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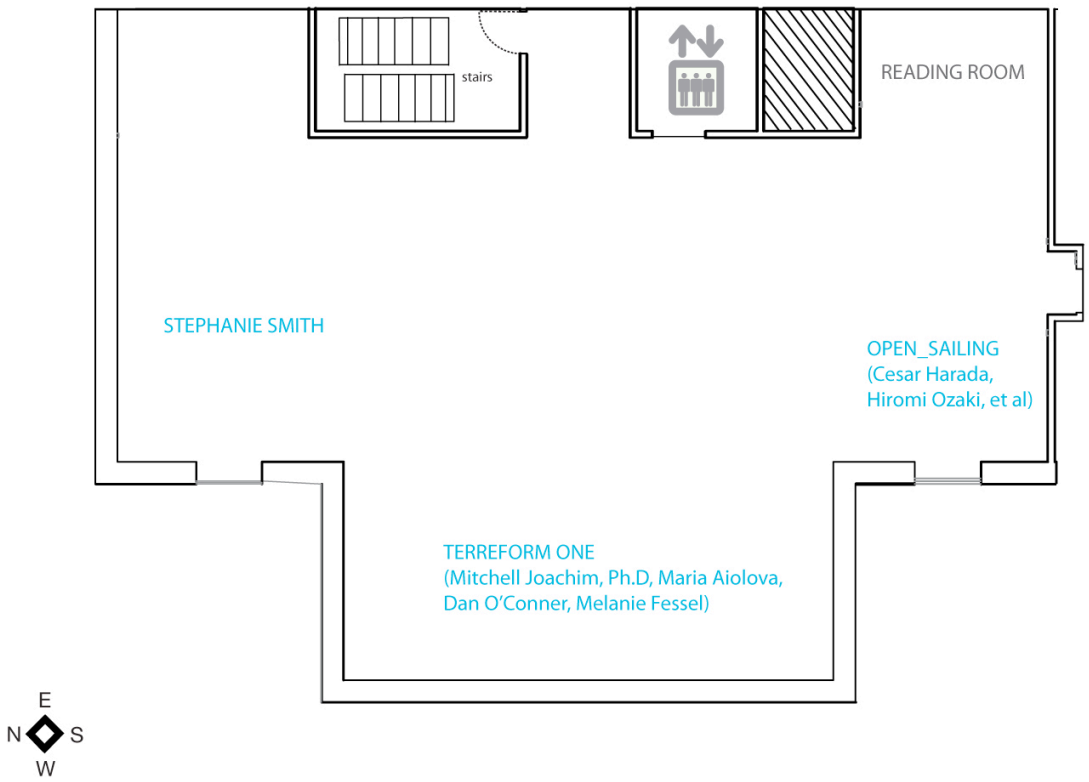
29 Chains to the Moon

Artists' Schemes for a Fantastic Future

Guest curated by Andrea Grover

Aug. 28 - Dec. 6, 2009



Exhibition Checklist

Counter-clockwise, starting in North wing:

STEPHANIE SMITH

From Cubicle to Commune, 2007
Digital prints
From Cubicle to Commune imagines a typical office environment after it has become a "commune."

Cul-de-sac Commune, 2008-2009
Digital prints
Cul-de-sac Commune is a scheme for turning America's suburban cul-de-sacs into "communes." Three *Cul-de-sac Commune* pilots were launched in Los Angeles from 2008-2009.

WeCommune.com*,* 2009
Website: www.wecommune.com
WeCommune is a technology platform that provides aggregated micro-communities the tools they need to share resources and build deeper, smarter forms of community.

Commons(Commune), 2009
Recycled plywood, corkboard, wood paneling, paint, PVC,
Commons(Commune) is a kit composed of urban infrastructure 'parts', including this kiosk, designed to turn our public spaces—our commons—into "communes," public areas of the city that act as platforms for resource sharing among citizens.

