

The disciplines involved in continuing this project for the Spring 2008 semester included students from: architecture, architectural engineering, computer engineering, civil engineering, design, environmental engineering, political science, psychology, and public administration.

### Project Background

During the fall semester of 2007, a team of ten engineering and architecture students from IIT and five students from the Harris School of Public Policy, University of Chicago, did a site analysis study for a sustainable new city proposal to be built at the west end of Chongming Island, located adjacent to Shanghai at the mouth of the Yangtze River. The phased semester began with a background Chicago study of the Shanghai climate and ecology, landscape and environment, energy policies, hydrology, economics, social policies and urban strategies. This interdisciplinary team was then hosted by Tongji University in Shanghai for three weeks during October for field trips and site visits, seminars with their faculty and students, and a series of meetings with both public officials and professional offices.

### A Sustainable Focus

Our objective was to establish the basic principles involved with the design of prototypical cities that will both consume a minimal amount of energy and then also generate all of the required energy for this energy consumption. The team used their interdisciplinary backgrounds to study the required infrastructure, transit systems for transportation, housing requirements, urban amenities, alternative energies and potential policy implications of this new city. The methodology involved developing the information and designing the applications within the context of the new city.

### Sustainable Components

- Design all buildings to be of optimum energy efficiency
- Master plan city around a leading edge transit system
- Produce a walkable scale of urban living
- Accept the reality of automobiles and provide parking
- Generate energy to support the city from alternate energy sources

## Design of a Sustainable New City in China



Chongming Island, China

### Team Members

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Christopher Chiu  
Martin Cooper  
David Durra  
Lihua Jiao  
Andrew Kleps  
Kevin Lerash  
Shunsuke Nakano  
Kyle Pritchard  
Anthony Saracino  
Ryan Szanyi  
Ana Untiveros  
Cameron Zangenehzadeh  
Jun Zheng  
Sungano Ziswa

### Faculty Advisors

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Dr. Scott Peters  
George Schipporeit

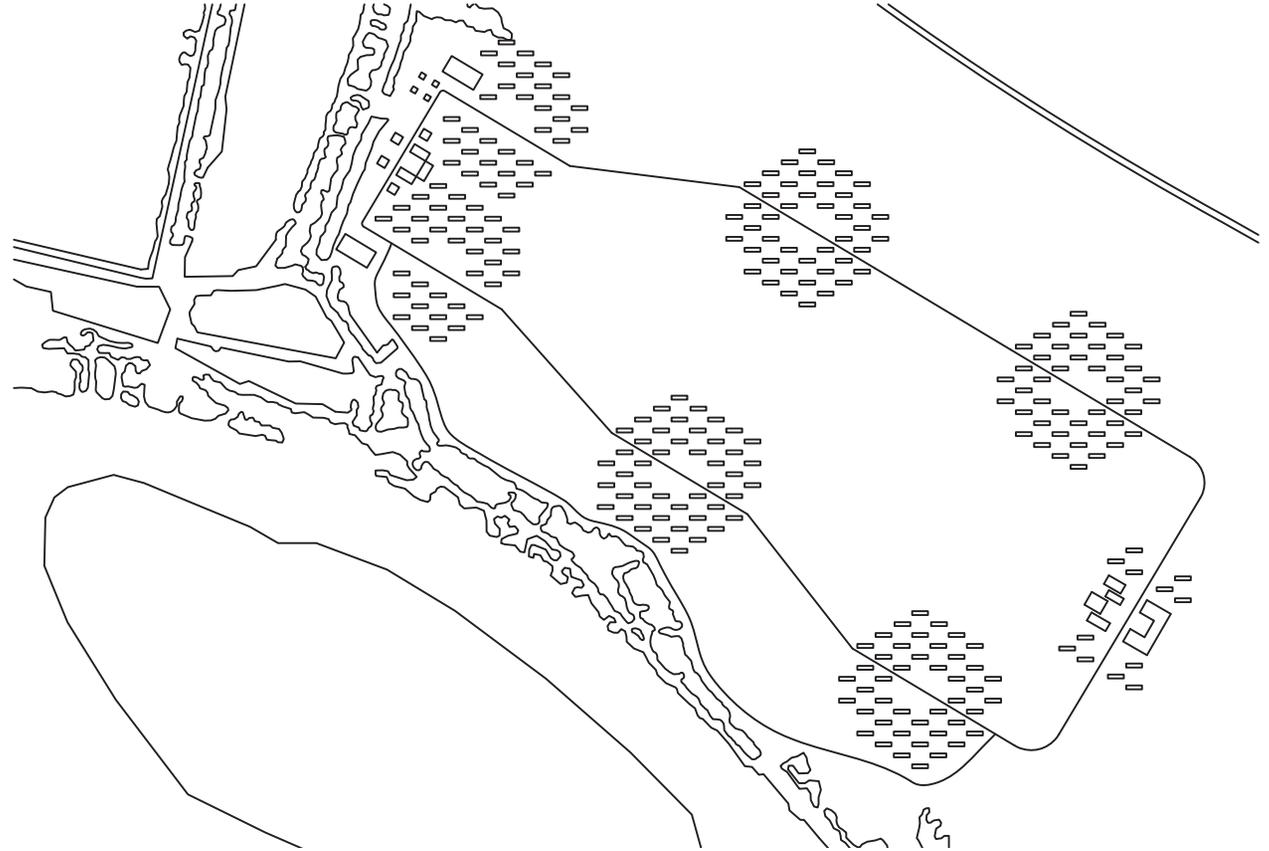
## The Problem: Urban Migration

The contemporary significance of this IPRO is that there is currently a global rural to urban migration in every developing country with China alone expected to double its urban population by 400 million people over the next 12 years. If they even approach the per capita U.S. consumption, their population will require three times the energy that is currently being consumed in the world today.

## The Solution

This spring semester IPRO project used this background information as the basis for the actual design of a sustainable new city of approximately 200,000 people on a specific site at the west end of Chongming Island in China. The underlying principle for the city was that no individual should have to walk more than 5-10 minutes to get to their desired destination (or at least to a transportation system that would carry them further), which required the design of several neighborhood "nodes" that would as a whole complete the new city in an interconnected web of living with all of the standard urban amenities one comes to expect in a first world nation.

## Pearl City Site Plan



## Minimizing the Urban Footprint



## Maintaining the Urban Density

