ACADEMIC WORK

Weeble Wobble
Installation | Instructor: Julie Fohr

Micromansion
Single Family House | Instructor: Xavier Vandell

Residual Thickness
Performing Arts Center | Instructor: Christopher Frye

Wacky Motlow
Mixed-use Tower | Instructor: Paul Preissner

Injection Tower
High Rise Tower | Instructor: Lindsey Pepple

Just Add Water
Urban Landscape | Instructor: Cloie Sykes
WEEBLE WOBBLE

SPRING 2012
JULIE ROHR

Team: Jacob Harless, Daniel Valle, Jordan Cladley, Kevin Martin, Varun Ramamurthy, Chester Kraus, Brian Bern, Daniel Berez, Emily Cook, Ian McEvoy, Leo Yoo. kazoo.

Exhibition: Design and all final drawings inscribed in concrete...

+Selected for exhibition, 2012 Year End Show, LAC School of Architecture
+Featured on sculptrium.com

Weeble Wobble is an investigation of the architectural detail using Edward tufte’s “The Architectural Detail” as a theoretical foundation. Taking a specific Chicago detail (Corbin Prize roof) as a point of inspiration, the project explores the relationship between form and function, and the formal and spatial qualities towards designing an architectural folly. A folly is often regarded as a useless physical intervention that strays from reality towards the aesthetic, or poetic. Weeble Wobble aims to project spatially onto the object by focusing attention on physical activity—a game played by a group of people. The intricacy of the precedent is reenacted by the gradual blending of the layers into a single coalescing surface. The interior is treated as an ergonomic volume which could be inhabited in various ways, transforming each half of the sphere into a furniture piece.

XS, S, M, L, XL, XXL
A typical sphere is triangulated and systematically divided into three distinct areas.

The areas chart significantly relief patterns and change in the topography of the surface.

The triangulated patterns are converted into on-site geometries.

Surfaces are generated from the raw geometries as both are combined to achieve undulating blends between the layers.

Kit of parts and construction method.
Atmosion on physical activity is projected by playing a game—a variation of bowling. The goal is to strategically place your cylinders so the opponent doesn’t knock them down by rolling the sphere.

Tired of playing? Just open the sphere and enjoy the ergonomic interior which fits many body positions and supports various activities—rocking endlessly, reading a booklet.
The project challenges the typical linear organization of small living prototypes as it uses the small footprint to transform itself into a space which feels big and spacious. The programs of the house are arranged around a central core, which allows for an open floor plan with no partitions on the inside, achieving visual continuity between different zones. The central inhabitable core is then shifted asymmetrically to open up diagonal views and introduce a mix of particular spaces as they start to possess their own unique character. The sectional qualities of the split and second floors allow for various degrees of open versus private space within the same open plan. This is further emphasized by the ability of some areas to remain completely private by separating them with a curtain. The isolation of these zones does not affect the circulation flow of the house as one can still freely reach the desired destination. Spaces like the living room and the working desk are constricted from the main form in order to create the feeling that the user is almost outside of the volume. The large thresholds located in these areas strengthen that effect. The transformable built-in furniture allows for various configurations and flexible uses of the same space, making the house adaptable to different events.
Central core with amenities and utility living spaces and circulation are organized around it.

Shift the core to open diagonal views and pull the form to achieve varying interior spaces.

Push certain areas down to let light in, create a parking space and develop a lower lounge. Full second floor cut to create private spaces (bedroom and workspace).
Proposed design is located in the space of the garage in a typical Chicago lot.

East Elevation

North Elevation

West Elevation

South Elevation

Ease of Constructability

Steel Channel
Light Gauge Steel Stud
Dry Wall
Insulation
Furring Strip
Rail

HPL (High Pressure Laminates) Panel
Public spaces are easily transformed into private by using curtains as separation.

Arranging programs around the core allows for visual continuity and diagonal axes.
RESIDUAL THICKNESS
SPINO 2013

Christopher Hye

* Honorable Mention Award
* Selected for Scholten, 2013 Year End Show,
  UIC School of Architecture

The project’s purpose is to achieve an inside-out development of interior public spaces and form, which started as a design study of a room and consolidated to a theater complex. The overall volume is defined by the arrangement of the individual theatres into a angular shape with a distinctive figure. After the initial horizontal organization, slight rotation and shifting in the vertical direction were introduced to achieve lobby spaces, shared by multiple theatres and interesting asymmetrical ones. The residual space between the building envelope and each theatre’s unique shape becomes the public space as it gets thickened by programs and events. By puncturing each floor with a series of large voids, the volume is given a visual reward and animation to visit each different space. The visual continuity throughout the building allows one to stay virtually connected to all the activities happening in the performance center. The rhythm and sensation of circular circulation, stairs, and elevators guides the visitor to the differently programmed spaces. To further emphasize the singular reading of the figure, the only access to the theatres are bridges which bend the volumes to the typical floor. The use of translucent materials turns these connection points into ephemeral objects that seem to puncture the hard shell of the theatres and become a link from one world into another. As the main lobby becomes situated on the east side of the building, the form in that particular area submerges into a grand window looking towards downtown Chicago. This giant threshold provides an iconic view to the interior to drivers on the highway and people on the outside as it connects the performance center to its metropolitan context.
Place overall theater shape on site. Shift theaters vertically to allow for circulation and create shared lobby spaces on the interior. Create individual theaters at ends to introduce assymetric interior moments. Extend envelopes to allow for public spaces and cut away mass to match theater angles.

