

## UPP550, Fall 2006

Purpose: To teach students concepts used to describe, analyze and design the physical organization of the built environment at different scales: block, district, urban and region. Students learn how to conceive different physical planning relationships at each scale.

### UPP550 Class Meeting Schedule

#### Part I: Physical Plans

8/31 1. The Physical Development of the Urban Region

9/7 2. The Physical Anatomy of the Urban Region

9/14 3. Making Physical Plans

#### Part II: Physical Planning Across Scale

9/21 4. Local: On the Block

9/28 5. Local: Streets and corridors

10/05 6. First Exercise Presentations

10/12 7. Neighborhood: Mixed use and TOD

10/19 8. Neighborhood: Arterials and parkways

10/26 9. Urban: Plans for Downtown and Parking

11/02 10. Urban: Commercial and civic places: Hierarchy of use and accessibility

11/09 11. Regional (water and rails): Plans for Transport and Water Quality

11/16 12. Linking and overlaying environmental and infrastructure systems

11/?? 13. Book Review Discussion (At a time and place TBA..Makeup Class)

11/30 14. Urban growth management and containment

12/07 15. Final presentations

# Topcial Outline

## Part I: Physical Plans

### 1. The Physical Development of the Urban Region

What relationships link the physical organization of urban settlements to the geography of a location and the social, economic, political and cultural activities that give that location purpose and value? How does the development process work to produce residential subdivisions, commercial districts and industrial parks? How do plans and planning regulations currently shape this process?

### 2. The Physical Anatomy of the Urban Region

Cities possess an ordered complexity that defies simple definition. If we consider the city analogous to an organism, we can map out the parts by function identifying interdependent specialized systems. What are the basic physical elements of the city and what relationships bind these physical parts together into a composite order?

### 3. Making Physical Plans

People have always planned urban settlements for specific purposes. Modern town planning emerged in response to problems of disorder that emerged with the complexity and scale of the modern city. The urbanization of society transforms natural environments into urban landscapes that now physically connect the entire globe. How should professional planners conceive physical development plans in such a global context?

## Part II: Physical Planning Across Scale

### 4. Local (pedestrian): Plans for residential subdivision and a commercial block rehab

Urban dwellings cluster geographically in a variety of ways. In the United States the block represents the primary geographic organization for these clusters. Block boundaries usually consist of streets. What are the basic forms of block formation and organization? How do different block configurations accommodate pedestrian activity and travel for residents, visitors and passersby? How do physical arrangements relate to beliefs about local community? How do physical arrangements shape the density, accessibility and use of dwellings and the nearby landscapes within and between blocks?

### 5. Streets and corridors: Blocks and districts

Residential uses account for the largest portion of all uses in most urban places in the United States. But transportation uses account for the second largest portion. The hierarchical and network relationships among layers of transport routes, vehicle storage areas and blocks of residential use account for most of the physical organization of

modern cities. At the most intimate scale we visualize the block polygon using a two dimensional map, but the tacit experience of the block occurs as we travel the street between the building faces. How do we compare the polygon and the street face corridors as elements of urban organization? What do the physical arrangements and activities at this scale contribute to the urban order (or disorder)?

## 6. First Exercise Presentations

## 7. Neighborhood (bicycle): Plans for commercial corridors and mixed use residential

The urban district or neighborhood rarely exhibits unambiguous physical boundaries. First, the construction of new infrastructure and buildings occurs in temporal cycles that may exhibit geographic concentration and different spatial patterns. However, residential clusters built up as geographically separate districts may over time find the open gaps between them filled in. [Sprawl describes this kind of development on the periphery of large cities]. Additionally, incremental changes to buildings and infrastructure can produce cumulative physical effects that change district boundaries and relationships. Second, local governments (school districts, municipalities [wards], special districts) set boundaries as do religious organizations (e.g., Catholic parishes) and other civic organizations (e.g., chambers of commerce, block clubs, neighborhood improvement associations). These often include physical markers, but usually include many other features as well. Third, professional planners developed conceptions of 'good' neighborhood design that combine physical and cultural features. There are contesting professional views about urban neighborhoods. How do we describe physical neighborhoods within cities? What ideas can we use to combine the different institutional and cultural features relevant for neighborhood identity? What does the physical organization of neighborhood contribute to the quality of urban community life?

