

Automobile Cities, the Car Culture and Alternative Possibilities.

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Sustainable Transportation within the Framework of Green Deal - SPHERE

Call: ERASMUS-EDU-2023-CBHE-STRAND-2

Project Number: 101128065

Agenda

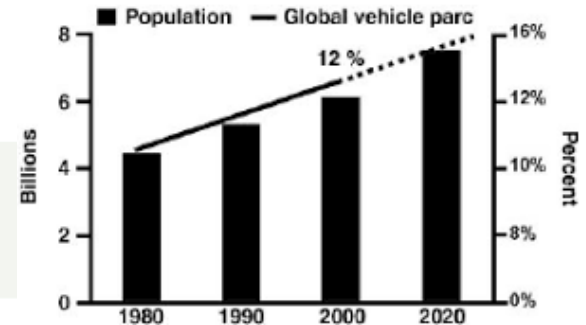
- Introduction
- Automobile Cities and Car Culture
- Challenges of Automobile Dependency
- Alternative Mobility Possibilities

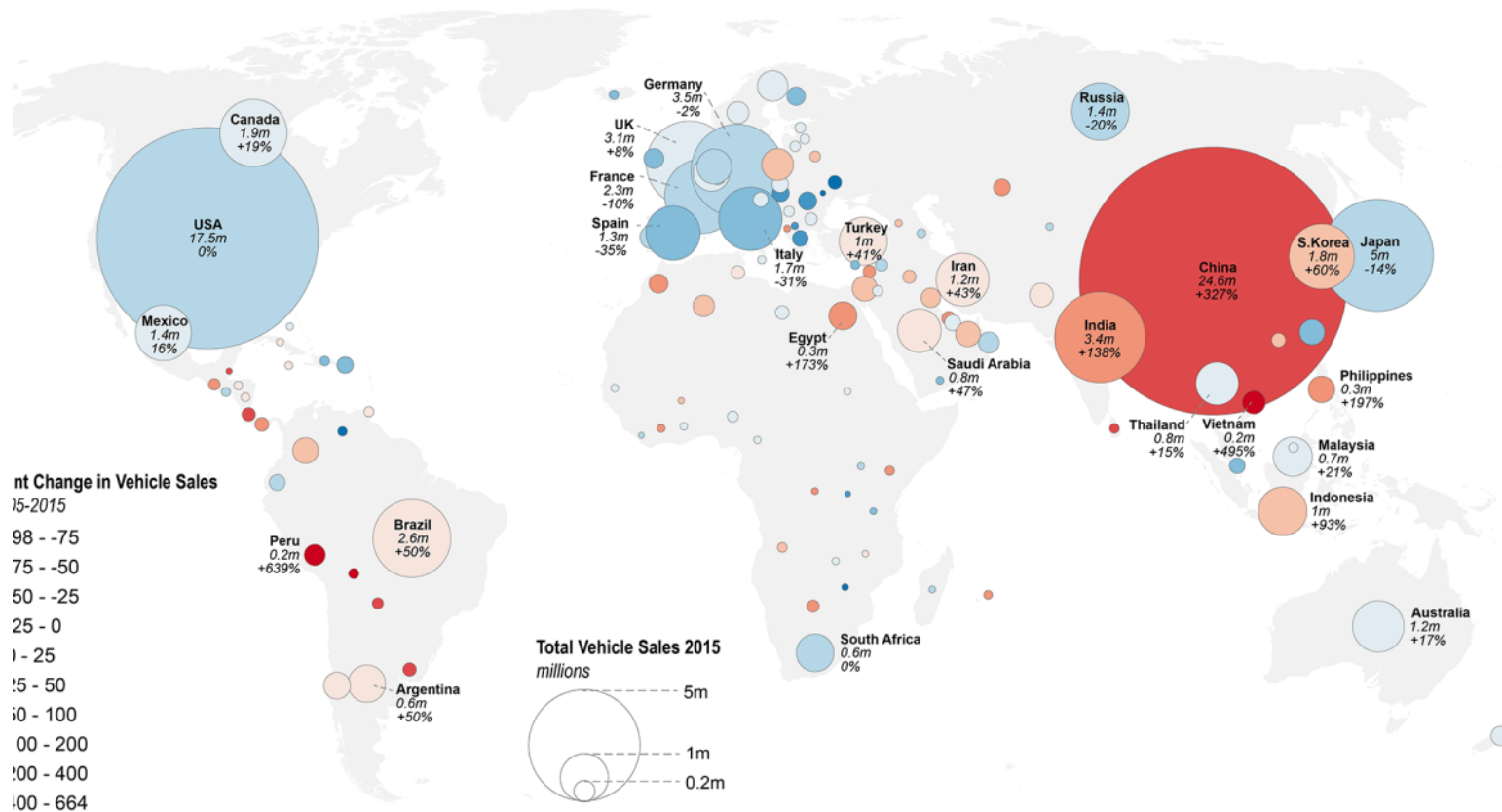
Introduction

Transportation is one of the most important components of modern society. Rapid urbanization, economic growth, and technological development have significantly increased global mobility. Private automobiles have become the dominant mode of transportation due to their flexibility and convenience.