Lift roof’s ends to free ground for public activities. Push down certain points to give interior spaces unique shape. Soften sides of envelopes for an indistinct look.

Socialize on the roof of the theater and peak into the performance. Enjoy your dinner while observing how people walk along the sphereform bridge to enter the world of performance. Have a drink on top of the sphere hall.

Observe students and theater complex view while waiting to enter the performance.

The performing arts center sits as a dramatic physical gateway strengthening (HCO) connection with the community and the Chicago metropolis.
Shared public lobby under the realm of one theater. One takes the spherical bridge, seemingly hanging in the air, to enter the world of performance.
The project aims to create a different feeling of urbanity by inserting slappy and chunky forms, which collapse on each other, into the urban environment. The usual feelings evoked by collapsing buildings are replaced by the friendly and humorous associations the approachable forms create. The project explores strangeness and economy of form rather than making deep architectural criticism. It aims through unornamentality and slipperiness to produce architectural space which is able to function the same way as “ordinary” buildings in the city. The humorous effect is amplified by a sense of sadness—the form’s failing ambition to stand strong.

The three differently programmed tawes collapse on each other to create a larger singular shape with new programmatic relationships and unusual floor plans. At ground level a new public plaza with a hybrid condition between interior/exterior is formed. To add to the unpretentious and slappy look of the building a mesh is hung from the glazing, giving the illusion of constant movement. At this end the building appears to be an appropriately sized small object which is important in how indissoluble it is.
Unprecedented forms inspired by “jumbled” daily-life objects.

Clumsily collapsing in the urban environment to create humorous associations.

Three differently programmed towers collapse on each other to create unexpected relationships.

The regular footprint contrasts to the massing above and forms a public plaza.

Irregular floors plans promote programmatic interactivity and allow for flexible use of the space.
Taking on the notion that the core of a typical mixed-use building is the most private space, Injection Tower completely reverses it to transform it into the most public. A series of pragmatic voids are inserted in the interior to break the monotonous stratification of stacked floors and form a continuous overall shape. Each void hosts a completely foreign program and is connected to the rest to allow the visitor to travel freely on the inside. The interior objects are dressed in a double-glazed-patterned-glass wall, which provides a degree of privacy but also allow visual continuity between different programs. The displaced pattern not only highlights the strangeness of shape and unappealing Intraion of the voids but also gives them a voyeuristic quality. The exterior of the tower is treated with a typical curtain wall facade using highly reflective glass in order for the building to blend with its surroundings and almost disappear. The generic silhouette is just broken by the patterned cut outs which progressively orient the viewer.
The proximity to Millennium Park and many iconic buildings draws the desire to lower the tower’s exterior to be as ordinary as possible and blend with other pretentious buildings.
The boring office work is now disturbed by events happening almost at your desk.

The people in the theater define the spectacle as they become spectacle themselves.
Longitudinal section: new programmatic voids polarise the interior and create new relationships and interactions.
JUST ADD WATER

At the intersection of Lake Erie and the Cuyahoga River lays an abundant waterfront, which is left undervalued by the city of Cleveland. “Just Add Water” exploits the city’s proximity to water by imagining the site as a prototype for a performative and habitable hydrological landscape. A large aqueduct runs the length of the site and takes polluted river water through a process of bioremediation to purify it. This serves as a smaller system of canals aligned to the existing city grid that divide the site into bands of water-based programs. This division enables the project to work across multiple scales as each band provides a unique experience that also forms a cohesive system spanning across the whole site when combined with others. Programs include more active zones like water park and artificial beach, and passive areas like water botanical garden and geothermal park.

A two-story mixed-use ribbon structure creates a border between the various ground-based water programs. At grade it hosts public programs (library, water museum, etc.) that open out to the water-based ground program with residential above for long-term hospital patients and their families that come to many of Cleveland’s nationally renowned medical centers. In targeting both public and private use, the project serves as a social conferee and would ultimately serve as a zone to connect the disconnected city using in a productive way all the vacant land along the Cuyahoga River.
Framing the Ribbon

Water as an Activator

The proposed strategy divides the large area into smaller strips, which encourage the site to an individual level but also work as a cohesive system of water-related programs.
Along with activating each programmatic step, water becomes a vehicle of connecting Cleveland with its larger surrounding context.

The layered building provides a physical distinction between different programs and blurs the interior/exterior relationship. It also acts as the main connector on and around the site as well.
The top of the lower building serves as a private park for the long nests of the elevated one.

Water serves not only as a social incubator but meets functional needs of surrounding buildings.