Urban Ecology – *Patterns of urbanization*
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I. The world’s population is increasing – especially in Asia and China.

II. The proportion of the world’s urban population is increasing.
   1. Early cities (e.g. Mesopotamia) before 3000 B.C. – populations of ~10K, took 5K YEARS for urban pop. to reach 1st 1B (now it takes ~20 yrs).
      a. Industrial cities (factories, economy of scale) grew in the 19th century – London was one of the largest cities in 1800 (pop - 900K) and had significant pollution/ health problems.
         *Industrial melanism = darkening of species due to air pollution. Peppered moths are iconic examples of (urban) evolution by natural selection.
      b. In the early 20th century the U.S. urban pop. exploded leading to the emergence of the “megalopolis” (multiple adjacent cities forming one urban area).
         i. These megaregions are especially big in Asia (HK vs. PRD)
      c. Post-industrial cities (after 1970) emerged with the switch from manufacturing to service sectors in cities.
         i. Globalization, change in spatial organization (e.g. Silicon Valley), social inequality.
   2. Majority of the world is now urban (as of ~2010) – the U.S. has been mostly urban for most of the 20th century. China’s population also just recently (~2005) became mostly urban.
   3. Why is the world becoming more urban?
      a. Demographic transition – Stage 1 – high birth and death rates, Stage 2 – early development, lower death rate, Stage 3 – urbanization lower birth and death rates, Stage 4, 5 – low birth and death rates, population stabilization or decrease.
      b. Population growth increase within urban areas.
      c. Immigration *into* urban areas – in the U.S. the number of foreign born immigrants is increasing rapidly (e.g. California).

III. Size of urban areas and populations are increasing
   1. The number of cities with 1 million people has increased from 1 in 1800 to ~400 today (w/ high concentration in Asia).
   2. Nearly 20% of the world population lives in cities over 1M.
   3. Growth in area of cities has also increased dramatically worldwide – China has the highest growth rate (in area) worldwide.
   4. Big cities are getting bigger! Ave. pop. size is increasing. But still most people live in smaller cities (<0.5M pop. size).
   5. Rate of urban land expansion generally increasing faster than pop. (urban pop. growth/urban land growth < 1)– expansive vs. compact growth.
      a. Some areas more dense than others (e.g. USA < Europe).
      b. Density differences have important area impacts.
      c. Population density tends to decrease away from the city center (though peripheral areas are also increasing in density over time).
IV. Suburbanization, disurbanization, reurbanization, exo-urbanization

1. Urbanization – settlements grow, countryside/agriculture converted.
2. Exo-urbanization – urbanization (often at very rapid rates) caused by foreign investment and labor- and export-based needs.
3. Suburbanization – development of areas just outside the urban zones and within commuting distance of the urban center.
   a. Pros – cheaper rent, more land/ space, community building.
   b. Cons - increased driving/ travel time, decreased energy efficiency, increased traffic congestion, conversion of wild/ agricultural land.
4. New town – self-contained settlement outside the urban core but dependent upon core (or cores) for employment etc.
   b. Now adopted throughout much of the world, e.g. Singapore.
5. Disurbanization (or counterurbanization) – core pop. drops and but is not replaced by increases in the ring/ suburbs (urban pop. decline).
   a. Detroit is a good example of this (~5% decline recently).
   b. “White flight” and racial dynamics often parts of disurbanization.
6. Reurbanization – core population rises again (limited empirical data).

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How do these patterns apply to Hong Kong?

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V. Slums, squatters and shantytowns

1. “‘Slum’, at its simplest, is ‘a heavily populated urban area characterized by substandard housing and squalor’.” –UN-HABITAT
   a. High pop. densities and sub-standard housing (declining quality or illegal settlements).
   b. Characteristics of urban poverty: inadequate income, shelter, infrastructure (sanitation, foot paths, drainage) and basic services (child care, schools). Limited to no political power.
2. Slums growing at a significant pace (esp. in Africa and S. Asia).
   a. Often grow due to wealth inequalities, immigration, lack of income
3. Off-world – “fantasy-themed walled subdivisions on the periphery”.
4. China has had a unique urbanization without large urban slums or reforming of them (e.g. Chengdu).
5. Kowloon Walled City, demolished in 1992, was one of the most densely populated places on earth at the time (more than 100 times more dense than HK currently). Sub-standard impoverished populations still exist – “caged men”, asylum system.