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Thought and Feeling in Giedion's Mechanization Takes Command

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An internal crisis within architecture and the way historiography both presents and conceals it, can be seen most strikingly in the contrast between two publications by the architectural historian Sigfried Giedion, Space Time and Architecture: The Growth of a New Tradition, published in 1941, and Mechanization Takes Command: A Contribution to Anonymous History, published in 1948. These two publications take us back to the scene of World War Two, the former during the war and after Giedion's affair with America, and the latter after the war. At the time of publication Giedion's former book, Space, Time and Architecture, was seen as a "blockbuster" by the architectural community (especially in the USA). The latter publication, Mechanization, did not receive a favourable response by the same professional community. Their contrasting historiography suggests that the internal crisis of architecture is in a constant struggle with architecture's exterior, in this case, war. Giedion's Mechanization can be seen as the shadow text of the progressive myth of the former. With a focus on Mechanization, the paper aims to open its discursive approach to history.

The post-war city is where Giedion's publications and my studies on "a gap of history" coincide and intersect. Giedion is fascinated with psychic factors shown in the recurring theme of the split between thought and feeling and exemplified in the dialectic between image and text. Drawing on psychoanalytic theory I argue that this functions as a mirror-stage in relation to a discourse on architecture and to architecture's disciplinary boundaries where the subject of architecture lacks the ideality and unity that is represented in the former publication.



The contrast between two publications by the architectural historian Sigfried Giedion, *Space Time and Architecture: The Growth of a New Tradition*, published in 1941 and *Mechanization Takes Command: A Contribution to Anonymous History*, published in 1948, illustrates an internal tension that has surfaced in the writing about architecture invariably in the form of binary dichotomies: architecture/city, design/planning, historicism/avant-garde, history/progress.¹ These two publications take us back to the scene of World War Two, the former in the beginning of the war and the latter during the war that kept him in America. The time of war is a pivotal marker as is the geopolitical interdependence between Europe and America, and the transatlantic exchange of architectural and intellectual capital. Giedion was to have an ongoing relationship with America, teaching at MIT, and becoming the Chair of Harvard Graduate School of Design. However, unlike the European émigrés (Gropius, Mies), he returned to live in Zurich, his hometown and the neutral Switzerland.² The opposing historiography of these two publications points to the politics of writing history of the present, and suggests that the internal crisis of architecture is in a constant struggle with architecture's exterior. This exteriority, while not the focus of either book, is conditioned by war and destruction.

The paper proposes that Giedion's *Mechanization* provides a scene in the discipline of architecture that can be explored as architecture's mirror-stage. The two publications mirror one another through the fracturing surface given by the date 1945. The mirror-stage in psychoanalytic theory proposes that the human subject is a lacking entity because that subject perceives the terrible split between its image in the mirror which is whole and unified, and its embodied person outside the mirror, visible only as a series of parts. In contrast to Giedion's previous publication, *Mechanisation* does not present an ideal, unified, progressive or heroic imagery of technology and architecture, but elaborates on the discarded and forgotten bits and pieces of history with an emphasis on the fragments of ordinary domestic life. While its focus is not on architecture but on a social history of mechanisation, it impacts on architecture firstly because Giedion is a significant author and a formidable figure in the architectural scene at the time, standing beside Gropius and Le Corbusier as co-founder and secretary of CIAM, the Congrès Internationaux d'Architecture Moderne, from 1928 to 1956;

1. Sigfried Giedion, *Space Time and Architecture: The Growth of a New Tradition* (Cambridge, Mass.: Harvard University Press, 1941; *Mechanization Takes Command: A Contribution to an Anonymous History* (New York: Oxford University Press, 1948).

