MOBILITIES, TECHNOLOGIES AND SUSTAINABLE DEVELOPMENT

Kubatbek Muktarbek uulu, PhD.

Mail: muktarbek_k@auca.kg

Today's topics

- **Walking cities, transit cities and automobile cities**

Automobile cities, the car culture and alternative possibilities

Walking cities, transit cities and automobile cities

Urban life extends back thousands of years and over this long period of time all cities were basically dependent upon walking for their circulation needs.

Many walking cities were also walled cities and all growth had to be accommodated by increasing densities and intensifying the mixture of land uses.

The surrounding countryside was preserved for farming or natural open spaces such as wood lots and forests (Newman and Kenworthy, 1999). Walking cities are conceptualized in Figure 2.1.

TRADITIONAL
WALKING CITY

Up to 1850 in Europe

- High Density
- Mixed Use
- Organic Structure

Figure 2.1 Conceptual diagram of the walking city

Source: Peter Newman and Jeffrey R. Kenworthy

No one in a walking city was locationally disadvantaged in a transport sense, which cannot be said for cities today, designed around the automobile.

In automobile cities, many people who live in the outer suburbs and urban fringe in order to find cheap land discover that their access needs are difficult to meet by any mode apart from the car.

The Chinese city is still today largely a walking and cycling environment; but this is changing very dramatically as millions of people avail themselves of cars, and the environment for pedestrians and cyclists is severely disrupted (Kenworthy and Hu, 2002; Kenworthy and Townsend, 2002).

Today there are many examples from around the world of walking cities that became overrun with cars during the 1950s and 1960s, but which, over a period of time, have gradually reclaimed their walking qualities (e.g. Freiburg and Munich in Germany and Copenhagen in Denmark).

Transit cities

The transit or public transport city emerged in the industrial world around 1850 with the advent of new transport technologies – namely, the revolutionary steam train and electric tram. Preceding these modes were the horse-drawn tram operating on wooden tracks and the steam tram, pulled by chains, which were powered from a stationary steam engine.

These modes facilitated faster travel (on average, a jump from about 5km/hr to 15km/hr) and, hence, bigger cities, although all urban development had to remain within an easy walk or bicycle trip of the tram stops or rail stations.

