HARVARD UNIVERSITY
GRADUATE SCHOOL OF DESIGN
DEPARTMENT OF LANDSCAPE ARCHITECTURE
LA Section 3: Xiaowei Wang
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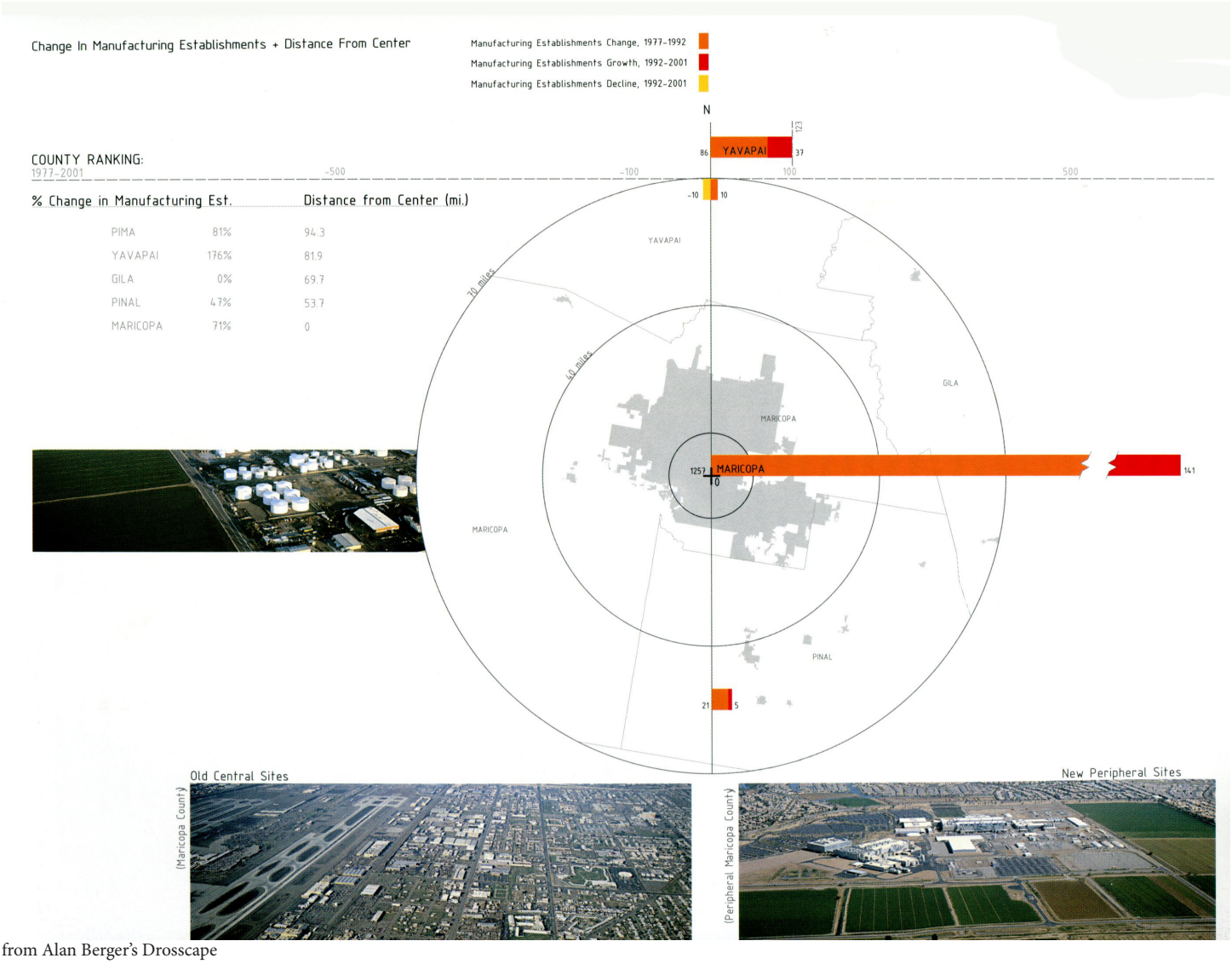
Assignment: 1/4
Issued: June 28, 2013
Due: July 5 [A3]
July 14 [A4 DRY RUN]
July 17 [A4 FINAL REVIEW]

