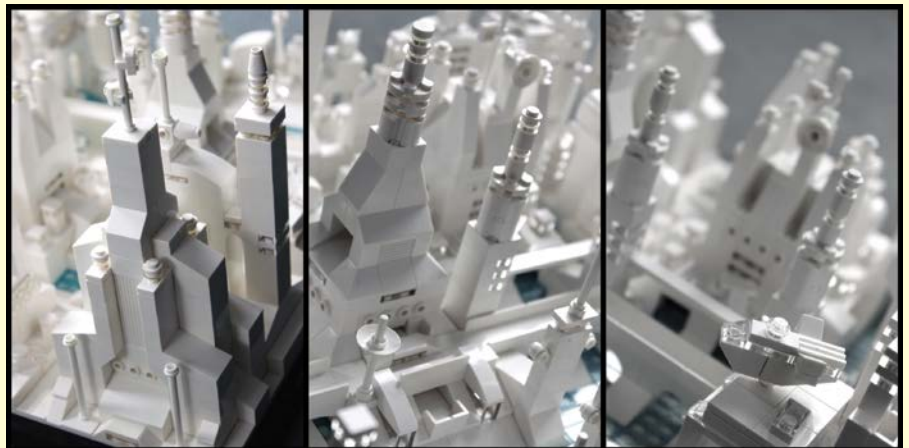
Pasukaru76’s Portal vignette.



Vitroleum’s micro vignette.

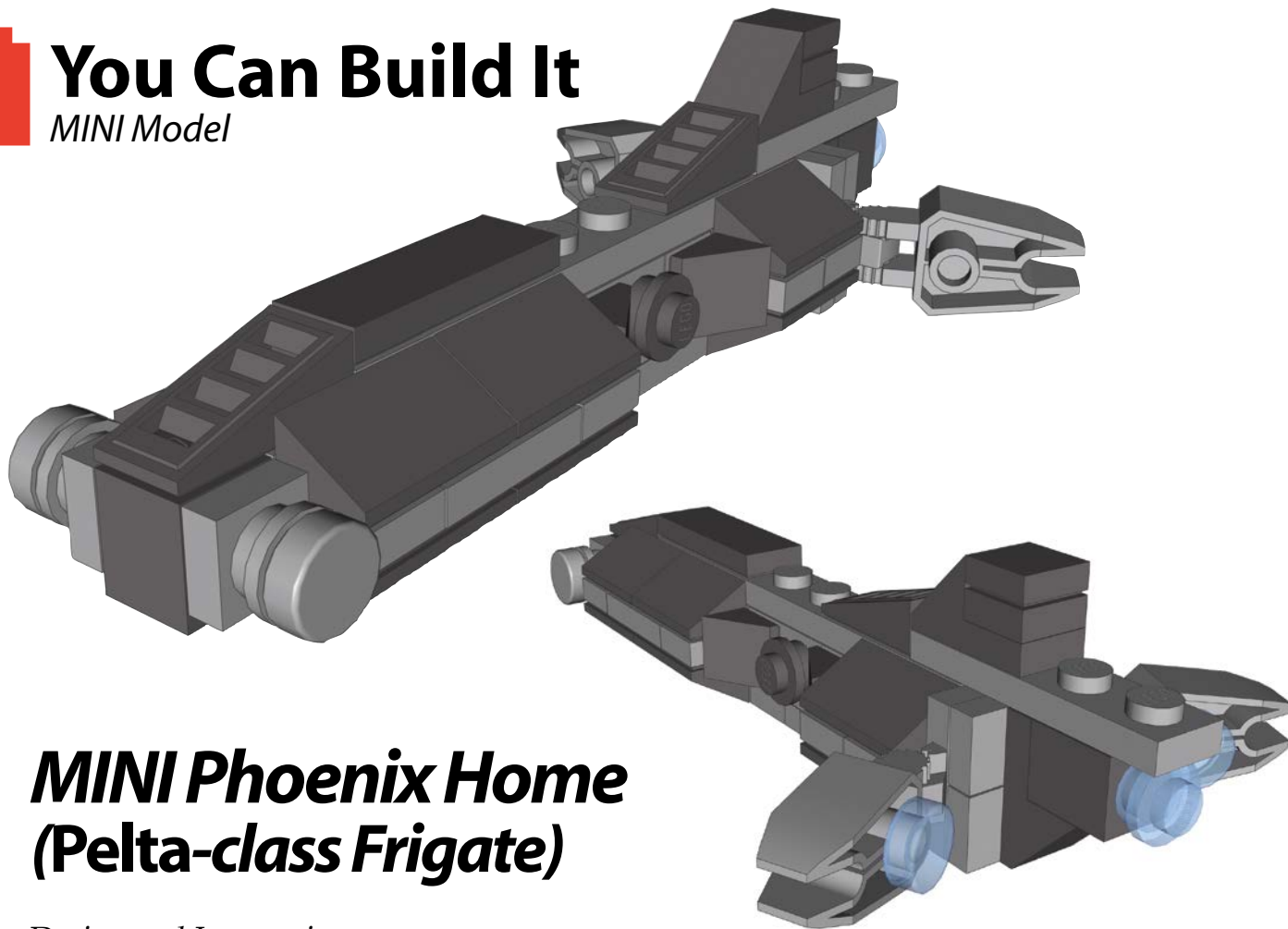


Klaus’ Metropolis.



You Can Build It

MINI Model




MINI Phoenix Home (Pelta-class Frigate)

*Design and Instructions
by Christopher Deck*

Hello everybody and welcome back to our Mini Model building series! For the *Star Wars* fans among you, there is the Phoenix Home—a *Pelta*-class frigate—from the brand new second season of the *Star Wars Rebels* TV series that we want to build together in this fantastic issue of *BrickJournal*.

The most difficult sections to build in this model are the sloped side extensions on both sides of the ship. But slopes are not only on both sides, but also on upper and under side! To keep the model in a miniature scale, we have to attach 2/3 slopes on both sides of a plate. But thin plate layers with studs on both sides are pretty rare, so we have to use a building trick to obtain the shape. When you reached steps 11 and 12 of the building instructions, you will notice that the underside slopes are just slid into the model from one side, and finally blocked by attaching the underside slopes from the opposite side. This works pretty well thanks to those fantastic 1x4 tiles with one stud on each end.

Another tricky part of this particular design is the engine fins attached at the rear of the ship. They have a wedge shape and can fold into closed and open position according to the flight mode chosen. Instead of trying to find a most likely bulky solution, we simply elegantly add those special hinge pieces which fulfill all needs of functionality: wedge-shape, folding ability and left-over stud for engine attachment.

With that, our model is finished! I wish you happy building and see you next time! 



