

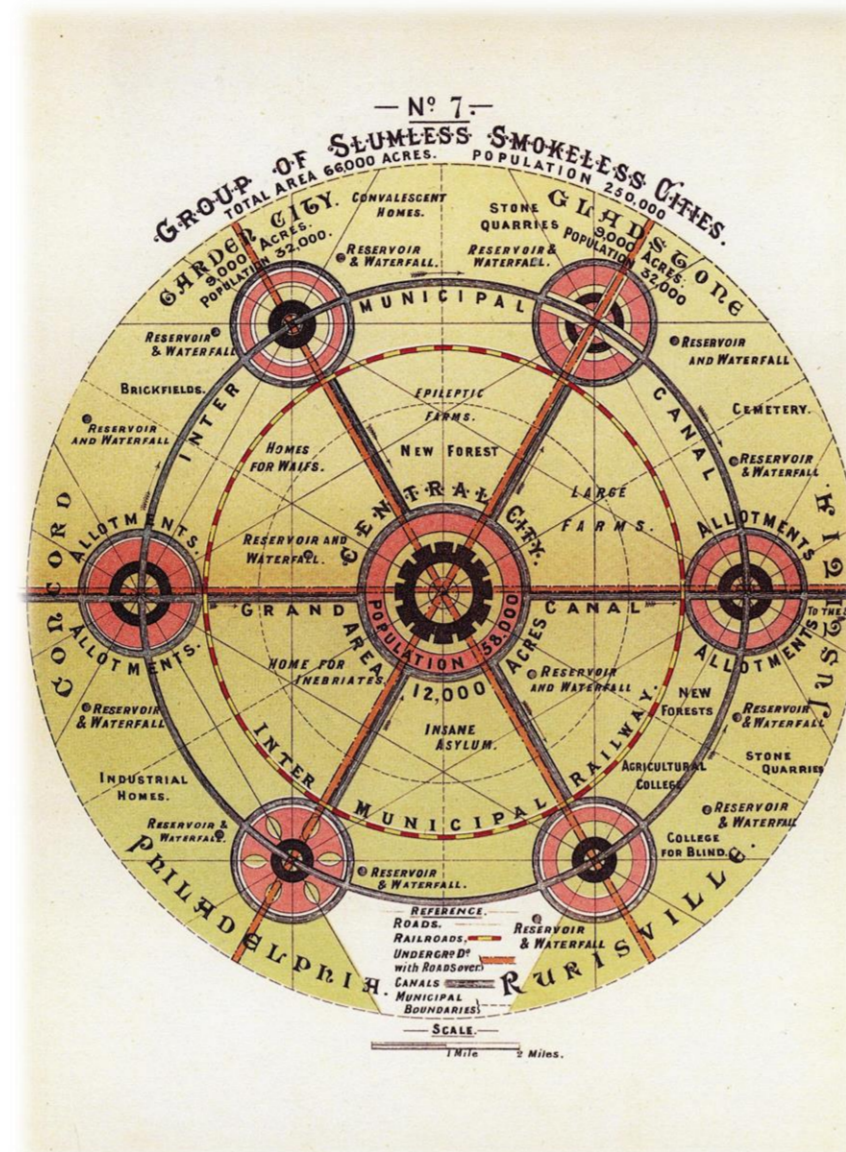
Urban density as health-related environmental factor in the 1970s

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Traditional views on the connection between high urban density and ill health

Since the birth of modern industrial cities, high urban densities have been connected to ill health and especially to infectious diseases. Besides facilitating easy transmission overcrowded conditions were viewed to negatively influence host resistance and create thriving conditions for many pathogens.

High density was also connected to the rise of non-communicable diseases. It was viewed to cause crowding stress which harmed both physical and mental health. Consequent social problems were aggravated by the presumed loss of community feeling in high density conditions.