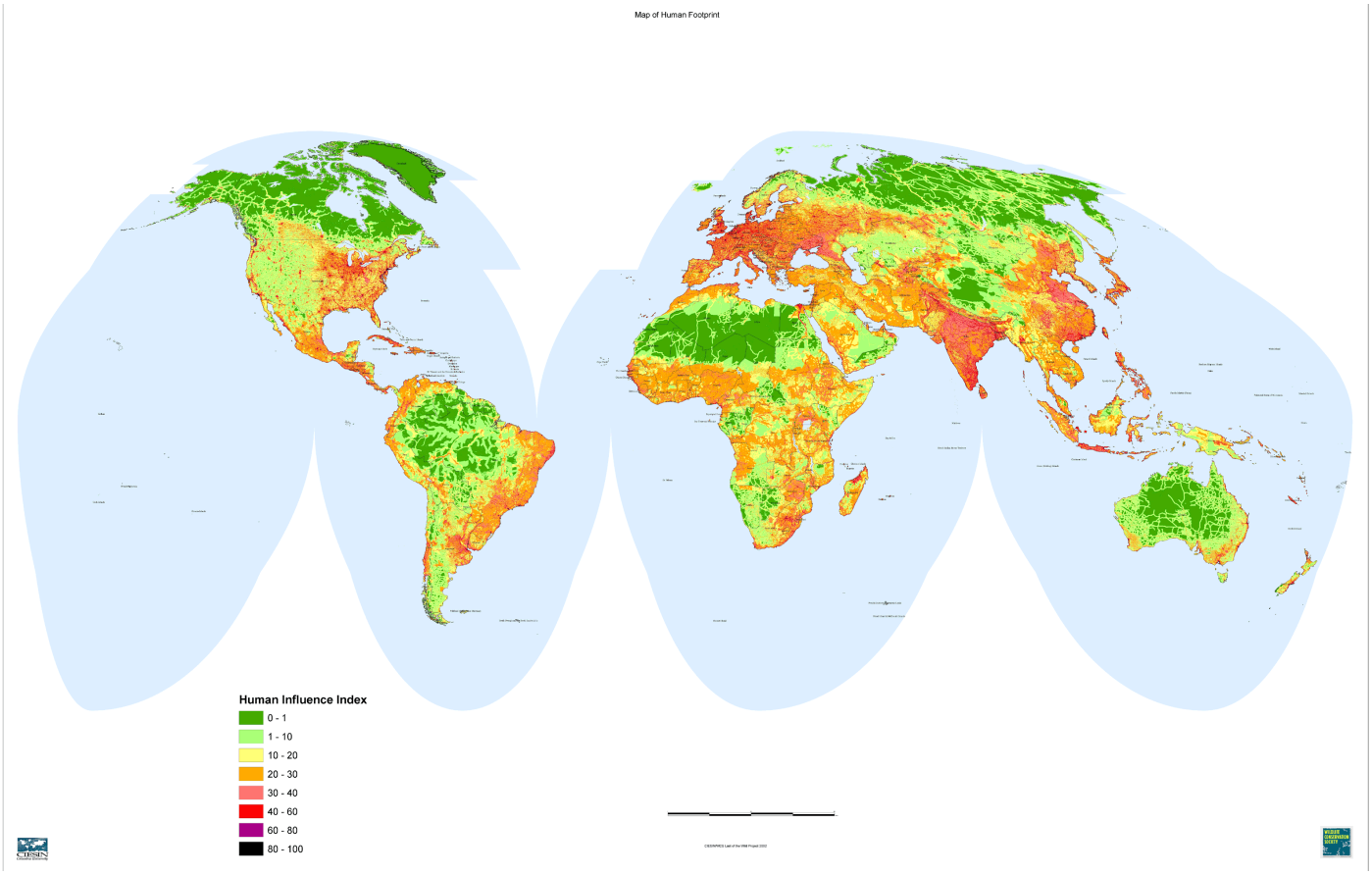
A3+A4: Infrastructure as Landscape/Landscape as Infrastructure



from Alan Berger's Drosscape

Infrastructure pervades our daily lives. Often seen as the realm of the urban, it binds together pervasive systems from freight networks that cross the country delivering food and goods, to satellite networks that provide ICT (information communication technologies) services and images of the Earth that construct our very landscapes.

