2A

Formworks: Sites and Contexts

obeCity[1]: the fat of the land
los angeles productive landscapes

(T)he emphasis in the future must be, not upon speed and immediate practical conquest, but upon exhaustiveness, inter-relationship and integration. The coordination and adjustment of our technical effort… is more important than extravagant advances along special lines and equally extravagant retardations along others, with a disastrous lack of balance between the various parts. - Lewis Mumford

Andreas Gursky, 99 Cent | 1999 | Chromogenic color print.

[1]Constructed word: obesity + city

This semester we will explore the limits of the numerous and varied conditions, both physical and conceptual, that characterize a project site. Physical conditions refer to the topography and geometry of a landform, it's position on the globe, proximity to the equator, ecological, climatological and legal forces which act to delineate a site. Conceptual qualities relate the site to a larger body of ideas or criteria: political, cultural, scientific or sensory. Students will navigate these complex systems of information and strategically implement a full range of contextual relationships that both condition our experience and build our perception of our surroundings.

Studio Overview: obeCity

> *Two hundred and fifty million years ago the world contained a single landmass known to scientists as Pangaea. Geologic forces broke this vast expanse into pieces, sundering Eurasia and the Americas. Over time the two halves of the world developed wildly different suites of plants and animals. Columbus's signal accomplishment was, in the phrase of historian Alfred Crosby, to reknit the torn seams of Pangaea. After 1492, the world's ecosystems collided and mixed as European vessels carried thousands of species to new homes across the oceans. The Columbian exchange, as Crosby called it, is why there are tomatoes in Italy, oranges in Florida, chocolates in Switzerland, and hot peppers in Thailand. It is arguably the most important event in the history of life since the death of the dinosaurs.*
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> - 'Jamestown' by Charles C. Mann, National Geographic, May 2007.

This year in 2a, we hope to re-frame a problem that has challenged civilization for 10,000 years: the relationship between food, man and the land.

Originally, 'hunting and gathering' was the primary mode of obtaining sustenance, but eventually man sought and gained control over food production and thus supply. The security and efficiency achieved by this milestone, and it's continuing expansion and metamorphosis into "Agribusiness", has not come without significant consequences.

As humans began to cultivate and harvest fruits, vegetables, herbs, roots, and other edible plants, a more bountiful and consistent food supply emerged. As civilization continued to advance, the responsibility of each household to grow their own food evolved into a system that was more communal and efficient. An individual, with the help of tools, machines and later, modern science, could not only grow enough food for himself, but could also produce a surplus to provide others with food. As a result, farming detached from the 'homestead'. The advent of steam and then diesel farm equipment further established a spatial and cultural disconnect between city and field. The vast majority of food consumers no longer concerned themselves with where or how their sustenance was being produced.

By the middle of the 20th century modern science, through the emergence of chemical and biological engineering, had gained a level of control that promised to keep the food we eat large, pest-free, and pretty. Whether through applied pesticides or through genetic manipulation, seeds and their resultant plants became finely tuned to resist the natural forces that would otherwise weaken or potentially destroy the plant in the wild.

Over time, man established a complex and detailed understanding of growing conditions and how to optimize them. Pushing the limits of nature, humans have learned a whole array of techniques to wield the most desirable products: how to extend and multiply harvests, grow bigger, more robust plants and animals in less time, and minimize crop loss due to insects and disease. These ongoing and often brutal and pursuits have forever changed the relationship that humans have to the land, and as a result, a great deal of uncertainty surrounds the relative risks and benefits associated with the food industry's experimentation with genetic engineering.

In 2006, LA Artist Lauren Bon, with the help of others, created "Not a Cornfield", a work of art, existing as a living, growing entity.

> *"Not A Cornfield" is a living sculpture in the form of a field of corn. The corn itself, a powerful icon for millennia over large parts of Central America and beyond, can serve as a potent metaphor for those of us living in this unique megalopolis. By bringing attention to this site throughout the Not A Cornfield process we will bring forth many questions about the nature of urban public space, about historical parks in a city so young and yet so diverse.*
>
> - Lauren Bon. July 20, 2005

Economic forces, such as the high cost of land in urban centers and the dense 'efficiency' that the industrial city demand and champion, push the productive landscape further and further outside of the city. Even outside of state and national boundaries. The methods of production and distribution that unfold as a result has proven, among other things, to be profoundly unsustainable. For example, today, a piece of food travels an average of 1500 miles to the dinner table. To say it another way; 95% of the food we produce globally is oil dependent. Indeed, dwindling resources have made the prevailing model of food production impossible to sustain. An additional incomprehensible strain, the current population of the world estimated at 7 billion people, requires a land mass, including grazing land, the size of South America to farm. In terms of food production, how do we account spatially for the anticipated population growth by 2050 of 3 billion people?

