

Contemporary architecture & Urbanism

Lecture 7

Introduction

- Contemporary architecture **No single style is dominant;** contemporary architects are working in a dozen **different styles, from postmodernism and high-tech architecture to highly conceptual and expressive styles.**
- The different styles and approaches have in common the use of very **advanced technology and modern building materials.**



Design Principles of contemporary architecture

- **Transition**- one material to another (metal to glass)
- **Unity**- repeating shapes and surfaces
- **Proportion**- windows and beams can overpower the scale of other elements
- **Emphasis and Subordination**- focal points can vary from metal columns to large glass walls.



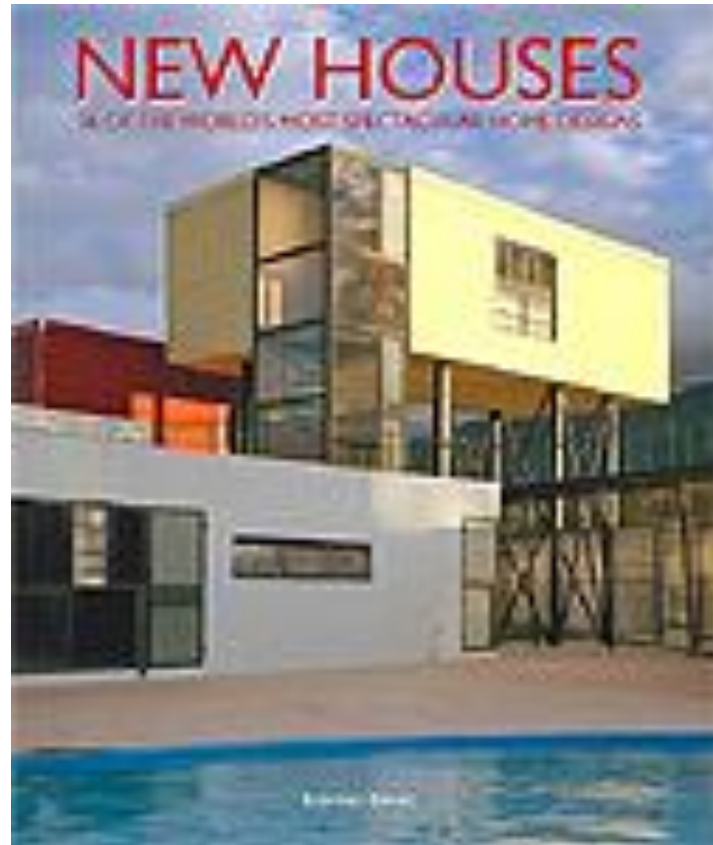
Characteristics of Contemporary architecture

- An adoption of the machine/industrial aesthetics
- Rejection of ornamentation
- Long straight lines



Number of Stories and Material

- Materials typically include a variety of metal, glass, and stone.
- Polymers and other “green” materials are being used.
- The majority of residential structures are 1 to 3 stories.
- Industrial and commercial structures have a wide variety of levels.



Topics in Contemporary Architecture

- High-tech architecture
- Modernism
- Novelty architecture
- Postmodernism
- Blobitecture
- Computer aided design
- Critical Regionalism
- Deconstructivism
- Sustainable design

Contemporary Urbanism

Ten principles of smart growth supported by contemporary urbanists

1. Mixed land uses
2. Compact building design
3. A range of housing opportunities and choices .
4. walkable neighborhoods
5. Distinctive, attractive communities with a strong sense of place .

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6. Preservation of open spaces , farmland, natural beauty and environmental areas
7. Development directed toward existing communities
8. A variety of transportation choices
9. Predictable ,fair , and cost effective development
10. Community and stakeholders collaboration in development decisions



Contemporary urban principles

The main principles to be applied to urban design are:

- contextual forms,
- geometry as a generator of forms,
- hierarchy, and
- interaction among urban elements.