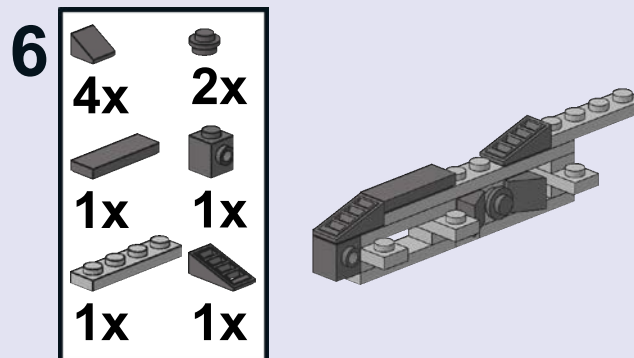
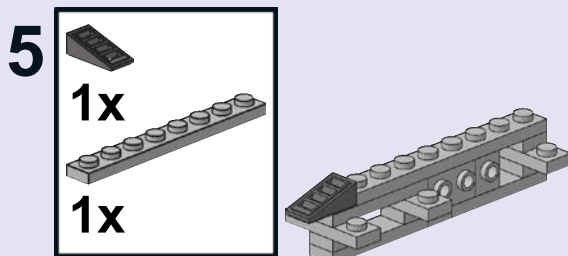
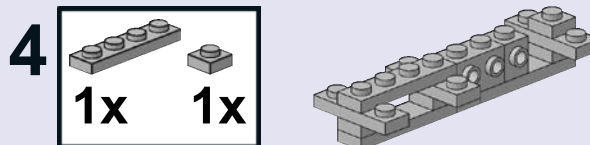
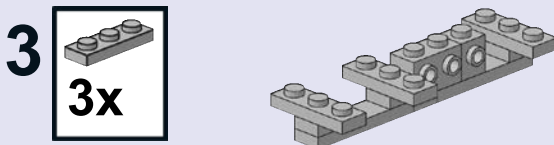
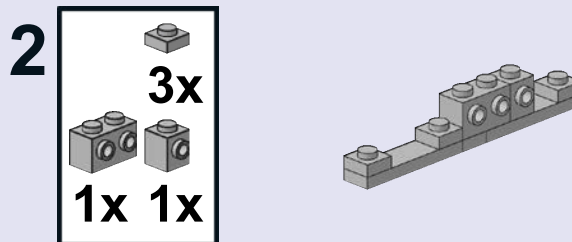
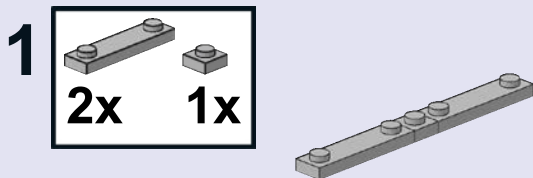
You can view Christopher's webpage by going to www.deckdesigns.de or scanning this QR code!

Parts List

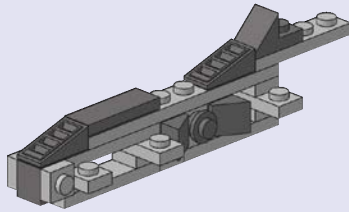
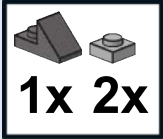
(Parts can be ordered from Bricklink.com by searching by part number and color)

Qty	Color	Part	Description
1	Dark-Bluish-Gray	87087.dat	Brick 1x1 with Stud on 1 Side
1	Dark-Bluish-Gray	47905.dat	Brick 1x1 with Studs on Two Opposite Sides
1	Light-Bluish-Gray	47905.dat	Brick 1x1 with Stud on Two Opposite Sides
1	Light-Bluish-Gray	52107.dat	Brick 1x2 with Studs on Sides
2	Light-Bluish-Gray	44567.dat	Hinge Plate 1x2 Locking with Single Finger On Side Vertical
2	Light-Bluish-Gray	41529.dat	Hinge Wedge 1x3 Locking with 2 Fingers, 2 Studs and Clip
8	Light-Bluish-Gray	3024.dat	Plate 1x1
2	Dark-Bluish-Gray	4073.dat	Plate 1x1 Round
2	Light-Bluish-Gray	4073.dat	Plate 1x1 Round
1	Trans-Light-Blue	4073.dat	Plate 1x1 Round
2	Light-Bluish-Gray	3794a.dat	Plate 1x2 without Groove with 1 Centre Stud

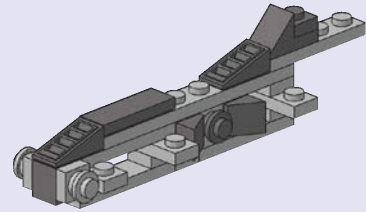
Qty	Color	Part	Description
4	Light-Bluish-Gray	3623.dat	Plate 1x3
2	Light-Bluish-Gray	3710.dat	Plate 1x4
2	Light-Bluish-Gray	92593.dat	Plate 1x4 with Two Studs
1	Light-Bluish-Gray	3460.dat	Plate 1x8
1	Light-Bluish-Gray	3021.da	Plate 2x3
2	Dark-Bluish-Gray	61409.dat	Slope Brick 18 2x1 x 2/3 Grille
4	Dark-Bluish-Gray	54200.dat	Slope Brick 31 1x1 x 0.667
12	Dark-Bluish-Gray	85984.dat	Slope Brick 31 1x2 x 0.667
2	Dark-Bluish-Gray	92946.dat	Slope Plate 45 2x1
2	Light-Bluish-Gray	98138.dat	Tile 1x1 Round with Groove
2	Trans-Light-Blue	98138.dat	Tile 1x1 Round with Groove
1	Dark-Bluish-Gray	3070b.dat	Tile 1x1 with Groove
1	Light-Bluish-Gray	3070b.dat	Tile 1x1 with Groove
1	Light-Bluish-Gray	3069b.dat	Tile 1x2 with Groove
1	Dark-Bluish-Gray	63864.dat	Tile 1x3 with Groove



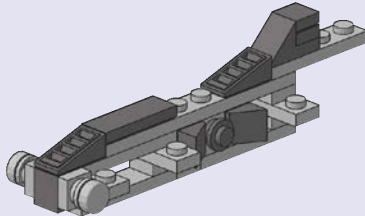
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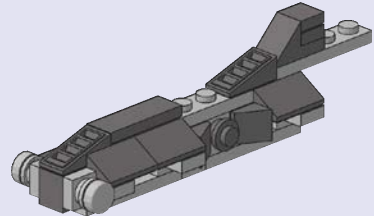
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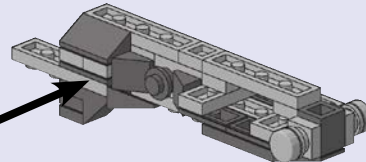
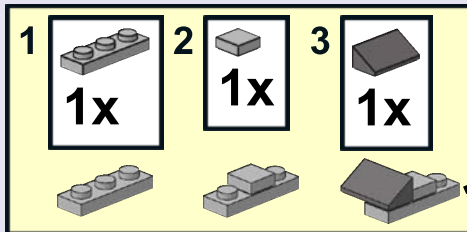
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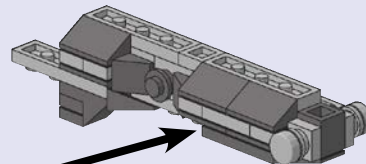
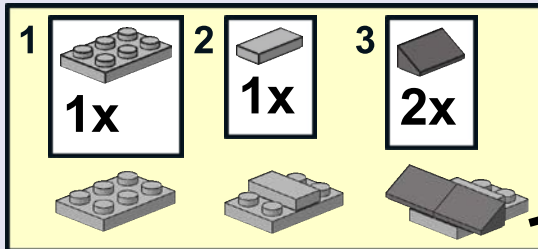
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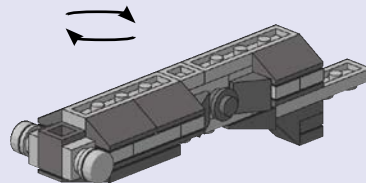
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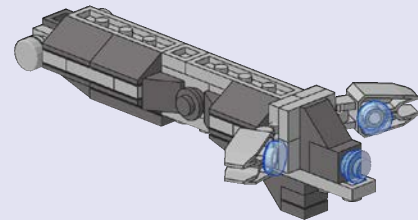
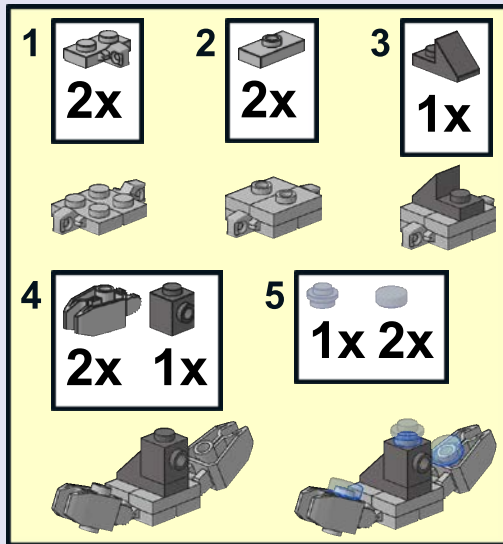
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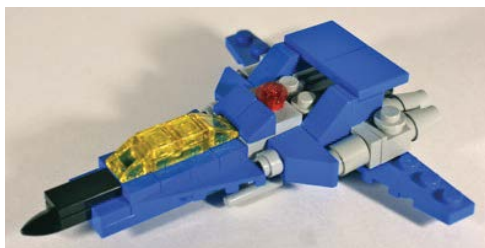