Only 17% of all land on Earth remains untouched by humans; these days it is possible to receive a cellphone call on Mt. Everest, buy Italian prosciutto in Bhutan, and receive a constant supply of fresh tomatoes in Europe, all the way from Turkey. Infrastructure (airports, highways, wastewater systems, industrial agriculture storage, green spaces, ports, harbors, freight terminals, train and freight railways, subway systems) are equally the realm of the landscape architect as they are the civil engineer. They remind us that what we think is wilderness is actually always the manmade, even the idea of wilderness itself. Rather than questioning what is nature/rural versus the urban, maybe "we have never been urban".



It is in this assignment, in a highly "urban" site, we can begin to ask a series of questions. What separates infrastructure as civil engineering from infrastructure as landscape architecture? We will be focusing on the Brickbottom District of Somerville, near the McGrath Highway using a landscape based strategy to reconfigure projected futures and examine potential scenarios. These strategies are ultimately biological and ecological in form and concept, with afterlives that may encounter failure or utopic visions. We will continue to look at McHargian overlays alongside the work of systems ecologist Howard T. Odum as lenses to view and analyze the site. Most of all, rather than the "problem solving" approach of civil engineering, we will address the complexities of the site through a systemic outlook that inserts itself into existing proposals for Brickbottom with timely entry and exit strategies. We will examine infrastructure through mapping, "ground truthing" and analysis for its ability to create networks and plug into larger systems, at the same time serving as manifestations and alterations

of power. We will also question the normative definitions of infrastructure -- beyond roads and rails into the dimensions of communication and information that allow landscape to be a truly cybernetic system than simply a networked one.

While landscape architecture in an urban context can be thought of as parks or green spaces with operative elements of water storage and waste water cleansing, the goal of this assignment is to reiterate, question, challenge and push that idea. Through reasserting the infrastructural as the realm of landscape architecture, the infrastructural also becomes a field for design within landscape architecture.

00 Preparation (Readings + Precedents)

Reading List, Assignment 3+4
** and bold indicates required reading

Beck, Ulrich. "Environment, Knowledge and Indeterminacy." Risk, Environment and Modernity: Towards a New Ecology. Ed. Scott Lash, Bronislaw Szerszynski, and Brian Wynne. London: Sage Publications, 1996. N. pag. Print.

****Belanger, Pierre. "Landscape As Infrastructure." Landscape Journal 28.1 (2009): 79-95. Print.**

****Belanger, Pierre. Kalundborgs Protoecology and Watershed_Map. Digital image. N.p., 2007. Web.**

****Corner, James. "Terra Fluxus." The Landscape Urbanism Reader. Ed. Charles Waldheim. New York: Princeton Architectural, 2006. N. pag. Print.**

****Del, Tredici Peter. Wild Urban Plants of the Northeast: A Field Guide. Ithaca: Cornell UP, 2010. Print.**

****Easterling, Keller. "Network Ecology", Landscapes - Felix Journal of Media Arts & Communication 2 No.1 (1995): 258-265.**
****Easterling, Keller "Zone" in Douglas Kelbaugh et al. eds. Writing about Urbanism (London ; New York : Routledge, 2008.) p. 297-302.**

****Kuehn , Norbert "Intentions for the Unintentional", Journal of Landscape Architecture, 2006**

Latz, Peter "The Ideal of making Time Visible", Topos 33, 2000, pp 94-99

McCluskey, Jim. "Networks." Road Form and Townscape. London: Architectural, 1979. 12-37. Print.
****McHarg, Ian L. "The City, Process + Form." Design with Nature. Garden City, NY: Published for the American Museum of Natural History [by] the Natural History, 1969. 175-86. Print.**

Newton, Norman T. "Parkways and Their Offspring." Design on the Land; the Development of Landscape Architecture. Cambridge, MA: Belknap of Harvard UP, 1971. 596-619. Print.