Australia



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Contextual Forms;

- All the relevant information of location variables about a town could be summed up in one integrative document, taking the shape of a two or three dimensional composition of spots, lines and areas. This **the contextual spot representation of the town, the object of the urban designer's reading of forms.**

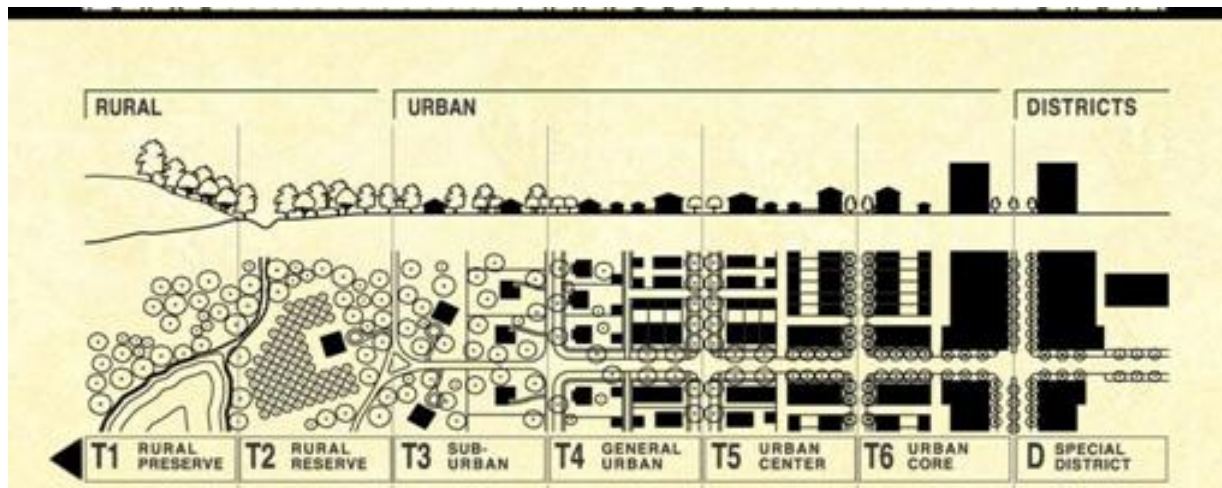


China Shanghai At Night

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Geometry as a generator of forms:

The theme or subject defined by the first principle has to be embodied in the structure of the urban space. It is necessary to yield **a geometrical ordering system composed of nodes, landmarks, paths, edges and districts.** Only the prominently evaluated components and their spatial relations form the **primary ordering system of the town.** It is proposed to regard the site as prominent components.



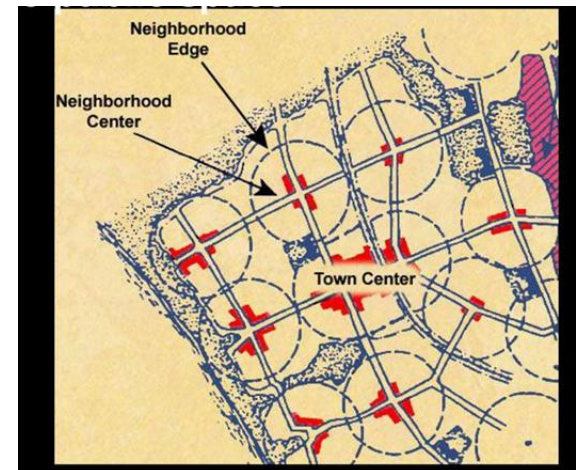
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Hierarchy:

- ❑ Concentration on previous landmarks and paths shows them to be areas defined by new sets of points and lines, and so further.

Interaction among Urban Elements;

- ❑ Any two urban elements are internally related if they are mutually conditioned. Internal relations between any two close elements; all along the urban design process, the influence of the generating system diffuses to further remote areas.