2. See Douglas Tallack, "Siegfried Giedion, Modernism and American Material Culture," *Journal of American Studies* 28, no. 2 (August 1994): 149-67. I discovered this article after receiving the reviews of my paper. It confirms my sense that the difference of these two publications is significant.

and secondly because it announces a study of mass culture and standardisation as integral to modernisation. This paper proposes *Mechanisation* therefore gives a picture of the splits in the subject of architecture from outside of architecture.³ *Mechanization* also presents a structural value of the mirror-stage in discourse in that it brings to the foreground buried and repressed material within the discipline.⁴

3. Lewis Mumford, *Technics and Civilization* (New York: Harcourt, Brace and Company, 1934).

4. The mirror-stage will be elaborated later in the essay. See Mirjana Lozanovska, "Ontology of Building in War and Reconstruction," *Architectural Theory Review* 7, no. 1 (2002): 117-36.

5. Donald Fleming and Bernard Bailyn (eds), *The Intellectual Migration: Europe and America 1930-1960* (Cambridge, Mass.: Belknap Press of Harvard University Press, 1969).

6. Giedion, *Mechanization*, xxxvi.

War as History's Mirror

The historical context of the 1948 publication was after the uncovering of the concentration camps and the US nuclear bomb attack on Hiroshima (August 6, 1945) and on Nagasaki. By 1941 World War Two had affected the architecture discipline as revealed in the many emigrations to America, and by 1948, Europe was in ruins.⁵ *Mechanization*, strewn with confronting imagery, makes subliminal links between the phantasmatic horrors and brutalities of war evident in the ruin and rubble that Europe had become with the technologies of progress, evident in the automation and standardisation as platform for the rise of America. Does Giedion intuitively see technologies that have preceded and are indeed the teleological path of the history of human civilization in its ruins?

The mechanisation of meat production is painstakingly examined through an exhaustive collection of diagrammatic, scientific drawings, and photographic illustration of machinery that can skin or suspend an animal. This imagery is horrific now, but would it have not conjured imagery of the methods used for human torture in the concentration camps exposed just prior to publication? War is a time of rupture and has triggered disillusionment with progress.

In the introduction of the fifth edition of *Space Time and Architecture*, Giedion states, "In the first edition of *Space Time and Architecture* we posed the question: Destruction or transformation of the city?"⁶ At this time, it is a rhetorical question and Giedion continues to search for the expressions and technological innovations that give a new hope to the future of human society. However, the city destroyed by war is precisely the city that is not whole, not unified, the antithesis to the image of the ideal city.



While images of the ideal city pervade the histories of architecture and urbanism, scenes where the opposite is contemplated include the etchings of Piranesi presenting a fictive and real subterranean city of Rome, the unbuilt and drafted representations of the ideal society by Ledoux, the poetic and literary human-architectural figures of Hejduk, and the theories of scar, wound, scab by Lebbeus Woods explored through the projects of Sarajevo as a city at war. These moments reveal the ways the mirror-stage operates as a parallel field within architectural discourse. We repeatedly return to these scenes to perceive the many co-existing histories about architecture and the city in history. The city in history is not equivalent to the ideal image of the city. It is like the post-war city -alienated from its image as an ideal, fraught with conflicts about the present, past and future, structured through social disjunctions, alienations, oppressions, a city in pieces and in flux. The post-war city is precisely in the gap of history, unable to symbolise a unified and whole entity or be adequately presented through the symbolic parameters of form, plan, order and edifice. It may be significant to ask why the city is omitted from *Mechanisation*, and yet is an entire section in *Space Time and Architecture*, including “City Planning in the Nineteenth Century,” “City Planning as a Human Problem,” and “Space-time in City Planning”? Does Giedion believe that mechanisation and technological infrastructure is not integral to the strategies, processes, and agenda of planning? I don’t think so. In the section entitled “Destruction or Transformation,” in *Space Time and Architecture*, Giedion refers to the war: “Great cities sprawling open to the sky, their congested areas at the mercy of bombs hurtling down out of space, are invitations for destruction.”⁷ One of Giedion’s serious concerns was the split between architects and planners, but the destroyed cities of Europe were too severe a subject in 1948. Except for the last edition, there are no architectural plans, sketches, and very few photographs of buildings, and yet the book is laden with visual imagery of other subjects.