14



LEGO fans: You Can Build It!

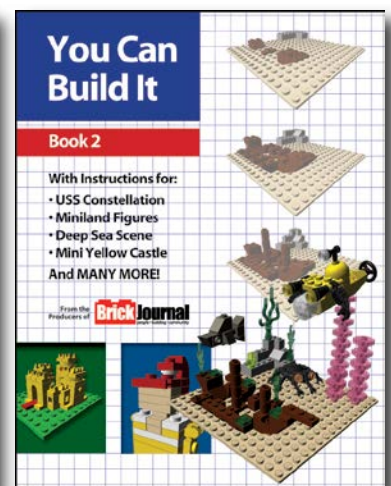
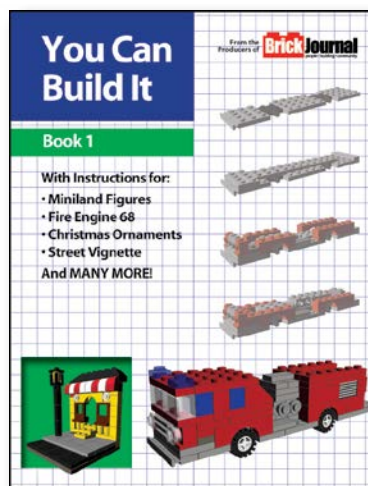
YOU CAN BUILD IT is a new ongoing series of instruction books on the art of LEGO® custom building, from the producers of **BRICKJOURNAL** magazine! Spinning off from BrickJournal's popular "You Can Build It" column, these **FULL-COLOR** books are loaded with nothing but **STEP-BY-STEP INSTRUCTIONS** by some of the top custom builders in the LEGO fan community. **BOOK ONE** is for beginning-to-intermediate builders, with instructions for custom creations including Miniland figures, a fire engine, a tulip, a spacefighter (below), a street vignette, plus miniscale models from "a galaxy far, far away," and more! **BOOK TWO** has even more detailed projects to tackle,



including advanced Miniland figures, a miniscale yellow castle, a deep sea scene, a mini USS Constitution, and more! So if you're ready to go beyond the standard LEGO sets available in stores and move into custom building with the bricks you already own, this ongoing series will quickly take you from novice to expert builder, teaching you key building techniques along the way!

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Building

Minifigure
Customization 101



Ernest Cline and his minifigure.



Making Book Characters the Minifigure Way!

Article by Jared K. Burks

I know that this issue is dedicated to scale and learning how to create in microscale, while this series is about minifigures, so it is hard to tackle. I am going to share my latest project pointing out how scale is important, and maybe showing a couple of microscale figure customizations.

I hope everyone reading this article will have read the book by Ernest Cline, *Ready Player One*. If not, go read it; it is a great book. If you don't have time to read, go listen to Wil Wheaton read it to you on the audiobook.

I was approached by Glen Wadleigh about creating the High Five from the book for Brick Fiesta and got consumed by the Oasis and the hunt. I will show you what I have translated from the pages of Ernie's book to minifigure form. Please know that there are no official reference images for these characters, no illustrations, *nothing*. I had only the text on the page to work from, so this is a work in translating what the author wrote and described into a physical creation. This can get tricky, but I found that my life experience (living through the era covered in the book, the 1980s) helped quite a bit. As it turns out I am only about one month older than Ernie, and he seemed to be writing about his childhood. So the figures I created are an interpretation of the ones in the book from my perspective. In order to explain how I created these figures, I have to give a bit of backstory on the book.

About Ready Player One from publisher Random House:

In the year 2044, reality is an ugly place. The only time teenage Wade Watts really feels alive is when he's jacked into the virtual utopia known as the OASIS. Wade's devoted his life to studying the puzzles hidden within this world's digital confines—puzzles that are based on their creator's obsession with the pop culture of decades past, and that promise massive power and fortune to whoever can unlock them.

But when Wade stumbles upon the first clue, he finds himself beset by players willing to kill to take this ultimate prize. The race is on, and if Wade's going to survive, he'll have to win—and confront the real world he's always been so desperate to escape.

Each of these characters becomes Halliday scholars, people who are experts on anything James Halliday liked, and James liked the 1980s. As a result, everything they immersed themselves in was a late '70s to '80s reference. This influences the whole book and (I thought) the character designs themselves. I also wanted to tie colors to the characters, as each is so unique I wanted to tie them closer to LEGO colors as well. So pay close attention to the color choices I made throughout the series. Let's roll through a character list for the book and the descriptions used by Ernie.

Wade3

Wade Watts is attending high school online. He is poor, as is most of the world, and has no funds to travel or purchase anything in the OASIS beyond what his school or the OASIS have issued him. Wade3, because he is the third person with the first name Wade at his school, is described as being the default avatar settings, black t-shirt and blue jeans. I gave him a faded pair of high-top tennis shoes to complete the look and his eyes are actually more square than round to highlight that this is an avatar (online) style character.

Parzival

Parzival is Wade3's Gunter alter ego. Gunters are Egg Hunters that are searching for the easter egg hidden in the OASIS by James Halliday the creator. Parzival and his friends are all solo Gunters, not part of a group or clan, which makes each of their outfits unique. When translating to LEGO, I wanted to highlight this, yet tie them to the brick. So I decided that the color Yellow would be Parzival's main color. Wade chose the name Parzival due to the name's heritage. Parzival is the grail knight that finds the Holy Grail in Arthurian legends. As such I had to give a historical nod to this influence and tried to do so with all the leather straps, but as this is a virtual place, I also made his basic "armor" an updated version of plate in style. From here I added the "27 pieces of flair" to make the character look traveled and lived in. As Parzival starts out with nothing, he keeps nearly everything and wants to mark where he has been, thus all of the badges on his basic armor. I also updated his face to look more natural (LEGO natural) and made his hair style different to denote stepping away from the default skin. I picked up influences from *Tron* with a light touch from *Star Wars*. Where I really had fun was all the accessories.



Ernest Cline and his book characters in minifigure form.

Wade3.



Parzival.



Art3mis.



Art3mis

Art3mis is the female lead in the book. She is another solo Gunter who has taken her name from the Greek goddess of the Hunt and is quite a step away from the typical female form presented in the OASIS. She is a curvy Reubenesque more natural girl described as cyberpunk/post-apocalyptic girl next door. Going with the color scheme I made her dominant color Blue, another primary color. There are a few more details pointed out for Art3mis, which are Chuck Taylor Shoes, Classic Ray-Ban Sunglasses, and a constant smirk. Her facial features and hair are compared to Jordan from the film *Real Genius*. The only other details are scaled armor and twin blasters slung low on the hip. As you can see I ran with each of these details. I also picked up influences from Scarlet from the '80s *GI Joe* cartoons to tie them all together, as well as a touch of Han Solo.