Sustainable and Green Building

- ❑ Definition of Sustainable Development "development that meets the **needs of the present without compromising the ability of future generations** to meet their own needs."
- ❑ Sustainable building materials can help **reduce carbon emissions and reuse materials without the need to cut down forests and add to environmental waste.**



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KA-CARE is conceived of as a research-focused, net-zero-carbon, and environmentally sustainable prototype city that would position Saudi Arabia as a global..

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K2 sustainable apartments in Windsor, Victoria, Australia by DesignInc.

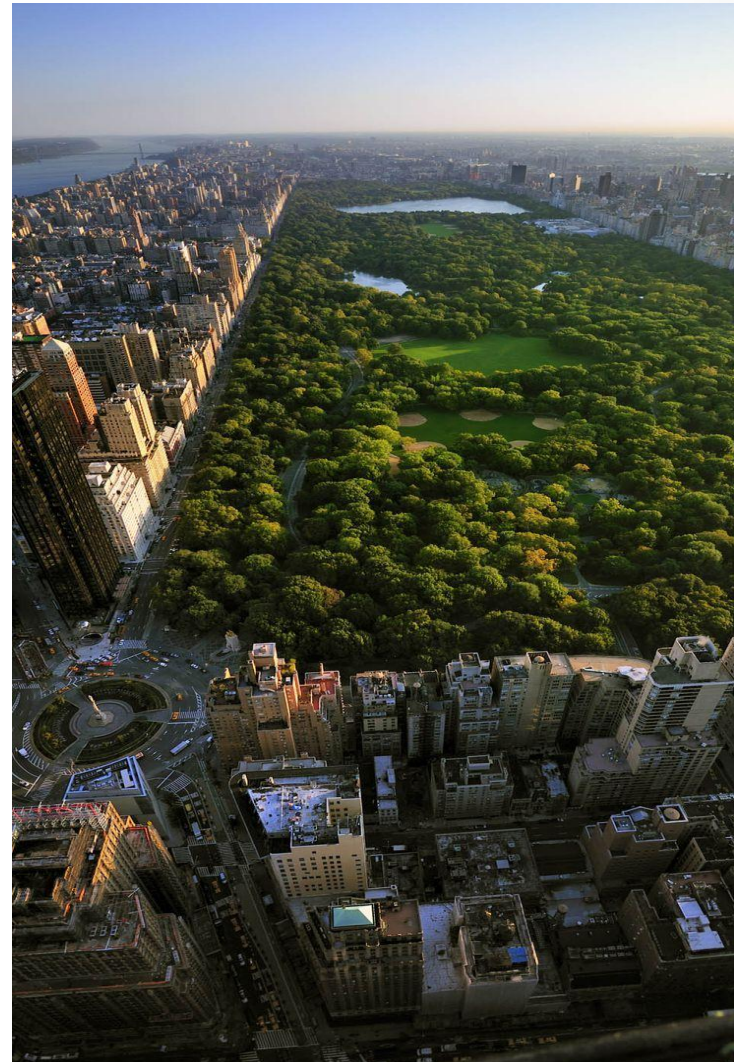
- features passive solar design, recycled and sustainable materials, photovoltaic cells, wastewater treatment, rainwater collection and solar hot water.

BedZED (Beddington Zero Energy Development), the UK's largest and first carbon-neutral eco-community: the distinctive roof scape with solar panels and passive ventilation chimneys.



Eco-cities: the utopia of urban development for Sustainability

- ❑ an eco-city is an **ecologically healthy city** and built off the principles of living within the means of the environment.
- ❑ Eco-cities are commonly found to focus on **new-build developments, especially in developing nations such as China,**



Central Park in new-york

Goals of eco-city

- ✓ to eliminate carbon waste,
- ✓ produce energy entirely by renewable energies,
- ✓ refrain land consumption,
- ✓ promote sense of community and incorporate natural environment within the city,
- ✓ triggering at the same time economic development.

Examples of Eco-cities

Yujiapu Financial District, China.



KL Eco-City, Malaysia



Tianjin Eco-City, China: reality.



THANK YOU