TERREFORM ONE
(Mitchell Joachim, Ph.D, Maria Aiolova, Dan O'Conner, Melanie Fessel)

PANEL 1: Digital prints (Right panel on west wall; right to left)
CITY INFRASTRUCTURE, 2006-2009

Homeway: The Great Suburban Exodus
This proposal envisions an immense and vital solution to a fundamental problem: American suburbs fail to work efficiently. In the next 25 years, we will build 56 million new homes that will consume 18.8 million acres of virgin land and emit 7.3 billion tons of carbon dioxide per year. These patterns of development need to be rethought to meet our ecological carrying capacities. We propose to put the American suburbs on smart networked wheels. We intend to affix a diverse range of mobility mechanisms to home units to generate the novel *Homeway* system. In the future, the physical home will remain permanent but its location will be transient.
Credits: Mitchell Joachim, Melanie Fessel, Maria Aiolova, Cecil Howell, Sophie Bamburg, Landon Young, Philip Weller, Alex Colard.

Future North: Ecotariums in the North Pole
This project is based on the premise that within the next hundred years our climate will be irreversibly altered. Massive migrations of urban populations will move north to escape severe flooding and increased temperatures. Area inside the Artic regions will warm up significantly, making their occupation newly desirable. Real-Estate values will shift to privilege northern climates that formerly had almost no human inhabitants. To underscore the intensity of such a global shift, we have moved entire cities. The reality of hundreds of millions of people relocating their respective centers of culture, business, and life is almost incomprehensible. We anticipate this polemical representation will impact our perception of tomorrow.
Credits: Mitchell Joachim, Jane Marsching, Makoto Okazaki, Maria Aiolova, Melanie Fessel, Dan O'Connor.

PANEL 2: Digital prints (Left panel on west wall; right to left)
SMART MOBILITY, 2006-2009

Human-Powered River Gym
Our concept encapsulates a new typology for the contemporary urban gym. It is intended to challenge our innate proprioceptive and multi-planer locomotive abilities while synchronously altering the surroundings. A simple transfer of workout vigor supplies New York with needed supplemental transport and amenities.
Credits: Mitchell Joachim, Douglas Joachim.

Stackable Cars
Designed for mobility in urban cores, the stackable car is for two passengers. New transport stacks are placed throughout the downtown to create a linked transportation system that works within existing infrastructure. By locating stacks in urban areas and vital junction zones, the car allows the populace a certain flexibility to merge mass transit effectively with personal mobility. This is an exceedingly resourceful parking scheme, as the stack accepts inward bound vehicles and recharges their power supply. Similar to baggage pushcarts at airports, users basically take the first completely charged automobile at the face of the stack. These urban vehicles are not a substitute for individual cars, taxis, buses, or trains, but rather a new archetype that endorses a communally accountable and more potent means of urban mobility.
Credits: Mitchell Joachim & William Lark , Chee Xu, James Chao-Ming Teng.

XO DILLO
This urban car design is vitally based on the reduction of body weight via an expandable pneumatic foil and foam enclosure. The materials normally composing the outer body of the typical car are 44% of the entire mass of the vehicle. Reducing the mass thus increases fuel efficiency and acutely lowers the ecological footprint. A concept utilizing a pneumatic air bladder envelope dramatically achieves this weight reduction. This vehicle design replaces most upper chassis and body components with pressurized struts, foam, ETFE foil (Ethylene Tetrafluoroethylene), and sparse recyclable metal mesh reinforcing.
Credits: Mitchell Joachim, Patrik Kunzler, Axel Kilian, Yanni Loukissas, Luis Rafael Berrios-Negron, Robyn Allen, Louis Basel, Raul-David Poblano.

Sneaker Car
Squid Car

Blimp Bumper Bus
These blimps scoop passengers up "on the fly" in soft hanging chairs. Jumping off is a pinch, because they move less then 15 mph and float seats only inches above the ground. This constant densely packed motion increases traffic efficiency by almost 30 percent.
Credits: Mitchell Joachim

Peristaltic City
"Peristalcity" is a tall building made of a cluster of shifting pod spaces. The pod skins alter the volume locations within. This soft, pliable, sealed, and non-mechanical innovation encapsulates volumetric structures. Textile reinforced hoses execute a peristaltic action. Thus, the modules are enabled to create an articulated motion that is symbiotically connected to an urban armature.
By employing a dynamic spatial application against the traditional organization of core and space, we dissolved the dichotomy between circulation and habitable environments. We have eliminated typological stacking where experiences are vapidly suggested to be diversified by simply designating floors to particular

social practices. Instead, we propose a spatial layout that establishes heterogeneous movements, and not just assorted practices, as the criteria for a dynamic assemblage.
Credits: Mitchell Joachim, Neri Oxman.