Aech.



Aech

Aech is a tough character to crack and you will have to read the book to get all the details. As this is really the third major character (the best friend), I chose the last primary color for him, Red. Very little detail is mentioned for him though. He is a fan of the Endorians (Ewoks), an arena combat champion, and excels at first-person shooter games. Knowing the ties to the '80s, I started asking, who was a '80s gladiator? Well, two came to mind. He-Man definitely had the form and Deckard from *Blade Runner* fought against more fierce competitors. So for this character I took the He-Man concept a bit more toward the LEGO gladiator and added an Ewok tattoo. Deckard came in with the primary gun selection, which I graciously received from Brick Arms (Thanks Will!). I paired all this with *Star Wars*, by using Jango Fett's helmet and weapons, which all fit the character type. Yes, Boba's might have been better (time appropriate), but I couldn't find enough of those for the project.

Daito & Shoto

Daito and Shoto are brothers named for the two swords that Samurai carry. They are Japanese, one of the rare details exposed in the book, as everything takes place in a virtual space so people can make their avatars look like anyone from any culture. I thought it important to highlight this detail. Together they are known as Diasho, which means Little-Big and is the name for the pair of swords. Aside from the description of Samurai, little is described other than Shoto is younger and shorter than Daito. I chose secondary colors that reflected their personalities and based the designs on Jedi. Daito is more hot-tempered so he is Purple (a mixture of Red and Blue) and Shoto is more calm and is Green (a mixture of Yellow and Blue).

Nolan Sorrento

What is any story without a villain? Well, Nolan Sorrento is the head of the Sixers, who are quickly dubbed the “Suxors” in the book. These guys use a default avatar in a specific outfit, but Nolan’s character is allowed a bit of latitude with his face and head. He also has the epaulets. He doesn’t have much in the way of accessories simply because he has an army and everything that accompanies an army, so personally he has little, or at least little is described that is specific to him. He is a surfer turned computer game creator and thus IOI, the company he works for, thinks he can crack Halliday’s code.

“Jared did an amazing job recreating all of the main characters in Ready Player One (and me!) as custom LEGO figurines. His eye and attention for detail is amazing. This is one of my favorite fan tributes to the book!”

*Ernest Cline,
Author of Ready Player One
and Armada*

Ernie Cline/James Halliday

As I read the book and listen to the description of James Halliday, I kept seeing the author. While the author based this character loosely on a game designer, I was not aware of this person, so I created a minifigure of the author and placed him as the James Halliday character. I thought this fitting as the author clearly loves the '80s to embed all this information into a book—two actually. So he is a fitting stand-in. I created him simply and more in style to the way the author (Ernie Cline) has been photographed in public.



Shoto.

Daito.



Sorrento.



Ernie Cline/James Halliday.



Video game consoles.



Creating Consoles

So while the figures have now all been described, we come to the arcade cabinets. Creating these cabinets was a joint effort with Glen Wadleigh. He and I worked back and forth on the shape until it was refined, but Glen did the heavy lifting with me critiquing. We had certain criteria we wanted; specifically we wanted to light them to make it appear as if they were able to be played. Once Glen had a digital representation, I took to building it and made alterations to improve appearance and decal application. Clearly these had to be scaled to the figure and we even had to think out how to allow one versus two figures to play on a given cabinet. I also had to tackle how to portray the screens given the arcade cabinet bezel. I didn't want to take away from the lighted space, and so I have to give the appearance of the same slope to parts that didn't have the same slope and had to work out precise distances so that the bezel appeared to start and end in the same place across these various slopes; all tricky work.

All in all I had a great time working out the details for these characters, figuring out the scale for the various design elements and then expanding the design by including the game cabinets. It created a unique problem, but they have been well received online. Many thanks to Will Heron, Glen Wadleigh, and Brick Fiesta for the opportunity to create this material for the event. I would also like to thank Ernie Cline for his great novel and the inspiration for this project.

I hope this gets you to think about your creations, by thinking about what inspires a character, translating that inspiration into design elements and creating new characters in exciting ways. 



You can view Jared's webpage by going to <http://www.fineclonier.com/> or scanning this QR code!



**Come back next issue
for more Minifigure Customization!**

My Blocks: What are they?

My Blocks are a way to represent lots of instructions with just a single block. What that means is that you may have a very long program, and just by the nature of such a large program it might be difficult to see at a glance what is happening within the code. My Blocks allow you to 'chunk' out the program into meaningful chunks that makes it easier to both program and more importantly debug. So what would that look like in a real program?

How Do We Use Them?

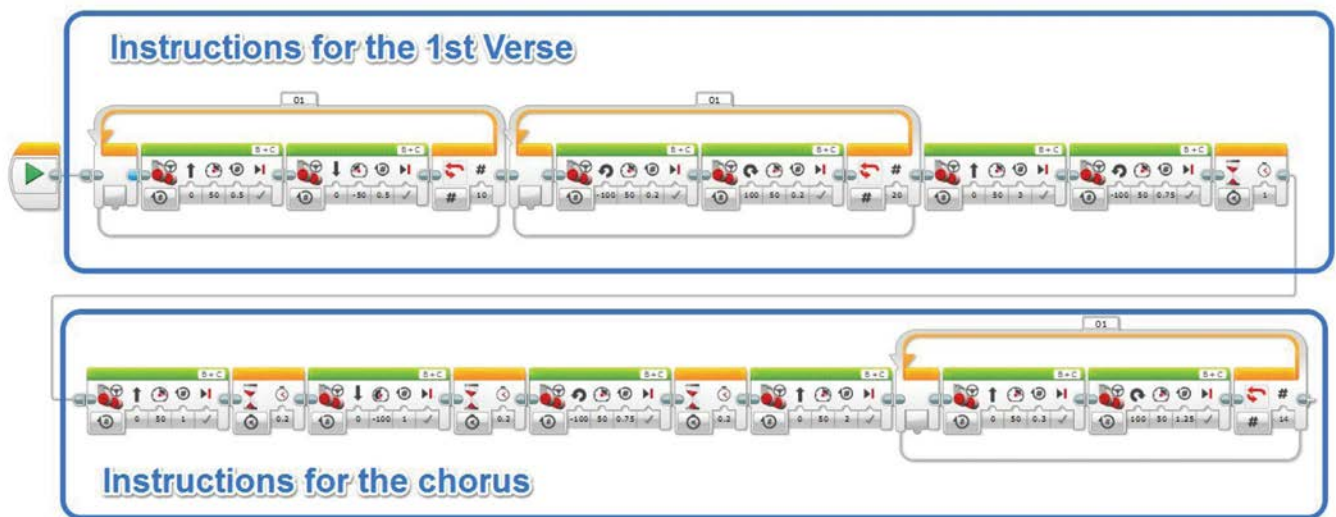
Let's take an example of a dancing robot from a competition like RoboCup Junior. In this competition, robots need to do a performance for a set amount of time. A large number of teams break a song down into verse / chorus sections and then program the robot to do different actions in each section.

Here is an example of Robot dance program as it might look the first time you work on it.