Key Points:

- Transportation supports economic development.
- Urbanization increases mobility demand.
- Automobile ownership continues to grow.
- Sustainable transportation is becoming a global priority.





Design: Duncan A. Smith, citygeograph
 Data: International Organisation of Vehicle Manufacturers

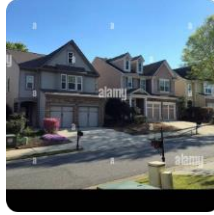
The Rise of the Automobile City

The 20th century witnessed a dramatic transformation of urban environments, largely driven by the advent and widespread adoption of the automobile. Cities, once designed for pedestrians and horse-drawn carriages, rapidly reconfigured themselves to accommodate the car, leading to significant changes in infrastructure, social patterns, and daily life.



Infrastructure Overhaul

Vast networks of roads, highways, and parking lots became defining features, often at the expense of public spaces and walkable neighborhoods.



Suburban Sprawl

The car enabled people to live further from their workplaces, fostering the growth of suburbs and a more dispersed urban form.



Economic Restructuring

Industries related to automobile manufacturing, sales, and maintenance boomed, shaping local economies and employment opportunities.

The Car Culture: A Double-Edged Sword

The automobile brought unprecedented freedom and convenience, but also introduced a range of challenges that continue to impact urban living today. The car became more than just a mode of transport; it became a symbol of status, independence, and the American dream, deeply embedding itself into the cultural fabric.

Benefits of Car Culture

- **Personal Freedom:** Unrestricted movement and access to distant locations.
- **Economic Growth:** Creation of jobs in manufacturing, sales, and infrastructure.
- **Suburban Development:** Enabled lower-density living and homeownership.
- **Convenience:** Door-to-door travel, especially for families and goods transport.

Drawbacks of Car Culture

- **Traffic Congestion:** Increased travel times and productivity loss.
- **Environmental Pollution:** Air and noise pollution, greenhouse gas emissions.
- **Urban Sprawl:** Loss of green spaces, increased infrastructure costs.
- **Public Health Issues:** Reduced physical activity, increased sedentary lifestyles.
- **Social Inequality:** Disadvantage for those without car access.



Environmental Impact and Sustainability Concerns

The environmental footprint of automobile-centric cities is substantial, contributing significantly to climate change and local pollution. Addressing these issues is paramount for creating sustainable urban futures.

Air Pollution

Emissions from vehicles contribute to smog, respiratory illnesses, and reduced air quality in urban areas.

Greenhouse Gases

Fossil fuel combustion in cars is a major source of carbon dioxide, accelerating global warming.

Resource Depletion

The production and operation of automobiles consume vast amounts of non-renewable resources, including oil and various metals.

Noise Pollution

Constant traffic noise impacts quality of life, stress levels, and wildlife in urban and suburban environments.

Alternative Possibilities: Public Transportation

Robust public transportation networks are a cornerstone of sustainable urban mobility. They offer efficient, cost-effective, and environmentally friendly alternatives to private car ownership, reducing congestion and pollution.



Trains & Subways

High-capacity systems that move large numbers of people quickly over long distances, reducing inter-city and intra-city car reliance.

Investing in and expanding public transit infrastructure is crucial for reducing car dependency and fostering more sustainable urban development.



Buses & Trams

Flexible and adaptable options for local and regional travel, often integrated with other transit modes.



Integrated Systems

Seamless connections between different modes of transport, making public transit a more attractive option than driving.

Promoting Active Transportation

Encouraging walking and cycling not only reduces reliance on cars but also offers significant health benefits and fosters more vibrant, community-oriented public spaces. Creating safe and accessible infrastructure for active transportation is key.

- **Dedicated Bike Lanes:** Separated infrastructure to ensure cyclist safety and encourage bike commuting.
- **Pedestrian-Friendly Zones:** Car-free areas, wider sidewalks, and improved crosswalks to prioritize walkers.
- **Greenways & Trails:** Networks of paths for recreation and commuting, connecting neighborhoods and natural areas.
- **Bike-Sharing Programs:** Convenient access to bicycles for short trips, reducing the need for personal car ownership.
- **Walkable Urban Design:** Mixed-use developments that place amenities within walking distance of residences.



Technological Innovations and Smart Cities

Emerging technologies are offering new avenues for optimizing urban mobility, from electric vehicles to intelligent traffic management systems. These innovations can complement traditional public transit and active transportation efforts.



Electric Vehicles (EVs)

Reducing emissions and reliance on fossil fuels, EVs are a cleaner alternative for personal transport.



Autonomous Vehicles

The potential for shared, self-driving fleets to reduce car ownership and parking needs.



Smart Traffic Management

AI-powered systems that optimize traffic flow, reduce congestion, and improve safety.



Mobility-as-a-Service (MaaS)

Integrated platforms that combine various transport options (public transit, ride-sharing, bike-sharing) into a single service.

Alternative Mobility Options

Public Transportation

- Metro and subway systems
- Bus Rapid Transit (BRT)
- Railway transportation

Active Transportation

- Walking infrastructure
- Bicycle lanes and bike-sharing systems

Smart Mobility Solutions

- Electric vehicles (EVs)
- Shared mobility services
- Autonomous vehicles



Thank you for your attention!