## 8. Arterials and parkways: Subdivisions and neighborhoods

Urban districts include a variety of places; some that consist mainly of industry, others devoted to commerce, while the majority consist mainly of residential dwellings. But the kinds and combinations of dwellings vary with age, density and style. The inhabitants vary by geographic cluster based on differences in ethnicity, race, wealth, education and life style preferences. Neighborhoods in US urban places exhibit segmented homogeneity rather than patterns of mixed use or socioeconomic ethnic mix. How does the physical organization of urban neighborhoods and districts organize, reinforce or challenge this segmented homogenization? New Urbanist conceptions of urban districts envision a mix of dwellings (density and type) and residents (ethnicity and income), but how does this ideal fit with the current realities of urban neighborhood development?

## 9. Urban: The Physical and Spatial Organization of the City

The city offered a more obvious physical container before the industrial revolution and the scientific revolution bound city and countryside together using engineered networks

of infrastructure. Rail and roadway systems provide the scaffolding for urban decentralization and commercial concentration. The modern building cycles generate geographic waves of boom and bust real estate development that initially cluster along rail stations and segments of street grid. Later, with the expansion of auto ownership the parkway and freeway systems open up vast portions of the urban periphery for urban development. As we consider the vast physical expanse of urban regions, how would we describe the difference between city, suburb, exurb and town? If we ignore municipal government boundaries and focus solely on the physical features of the built environment, how would we distinguish urban from suburban and more? How have urban centers (Civic and CBD) changed and what do these changes mean for the overall order and organization of the city? How has the urban periphery changed and what do these changes mean for the overall order and organization of the city? How do we design the physical form of entire cities?

#### 10. Urban Places: Accessibility, centrality and interaction

Modern cities combine civic and commercial activities in overlapping, intersecting locations arranged in complex hierarchical orders. What geographic combination of activities contributes to the formation and reproduction of an urban place? What kind of spatial organization and physical arrangement of buildings need be included in a place for us to call it urban? How do we identify and represent different patterns of spatial organization and physical order that keep the urban focus [neither collapsing back into district building blocks or expanding laterally into regional network linkages]? How can we distinguish the physical differences among urban, suburban, exurban and town?

#### 11. Book Review Discussion

#### 12. Regional: Ecological Conceptions of Regional Development

Most human settlement has provided havens against unpredictable natural disruptions and disasters. Modern urban societies afford much more dramatic predictability than earlier settlements, but the vast physical extension of infrastructure and facilities generates effects that threaten many of the natural and ecological systems themselves. Air pollution from auto traffic in a regional air basin undermines public health, while emissions from coal plants generate acid rain that destroys plant and animal life in the waterways and lakes of neighboring regions. The vast physical scale of urban regions generates new forms of environmental and institutional interdependence that has little historical precedent. The physical infrastructure systems that link each region with the world also form patterns of intersecting interconnections and interaction that generate new uncertainties. Once planners imagined urban regions organized around a dominant physical center, but the physical complexity of modern urban regions makes a single hierarchical order less appropriate. How do we conceive the physical relationships between encompassing natural systems and the organized infrastructure of massive urban regions? How can we describe these relationships in ways that anticipate the production of unnecessary complexity and uncertainty, recognize and institutionalize unavoidable

interdependence and conceive alternative physical arrangements that promise to yield more sustainable and efficient effects?

### 13. Linking and overlaying environmental and infrastructure systems

The vast majority of people in the United States live in urban settlements, places tied together by physical infrastructure systems that tame (or claim to tame) most uncertainties of nature. Rural life tied to agriculture involves less than five percent of the total population. The homogeneity of physical infrastructure provision makes average commute and shopping times, cell phone service, internet access, TV programs, electrical power and more available almost anywhere in the Continental US. Ironically, users seldom experience the physical location, organization and development of the infrastructure that makes all this possible. [Exceptions include sitting on the freeway in traffic or inhabiting a dwelling near a cell phone antenna]. The direct and cumulative physical effect of these systems remains difficult to perceive without purposeful attention and study. How do we identify and assess the environmental effects of urban expansion and growth? How do we simulate the complexity of the interactions and use these models to anticipate future effects?

### 14. Urban growth management and containment

Over a hundred years ago Ebenezer Howard argued for the concept of green belts to contain and separate the rapidly expanding industrial regions in England. Regional planners in the US have long elaborated on this conception seeking ways to contain the powerful pressure to build the city outward at the edge. Portland Oregon offers the most well known current example in the US of an urban region that combined planning and political power to contain urban growth. What are some of the arguments for the physical containment of the city and what sorts of strategies can and should be used?

### 15. Final presentations

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First exercise

Second exercise

Comparative Book Review