7. Giedion, *Space, Time and Architecture*, 543.

The Split between Thought and Feeling

Intriguingly Giedion does not approach the subject of mechanisation at the mega scale of destruction even if at the time every home must have been infiltrated by the voice of the radio detailing the advancement of fighter jets as well as descriptions of bombs and bombardments. His attention turns to the “anonymous

history of our period, tracing our mode of life as affected by mechanization—its impact on our dwellings, our food, our furniture.”⁸ The sheer detail of the research that substantiates this anonymous history makes the work formidable. An examination of the processes of work, manufacturing, production, the invention of the factory worker, focussing on such subjects as the assembly line, scientific management, the effects of industrialisation on food production are subjects that appear very distant from the more conventional topics in design, art and architecture. Subjects closer to the established boundaries of the discipline, such as the automation of the human body, are approached with a different emphasis. The contents list of the publication is six pages long, detailing each general area with an exemplification of points for closer inspection. The subjects are curious and include “Mechanization Encounters the Organic,” and “The Nineteenth Century: Mechanization and Ruling Taste.” The contents pages also reveal a focus on domesticity and interiors producing a publication that is not looking at facades, forms, and composition of architecture more typical of the discourse during the modernist period.

And yet it is looking at architecture as if from outside its canonical boundaries. The publication is therefore immensely distinct from other publications related to architecture and yet written by the historian that has also written the most popular book on architecture at the time. Giedion’s meticulous attention to the ways mechanization has “taken command” reveals his interest in psychic factors and the recurring theme of the split between thought and feeling. What does Giedion mean by this? This split is evident in the dialectic between image and text, and exemplified in the complex visual imagery of *Mechanization* as it oscillates between extensive detailed exemplification of machinery and domestic interiors. Artistic images provide an interval in the sheer volume of technological and scientific detail, and yet through their strange association with the subject suggest a crisis of the historian as subject. By writing *Mechanization*, Giedion’s role as historian becomes an obsessive collector of the bits and pieces of humanity, information and documents that have often been overlooked and discarded, and how these are linked to much more “normal” scenes of daily life. He critiques previous approaches to history as “historical blindness” and “this murder of history” but implicitly reflects on his own oversight.⁹ Giedion thus gives rise to several factors about historiography and the historian that are not new but he brings them to the foreground of architectural



discourse: how does a historian address exclusions and inclusions, how to attend to the things that are repressed within a field and yet are present in everyday life; how to write history when documents and records are not available or minimal; how to negotiate the historian's interest and disinterest compared to that of the audience.

Giedion's sense of loss evident in the recurring theme of the split between thought and feeling is outlined in the Foreword that links the two publications: "I attempted to show the split that exists in our period between thought and feeling. I am now trying to go a step further: to show how this break came about, by investigating one important aspect of our life—mechanization." Giedion has already sensed intuitively a problem underlying the perceived spirit of the age, and then makes a plea that the coming period, after 1948, "has to bridge the gap" between thought and feeling.¹⁰ This recurring theme is at once a deep concern about human nature as an outcome of mechanization, an anxiety about then present state of things, and an ethical concern about the writing of history. Giedion's lament of the split between thought and feeling is the threshold for the enquiry in this paper. In the text this is repeated like a literary chorus, a lament rather than rationally explained or analysed. It is like the chorus in ancient Greek tragedies suggesting a collective in addition to an individual loss, and a poetic trope of repetition that signals despair rather than critical comment or explanation.

10. Giedion, *Mechanization*, v.

Seven hundred pages elaborate the ways in which technology is integral to our most intimate activities. The sense of disassociation is evident in Giedion's shifts from his early studies in engineering, a series of key events until 1946, when Giedion took up a teaching position at the Federal Institute of Technology (ETH) where he later became professor of art history. Giedion's own complex subjectivity enters this dilemma of the split between thought and feeling, and the fascination and yet horror towards mechanisation evident in the visual trajectory of the publication.

