

9-3. Differentiate, if you can, the spatial implications of workers, robots, cyborgs?

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The cyborg is the anti-worker, thoroughly capable of (if not driven to) revolt. If, as Le Corbusier suggested, the furniture as 'objet-membres-humains' is a servant, the cyborg is the fantasy of joining the self with the machine to become master; one might like to become the cyborg but you do not want one in your living room. Cyborg fantasies, however, have transformed our current understanding of the potential of robots as servants. In order for the precision-machine-prosthesis to function at its maximum potential, it needs to understand and speak your language and your learning processes. Efforts to study the language of robots and push the extremes of artificial intelligence aim to rationalize our thought-processes in order to improve relations between robots and humans –this interface is the site of reconciliation of the surrealists' and modernists' techno-imaginary fantasies as outlined by Anthony Vidler in his essay "Homes for Cyborgs."

Vidler (via Benjamin) notes that the "type objects" of modern rationalism and the "sentiment objects" of the surrealists both envisioned a "technological imaginary that would transform technology into the human and vice versa, into the prosthetic and potentially critical devices of the cyborg" (169). Both Le Corbusier's visions of furniture as prostheses and Max Ernst's illustrations of soft, emotional objects that act as mirrors of the self "animate" objects with an indescribable life-essence. However, whereas Ernst sought to breath unpredictable life into the rationalist home through psychologically compelling objects, Le Corbusier's cyborgian-objects equated the mechanistic with a subservient form of life. His subservient view of the "cyborg" corresponds with the concept of the robot and the Taylor(ized) worker, both controlled by a higher form of consciousness to perform with maximum efficiency. The spatial implication of both is one of confinement, subordinate to the spatial needs of the master, be it man or machine.

In the case of the Gilbreth's designs of furniture for Taylorism, the higher consciousness is the collected data from worker efficiency studies rather than the machine itself. The Tayloristic machine, Vidler notes, is a master of the body, a "[device] to control the body for its own good . . . bringing the organic into line with the social and economic systems of industrial production." The factory production line is the site of the earliest transformations of man's movements into machinic prosthetics. The linear progress of the production process (the machines) limits the mobility of the worker to a few precise movements. The vast dimensions of the space are also determined by the spatial needs of the machinery. Over time, the tasks of the production line that are dependent upon precision and speed have been automated, and the worker's tasks increasingly require decision making, such as sorting, performing an action until a visual cue is received, or monitoring the progress of a machine. The distinction between machine and worker is one of intelligence, and the worker gains control over the machine.

In the field of robotics and artificial intelligence, the early 20th century distinction

between rationalism and psychology is subordinate to a contemporary machinic understanding of intelligence and human consciousness. For example, the MIT Artificial Intelligence Lab was founded in 1959, with the explicit goal of engineering systems that exhibit intelligence (not emotion). The understanding of the nature of intelligence required an understanding of vision, robotics and language. These investigations ultimately led to the foregrounding of the need for emotional cues in human-machine communication. The distinction between rationalism and psychology is thus erased in the new cyborg – the robot that communicates in the same language as the master. In contemporary cinema, for example, the dilemma of the cyborg focuses on the presence or absence of emotion. In the film *Bladerunner*, to use a well-known example, the traumatic and foundational events of the cyborgs past have been pre-programmed; the cyborg cannot properly function as a servant without the Freudian emotions and memory that the surrealists such as Roberto Matta and Tristan Tsara brought to their visions of modernist techno-rational architecture. The cyborg roams freely throughout the city, convinced of it's own free will as the need for consciousness in intelligent decision making dictates.

*“In short, much of what is commonly attributed to consciousness is mythical . . . My view is quite the opposite: that some machines are already potentially more conscious than are people . . . However, this does not imply that those machines would thereby, automatically, become much more intelligent . . . In short, we are not much aware of what our bodies do. We're even less aware of what goes on inside our brains.” – Marvin Minsky, Published in "Machinery of Consciousness", Proceedings, National Research Council of Canada, 75th Anniversary Symposium on Science in Society, June 1991*