

STUDIO LEADER BIOS & CONCEPTS

Studio 1

Leader Bio: Anuradha Mathur and Dilip da Cunha

Professor Anuradha Mathur teaches landscape architecture at the University of Pennsylvania. Together with her partner Dilip da Cunha she works on cultural and ecological issues of contentious landscapes. In large scale dimensions they visualise the dynamic and specific transformation of landscapes in North America and in India, especially concerning water regimes. Using artistic collages and so called "photo works" and "photo ways" they show a wide range of possibilities rather than offering concrete solutions. They are authors of exhibitions and several publications.

Concept: Intense Terrains – Rail Corridors as Energizing Spines

This workshop will seek to intensify the corridors of one of the most extensive rail networks in the world: the Indian Railways.

This legacy of British colonialism has received much praise for its reach, complexity and progressive force. It was initiated in an era of extension when empires reached out; when space demanded territorializing, the picture required framing, the site needed bounding, and knowledge called for disciplining.

Times have changed. Space is no more, both materially and operationally. In place of the extensive we must turn to the intensive, to place that time rather than space makes possible.

We will use film, its capture of railway journeys and its release of the moment, to comprehend and draw out the everyday and stylized India, identify design possibilities in the interstices of time between the rail corridor and a diversity of landscapes, including squatters, fields, borrow-pits, agricultural tanks, forests, and hills. The focus will be on constructing an intensity of engagement rather than on visualizing territorial extension.

Materials to be utilized in the studio include:

- Extract from "SOAK: Mumbai in an Estuary," Anuradha Mathur / Dilip da Cunha, National Gallery of Modern Art, India, with Rupa & Co., June, 2009
- Extract from "Maximum City: Bombay Lost and Found," Vintage Press, New York, 2004
- From "27 Down: New Departures in Indian Railway Studies," edited by Ian J. Kerr, Orient Longman, 2007
- Chapter 1: Novel Spaces, Transitional Moments, Harriet Bury
- Chapter 2: Railway Space in Partition Literature, Marian Aguiar

FILMS:

- Youtube Film, "Jaiselmer to Delhi"
http://www.youtube.com/watch?v=TL53sW0E09I&feature=view_all&list=PLE9DFCE7EF3F9419E&index=6
- Scenes from popular blockbuster film, "Sholay," 1975
http://www.youtube.com/watch?v=73CvJ_gX800
- Scenes from "Salaam Bombay," 1988
- Scenes from "Slumdog Millionaire," 2008

Studio 2

Leader Bio: Theo Deutinger

Theo Deutinger is well-known for his work in mappings. To all themes, there are current social questions. Theo approaches these questions with a high intensity and clear direction through unique graphics and scenarios. He studied architecture in Graz (Austria) and worked several years in the office of OMA/AMO. In 2005 he founded his own office, TD, in Rotterdam. A series of lectures, research projects and publications show the wide spectrum of his work.

Concept: The +/- Society

The aim of this studio is to investigate the social and economical relationship between humans and energy throughout history and based on this, possible futures will be sketched. We will explore Western Europe, a society which is extremely wealthy, well supplied by all kind of energy sources and used to a high standard of living. The changes in this area will be extreme since its society is highly growth oriented and very dependent on fossil and nuclear energy.

- **Time:** Every technical development can be linked to the domestication of energy sources; from the domestication of fire to making use of nuclear power. This investigation and illustration of the human history of energy forms the backbone of the +/- society study.
 - What energy source stimulated which invention?
 - Have there been energy shortages in the past and if yes, what can we learn from them?
 - How did people / cities react to new energy sources?
 - What is the price of energy? Throughout time? In relation to other goods?
- **Society:** It is striking how extreme the differences of energy consumption are within the Western World while the standard of living and the climatic conditions are very similar. Energy consumption is apparently not only dependent on the standard of living or climatic conditions but is also a form of culture.
 - Why do some countries consume much more energy than others and produce little output?
 - How can people be stimulated to consume less energy (energy 'light') or even produce energy?

The discovery of electricity made overland connections possible and today the power networks connect each and every household throughout the continent. In the future houses will not only consume but also produce electricity and feed it into the grid. Because of this (and because of energy saving projects), fluctuations in supply might happen more often.

- How would an uneven electricity supply affect our lives, our cities, our society = blackout culture?
- Can we imagine a different lifestyle? A seasonal lifestyle (summer/winter)?

It is not the aim to promote or oppress an ascetic lifestyle but rather to investigate more responsive strategies for living with energy.