A Gap of History

Giedion's *Space, Time and Architecture* was seen as a "blockbuster" by the architectural community (especially in the USA) at the time of publication. The latter publication, *Mechanization*, did not receive a favourable response by the

same professional community, is not acclaimed as the former publication, and is possibly unknown by most. That is, except for the review of historian, Nikolaus Pevsner, who called it “the most thrilling book on matters of design I have ever read,” and who suggested that the difference between the two works was one of historiography.¹¹ Pevsner proposes that in *Space Time and Architecture*, Giedion was writing as an authoritative apologist for the modern movement, participating in the storm of progress as he sought to explain (and legitimate) the momentum of modernity.¹² He calls the historical methodology of Giedion, “dynamic” and accuses Giedion of “blasting a trumpet,” taking on a role of a prophet, who casts the previous period of the 19th century as secondary in contrast to the then present twentieth century:

Dr. Giedion enthrones one set of values—and very important values they are—at the expense of all other values, because they happen to be of the greatest interest to the present and future of architecture. This changeover from telling historical truth—the whole truth—to blasting a trumpet, be it ever so rousing a trumpet, is a sin in a historian.¹³

Space Time and Architecture went into multiple printings and was disseminated widely, revealing that the architectural community was most interested in Giedion blowing the prophet’s horn. This is reinforced in the way this publication became the reference for many architects, and a guide for students. The significance of the book is at once identified as a “a bible—the book, often the only one, North American architecture students were encouraged to read, or ever did read, on architectural history.”¹⁴ It was praised by critics that otherwise disagreed on historical matters. A book review of *Space, Time and Architecture*, that emerged, not at the time of the publication but in 1990 gives a curious account of the effect of Giedion’s publication, arguing that the book caused the detrimental consequences of buildings and urban spaces that were designed according to Giedion’s examples of modern architecture.¹⁵

In contrast, Pevsner has argued that *Mechanization Takes Command* is a work of history. In *Mechanization*, Giedion is looking back at the pile of wreckage of everyday and ordinary life, not in the direction of the future. Such a historiographic position can be understood through the texts on history of Walter Benjamin, especially his interpretation of Paul Klee’s *Angelus Novus* in which the subject looks backwards while being hurtled

11. Nikolaus Pevsner, “Judges VI. 34. Review of *Mechanization takes Command*, by Sigfried Giedion,” *Architectural Review* 106 (August 1949), 78. Cited in William Braham, “Siegfried Giedion and the Fascination of the Tub” in *Plumbing: Sounding Modern Architecture*, ed. Nadir Lahiji and D. S. Friedman (New York: Princeton Architectural Press, 1997), 204.

12. Braham, “Siegfried Giedion and the Fascination of the Tub,” 200-24.

13. Pevsner, “Judges VI. 34,” 204.

14. Editor, “The Shape of Things,” *Time* 51, no. 20, May 17, 1948, 112.

15. Alan Gowans, “Space, Time and Architecture,” *Progressive Architecture* (May 1990): 123.



forward by “storm called progress.”¹⁶ History and progress are a paradox for Giedion. Not only was mechanization and its effects his nightmare, it was also his dream. And so was America. *Mechanization* reveals his passionate affair and yet ambivalence towards the society that espouses Taylorism and Fordism, systems of manufacture that seek to automate the human body.

Giedion’s fascination with the white tub of modernism is an example of the historian’s encounter with himself, and the conflict between a desire for progress and an aversion of its resonance in domestic and social life. The white tub refers to the technologies of hygiene and the socially determined behaviour of bodies that are subjected to the same kind of mechanisations as other animals in the production line. But it also produces the desire associated with the aesthetics of white artefacts, order, functionality and plumbing, the techné of modernism. For Giedion, the split between thought and feeling means the loss of other kinds of bathing pleasures. And his dilemma is in the question of how these have been erased or repressed within the matrix determined by the privacy and scientific management of hygiene and domestic life. The historian’s encounter is written into the facts and artefacts he has selected for investigation. The artefacts of mechanization are his mirror and his historical account is also a self-reflection, likened to the myth of Narcissus looking at the reflective pool.¹⁷ In contrast to ideas of a new aesthetic, new technologies, new ideas about space and form that were used as frameworks for a history in the period between the wars, Giedion has considered the period between 1918 and 1939 as the time of full mechanization.¹⁸ He discusses the tubular chair as an example of the architects’ takeover of the design of furniture in the period 1925-1929, describing their efforts as noble. There is an unsettling ambivalence as Giedion associates this both with technology in its later mass production and yet laments that as an industrial design it was not allowed in the drawing room.¹⁹