- Figure 2.2 conceptualizes the urban form of the typical transit city, showing the two clear types of urban form of tram-based inner suburbs and distinct nodes or urban villages around railway stations on the steam train and later electric rail lines.
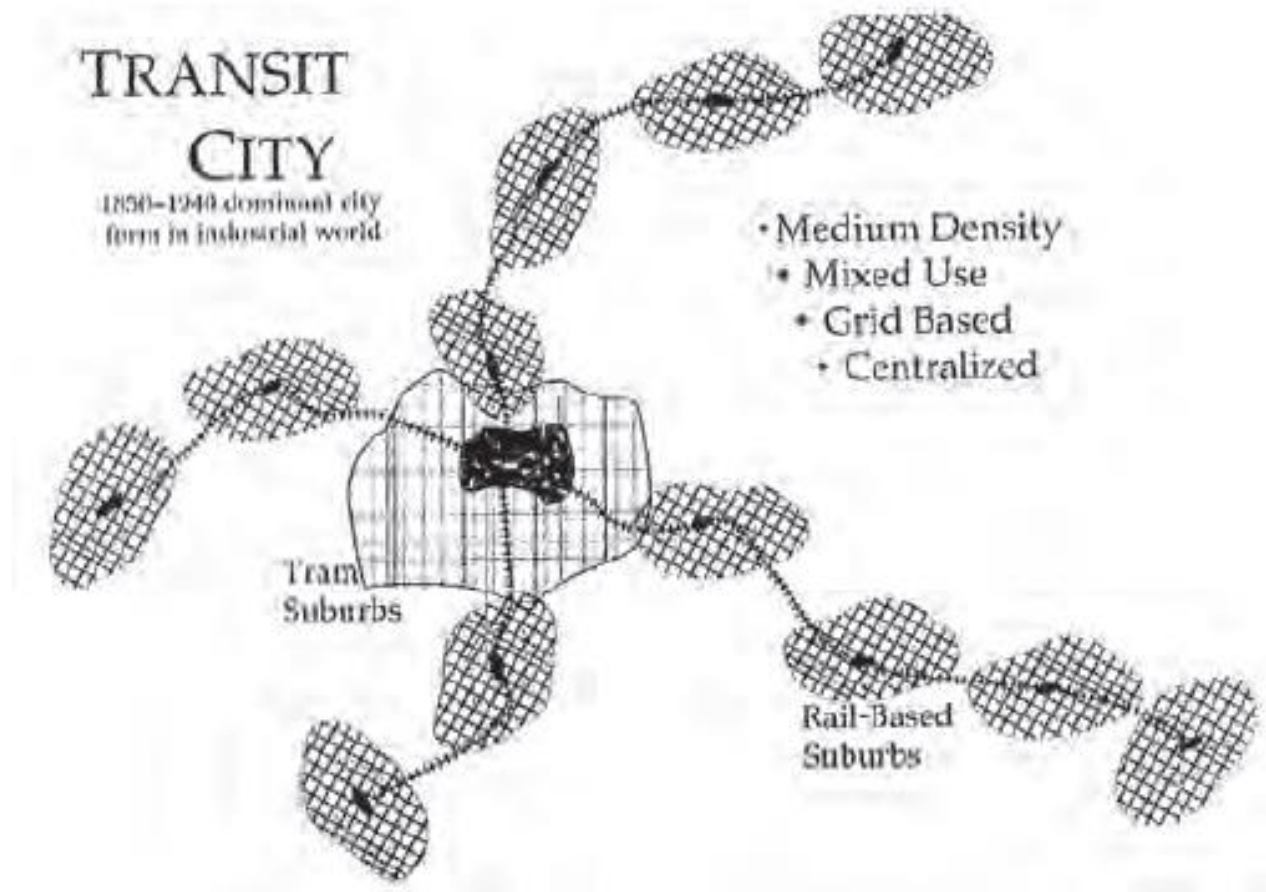

TRANSIT CITY
1850–1940 dominant city form in industrial world

- Medium Density
- Mixed Use
- Grid Based
- Centralized

Tram Suburbs

Rail-Based Suburbs

Figure 2.2 Conceptual diagram of the transit city

Source: Peter Newman and Jeffrey R. Kenworthy

11

- This type of city gained ascendancy in the industrial world, and during the period from about 1850 to 1940 it tended to be the dominant type of city form in industrialized countries.

- In other less developed parts of the world where new technologies did not take off in the way in which they did in the Western world, the walking city remained dominant. These cities have had a less welldefined period of public transport development, if any.

- The influence of transport technologies on the quality of public spaces in cities and the nature of social relations is clearly seen in the kinds of attractive and interactive public realms that have been created in many cities where transit systems have been given priority in city development.