Rapid Re(f)use
New York City is disposing of 38,000 tons of waste per day. Most of this discarded material ended up in Fresh Kills landfill before it closed. The Rapid Re(f)use project supposes an extended New York reconstituted from its own landfill material. Our concept remakes the city by utilizing the trash at Fresh Kills. With our method, we can remake seven entirely new Manhattan islands at full scale. Automated robot 3d printers are modified to process trash and complete this task within decades. These robots are based on existing techniques commonly found in industrial waste compaction devices. Instead of machines that crush objects into cubes, these devices have jaws that make simple shape grammars for assembly. Different materials serve specified purposes; plastic for fenestration, organic compounds for temporary scaffolds, metals for primary structures, and etc. Eventually, the future city makes no distinction between waste and supply.
Credits: Mitchell Joachim, Emily Johnson, Maria Aiolova, Melanie Fessel, Zachary Aders, Webb Allen, Niloufar Karimzadegan, Lauren Sarafan.

Car Lamb
Low pressure soy based pillows as body, with soft inflatable air-quilt passenger compartments.
Credits: Mitchell Joachim, Patrik Kunzler, Axel Kilian, Yanni Loukissas, Luis Rafael Berrios-Negron, Robyn Allen, Louis Basel, Raul-David Poblano.

Smart DOTS + Soft MOBS
Smart DOTS is a radical strategy for rethinking the crossroad by “injecting” a system of intelligent environmental elements -“smart dots”- that can spread out from the core to the periphery, reorganizing the streetscape. The design scheme is a critique of the hard boundaries that the automobile inflicts to the function of the streetscape, where people are forced to move around cumbersome barriers and often dangerous metal cars. Our future street is a soft, gradient field: a “pixelated” urban landscape of distributed functions, with no hard borders between different street occupancies. *Soft MOBS* invokes a new technological and material arrangement for adapting cars to cities in pliable organized movements -“soft mobs,”- while it also suggests the use of softer vehicles where users can be in direct contact with the street. While architects and urban designers mostly take cars as given, and are content to design streets and public spaces around car movement, here we challenge and reverse of this well-worn assumption.
Credits: Mitchell Joachim, KARV: Aurel von Richthofen, Lydia Kallipoliti and Matt Cunningham , Fred James, Maria Aiolova.

PANEL 3: Digital prints (Panel on south wall; right to left)
ECOLOGICAL DESIGN, 2006-2009

Mushroom House
Credits: Mitchell Joachim

New York 2106: Self Sufficient City
Our project seeks to reinforce what is best about the city – in both its forms and its life –by speculating about the consequences of a radically new level of sustainability. We base our project on one clarifying hypothesis: in the future New York will become self-sufficient in its vital necessities, including energy, food, water, air supply, employment, housing, manufacture, movement systems, waste processing, and cultural life. We propose transformation via a radical strategy: the reversal of figure and ground, of public and private property. We begin with citywide "greenfill," the immediate transfer of half the aggregate of street space from the vehicular to the pedestrian and public realm. Later, the streets become building sites and, as new, highly autonomous, buildings grow in intersections and wind their way down streets and avenues and through vacant lots, the old, deteriorated, fabric will fade away to be replaced both by an abundance of productive green space and by a new labyrinth of irregular blocks, a paradise for people on foot. Fast movement will be accomplished underground in a superbly modernized subway and along the rivers and new cross-island channels. The city streets – extended in their length but reduced in their area – will support a marvelous technology we know to be just over the horizon, some fabulous and slow conveyance summoned with a whistle or collapsed into a pocket.
Credits: Mitchell Joachim, Makoto Okazaki, Kent Hikida, Serdar Omer, Andrei Vovk, Noura Al Sayeh, Byron Stigge, Nathan Leverence, Oliver Medvedik, Lukas Lenherr, Matt Kipilman, Adam Watson, Craig Schwitter.

