



DO ARTIFACTS HAVE
POLITICS?

HOW DO MACHINES EMBODY POWER AND AUTHORITY?

- In controversies about technology and society, there is no idea more provocative than the notion that technical things have political qualities.
- At issue is the claim that the machines, structures, and systems of modern material culture can be accurately judged not only for their contributions of efficiency and productivity, not merely for their positive and negative environmental side effects, but also for the ways in which they can embody specific forms of power and authority.

LEWIS MUMFORD- DEMOCRATIC AND AUTHORITARIAN TECHNOLOGIES

- Since ideas of this kind have a persistent and troubling presence in discussions about the meaning of technology, they deserve explicit attention.¹
- Writing in *Technology and Culture* almost two decades ago, Lewis Mumford gave classic statement to one version of the theme, arguing that "from late
- neo-lithic times in the Near East, right down to our own day, two technologies have recurrently existed side by side: one authoritarian, the other democratic, the first system-centered, immensely powerful, but inherently unstable, the other but resourceful and durable."

TECHNOLOGY AND THE LANGUAGE OF POLITICS

- A long lineage of boosters have insisted that the "biggest and best" that science
- and industry made available were the best guarantees of democracy, freedom and social justice. The factory system, automobile, telephone, radio, television, the space program, and of course nuclear power itself have all at one time or another been described as democratizing, liberating forces.

WHAT DOES LANGDON WINNER MEAN BY POLITICS?

- By "politics," I mean arrangements of power and authority in human associations as well as the activities that take place within those arrangements.
- For my purposes, "technology" here is understood to mean all of modern practical artifice but to avoid confusion I prefer to speak of technology, smaller or larger pieces or systems of hardware of a specific kind.

MOTIVATIONS BEHIND TECH INNOVATIONS- ONLY EFFICIENCY OR SOMETHING ELSE?

- Studies of industrial machines and instruments also turn up interesting political stories, including some that violate our normal expectations about why technological innovations are made in the first place.
- If we suppose that new technologies are introduced to achieve increased efficiency, the history of technology shows that we will sometimes be disappointed.
- Technological change expresses a panoply of human motives, not the least of which is the desire of some to have dominion over others, even though it may require an occasional sacrifice of cost-cutting and some violence to the norm of more from less.

THE POLITICS OF URBAN DESIGN-

ROBERT MOSES

- Anyone who has traveled the highways of America and has become used to
- the normal height of overpasses may well find something a little odd about some of the bridges over the parkways on Long Island, New York. Many of the overpasses are extraordinarily low, having as little as nine feet of clearance at the curb. Even those who happened to notice this structural peculiarity would not be inclined to attach any special meaning to it.

URBAN TRANSIT SYSTEMS AND RACIAL DIVIDES

- It turns out, however, that the two hundred or so low-hanging overpasses on Long Island were deliberately designed to achieve a particular social effect. Robert Moses, the master builder of roads, parks, bridges, and other public works from the 1920s to the 1970s in New York, had these overpasses built to specifications that would discourage the presence of buses on his parkways.
- According to evidence provided by Robert A. Caro in his biography of Moses, the reasons reflect Moses's social-class bias and racial prejudice.

○

THE IMPULSES OF CLASS AND RACE

- Automobile owning whites of "upper" and "comfortable middle" classes, as he called them, would be free to use the parkways for recreation and commuting. Poor people and blacks, who normally used public transit, were kept off the roads because the twelve-foot tall buses could not get through the overpasses. One consequence was to limit access of racial minorities and low-income groups to Jones Beach, Moses's widely acclaimed public park. Moses made doubly sure of this result by vetoing a proposed extension of the Long Island Railroad to Jones Beach.

TECHNOLOGIES ARE WAYS OF BUILDING ORDER IN OUR WORLD

- From such examples I would offer the following general conclusions. The things we call "technologies" are ways of building order in our world. Many technical devices and systems important in everyday life contain possibilities for many different ways of ordering human activity..

TECHNOLOGIES ARE MEANT TO STRUCTURE OUR LIVES IN EVERY POSSIBLE SENSE

- Consciously or not, deliberately or inadvertently, societies choose structures for technologies that influence how we are to work, communicate, travel, consume, and so forth over people going a very long time.
- In the processes by which structuring decisions are made, different people are differently situated and possess unequal degrees of power as well as unequal levels of awareness

WHEN ARE TECHNOLOGIES INTRODUCED? WHAT ARE THE TRIGGERS?

- TECHNOLOGIES ARE INTRODUCED NOT JUST FOR ECONOMIC PURPOSES OF PRODUCTIVITY AND EFFICIENCY BUT ALSO TO GENERATE SPECIFIC FORMS OF POLITICAL AND SOCIAL OUTCOMES.

TECHNOLOGIES ARE MEANT TO ORDER AS WELL AS TO DISCIPLINE SOCIETIES IN FAVOUR OF HOLDERS OF CAPITAL

- 2 EXAMPLES- THE INTRODUCTION OF THE MECHANICAL MOLDING MACHINE TO MAKE REAPERS INTRODUCED BY MANUFACTURERS IN CHICAGO TO BREAK THE POWER OF THE SKILLED WORKERS' UNIONS WHICH WERE VERY ACTIVELY DEMANDING BETTER CONDITIONS OF WORK.
- THE MECHANICAL TOMATOE HARVESTERS INTRODUCED IN CALIFORNIA RESULTED IN THE DESTRUCTION OF THE SMALL FARMER AND THE MONOPOLIZATION OF TOMATO GROWING BY A WEALTHY FARMERS. RESULTED IN A RADICAL RESTRUCTURING OF AGRICULTURAL PROCESSING IN FAVOUR OF THE WEALTHY.

ROBERT MOSES' OVERPASSES IN LONG ISLAND



THE DELIBERATE LOWERING OF HEIGHT



THE MECHANICAL TOMATO HARVESTER

**a univ california's mechanical
tomato harvester**



\$50,000



THE REBUILDING OF PARIS TO QUELL CIVIC PROTEST IN THE 1850S – THE BOULEVARDS OF BARON HAUSSMAN



THE END OF THE NARROW ROADS, BARRICADES AND POLITICAL PROTEST