Studio 3

Leader Bio: Gunnar Hartmann

Professor Gunnar Hartmann studied fine arts and architecture in the United States. He has worked in academics in the United States and Germany since 2001. He was the program director of the master course at the Chur Institute of Architecture in Switzerland from 2005-2009, and has been a guest professor at the Dessau Institute of Architecture Graduate School in Germany since 2007. With Professor Lars Lerup and Christian Bandi he founded the platform New Dialogues in Zurich as a new form of design methods and dialogues.

Concept: Energy Organism

How to implement a self-regulating energy system?

Gunnar Hartmann, MArch, guest professor at DIA, Anhalt University of Applied Sciences Dept 3 Daniel Balean, MArch, and Valerio Giacomelli, MArch, studio assistants Dipl.-Phys. Andreas Kiessling, studio consultant, system architect at MVV Energie AG

• CONTEXT

If Germany wants to draw its energy in the future exclusively from renewable energy sources, one of the biggest obstacles will be the constant supply of energy. Solutions are therefore in demand allowing for capacity shifts of unsteady energy production and consumption. In doing so, the economic benchmark should be set through comparison between the total expenditure and energy output of a network.

The existing fossil-based energy systems rely on the logic of centrality. Intelligent-based networks will increasingly decentralize by drawing their energy demand from respective regional energy sources and therefore will reduce the system costs generated by wide-ranging energy supply infrastructures. Through the application of diverse trans-regional and regional structures as well as multi-sector integrated energy systems, producers and consumers form a balanced and self-regulating energy organism.

• STUDIO PROPOSITION

The studio of the summer school raises the question, how to implement an increasingly self-regulated energy organism at the scale of a region? While the Rhine-Neckar metropolitan region will serve as a case study, students are asked to develop the energy management for the entire region, spanning from conurbation to rural areas. On the basis of three regional energy sources – electricity (i.e. electricity gained from renewable energy sources), heat (district and waste heat), and emissions (e.g. NO_x und CO₂) – students will try to implement *smart grids* at a medium level. With the help of scenarios, diverse business models of so-called *prosumers* will be explored and brought into relation with public initiators as well as private entrepreneurs. Consequently, topics like production, storage, transportation, and consumption of energy are in a direct spatial relation to each other.

Studio 4

Leader Bio: Stefan Tischer

Professor Stefan Tischer is a German Landscape Architect. He teaches at the University of Sarasassi in Alghèro, Sardinia. He is currently researching new trends of electric power supply in Mediterranean areas such as Sardinia, Sicily, Corse, Morocco and Spain. He will bring his knowledge about the new progress in developing solar parks and new net structures in the Mediterranean area.

Concept: The Mediterranean Challenge

Two exciting events have transformed the traditional relationships between Europe and North Africa in a fundamental and continuously metamorphosing way: the "Arabian spring" bringing the hope of deep social and cultural change in the Southern Mediterranean area, and the Post-Fukushima uncertainties making nuclear power obsolete and many areas putting alternative energies on the agenda. Seemingly utopian ideas, like the DESERTEC project, become more and more probable and dominate the political and economical discussion. Although de-central or regional concepts seem to be the best option for the future way of dealing with energy, many experts, politicians and economists also are proponents of deeper exchange and dependence between Europe and North Africa. They promote the intercontinental network of solar energy produced in the deserts of the southern Mediterranean area and consumed there locally and in the heavy consumption regions of Central Europe.

Current discussion is dominated by technical and economic concerns. Of course the new solar power plants (PV or CSP) also have fascinating aesthetic impact in the traditional Mediterranean landscapes. The synergy of potential territories, landscapes, urban design and architecture of these plants and the necessary infrastructure of transcontinental energy transport should be considered, planned and designed. Ancient roman aqueducts have been the key element of the structure of entire roman territorial civilization and shared infrastructure (water + transport + energy) with specific architectonical significance and the core concept of the entire modern urbanism and architecture is based on energy and new infrastructure (e.g. Le Corbusier's "Plan Obus" Algiers or Hermann Sörgel's "Atlantropa"). Today infrastructure has become degraded as a pure engineering issue, with "landscaping around," hiding or beautifying the impact and naive architectonical or design ideas to "design around" the technical objects and structures.

I propose to work with my group on the opportunities and synergies but maybe also on the dangers the DESERTEC project could bring to the European-North African landscapes and urban areas of transformation. Based on the excursion in June 2011 to southern Spain and northern Morocco we will reflect on this specific area with several questions:

- How will local and intercontinental networks of solar (and other alternative sustainable) energy production and energy transport change the existing cultural landscapes?
- What opportunities do intelligently planned energy infrastructures have to rehabilitate abandoned, destroyed or contaminated areas?
- How will the new infrastructures determinate urban development and landscape change?
- What social and cultural opportunities can be triggered by DESERTEC?

Work will be documented in large-scale scenarios, or "intercontinental design," with solutions from a local perspective.