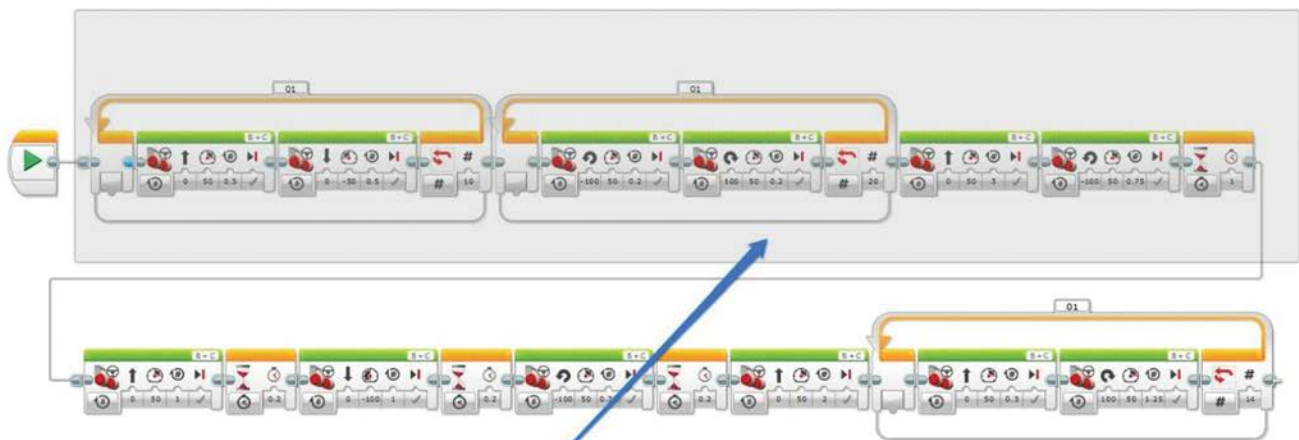
MINDSTORMS 101:

My Blocks: The Basics

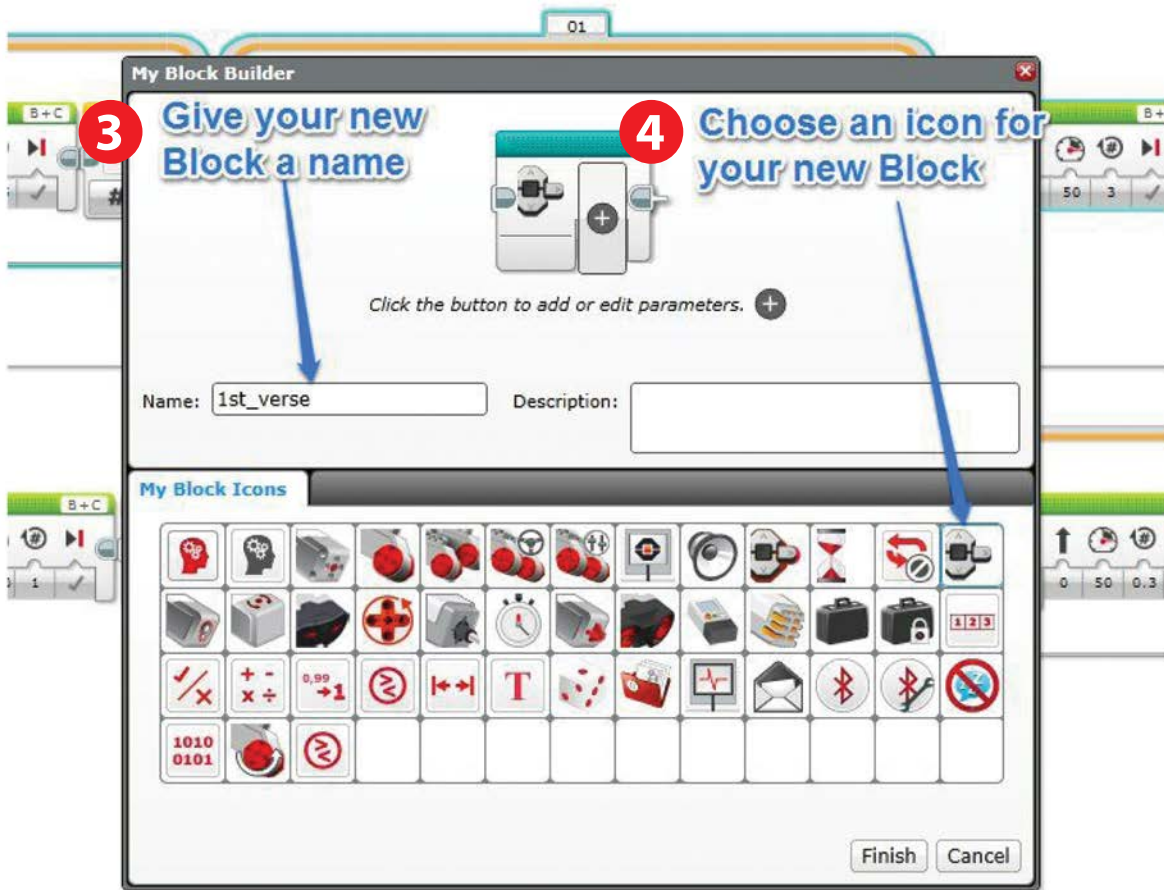
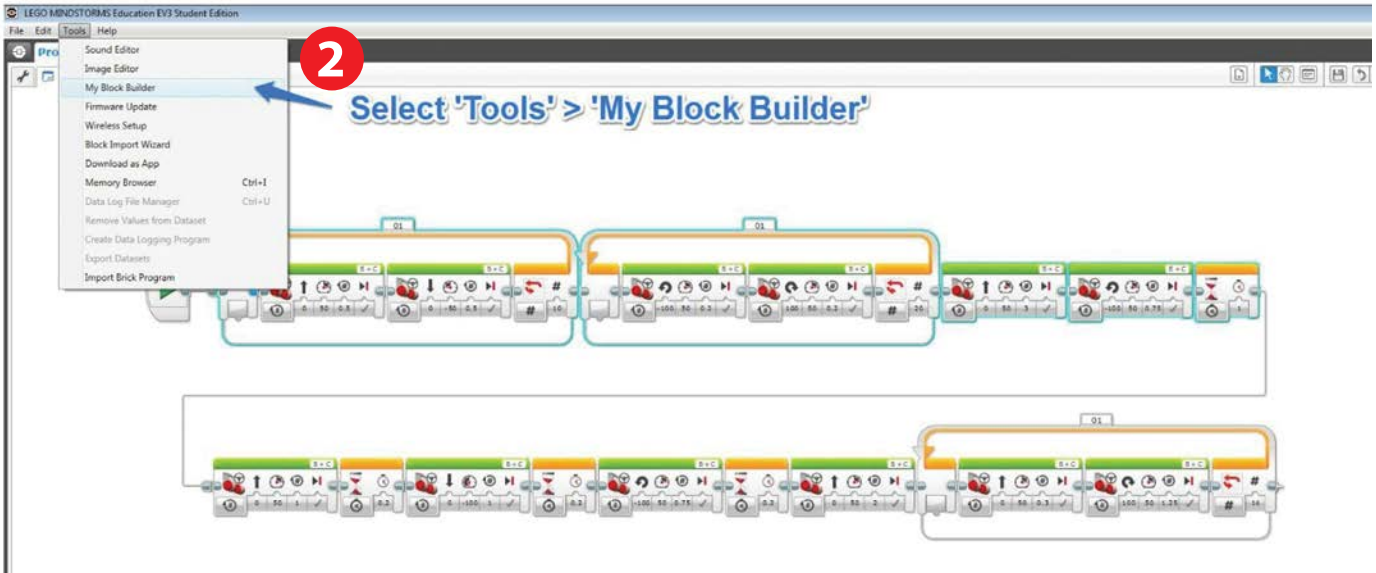
Article and art by Damien Kee



