

DEEP FUTURES: ÜBER PORT



Premise

With the inevitable surges in population to which cities are being increasingly subjected, one of the most important influences to a city's growth, longevity and sustainability into the deep future is location, which includes accessibility and efficiency of its urban ports of entry. This HyperPort Studio will focus on the future of city center to city center access and its relationship to transport and mobility where lighter aircraft, cleaner fuel, quieter means of transport, higher measures of safety in materials and computer aided piloting systems exist. One particular aspect of future mobility impacting growing cities that will be the focus of the Studio, are the major transport hubs and the potential of such facilities being built in as close proximity as possible to the urban cores they will serve.

The study and implementation of new innovative ports of entry between cities and nations can and will speak to the potential progress of a city's viability and vitality. Creating urban gateways, urban portals, transit hubs and border controls for people, goods, and information are key drivers for a vital and successful urbanism, and it is this aspect that ultimately affords a city its longevity, viability and above all its vitality and importance as a place.

The speed and glamour of flight still has an allure despite the tedium associated with most air travel today. Commuting between cities is essential, especially in densely packed urban corridors, and this reality will be becoming increasingly evident, especially in cities in close proximity which will require increasingly efficient and seamless means of movement between their city centers. Compared to today's airports, which are for the most part located relatively distant from city centers, seaports and train stations are hopelessly antiquated and less desirable means of efficient travel for both cross city commuters and tourists.

With the proliferation of smaller regional jets (net-jets, porter airlines, etc), and with their accommodation and growth, certain cities will incur an advantage over others when urbanites can travel in close proximity to the urban core. For cities to evolve, a new system of transport must emerge with smaller, more agile intelligent ports of entry with close proximity to city centers and urban cores.

Ultimately, it is efficiency and speed that will dominate travel and commuting, and with that in mind, this Studio will focus on the topics of speed and mobility. The HyperPort will act as both catalyst and protagonist towards a city's viability and successful future, and can be construed as a new category in and of itself, a sort of hybrid typology combining airport, seaport, cargo port, border crossing station and city-linking transport hub. HyperPorts by virtue of their necessity to be immediate yet symbolic urban gateways, are also places of transit, surveillance, safety and passage.

The Hyper-loop (<http://www.wired.com/autopia/2013/08/hyperloop-elon-musk/>) is but one of many transport ideas on the boards that will necessitate a new type of urban gateway.

Studio Methodology

A. Students will work in groups of four initially in order to locate, analyse and postulate a premise about one city, its geography, viability for the development of a HyperPort complex and will decide upon the location of the new HyperStation facility.

B. The groups of four will then break into groups of two, to develop a formal repertoire which is based on the outcome of the analysis of future mobility in following four categories: (i) air, (ii) water, (iii) land and (iv) underground space.

C. The groups of two work on the design of one HyperStation facility.

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Suggested Reading:

Andraos, Amale & Dan Wood: 49 Cities
Alexander, Christopher: Pattern Language
Banham, Reyner Megastructure: Urban Futures of the Recent Past
Banham, Reyner Los Angeles: The Architecture of Four Ecologies
Castells Manuel: The Rise of the Network Society
De Landa, Manuel: One Thousand Years of Non-Linear History
Finizio, Gino: Architecture & Mobility
Giedion, Siegfried: Space, Time and Architecture
Hotete, Anthony: Reader on the Aesthetics of Mobility
Iain Borden: Skateboarding, Space and the City
Jacobs, Jane: The Death and Life of Great American Cities
Van der Rohe, Mies: Technology and Architecture
J. Mitchell, William: e-topia: "Urban Life, Jim - but not as we know it"
Johnson, Philip: The seven Crutches of Modern Architecture
Krugman, Paul: Geography and Trade
Lynch, Kevin: The Image of the City
Le Corbusier: The City of Tomorrow and Its Planning
Maas, Winy: Five Minutes City, Architecture and (Im)mobility
Maas, Winy: Skycar City: A Pre-emptive History
Mostafavi, Mohsen & Doherty, Gareth: Ecological Urbanism
Sassen, Saskia: The Global City: New York, London, Tokyo
Speaks, Michael: Design Intelligence
Tafari, Manfredo Architecture and Utopia: Design and Capitalist Development
Van Susteren, Arjen: Metropolitan World Atlas
Van der Ley, Sabrina & Markus Richter: Megastructure Reloaded
Venturi, Robert & Denise Scott Brown: Learning from Las Vegas

City Specific:

Ashihara, Yoshinobu: The Hidden Order, Tokyo through the Twentieth Century
Gandelsonas, Mario, ed. Princeton University: Shanghai Reflections. Architecture, Urbanism and the Search for an Alternative Modernity
Hidenobu, Jinnai: Tokyo: A Spacial Athropology
Koolhaas, Rem: Lagos Wide & Close Interactive Journey into an Exploding City

Reference Material / Links:

- Airports constructed on artificial islands constructed for that purpose. Most such islands are constructed in waters close to land, serving regions where available land is scarce and population density is high, such as in Japan, Hong Kong and Macau.