Staley, Eugene, Technical Progress in Travel Time from World Economy in Transition (New York: Council on Foreign Relations, 1939), p. 6.

Virilio, Paul. Speed and Politics: An Essay on Dromology. New York, NY, USA: Columbia University, 1986. 3-34. Print.

Weiss, Marion. "Between Line and Shadow." Dirt. Ed. Megan Born, Helene Mary Furján, Lily Jencks, and Phillip M. Crosby. Philadelphia: PennDesign, 2012. N. pag. Print.

****Williams, Rosalind. "Cultural Origins and Environmental Implications of Large Technological Systems." Science in Context 6.02 (1993): n. pag. Print.**

****Wöhrle, Regine Ellen., and Hans-Jörg Wöhrle. Designing with Plants. Basel, Switzerland: Birkhaeuser Verlag, 2008. Print.**

Wu, Tim. "10 Ideas for the Next 10 Years." Time. Time, n.d. Web. 26 June 2013.

Highly Suggested Readings/Reference Books:

_Banham, Reyner. Los Angeles: The Architecture of Four Ecologies. (Berkeley: University of California Press, 2009).
_Berger, Alan. Drossscape: Wasting Land in Urban America. (New York: Princeton Architectural Press, 2006).
_Desvigne & Dalnoky. The Return of Landscape. (New York: Whitney Library of Design, 1997).
_McHarg, Ian. Design with Nature. New York : J. Wiley, c1992. Spirn, Anne Whiston, The Granite Garden (New York, NY: Basic Book, Inc., 1984).
_Adriaan Geuze / West 8 Landscape Architecture. (Rotterdam: Uitgeverij 010 Publishers, 1995).

Precedents + References

The High Line, FO, NYC
While the reuse of this abandoned elevated railway is seemingly the first "novel" element of the project, please note the more interesting, complex elements that became the realm of the designer; vegetation and paving work together to allow adequate drainage, circulation and entry into the park, preserving specific views while getting rid of some, creating another experience for a pedestrian through NYC by contracting and expanding the surroundings.

Olympic Sculpture Park, Weiss Manfredi, Seattle (Urban park that is NOT just a surface)

Potsdamer Platz, DS, Berlin (http://people.umass.edu/latour/Germany/noverstrom/), Water filtration, performativity and programming. See also critique of the project from political standpoint)

Avignon Viaduct, Desvigne, FR (http://tinyurl.com/pbkvvk6) High speed train over twin viaducts

Yokohama Port Terminal, FOA (Surface, program + transport)

Jacob Javits Plaza, Martha Schwartz Partners (Use of landscape to comply to security + GSA standards)

Rolex Learning Center, SANAA

Lille Masterplan, OMA ("Paradoxically, at the end of the 20th century, the frank admission of the Promethean ambition - for example, to change the destiny of an entire city - is taboo.
This project is based on the hypothesis that the 'experience' of Europe will change beyond recognition through the combined impact of the tunnel that links Britain and the Europe, and the extension of the French TGV net-

work to include London.
If this hypothesis turns out to be true, the city of Lille - dormant centre of gravity of a conceptual triangle of London / Brussels / Paris, which contains more than fifty million inhabitants - will magically acquire a theoretical importance as the receptacle of a wide range of uniquely 'contemporary' activities." from OMA website)

Borneo-Sporenburg, West 8 (bikes, pedestrian, bridges, crossings)

01 Measures + Marks (1 week, due 7/5)

Part 1 of the assignment will consist of "ground truthing". As much as remote sensing can inform the creation of landscape with Google Earth and GIS showing large scale, quantitative aspects of a site, the element of ground truthing or surveying the land is crucial. This act is not meant to simply verify what you see through the privileged aerial view, but to actually connect large scale systems to their spatial manifestations, seeing the site as an area crucial to Somerville/Cambridge but also the greater Boston area. The focus for these site measures is to understand the systems at play rather than a set of site impressions.
Ground truthing will focus on 2 scales and 4 spatial elements.
Two transects (areas of intervention) are defined. The transect may consist of:
Scale A (choose 1): Municipal or city boundaries, a 5 minute walking radius, public transportation, a 15 minute bike ride
Scale B: The transect as defined on the handout
Ground truthing will use group work and discussion to derive as much knowledge of the site as possible and to create a series of sophisticated mappings that use the axonometric techniques taught in representation class. The idea of metabolic diagrams will also be in play, taking into consideration the precedents from Odum diagrams which are not simply representational; they can strongly indicate and influence design intent.