Giedion suggests that psychic factors exert a decisive influence on mechanization. In his publication, art represents the psychic factor. A careful selection of images, their juxtaposition and association with the text illustrate the significant role of the visual image in Giedion’s publication. The images are not clearly related to the text and are not exemplifications of the text, neither is there a balance or complement between image and text. The relationship is dialectical: the images sometimes say more or something other to the text.²⁰ Their role in relation

16. Walter Benjamin, *Illuminations: Essays and Reflections*, ed. Hannah Arendt, trans. Harry Zohn (New York: Schocken Books, 1968), 257

17. Braham suggests that the interpretive aspect of Giedion’s approach is closest to Sigmund Freud’s use of details to reveal the repressed memories and desires of his patients: “Siegfried Giedion and the Fascination of the Tub,” 206, 208.

18. Giedion, *Mechanization*, 41.

19. Giedion, *Mechanization*, 495.

20. Braham, “Siegfried Giedion and the Fascination of the Tub,” 210; and interpreting Benjamin: “Benjamin initially conceived his *Passagen-Werk* as a montage of photographs and quotations from the nineteenth century, which by the construction of ‘dialectical images’ could awaken the reader to historical truth.”—213.

to the text is to express the tone of the history, and their affect is an emotional response. The visual as a documentation of history is not always representative of an order of society and can have the role as psychic undertone of society. Like the guiding role that Klee's *Angelus Novus* has for Benjamin, Giedion also seeks out paintings by Klee and Kandinsky (and others). In *Mechanization*, these are juxtaposed with other scientific and brutal images of mechanization (time sequence photographs, animal slaughterhouses) and domestic interiors. In a book review at the time of publication in the journal *Time*, it is argued, "Like the accompanying text, the 501 photographs in this book embrace everything under the sun—including whole centuries of kitchen sinks. Looking at one another with some surprise are McCormick harvesters, Roman baths, barber chairs, egg beaters and tricycles. Victorian maidens swing gently in new-fangled hammocks—oblivious of a conveyor-beltful of hogs swinging equally gently toward Swift's and Armour's hams."²¹

21. Editor, "Shape of Things," 112.

The Mirror-Stage in Architecture

The psychoanalytic theorist, Kaja Silverman proposes that the visual can act as a guide to the subconscious states and forces of a collective social present.²² Her book takes the title from a phrase in a Lacan essay "the mirror-image would seem to be the threshold of the visible world."²³ Drawing and art can offer moments of narcissistic pleasure and identity idealization, and the visual can also confront humanity with the brutalities of civilization. The visual can thus provide an image and story for the mirror stage in psychoanalysis.

22. Kaja Silverman, *The Threshold of the Visible World* (New York: Routledge, 1996), 2.

23. Silverman, *The Threshold of the Visible World*

Lacan's mirror stage has both a historical value in relation to the infant's mental development and a structural value that is related to the distinction or split between the image and the real. While it is not literally about a mirror, the mirror is an instrument that serves as a metaphor and a structural object to explain the theory of the psychic development of a child:

somewhere between the age of six months and eighteen months the subject arrives at an apprehension of both its self and the other—indeed, of its self *as other*. This discovery is assisted by the child seeing, for the first time, its own reflection in a mirror. That reflection enjoys a coherence which the subject itself lacks—it is an *ideal* image.²⁴

24. Kaja Silverman, *The Subject of Semiotics* (New York: Oxford University Press, 1983), 157.



We are told that there can be great jubilation when the child first sees an image in the mirror, and many of us may have seen how children are fascinated with their own image and the image of others in the mirror. It may take several more months for the child to understand that it is the image of its own body, at which point a different reaction occurs, and while it is particular to each individual, it is conditioned both by disappointment and a tension between the image which is whole, and its body which it cannot actually see as whole. The recognition of itself in the mirror is at the same time a mis-recognition because the subject does not share its characteristics, it always lacks the ideality, unity and wholeness that is represented in the image of the mirror.²⁵ Mis-recognition repeatedly acts like an interruption to symmetrical reflections of the subject and between the subject and the object.

