

MIT | SUSTAINABLE RESIDENTIAL DEVELOPMENT IN SHANGHAI

**vanke vision:**  
sustainable residential  
development in shanghai  
vol. 2. planning studio  
may 2006





**VANKE VISION:**  
**SUSTAINABLE**  
RESIDENTIAL  
DEVELOPMENT IN  
SHANGHAI

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# INTRODUCTION

VANKE VISION:  
SUSTAINABLE RESIDENTIAL  
DEVELOPMENT IN  
SHANGHAI

URBAN PLANNING AND DESIGN  
HANDBOOK

Vol. 2.  
Planning and Design Workshop

MAY 2006

## introduction

From September 2005 to June 2006, with the generous support of the Vanke Real Estate Group (Shanghai Office), three graduate courses were offered by the Department of Urban Studies and Planning at MIT: Research Seminar in Fall, 2005; Field Survey during Independent Activities Period (IAP) in January 2006; and Planning and Design Workshop in Spring 2006. Vanke's goal is to continue to improve the design of their housing communities as issues of sustainability become national priorities. All three courses take as their organizing principle that sustainability is not just concerned with environmental issues but equally with economics and equity. Our purpose is to find solutions that are environmentally sound, economically viable and accessible to all residents.

This Urban Planning and Design Handbook is the work of the Planning and Design Workshop. Vanke provided two sites for the class to explore: Baima and Qibao. Baima is surrounded by farmland and low-density villas. Qibao is in a fully urbanized context. In the first stage, students revised the development principles developed during the Research Seminar. Based on their field observations, resident surveys and interviews, they reorganized the original four categories into three systems (community facilities, site systems, and building systems). In order to design for a long term, we identified several scenarios:

1. National regulations will prioritize energy conservation, resource conservation, environmental protection, economic growth, public transportation, social equity (urban/rural and intra-urban), and local control.

2. Energy (oil, coal, and electricity) prices will rise significantly.
3. There will be serious resource depletion including drinking water, building materials, cheap labor, land (farm land, building land, recreation land, and land for solid waste disposal).
4. Increase in air and water pollution.
5. Demographic changes including aging population, more in-migration, fewer children, later marriage and childbearing age, the diminishing centrality of the family.
6. Life style changes including increased consumerism/consumption, higher indoor comfort levels, more auto ownership, increased demand for recreation and entertainment, higher incomes, more services and fewer industrial jobs, more internet use.

Students were then divided into two teams working on both sites proposing both programs and design schemes. After mid-term, each team spent two weeks switched their sites and made quick proposals for the other sites in order to take advantage of students' various background and interests. Then they worked on their original sites and developed comprehensive schemes for the rest of the semester.

# THE STUDIO PROCESS

AUGUST

SEPTEMBER

OCTOBER

NOVEMBER

DECEMBER

## SITE VISIT

PROFESSOR TUNNEY LEE AND LIANG ZHAO VISIT SHANGHAI VANKE.

- LECTURE 1**  
LIANG ZHAO: INTRODUCTION OF VANKE AND HOLIDAY TOWN PROJECT
- LECTURE 2**  
LIANG ZHAO: HISTORIC CONTEXT OF HOUSING DEVELOPMENT IN CHINA
- LECTURE 3**  
LIANG ZHAO: EXPERIENCING URBAN SHANGHAI
- LECTURE 4**  
RICK PEISER: WHAT CAN SHANGHAI LEARN FROM OTHER NEW TOWNS?
- LECTURE 5**  
OMAR KHALIDI: RESEARCH TECHNIQUES
- LECTURE 6**  
LIANG ZHAO: GRAPHIC LANGUAGES
- LECTURE 7**  
TUNNEY LEE: ORGANIZING THE HAND-BOOK
- LECTURE 8**  
ERAN BEN-JOSEPH: CASE STUDY IN NEW TOWN DEVELOPMENT
- LECTURE 9**  
BING WANG: FORMATION OF URBAN PATTERNS IN SHANGHAI
- LECTURE 10**  
LEON GLICKSMAN: BUILDING TECHNIQUES
- LECTURE 11**  
CHRIS ZEGRAS: TRANSPORTATION
- LECTURE 12**  
YUNG HO CHANG: RESIDENTIAL DEVELOPMENT IN CHINA
- LECTURE 13**  
LARRY VALE: SURVEY TECHNIQUES

**SURVEY**  
PREPARE QUESTIONNAIRE AND ONSITE SURVEY

## TRENDS AND PRECEDENTS

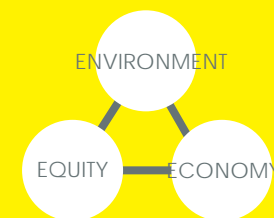
TWO TEAMS RESEARCH THE FOLLOWING TOPICS:

- SHANGHAI'S TRENDS IN THE NEXT DECADE
- PRECEDENTS OF RESIDENTIAL DEVELOPMENT IN OTHER COUNTRIES

## SUSTAINABILITY RESEARCH

FOUR TEAMS EXPLORE ISSUES REGARDING SUSTAINABLE RESIDENTIAL DEVELOPMENT:

- COMMUNITY FACILITIES
- SITE SYSTEMS
- OPEN SPACES
- BUILDING SYSTEMS



SUSTAINABILITY  
HANDBOOK

TRENDS DEFINED