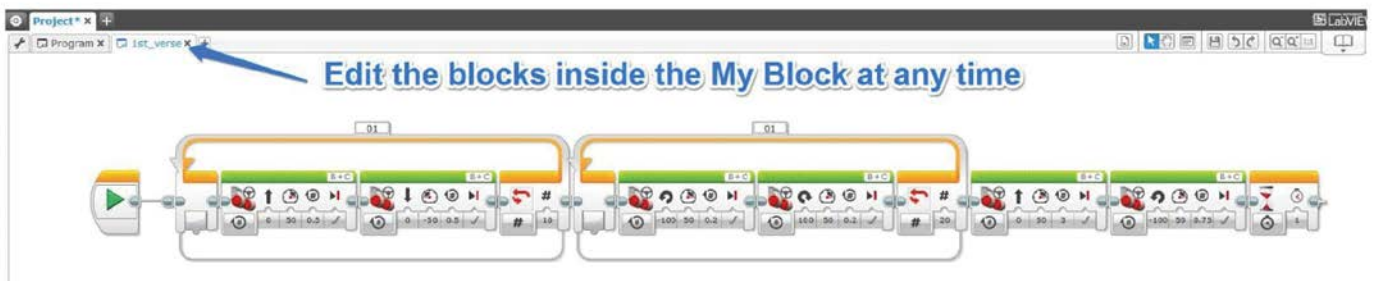
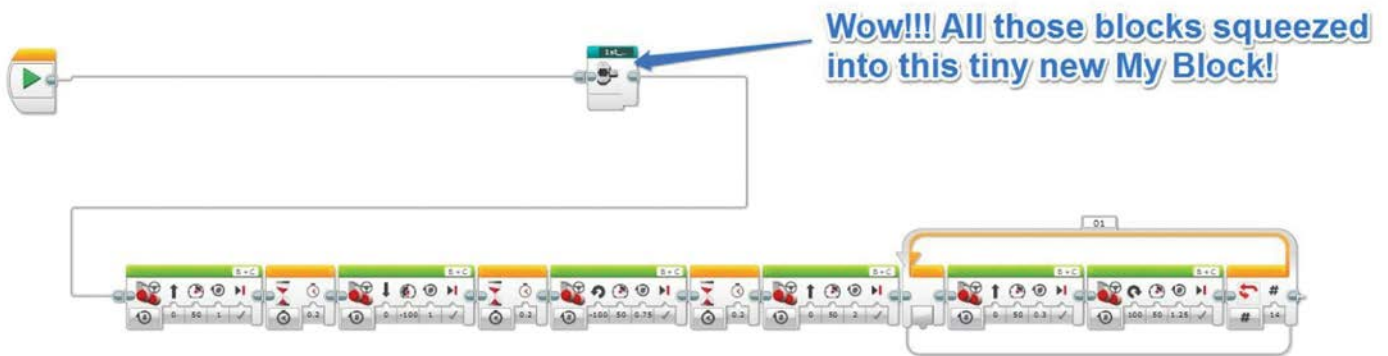
That is starting to get quite large as there are lots of movements within the program. What would be nice is if we could take all the parts relating to the robot dancing to the first verse of the song and create a single block to represent this. Here's how you place all the blocks into a My Block.



1 Highlight the blocks you want to select



You'll now see all those blocks have disappeared and have been replaced by a single My Block that you have just created. If you want to edit anything inside this My Block, double-click on the block and it will open up a separate Program within your Project with just the blocks associated with the My Block.



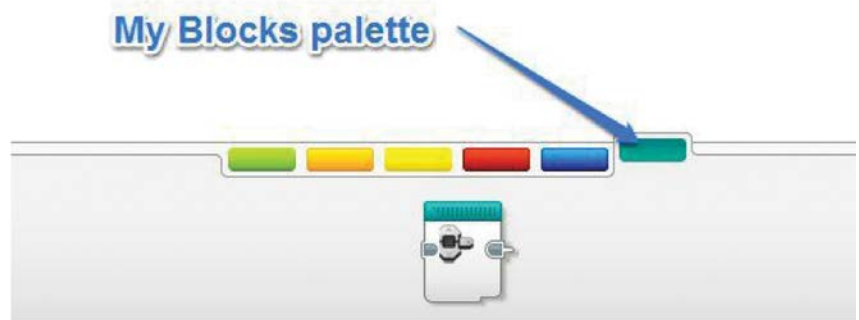
Dr. Damien Kee has been working with robotics in education for over ten years, teaching thousands of students and hundreds of teachers from all over the world. He is the author of the popular "Classroom Activities for the Busy Teacher" series of robotics teacher resource books.



You can find more information at www.damienkee.com or contact him directly at damien@damienkee.com. Or you can scan the QR code at the left!

If you do the same thing with the other "chunks" you can make your main program far more manageable and easier to read/debug.


If you ever need to use those blocks in other parts of the program, you can find them in the "Custom" palette of Blocks along the bottom of the screen.



What Next?

The My Block Builder is an excellent way of condensing your program to make it easier to read, manage, and ultimately find and fix problems.

Do you have an amazing line-following algorithm as part of a larger Rescue robot? Turn that part into a My Block! Have you solved a mission in FLL? Turn it into a My Block! Have you solved multiple missions in FLL? Turn each into a My Block and string together many different My Blocks when you get to the competition!

Do you have a crazy program that you are having trouble remembering which parts control which? Break it into chunks of actions, and turn each action into a separate My Block! Problem solved! 

Jakarta Brick City

In a country where Bali is the number one popular destination for tourists, it is easy to forget that the capital city of Indonesia is well worth a visit as well, even if it is in the form of LEGO bricks!



*Article by Kosmas Santosa
and Erwin and Charis Stella*

Unbeknownst to many, Indonesia is actually home to quite a number of active AFOLs passionate in the creation of MOCs. This passion finally surfaced to the eyes of the public in the event known as Jakarta Brick City, held from June 6 to July 12 earlier this year. This event was created in celebration of the city's 488th anniversary, and was a result of the collaboration between Emporium Pluit Mall and Bhinneka LUG. The display consisted of Jakarta's famous buildings, landmarks, and city life in LEGO form, created by Indonesian MOCers from Bhinneka LUG.

Bhinneka LUG started out back on the 29th of December 2013 as a group of friends and families that love to build and collect LEGO. The group quickly grew to become a MOC group as we found our passion in creating our own builds, inspired by amazing MOCs from around the world. We held monthly gatherings, exchanging



techniques, talking about LEGO and holding fun group activities, and slowly grew as a budding community. It was only on March 2015 that we were registered as an official LUG, with this Jakarta Brick City event being our very first public display. The name "Bhinneka" itself is originally derived from a Sanskrit word meaning "diversity." Our LUG's name is based on our country's national motto, "Bhinneka Tunggal Ika," which translates to "Unity in diversity." It is with this spirit where the heart of Bhinneka LUG lies; our members range from all over Indonesia. It is only fitting that our first display reflected this motto very well in its cultural and religious variety of buildings.

Our LUG puts its main priority and focus on MOCs and consists of some of the most talented MOCers in Indonesia, with currently 21 members and growing. The LUG operates on the principle of "quality over quantity" with a vision of celebrating creation and creativity using LEGO as the medium of expression. Our activities and members can be found on our website www.BhinnekaLUG.com.