Quite clear to many, including scientists, economists, political leaders, and city planners, is that our relationship to the land and the food it produces will need to change in the near future. However, the multitude of proposals for action often contradicts one another. The following serve as an incomplete and ever-changing list of possibilities:

1) Speed Management: "GO SLOW":

The Slow Food movement was founded in 1989 to counteract the scourge of fast food and fast life, the disappearance of local food traditions and people's dwindling interest in the food they eat, where it comes from, how it tastes and how our food choices affect the rest of the world. In doing so Slow Food brings together pleasure and responsibility, and makes them inseparable. The French term for site-specific flavors "*terroir"*, or soil, is a succinct way to describe the idea that each specific place on earth should express itself in the flavor of the food that grows there. Each place on the earth has a unique climate, geology and ecology and these factors influence what foods will grow and how they will taste. Differences in the flavor of foods also occur as a result of culturally distinct growing practices as well. One grower may raise her Charentais melons on a bed of straw while another may train the melon vines up a trellis and tie strips of cloth as slings to support the melons high above the ground. One tomato grower may remove all the "suckers"; side shoots that arise in the leaf axils of the growing plant, from his plants, while another allows them to grow.

2) Distance Management: "GO LOCAL":

Local farming additionally reduces our dependency on oil and a whole host of distribution and transport costs that both add enormous expense and compromise food quality.

3) Production Management : "GO TECHNOLOGICAL":

Throughout human history, developing technology has played a part in man's ever increasing control (and manipulation) of the plants that produce our food. This was true the first time a rudimentary tool was fashioned to help break the soil, and it is certainly true now as we continue to gain more techniques to control even the genetic makeup of the seeds and plants we grow. Technology poses an interesting dilemma as we evaluate how we move forward with food production. At times helpful, at times potentially sinister,; technology in all its forms has been consistent in its promise of delivering more, better, faster.

4) Efficiency Management : "GO VERTICAL":

Vertical farming, the idea of stacking crops using greenhouse technology, enables us to, grow food year round, use 70% less water than outdoor farming and greatly reduce farming's vulnerability to natural threats like flood, fire and frost. Indoor farming also returns land to nature. 1 acre of indoor farming releases 10 acres of outdoor land.

5) Land-Use Management : " GO HORIZONTAL":

As needs change, how can we re-think how we define the land? Private and public ownership considerations as well as zoning guidelines set forth a manner in which cities are developed. What if all of this is questioned? How are we to understand what is park and what is street? What is public land and what is communal. How we program the cityscape in response to growing concerns on how the land is owned, used and managed could vastly change over the coming decades.

OUR STUDIO BEGINS WITH MANY QUESTIONS:
Food, a product of the natural world, connects us to nature.

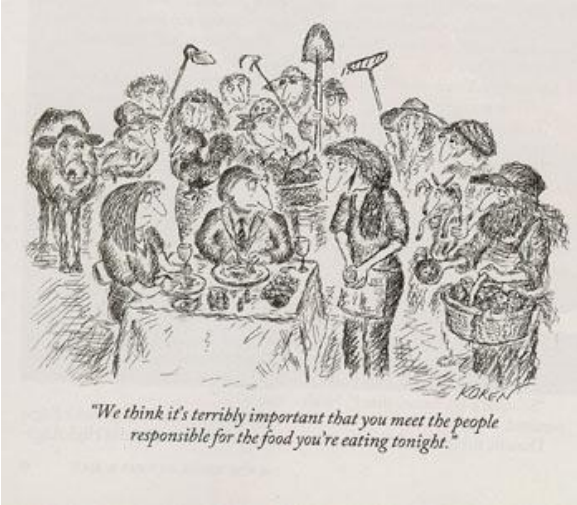
Is it important that food be regional; should it taste like the local soil?

Would a better understanding of "local food" precipitate a healthier population, more aware of nutrition and more capable of preparing their own food?

Can we solve the problem of food production with vertical farming?

Should we readdress the character of the city and create a closer connection between mankind and nature?

Might there be a hybrid between field and city?



….So this shows us that gastronomy must also be ecology. ….The choices that we make in what we eat will ultimately determine the ecosystem in which we live."

- Carlo Petrini, Founder of Slow Food

One might assume that our unlimited access to information (education/knowledge) would render us more aware of the importance of health and nutrition and enable us to easily incorporate better habits into our lives. In fact, we are facing the opposite condition. Our prevailing and collective sedentary lifestyle coupled with a taste for fast food has obesity, diabetes and cardiovascular disease all on the rise.