Group 1: Roads, Pedestrians/Bicycles, Zoning, Wastewater (storm drains, sewers, manhole covers, see http://users.rcn.com/fgardino/Boston.htm for how certain types of underground infrastructure can be seen through surface markers)
Ann
Ife
Lindsay
Cecca

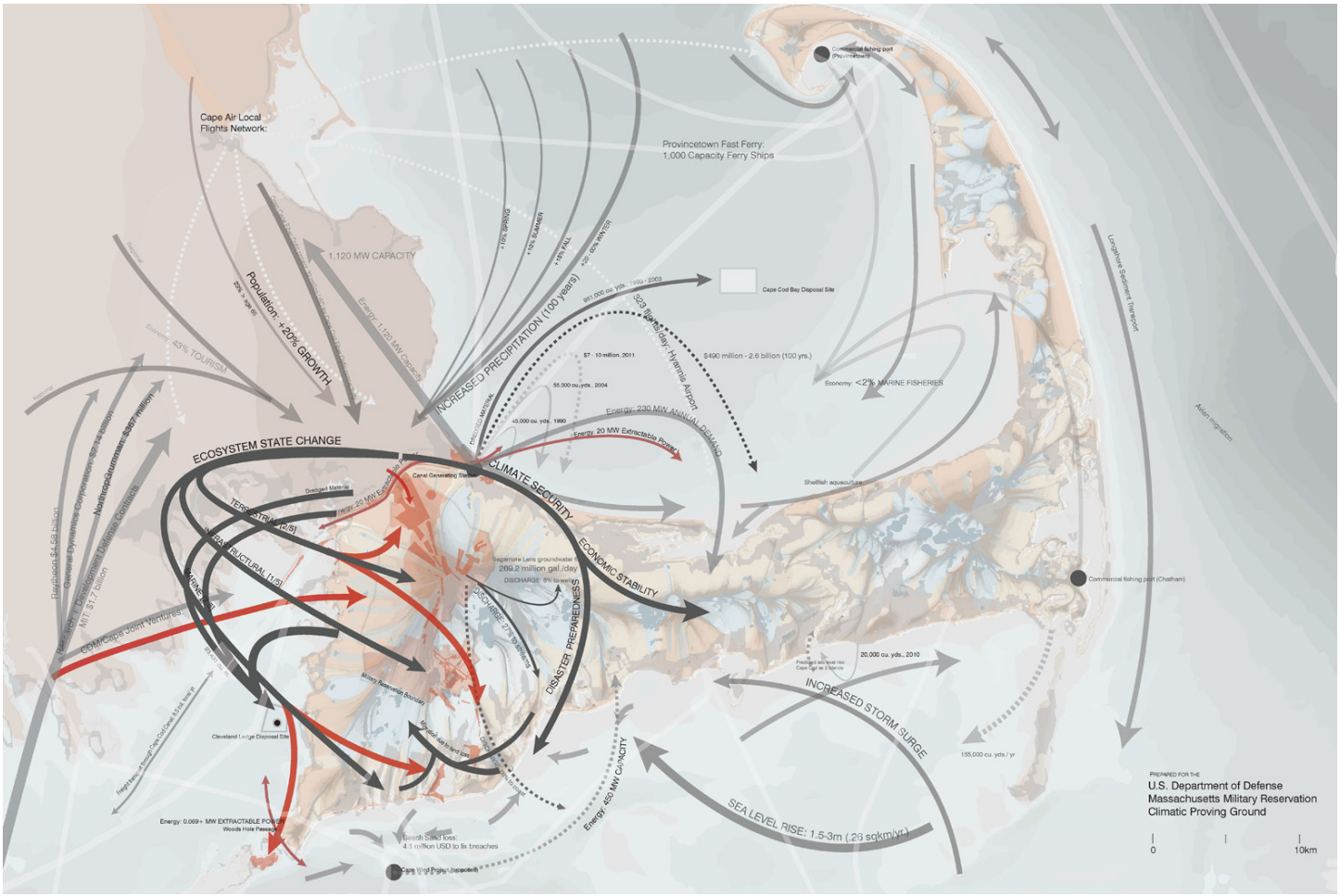
Group 2: Walls/Containers, Public Transport, Vegetation, Cellphone signals+Wifi
Allison
Jake
Jo