25. Silverman, *The Subject of Semiotics*, 151-58.

In this sense we may consider the two publications as a split between two attitudes of the historian Giedion. One reflection shows inventions and advancements in planning, structure, and space, and especially how the dualities of the nineteenth century were overcome towards the new synthesis of plane, volume and light in the twentieth century.²⁶ Giedion is excitable, as were his readers, about the evolutions of this new spirit in architecture. However, looking at the same historical period, in *Mechanisation*, Giedion does not sense the spirit of the age, but the technologies, standardisations, automations that have turned, for example the kitchen into laboratory. “Wholeness” is no longer available in modern life.²⁷ Did this produce a psychic lament for pre-history and pre-rational structuring of society, perhaps likened metaphorically to the maternal phase of the enfant prior to the mirror-stage? Giedion eventually returns to the “beginning of things,” *The Beginnings of Architecture* and *The Eternal Present*.²⁸ The Lacanian subject defined by lack is always missing something and the mirror-stage is the point of crisis: to know oneself as whole through an external image is to give appearance to the self-alienation on which human subjectivity is organised. The subject is not whole, but fraught with alienation and separation.

26. Giedion, *Mechanization*, 392.

27. Films like *Mon Oncle* and *Playtime* by Jacques Tati and Charlie Chaplin's *Modern Times* share the same concern with the struggle with the postwar infatuation with modern design, technological innovations, and consumerist lifestyle.

28. Sigfried Giedion, *The Beginnings of Architecture* (Princeton, NJ: Princeton University Press, 1964).

Giedion's attention to movement and speed is informative in this respect. In *Space, Time and Architecture*, the subject of movement is explored through painting seen to introduce new principles in sequential images, which in architecture appeared as the new elements of construction—the slab and plane. Later we see that these were the basis of bridge building.²⁹ In *Mechanization*, Giedion examines movement through the inventions of how it is recorded, such that Marey's recording machines, Muybridges

29. Giedion, *Space, Time and Architecture*, 364-77.

sequence photographs, are juxtaposed with Duchamp's "Nude Descending the Staircase." However, the real shock emerges when this develops into the automations integral to factory work and the "mechanizations of man" in the form of the factory worker. Movement can be approached through a historiography that perceives the illusionary image in the mirror, or that perceives the affect on the human bodies on the other side of the mirror. Giedion is not focussing on the worker as a class analysis, but on the automations of the human body. Innovations related to transparency are represented in exterior images of factory buildings such as Gropius Fagus Works in *Space Time and Architecture*, in contrast to the interior organisation of a mass production site in *Mechanisation*.³⁰

30. Giedion, *Space, Time and Architecture*, 389 (Fagus is a shoe factory, 1911); *Mechanisation*, 47.

Conclusion

Mechanisation is a publication in which Giedion, the historian, assembles a set of memorabilia of progressive civilization, mixing domestic, industrial, agricultural and public scenes; mixing the hidden scenes of automation, standardisation and quantification, with artistic images that for him show the "feelings" associated with modern life. This is not the ideal, unified and singular picture of modern society, but a fractured and exposed underside of the systems and processes producing that society. Giedion's effort to write about the resulting picture of humanity is shown as an approach to history alluded to in the first paragraph:

History is a magical mirror. Who peers into it sees his own image in the shape of events and developments. It is never stilled. It is ever in movement, like the generation observing it. Its totality cannot be embraced: History bares itself only in facets, which fluctuate with the vantage point of the observer.³¹

31. Giedion, *Mechanization*, 2.

Giedion blows in across the Atlantic Ocean from Europe to America, and casts his gaze back over this field historically rather than spatially or geographically. Both books investigate what ties and what separates Europe and America, and both produce a historical parallelism between the two continents. Giedion's historian's voice repeats the same message, "a split between thought and feeling," which echoes in the canals of architecture knowledge and of history as knowledge. The crisis of the historian as subject is merged with the crisis of architectural history as a discipline and field of enquiry.