Automobile cities

- Whatever one's particular outlook is on what the automobile has done for urban societies, it is universally agreed that it has brought enormous change. Figure 2.3 provides a conceptual diagram of the archetypal automobile city, showing the enormous expansion of developed area relative to the walking and transit cities, which its use has facilitated.
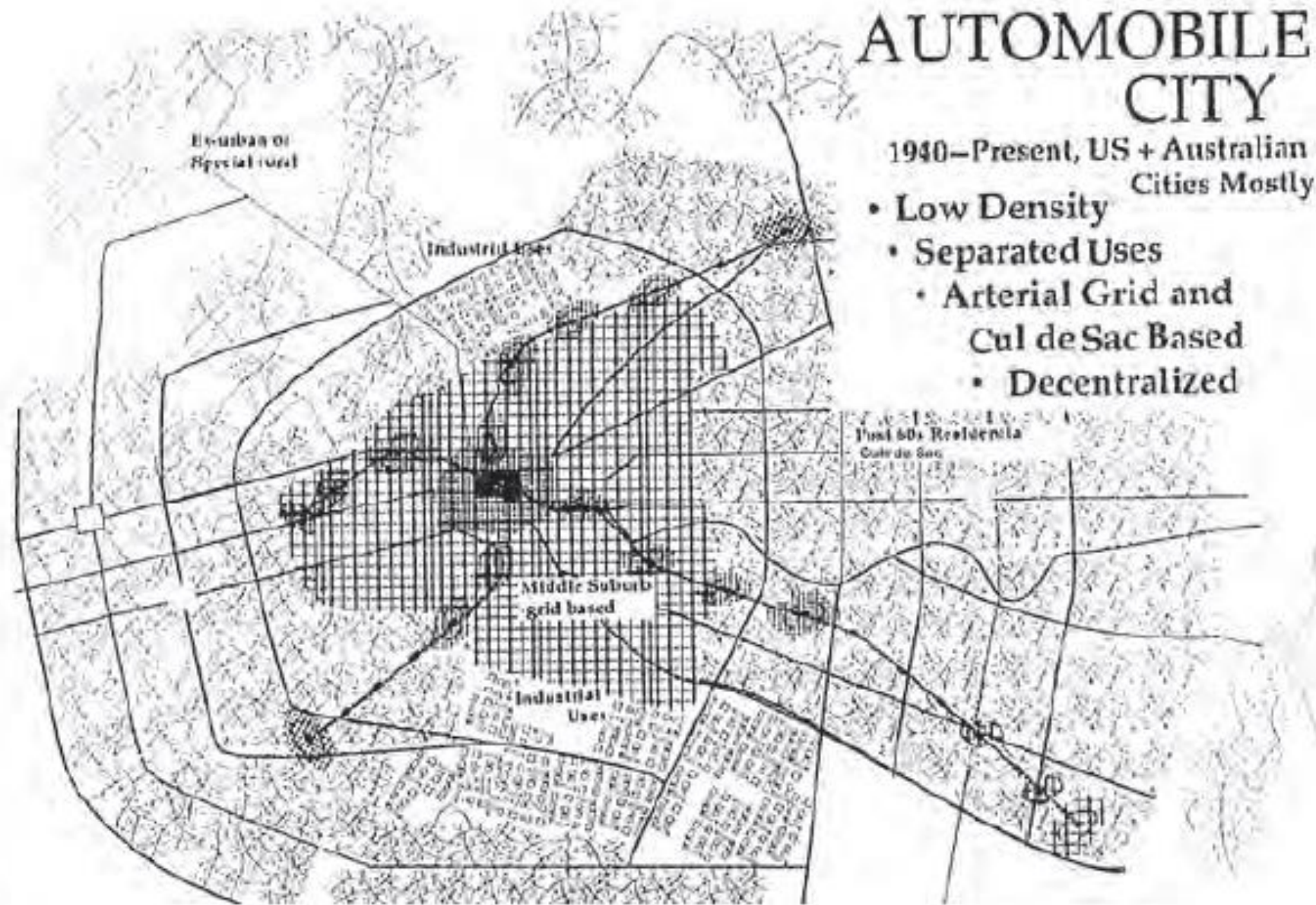
AUTOMOBILE CITY

1940–Present, US + Australian Cities Mostly

- **Low Density**
  - **Separated Uses**
    - **Arterial Grid and Cul de Sac Based**
      - **Decentralized**

Ex-urban or Special rural

Industrial Uses

Post 60s Residential Cul de Sac

Middle Suburb grid based

Industrial Uses

Figure 2.3 Conceptual diagram of the automobile city

Source: Peter Newman and Jeffrey R. Kenworthy

The complex of social factors that buttress and maintain automobile dependence may be termed the 'car culture':

- cultural, philosophical and institutional underpinnings – critique and criticism of the automobile's symbolism, belief systems, mediating factors and roles of institutions such as education, industry and government;

- role of the mainstream media – broadcast (radio, television), print, cinema and web-based in shaping perceptions and values surrounding the automobile;

- advertising – the packaging, selling and promotion of the automobile;
- music, music videos and popular entertainment;
- literature (automobile travel as a theme);
- carchitecture – the ways in which buildings are designed to accommodate automobiles and show their most important features to passing motorists, as well as the enshrining of automobile aesthetics;
- tourism – much of which is dependent upon motoring, especially in the wealthier countries.

Ford Pony Girl Mustang

Thank you for your attention!