Group 3: Materiality, Public Futures, Public Use Program (ie public works sites, telephone poles)
Spence
Erin
Jenny

Graphs, diagrams and maps of presentation quality are expected for Part 01.
In addition to ground truthing, the scope of "detective work" also extends to other elements that remain unseen -- ICT infrastructure, broadband internet coverage and availability, cellphone signals. As you survey the site itself, notice what is "bundled" with public infrastructure.
Additional site visits using alternative methods of site measurement is encouraged (aerial photography, home-made spectrometers, etc, see http://publiclab.org for more details)

We will have a mini pin up to share findings with each other. As a majority of this is presenting complex information to each other about the site, it is important to convey information in a clear, analytical and critical manner.

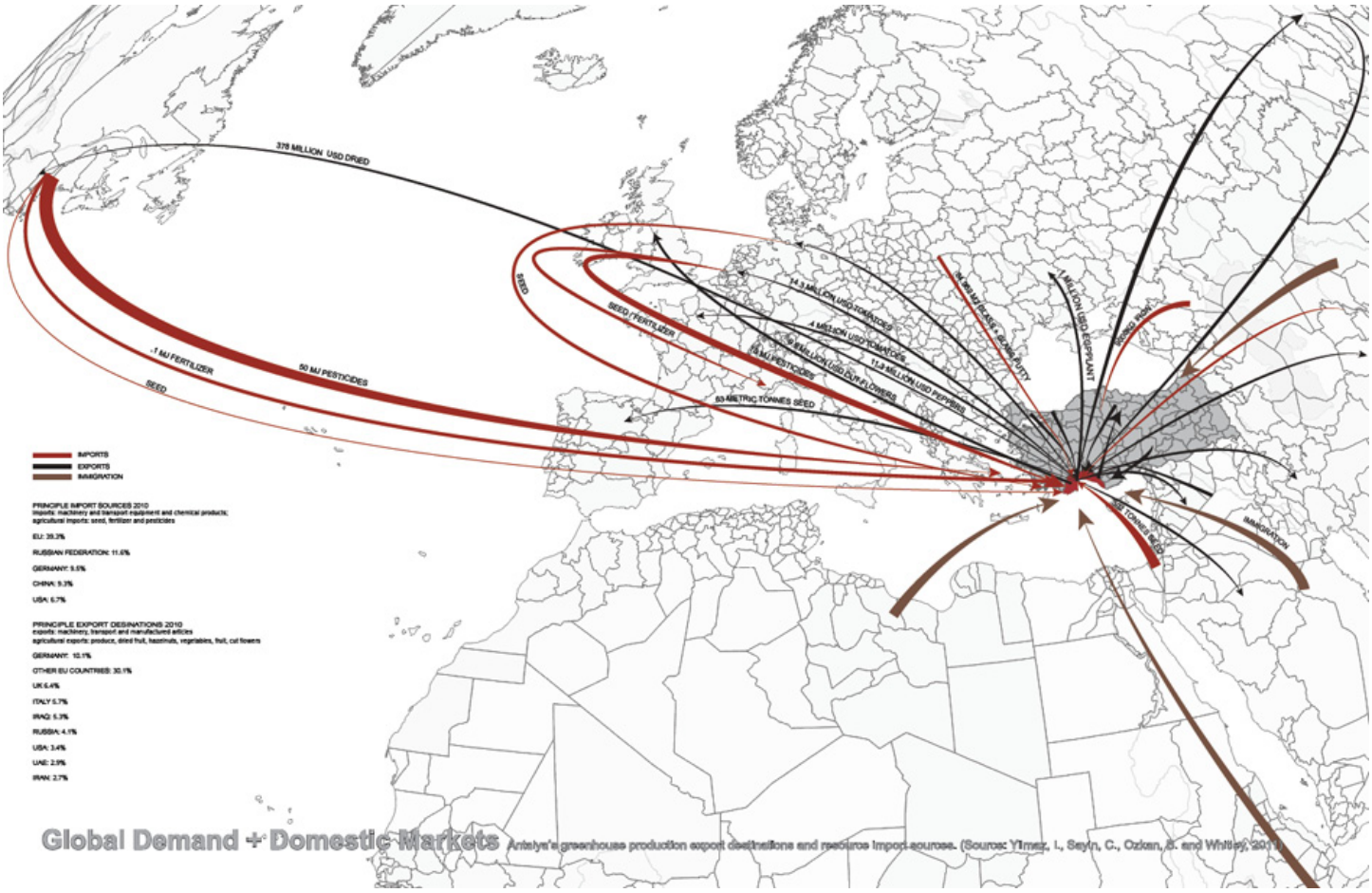
Each group is expected to have:
[1.1/1.2/1.3] Context – 3 (THREE) 24”x36” with 2 vellum overlays each (regional or municipal scale)
[1.4/1.5/1.6] Transect – 3 (THREE) 24” x 36” of transect at 1” = 64’
[1.7] Serial sections of major street profiles [Poplar street, recommended E-W direction]
[1.8] 3 (THREE) elevations (see Representation assignment)
[1.9] Zoom in – 3 (THREE) 24” x 36” areas of interest at 1” = 32’



