URBANIZATION

- Population growth is lower
- Infant mortality is lower
- · Education is higher
- · Water is more accessible
- · Sanitation is improved
- More people have access to electricity

- Urban penalty people died faster in cities
 - No longer true, but what could cause this to emerge again?

SECOND NATURE

- The adaptation of nature to human needs – second nature
- A city a physical and social mechanism to acquire & deliver ecosystem services to a concentrated human population
 - Physical = infrastructure
 - Social = markets, government & community organizations
- *Still relies on First Nature*



TABLE 8.4	AN URBAN WAY OF LIFE REPLACES NATURAL ECOSYSTEM SERVICES (FIRST NATURE) WITH
	TECHNOLOGICAL INFRASTRUCTURE (SECOND NATURE), WHICH CHANNELS FIRST NATURE
	AND ADDS NEW RISKS.

Problems that appear in Second Nature	reflect continuing dependence on ecosystem services (First Nature). With high population density, sewage treatment plants are needed to serve as artificial streams and wetlands in which microbes can digest toxic or disease-bearing organic matter.
Wastewater (sewage)	
Inadequate or unclean food	City dwellers require food, but food systems can be disrupted by micro- parasites, human disorder, and poverty.
Dirty air	Vehicle and industrial emissions produce sulfur oxides and lead (no natural analog; effects can be delayed and subtle).
Solid and hazardous waste	Industrial materials and chemical hazards are not naturally recycled (no natural analog).

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WHY IS URBANIZATION A GRAND CHALLENGE?

- Capital intensive infrastructure needed
- Challenge of building infrastructure after the fact
- Poor cities lack planning and capital; maintenance a challenge
- Institutional and financial barriers
- Growing cities replace one landscape, largely natural in its functions, with one in which humans dominate
- Poor planning even in richer areas

JACOB RIIS (1849 – 1914)



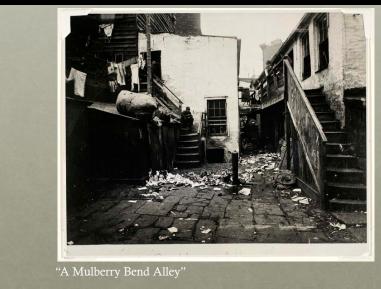
- Journalist ("Muckraker")
- Social Documentary Photographer
- How the Other Half Lives (1890)

JACOB RIIS – HOW THE OTHER HALF LIVES

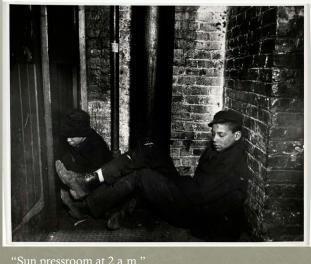


"Street Arabs, Mulberry Street, Retreat in Church Corner"

JACOB RIIS – HOW THE OTHER HALF LIVES



JACOB RIIS – HOW THE OTHER HALF LIVES



JACOB RIIS - HOW THE OTHER HALF LIVES



"Street Arabs in Night Quarters"

JACOB RIIS – HOW THE OTHER HALF LIVES

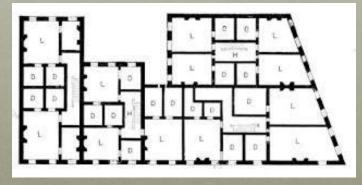


JACOB RIIS – HOW THE OTHER HALF LIVES



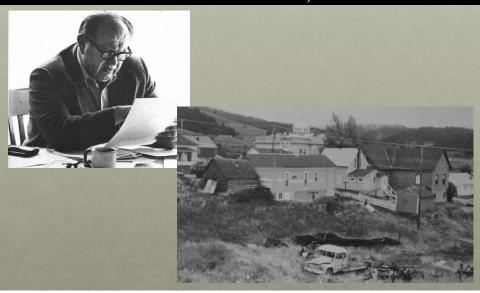
INTERIOR TENEMENT LAYOUT

What do you notice?



- D = Dark
- L = Light
- H = Hall

RICHARD HUGO & PHILIPSBURG, MT



Degrees of Gray in Philipsburg (1984)

You might come here Sunday on a whim. Say your life broke down. The last good kiss you had was years ago. You walk these streets laid out by the insane, past hotels that didn't last, bars that did, the tortured try of local drivers to accelerate their lives. Only churches are kept up. The jail turned 70 this year. The only prisoner is always in, not knowing what he's done.

The principal supporting business now is rage. Hatred of the various grays the mountain sends, hatred of the mill, The Silver Bill repeal, the best liked girls who leave each year for Butte. One good restaurant and bars can't wipe the boredom out. The 1907 boom, eight going silver mines, a dance floor built on springs—all memory resolves itself in gaze, in panoramic green you know the cattle eat or two stacks high above the town, two dead kilns, the huge mill in collapse for fifty years that won't fall finally down.

Isn't this your life? That ancient kiss still burning out your eyes? Isn't this defeat so accurate, the church bell simply seems a pure announcement: ring and no one comes?

Don't empty houses ring? Are magnesium and scorn sufficient to support a town, not just Philipsburg, but towns of towering blondes, good jazz and booze the world will never let you have until the town you came from dies inside?

Say no to yourself. The old man, twenty when the jail was built, still laughs although his lips collapse. Someday soon, he says, I'll go to sleep and not wake up. You tell him no. You're talking to yourself. The car that brought you here still runs. The money you buy lunch with, no matter where it's mined, is silver and the girl who serves your food is slender and her red hair lights the wall.

SKID ROW, LOS ANGELES



"Rats are likely contributing to a typhus outbreak on Los Angeles' skid row, experts say, prompting the city and county to take steps to reduce the spread of diseases." - Mark Ralston / AFP - Getty Images file

Think of the 3 examples:

List 3 words that come to mind.

Pair up and compare your words to your neighbors.

What do they have in common?

What do each of our examples have in common?

In what ways has urbanization been good?

In what ways has urbanization failed and why?

What needs to change?