MATscape
MATscape is a 50% Living House and contiguous Landscape. The three-dimensional form results from landscape and climatic vectors. The grid is encoded as an interpretation of the climatic inputs – solar path, wind forces, rainfall, and ambient temperature – in reference to human desired services – comfort, light, air, water, and electricity. Site plan/section: land and space merge together in a 3'-2" x 3'-2" mosaic.
Credits: Mitchell Joachim

Fab Tree Hab
We propose a method to grow homes from native trees. A living structure is grafted into shape (pleached) with prefabricated Computer Numeric Controlled (CNC) reusable scaffolds. Pleaching is an ancient method of weaving together tree branches to form living archways, lattices, or screens. The trunks of inosculate, or self-grafting, trees, such as Elm, Live Oak, and Dogwood, are the

load-bearing structure, and the branches form a continuous lattice frame for the walls and roof. Weaved along the exterior is a dense protective layer of vines, interspersed with soil pockets and growing plants. Prefab scaffolds cut from 3D computer files control the plant growth in the early stages. On the interior, a clay and straw composite insulates and blocks moisture, and a final layer of smooth clay is applied like a plaster to dually provide comfort and aesthetics. Existing homes built with cob (clay & straw composite) demonstrate the feasibility, longevity, and livability of the material as a construction material. In essence, the tree trunks of this design provide the structure for an extruded ecosystem, whose growth is embraced over time.
Credits: Mitchell Joachim, Lara Greden, Javier Arbona.

Green Brain
Central Open Space in MAC, Korea. Directives for the new Urban Ecology: The public park will be the central place of the city, the heart of the circle. It will bridge the artificial divide between nature and culture. The park will be a harmonized environment. It will balance its own energy, waste, air quality, water, and economy. A self-sufficient village of 500 will serve as prototype and laboratory. Sculptural follies will control climate locally by radiant heat in the winter and a cooling mist during summer time. Constructed wetlands will remediate waste from the park. Existing farms will continue in use. Everything is calibrated to walk-time: pedestrians will be privileged. The park will be highly diverse, both great and responsive: a place of pleasure, health and learning.
Credits: Mitchell Joachim, Makoto Okazaki, Maria Aiolova, Emily VanderVeen, Yu Ping Hsieh & Michael Sorkin Studio

OPEN_SAILING (Cesar Harada, Hiromi Ozaki, et al)

From right to left
Open_Sailing_1 1/50 Model, 2009
Plastic, 8 x 8 x 8 inches
The real Open_Sailing prototype is a 9.6 meter long trimaran drifting vessel. It weighs six tons, and can accommodate four people on a long journey. The vessel is propelled by two kites, is self-righting and in-submersible (the hull is filled with plastic bottles and there is a ten ton passive semi-spherical ballast bag underneath).

Open_Sailing_1 Construction in Area10 Artspace, Peckham, London, 2009
Photo: Hitomi Yoda
Digital print, 34 inches x 24 inches
Open_Sailing is not a utopia. We are currently building the main vessel in London and the nomadic ecosystem skeleton in Berlin. We'll soon go for tests in the water. Contribute!

Open_Sailing_1 World Potential Threats Blackout Map, 2009
Digital print, 34 x 24 inches
This map was created by overlaying local threat factors: high human density, pandemics, violent conflicts, maritime piracy, nuclear power plant fallouts, sea pollution, rising sea levels, pole shift hypothesis, tsunami risks, earthquakes, cold sea, cold land, intense sea winds and low biomass (lack of chlorophyll). The remaining uncovered areas are the potentially safest place on earth, which are mostly at sea.

Open_Sailing_1 1/3 model in AutoItali, Peckham London, 2009
Photo: Theo Cook
Digital print, 34 x 24 inches
“It took two of us 16 hours and a £100 to produce this experimental skeleton at a 1/3 scale to test the mechanical resistance of the structure, and take nice photographs.” – *Open_Sailing*

1/25 Conceptual Model of Open_Sailing, 2009
Digital print, 34 x 24 inches
If you want to live at sea for long periods of time, you'll need water, food, shelter, mobility, communication abilities and the tools to repair and extend your vessel.

Open_Sailing video 3:56 minutes

READING ROOM
Recommendations by + Courtesy of:

The Buckminster Fuller Institute

Lowry Burgess

The Seasteading Institute

Andrea Grover

Mitchell Joachim/Terreform One

Stephanie Smith