Ebenezer Howard:
Garden Cities of To-
Morrow 1902



Phoenix urban sprawl
1972

Density concerns in urban planning

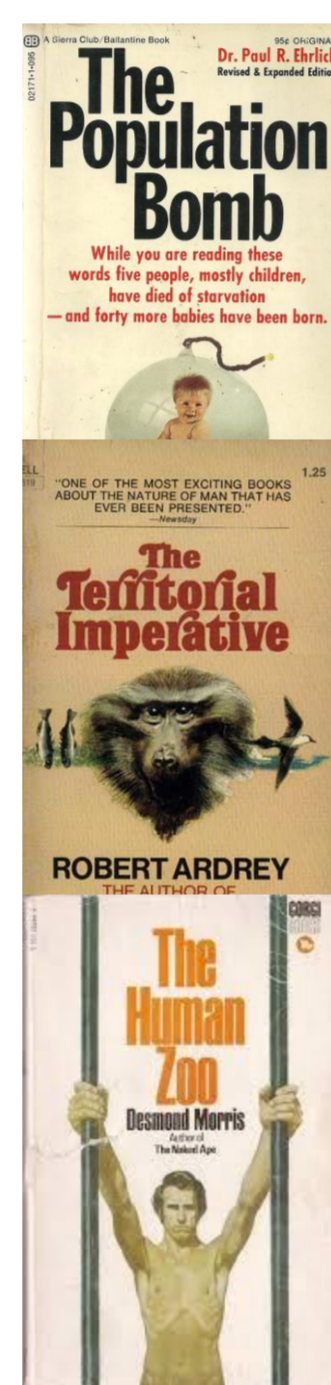
In the late 19th century, the emerging field of urban planning collaborated closely with public health. Density (and other) concerns led to massive urban renewal programs including parks, wider streets and demolition of old neighborhoods. Some planners envisioned even more radical ways to dissolve and restructure cities and metropolitan areas.

Ideals of light and air became important in early 20th-century modernism. Building codes defined minimum room sizes. Zoning codes aimed at land use regulation and control of density. The end result was slum clearances, grand-scale suburbanization and later automobilization.

The 1960s situation

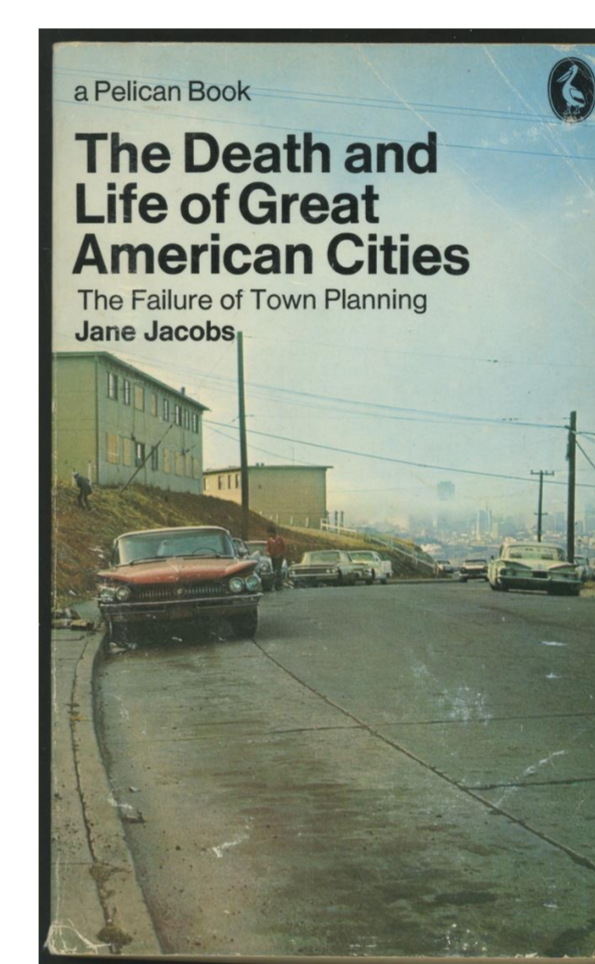
Rat experiments by John B. Calhoun showed the harmfulness of overt density to social behavior and instigated growing concern over human “behavioral sink” as well. Social unrest, urban riots and crime of the era seemed to prove these concerns justified. Growing awareness of ecological problems and population explosion added to the gloomy view of the future, and so did the best-seller books by popular ethologists, “bestializing” human behavior.