Jakarta Brick City began as a casual conversation with one of our AFOL friends who was working at Emporium Pluit Mall at that time. The conversation soon turned into an idea of making a miniature LEGO version of Jakarta for the upcoming city anniversary. The original request from the mall was to have us create a 6 x 4 meters (19.7 x 13.1 feet) display which was clearly too large for Bhinneka LUG to handle! Our group was still fairly new, and we knew that we wouldn't be able to maximize our creation





Exhibition Participants: Kosmas Santosa, Erwin Stella, Dennis Qiu, David Liming Halim, Charis Stella, Hardy Herosali, Daniel, Dendi Pratama, Arlin Santoso, Anton Budiono, AgusRahmat, Hendratno Hartanto, Hendri Kamaluddin.



Pura Adhitya Jaya.



with that big of a size. Quality matters over quantity, after all, and we were lucky enough that the mall agreed with that. The display area was soon reduced with the understanding that we will be able to create a more detailed, livelier and fuller display in a smaller area.

The result was a total of eighty 32 x 32 baseplates spread over one giant U-shaped table and four standalone display cases. As with our vision, the streets of the LEGO Jakarta were flooded with minifigure activities, unique Jakarta traits, vehicles, and of course, the iconic buildings and locales themselves, all built in detailed form.

The largest hurdle for us in making this display was the number of parts and MOCers we had in hand. We have never tackled such a large display alone before, and for a lot of our members, this meant having to order more parts from Bricklink. Since Indonesia's own Bricklink stores are still quite limited in terms of quantity and variety, we had to turn to stores over in the USA and Europe with shipping times that usually take over a month. Combined with the pressure we have from the two-month deadline, this was truly a nightmarish waiting game for some of our members with limited parts. Thankfully with some tinkering and modification we were all able to finish the creations in time without having to sacrifice any major part of the display.


In addition to the limited parts, MOCers in Indonesia are still few and far between, mostly due to the fact that the majority of AFOLs here are collectors and resellers. The scarcity of MOCers in Indonesia also means that a lot of them have to travel across towns and even islands just to gather with fellow MOCers in larger cities like Jakarta or Surabaya. Almost half of our own members living out of town had travelled to Jakarta to participate in this Jakarta Brick City event, helping us set up the display and taking it down on the final day of the event.

The final result of the display was truly satisfying though in the end for both Emporium Pluit Mall and Bhinneka LUG, with visitors flocking to see the brick-built city placed in the lobby of the crowded mall. Though it may not be the largest LEGO display, it very well is the first all-MOC display in Indonesia! Every building and vehicle

was an original creation, and it was easy enough to see the surprised and amazed looks on the visitors' faces as they stared at the creations. Not only were the kids excited, even the adults were drawn into the display, impressed at the detail of the builds and sculptures.

Part of the reason for this reaction was probably due to the status of LEGO in the country. LEGO is popular in Indonesia and is pretty much a household name. But unlike most other countries, the people's awareness about MOCs is surprisingly low. Most adults think that LEGO is simply a children's toy, and they rarely see the amazing creations made by people in their own country, let alone the rest of the world.

Another intriguing fact is that the retail price of LEGO sets in Indonesia is almost twice the price of those in the USA, which makes LEGO quite the expensive toy that is considered as more of a luxury item than an affordable hobby for the general public. Through social media and our monthly gathering that is open for public, we strive to encourage more people to join in and explore creating their own MOCs and unlock their inner creativity.

With the success of Jakarta Brick City, we are inspired to build bigger and better displays in hopes of inspiring other people to start creating and expressing their imaginations using LEGO! This is only the first stepping stone for Bhinneka LUG in the journey of creating more and more displays for everybody, and we can only look forward to the day when the MOC community in Indonesia is no longer a minority, but a thriving and active part of the LEGO world! 



Some of the many displays at Jakarta Brick City.



Display Buildings, Landmarks and Vehicles Descriptions



Monas

The Indonesian National Monument located in the center and heart of Jakarta. It was built to commemorate the struggle for Indonesian independence from the Dutch colonization.

Built by Kosmas Santosa.



Protestant Immanuel Church

One of the oldest and most popular Protestant churches in Jakarta.

Built by Dendi Pratama.



Istiqlal Mosque

The biggest mosque in Southeast Asia.

Built by Dendi Pratama.

Catholic Cathedral Church

The central Catholic Church in Jakarta.

As a culturally and religiously diverse country, two of the most famous buildings in Jakarta are also the two biggest places of worship—the Muslim Istiqlal Mosque and the Catholic Cathedral Church. These two giant buildings are built next to each other to symbolize religious tolerance and diversity in the country.

Built by Charis Stella.



Buddhist Dharma Bhakti Temple

The oldest Buddhist temple in Jakarta (approx. 400 years old)

Built by Kosmas Santosa.

Buddhist Tzu Chi Temple

The biggest Buddhist temple and activity center in Jakarta.

Built by Erwin Stella.





Wisma 46

Once the tallest building in Jakarta, it remains one of the most iconic modern buildings in the city with its unique design, and serves as the headquarters of the oldest government-owned bank—Bank National Indonesia that was established in 1946.

Built by Dennis Qiu.



Selamat Datang Monument

A monument to symbolize our warm welcome for the delegates and visitors of the Asian Games IV in 1962.

Built by Hendri Kamaluddin.



Pura Adhitya Jaya

The biggest Hindhu temple in Jakarta.

Built by Kosmas Santosa.



Pancasila Sakti Monument

A monument commemorating the Indonesian Revolution era.

Built by Kosmas Santosa.



Menteng Park

One of the most popular parks in Jakarta, known for their pyramid glasshouses.
Built by Hardy Herosali.



Pembebasan Irian Barat Statue

A statue commemorating the struggle to take back West Irian (Papua) from the Dutch Colonization.
Built by Kosmas Santosa.



Situ Lembang Park

A popular park in Jakarta famed for its artificial lake.
Built by Arlin Santoso.

Pahlawan Statue

A statue commemorating ordinary Indonesian farmers and their struggle to fight for their independence from Dutch colonization.
Built by Kosmas Santosa.



Pemuda Membangun Statue

A statue commemorating the spirit of young Indonesians striving to build Indonesia into a better place.
Built by Kosmas Santosa.





Dirgantara Statue

A statue commemorating the spirit and passion of Indonesian aviation.
Built by Agus Rahmat.



Diponegoro Statue

A statue of one of the Indonesia's most notable heroes.
Built by Dennis Qiu (above) and David Liming Halim (below).



Jakarta-Kota Train Station

One of the oldest and busiest train stations in Jakarta.
Built by Erwin Stella.





Trans-Jakarta Bus Stop

A newly integrated public transportation created to ease the traffic situation in Jakarta and provide an affordable and fast means of transportation in the city.
Built by Erwin Stella.



Bajaj

The three-wheeled vehicle produced in India that is widely used in Jakarta. It serves as a popular public mode of transportation for short to intermediate distances with the passenger capacity of two persons. It has the characteristic of being very loud and has the tendency to make sudden turns due to its lack of a functioning turn signal (the driver uses hand signals instead).
Built by Kosmas Santosa.



Bemo

A short-form of the name "Becak Motor," this is a practical three-wheeled vehicle that is capable of navigating through narrow streets.
Built by Kosmas Santosa.



Metro Mini & Kopaja

A public mode of transportation in the form of a small bus with the passenger capacity of 20–30 people. It is a very popular form of transportation despite its infamy for being poorly driven by reckless drivers, and the thick black exhaust smoke it produces. This preference is due to the lack of other affordable public transportation in Jakarta before the arrival of the Trans-Jakarta Bus.

Both built by Kosmas Santosa.



Vehicles

Built by Daniel.