Billy Bishop Airport Toronto Island.....http://en.wikipedia.org/wiki/Billy_Bishop_Toronto_City_Airport

artificial island airportshttp://en.wikipedia.org/wiki/Category:Artificial_island_airports

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- musks hyperloop <http://www.wired.com/autopia/2013/08/hyperloop-elon-musk/>
- design idea for a hyper loop station <http://www.wired.com/autopia/2013/09/hyperloop-station/#slideid-84781>
- bransons spaceport <http://www.virgingalactic.com/overview/spaceport/>
- koolhaas airport city qatar <http://www.dezeen.com/2013/03/08/rem-koolhaas-oma-chosen-to-masterplan-airport-city-in-qatar/>
- koolhaas offshore schipol airport <http://www.oma.eu/projects/1998/schiphols>
- fuksas airport under construction <http://www.designboom.com/architecture/massimiliano-doriana-fuksas-shenzhen-international-airport-under-construction/>
- foster hong kong airport <http://www.fosterandpartners.com/projects/chek-lap-kok-airport/>
- piano kansai airport <http://www.rpbw.com/project/35/kansai-international-airport-terminal/>
- steel cloud asymptote <http://www.archidose.org/May99/050399.htm>
- kaohsiung port terminal by asymptote http://www.bustler.net/index.php/article/kaohsiung_port_terminal_proposal_by_asymptote_architecture
- kaohsiung port terminal by RUR http://www.bustler.net/index.php/article/kaohsiung_port_terminal_by_reiser_umemoto
- guardian article on airport architecture <http://www.theguardian.com/artanddesign/architecture-design-blog/2012/nov/02/battle-airports-architects-visions>
- shanghai maglev http://en.wikipedia.org/wiki/Shanghai_Maglev_Train
- domus article on metabolist cities of the future <http://www.domusweb.it/en/news/2011/05/03/metabolism-the-city-of-the-future.html>
- worlds largest floating airport tokyo bay <http://www.industrytap.com/worlds-largest-floating-airport-in-tokyo-bay/3684>
- future automotive technologies http://en.wikipedia.org/wiki/Future_car_technologies
- google car http://en.wikipedia.org/wiki/Google_driverless_car
- city of the future Doxiadis 1960 <http://www.doxiadis.org/files/pdf/City%20of%20the%20Future.pdf>
- airport by paolo solari <http://www.flickr.com/photos/18871965@N00/8575071986/>

STUDIO HOURS

mo: 2:00-6:00 pm pin up
thurs: 2:00-6:00 pm desk crits and tutorials

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- 05 renderings/drawings/photographs/diagrams (jpeg 72 dpi, 900x600pixel)

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-03 INTERIM PRESENTATIONS STUDIO

-04 INTERIM PRESENTATIONS DIPLOMA

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global airline routes <http://www.visualcomplexity.com/vc/blog/?p=505>

"The world's population is increasingly city-based; 50 per cent or 3.5 billion people currently live in urban areas and by 2050 this is expected to reach 70 per cent of the population or 6.3 billion people.

Urban mobility is one of the toughest challenges that cities face; accordingly, we will see massive investment in the future. Today 64 per cent of all travel kilometers made are urban and the amount of travel within urban areas is expected to triple by 2050. Being able to get around urban areas quickly, conveniently and with little environmental impact is critical to their success.

Existing mobility systems are close to breakdown. By 2050 the average time an urban dweller spends in traffic jams will be 106 hours per year, three times more than today. Delivering urban mobility will require more and more resources. In 2050 urban mobility will:

Cost EUR 829 billion per year across the globe, over four times higher than in 1990

*Use 17.3 per cent of the planet's biocapacities, which is five times more than in 1990."**

Phase A 01.10.2013 - 15.10.2013

Students work in groups of four initially in order to locate, analyse and postulate a premise about one city, its geography, viability for the development of a HyperPort complex and decide upon the location of the new HyperStation facility. Choose one of the following Cities and decipher these criterias:

- status quo of the urban mobility showing the public transportation network (air, ground, underground, water)
- private network (traffic roads/bicycle lanes)
- future mobility concepts and existing plans for improvement (existing or non existing) developed specifically in that region and future mobility concepts in general
- one or more suitable locations for one HyperStation facility (schematic masterplan 1:10000)

1. Los Angeles
2. Amsterdam
3. Istanbul
4. Tokyo
5. Mumbai
6. Singapore
7. Lagos
8. Dubai
9. Shanghai
10. Buenos Aires

Production:

- screen presentation
- **A3 booklet landscape** which does summarise the outcome of the research phase, showing the selected location of the site and a schematic master plan at 1:10 000 of the HyperStation facilities, showing the connections to the existing urban development, taking into account city proximity, territory and other aspects.

Presentation: Wednesday Oct 15th 2pm

*<http://www.adlittle.com/multimodal-cities-of-2050.html>