Due to the new emphasis on the negative behavioral consequences of overt density and the need to fight off the apocalyptic future, research on density became topical.



In public health and epidemiology:

The focus shifted away from infectious to non-communicable diseases (epidemiologic transition). The remaining infectious diseases were increasingly treated with new biomedical solutions such as antibiotics and vaccines. All this led to a relative neglect of the environment, including density, in epidemiology.



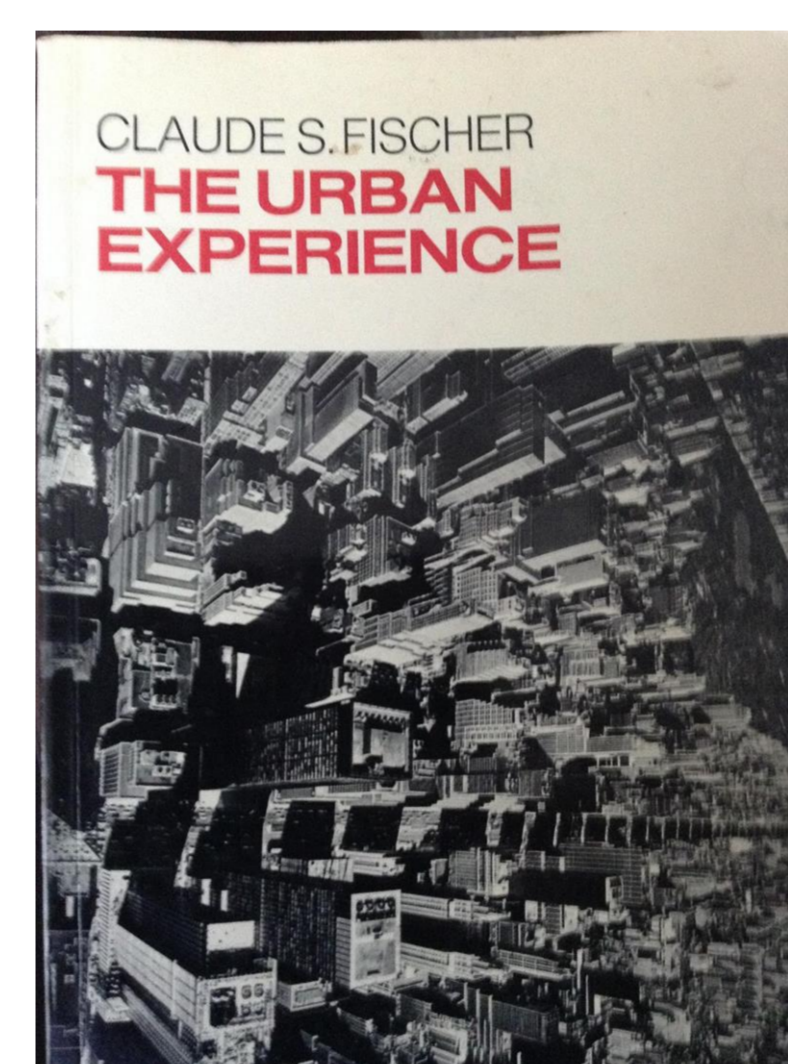
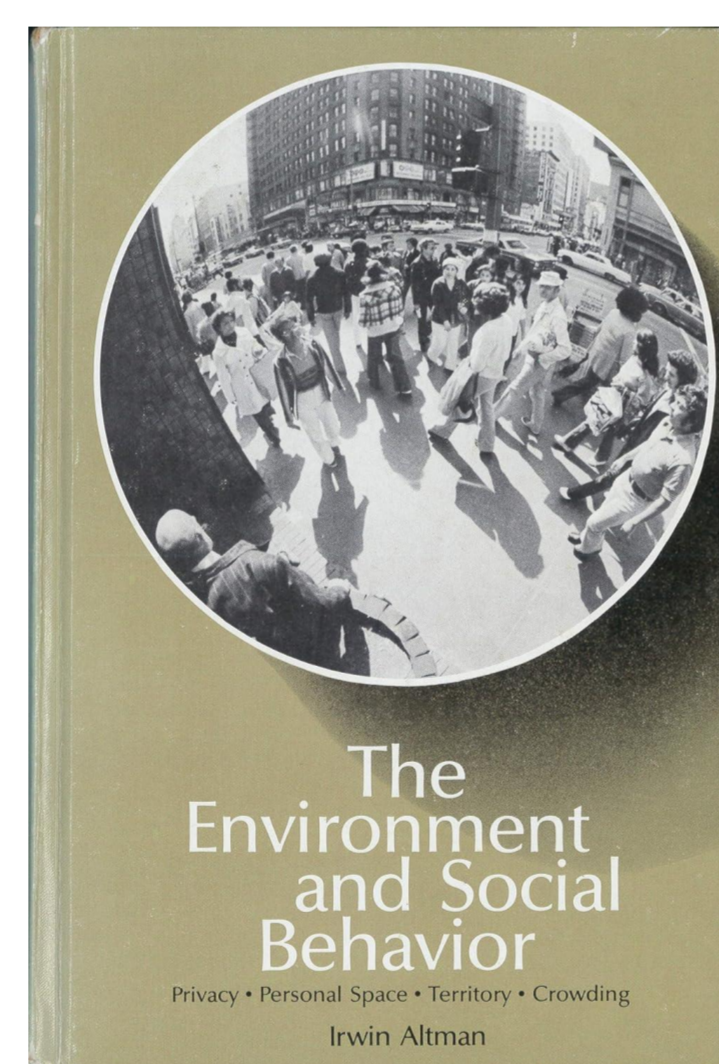
In urban planning:

Suburbanization development and demolition of overcrowded slums continued, especially in the US. At the same time, increasing critique towards urban sprawl increased. Jane Jacobs claimed that dense concentration of people combined with mixed land use would create conditions for positive social contacts and desirable urban life. Many sociologists criticized slum clearance projects that ignored the experience of inhabitants, and destroyed prospering communities.

New research

In this context, environmental psychology emerged as a new discipline, and density as one its central topics. Environmental psychologists experimented on the effects of crowding on task performance, behavior etc. and made many conceptual clarifications on density and crowding. Urban sociologists started to better control for socioeconomic variables in census-based studies on the effects of urban and in-dwelling densities and put emphasis on inequality and racism.

The unquestioned medical claim that high urban density had deleterious health effects started to crack. For instance, social epidemiologist John Cassel highlighted the importance of social environment, also with respect to infectious diseases.



Covid-19 pandemic brought infectious diseases back up in public health agendas. High density and crowding enhance the spread of respiratory infections. Despite this fact, decrease in urban density is not the most functioning solution.

Other factors that favored higher densities in the 1970s

Environmental concerns and oil crisis of the 1970s led to ecological and economical arguments about the benefits of higher urban densities. Dense cities could lead for instance to more effective public transportation, decreased traffic and pollution, shorter commutes, and better and more affordable public and private services. Accessible services also increased equality.



Redemption of high density in the 1970s sciences

At the end of the 1970s there was already a vast consensus that there is no clear correlation between high urban density and medical or social pathologies (independent of socio-economic status, income and education). Crowding was considered harmful under certain, partially unknown, circumstances (e.g. personal, cultural, social, situational, and cognitive aspects) but it could also have positive or neutral effects. Environmental psychologists emphasized adaptation and better planning that could for instance increase the possibilities to control one's privacy in high-density conditions.

Conclusions and consequences

The 1970s brought a substantial change in health-related views on urban density as the connection between high density and ill health became questioned. This change was inspired by new cross-disciplinary research and by new environmental and societal thinking and public health priorities. This shift in opinion allowed for new ideas on urbanism, the obesogenic suburban environment, “15-minute city”, walkable city and many more ecological considerations about the benefits of dense urban planning to boom in the following decades.

References

Sailo, A. The density-health connection in urban planning, 1920-1980, manuscript 2024.