Ondel-Ondel

This giant doll is an iconic part of Jakarta's anniversary and is often seen in parades held on the streets of downtown Jakarta. It is made to ward away evil spirits and is usually seen in pairs accompanied by music from various instruments and used in traditional mystical rituals.

Built by Kosmos Santosa.



Emporium Pluit Mall

The mall where Jakarta Brick City was held, located in North Jakarta.

Built by Agus Rahmat.



Delman

A public mode of transportation in the form of a horse-driven cart. The name originates from the inventor, Charles Theodore Deeleman.

Built by Kosmas Santosa.

Community Ads

seriously nerdy.

BrickNerd
nerdy about the bricks.

www.bricknerd.com

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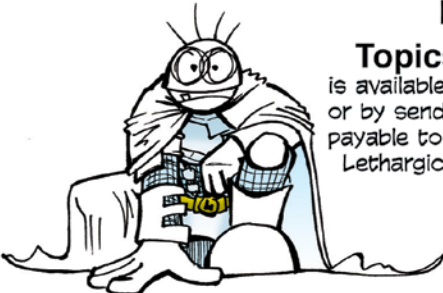
Hey Kids! Comics!

by Greg (AFOLs) Hyland

Lethargic Lad: Topics of Unclear Importance is a complete collection of seven years of Lethargic Lad comics! Presenting over 350 strips from the lethargiclad.com website and all the Lethargic Lad three-page comics that originally appeared in the pages of *Dork Tower* comics.

"Greg just gets it right: the situations, the ongoing storylines, the characterizations, the understated but gut-busting payoffs... Fans of the Lad are fans for life!"

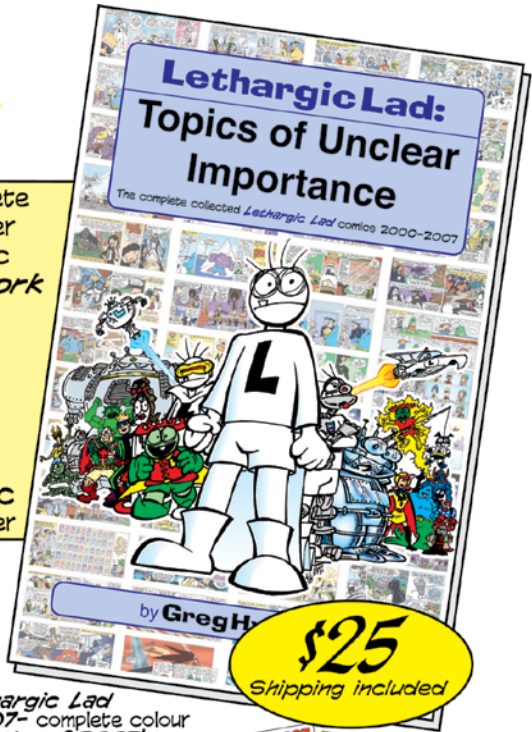
-John Kovalic
Dork Tower



Lethargic Lad: Topics of Unclear Importance

is available exclusively at www.lethargiclad.com or by sending check or money order made payable to "Greg Hyland" to:

Lethargic Lad: Topics of Unclear Importance
60 East Ave. N.
Hamilton, Ontario
Canada
L8L 5H5



\$25
Shipping included

Also:
Lethargic Lad 2007- complete colour collection of 2007's strips! \$20
Lethargic Lad 2008- complete colour collection of 2008's strips! \$20





I need a shave. Marcos Bessa, LEGO Set Designer, doesn't.

I would have finished this sooner if it weren't for those meddling kids!



*NO! Not like THAT!
Blade provided by Jon Lazar. And no, it doesn't cut.*




Last Word

Conventions are a lot of fun. This year I have gone to the big ones in the US and will be hitting a couple more before the year is out. If you haven't gone to an event, take the time to find one closest to you and attend. The creations you will see are astounding.

The people you will meet are the neatest bunch of people you'll find (but I'm not meaning neat, as in clean... I'm meaning neat as in cool). They are a funny, smart, passionate group that I am happy to be with.

If you aren't able to go to an event, you can get to know the community by seeing *A LEGO Brickumentary*, a documentary that was released that is about the LEGO fan community... and I and a lot of my friends are in it! Rent it or buy it!

Our next issue we'll go to visit a galaxy far, far away...

See you then! 

KAMINOAN'S www.fineclonier.com

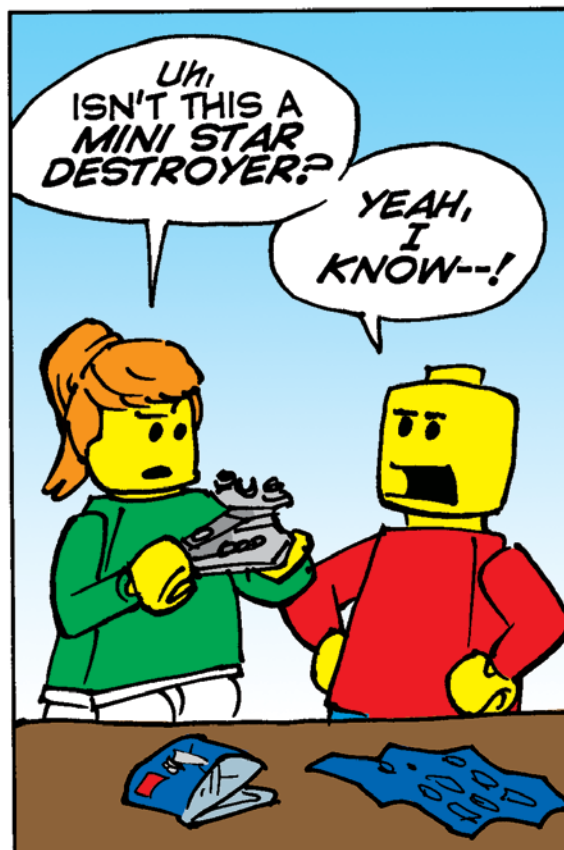
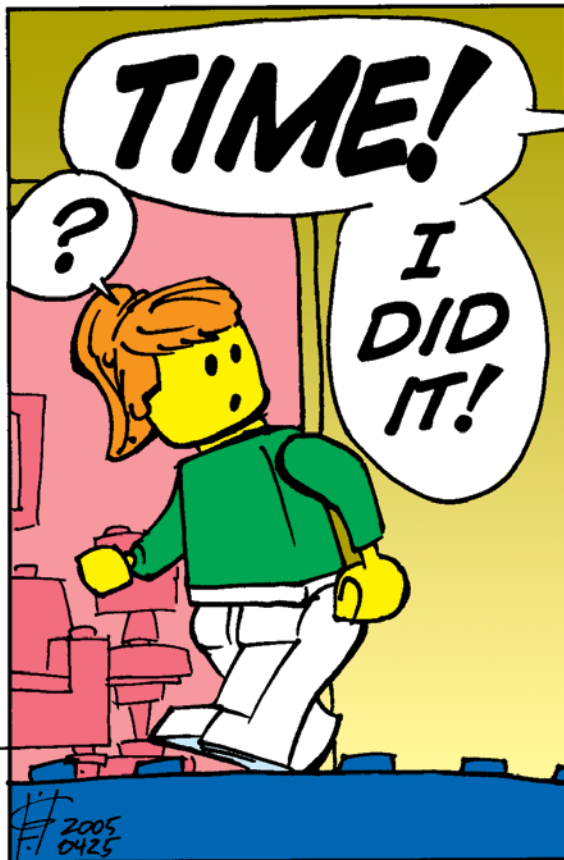
FINE CLONIER DECALS



Kaminoan's Fine Clonier. For all your minifig decal customization needs.

AFOLs

by Greg Hyland



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