02 Site Scenarios

This portion will focus on playing out one scenario for the site (or multiple, depending on the specific project) in a clear, well articulated way. Instead of focusing on “what should happen”, the project must insert itself into the existing site conditions as well as projected developments for the site.
Deliverables:

Context
[2.1]1x 24” by 36” sheet with regional/municipal scale
[2.2/2.3]2 x 24” by 36” diagrams,
One indicating program, second one indicating phasing and site development.



Transect design : Scale 1”=64’ (27.4” x 4.7”)
[2.4]1x 24” x 36”
1x transect with elevation
1x transect with axonometric indicating zoom scale

Detail: Scale 1”= 32’ (22” x 9.4”)
[2.5/2.6] 2x 24” x 36” (program and seasonality)
[2.7] 1x Model 1” = 32” (either stacked white museum board or foamcore)

Schedule

Monday, July 1
9-11: Piper lecture, Gary Hildebrand
11:30-12:30: Representation: Montage + Collage, Basic Perspective, Physical Models into Digital Image
1-6: Studio- Reading discussion

Tuesday, July 2
9-11: Piper lecture
11-12: Rep Lecture (Image Making)
12-1: Lunch
1-6: Studio

Wednesday, July 3
9-11: Piper lecture, Rosetta Elkin
11-12: (Tentative) Proactive Practices with Mia Scharphie
12-1: Lunch
1-6: Studio/Rep Workshop-Photoshop/Collage

Thursday, July 4
9-11: Piper lecture
11-1: Career services
12-1: Lunch
1-6: Studio

Friday, July 5
9-12: Working time
1-6: Pin-up Assignment #3 Concept Design

Monday, July 8
9-11: Piper lecture
11-12: Representation: Detail Drawing/ Modeling, Digital Construction/ Fabrication
1-6: Studio

Tuesday, July 9
9-11: Piper lecture
11-12: Rep Lecture (From Drawing to Making) - Mike S, Danish, Allison
12-1: Lunch
1-6:Studio

Wednesday, July 10
9-11: Piper lecture
11-12: OPEN
1-4: MVVA visit

Thursday, July 11
9-11: Piper lecture
11-12: admissions
12-1: Lunch
1-6: Studio

Friday, July 12
9-12: Worktime
12-1: Lunch
1-6: Pin-up Assignment #3 Individual w Instructor

SUNDAY JULY 14th
DRY RUN