Understanding how a food product is harvested, prepared, cooked and consumed brings possibilities of not only better nutrition but also an expanded understanding of how natural cycles work and how finite our resources truly are. Organizations such as the Center for Food and Justice / Urban & Environmental Policy Institute in Los Angeles, The Food Project in Boston and The Edible Schoolyard in Berkley have been working hard to reconnect contemporary society to an ethos of health both of the human body and of the land.


(image credit: J. Kurland)

Maria Montessori believed everybody needs to have an education of the senses, and food is a way, on an everyday basis, to open your eyes, your mouth, your nose, your sense of touch. I've used her pedagogy in developing these ideas. She doesn't tell you what to think; she helps you be discerning and develop and refine your senses.

- Alice Waters, The Edible Schoolyard

STUDIO FOCUS:

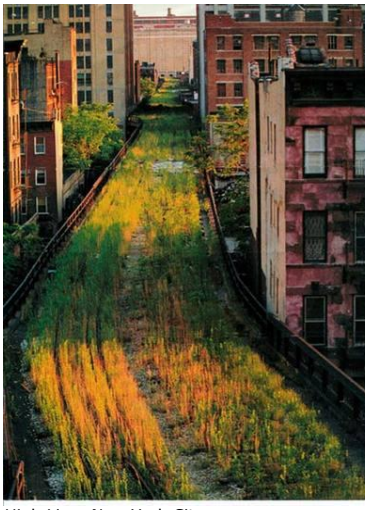
During the semester we will first investigate the impact of FOOD (production, distribution and consumption) in the city we live and work. In our search for obeCity in LA, the studio will research food supply trajectories and movements at large within the city and LA County. We will then engage a series of design exercises that will lead us to re-think a particular site, productive landscape, in relation to its land-use. The site will be designed and programmed in a way that will allow each student to further investigate specific unique aspects of individual interest.


Vertical Farm, Pierre Sartoux


Vineyards in Germany


Salinas: salt farm in Peru


Vertical Farm, Work AC


High Line, New York City


LA Aqueduct

It will be critical to our investigation that we focus on the depth and mass of the land rather than superficial qualities such as features or geometric rationality. Layers of infrastructure, support and nourishment, the complex systems both natural and artificial that reside below ground require us to consider our site a thick and visceral volume of material rather than a taut membrane. An expanded understanding of optimal growing conditions and practices will further inform land shaping strategies. Our studio will present multiple ways of dealing with landform, all of which will be spatial and tectonic. Topographic manipulations and resulting sectional conditions will initiate our formal project studies.

With our design objectives and process, we hope to challenge the conventions of landform typology, informing our site and context in a meaningful and deterministic way. Our explorations will enable us to propose a reshuffling of the relative roles of private and public spaces in the city and thereby a richer more complex urban condition.

herzog & demeuron – Milano Expo 2015 Master Plan

Class Bibliography

Some of these items will be on reserve in the library. Additional selected readings will be distributed to the class in xerox form.

Visual Communication:

Peter Eisenman
Diagram Diaries

Edward R Tufte.
Envisioning Information

Edward R Tufte.
The Visual Display of Quantative Information

Edward R Tufte.
Visual Explanations

Stan Allen
Points + Lines: Diagrams and Projects for the City

Recommended Readings (and other media):

About Food:

VERTICAL FARMING: For the Greener Good (online video from the National Building Museum)
presenter(s): dickson despommier, robin elmslie osler, carolyn steel, and j. william thompson
date recorded: april 29, 2009 - duration: 01:29:59
sponsored by: the home depot foundation

Food Inc. (DVD)
Directed by: Robert Kenner

Andre Viljoen (ed) 2005. Architectural Press.
Continuous Productive Urban Landscapes. Designing Urban Agriculture for Sustainable Cities.

Robert Gottlieb
Reinventing Los Angeles, Nature and Community in the Global City

Paul Roberts
The End of Food

Carolyn Steel
Hungry City: How Food Shapes Our Lives

Raj Patel
Stuffed and Starved: The Hidden Battle for the World Food System

About Los Angeles:

John McPhee
Assembling California
Basin and Range
Control of Nature

David L. Ulin
Writing Los Angeles: a Literary Anthology

Michael Dear, with Eric Schockman, Greg Hise
Rethinking Los Angeles
From Chicago to L.A. : Reenvisioning Urban Theory

Reyner Banham
Los Angeles, the Architecture of Four Ecologies

Dana Cuff
The Provisional City: Los Angeles Stories of Architecture and Urbanism

Richard Koshalek, Dana Hutt, Thom Mayne
L.A. NOW

Mike Davis
City of Quartz - Excavating the Future in Los Angeles

Mirko Zardini
Sense of the City

Geoff Manaugh
www.bldgblog.blogspot.com
Architectural Conjecture, Urban Speculation, Landscape Futures