Contacts:
Renee Mailhiot, Museum of Science and Industry, (773) 947-3133

Architecture Firms LEGO® Challenge

In *Brick by Brick*, guests will also see futuristic LEGO® structures, constructed by global architecture firms, in response to predicted challenges our cities will face—including rising populations, climate change, water scarcity and more.

The Museum of Science and Industry sent each participating firm three LEGO Architecture Studio Kits, consisting of 1,200 white LEGO bricks each—for a total of 3,600 bricks to design and create a structure of the future. Firms were encouraged to be creative, from 3D-printing their own custom pieces or cutting and reshaping existing bricks, but their end creation was required to fit in a 14”x14”x18” display case.

UIC School of Architecture

Chicago, Illinois

Title: LEGO® 601

Solutions to future conditions only can be discovered through unconventional and disobedient methods. The key is to identify and challenge preconceptions to escape contemporary anxieties about the future. LEGO 601 addresses all future local and global conditions related to population growth, water scarcity and global warming.

Material modifications*:* The team used etched and mirrored acrylic in the structure’s base, and literally hacked LEGO DUPLO bricks to elicit sectional qualities.

Design With Company

Chicago, Illinois

Title: Institute for Gateway Preservation

Inspired by the quotation, “Play as a gateway to building great things,” our Institute for Gateway Preservation is literary, architectural, scientific and engineering based. To maintain gateways, to build great things in the future, we must play with and preserve our gateways. The design is a collage of gateways, doors and arches into a monumental form. It peeks at the future by reconfiguring the present and past.

Illinois Institute of Technology, College of Architecture

Chicago, Illinois

Title: Frames

Combined with LEGO bricks, Virtual Reality frames each visitor’s experience. Physical and digital worlds cross. Journey through cities across time and space, and return in a reality framed by LEGO bricks. Depending on your knowledge and experience, you may interpret the VR cities differently, from dreamlike to realistic. Either way, the LEGO frame invites you to interpret these cities in relationship to one another.

UrbanLab

Chicago, Illinois

Title: Living Machine Bus Shelter

How can we transform massive, centralized infrastructures like waste-water processing for greater efficiency? In this model, once-used household water goes to the Living Machine Bus Shelter. Here, plants clean the water in bio-filter tanks (the bluish section). Clean water returns to residential buildings. For this structure, UrbanLab made two 3D-printed, non-LEGO pieces: the white bus shelter piece and the translucent living machine upper piece, which allows in sunlight.

Kengo Kuma & Associates

Tokyo, Japan/Paris, France

Title: Organic City

Concrete architecture makes for boring urban environments. As we dismantle our concrete culture, the future manifests as consciousness atomized into small particles. When trying to break out of our box-like vertical cities, architects often turn to curved geometries to temper the aesthetic. In Organic City, we assemble particles, in this case, LEGO bricks, to create a flexible and soft geometry.

Krueck + Sexton Architects

Chicago, Illinois

Title: Not in Kansas Anymore

As our population becomes heavily urbanized, architecture and cities need to change—beginning at the smallest scale (our own living rooms) and expanding to public spaces. Not in Kansas Anymore assembles 32 cubes, each distinct. It expresses the fundamental qualities of architecture—material and light—at the scales of a room, a house, building, city block, district and city.

Material modifications: The team used milled wood to take LEGO bricks out of their comfort zone.

Skidmore Owings and Merrill

Chicago, Illinois

Title: More with Less

Our future is likely to be one of diminished resources. Sustainable design-driven architects create more space with less material. Inspired by the classic LEGO brick, this structure embraces efficiency. The lattice is composed of identical pieces—a simple design that is seemingly complex. Bricks connected by three knobs provide structural stability with logic and elegance. The whole appears greater than the sum of its parts. This is synergy.

Adrian Smith + Gordon Gill Architecture

Chicago, Illinois

Title: Vertical Reef

In the future, natural resources like water will likely be scarce. The Vertical Reef is a self-sustaining ecosystem. Like real reefs, this living city depends upon the ocean. The structure cleans saltwater for human consumption and harnesses the power of tides as an alternative energy source.

Material modifications: The design team sawed a few LEGO bricks for a particular fit and painted some to a desired color.

Adjaye Associates

London, England

Untitled

Architecture must respond to climate change and urban concentration with new energy management, smart infrastructure and systems. This modular structure can be quickly and simply constructed using few resources. It features solar panels for heat and energy, and breezeways for free cooling. The design easily allows expansion up and out, empowering communities to be resilient in the face of natural disasters and population growth.

wHY

Los Angeles, California/New York, New York

Untitled

We're taking over the parking lane! Self-driving cars. Ridesharing. The future will be far less automobile-reliant. As our population continues to grow, we'll need less space for cars, but more room for housing. Our structure of the future takes advantage of otherwise wasted parking spaces. The design is a platform for experimentation and freedom, featuring drought-busting water harvesters and an updated exposed infrastructure.

###