

Building Silicon Valley. Corporate Architecture, Information Technology and Mass Culture in the Digital Age

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Lina Malfona (1980), an architect and a scholar with a Ph.D. in Architectural and Urban Design, studied at Sapienza University of Rome under Franco Purini, with whom she worked from 2005 to 2012. Since 2008, she has been both teaching as a visiting professor in Architectural Design Core Studios and working as a postdoctoral research fellow at Sapienza University of Rome and Cornell University GSAPP (Ithaca, NY). Malfona has been guest and visiting critic at Columbia University GSAPP, Cornell AAP, ENSA Paris Belleville, Harvard GSD, RISD, Politecnico di Milano and Syracuse University, among others. In 2018, she has been appointed Associate Professor in Architectural Design at the University of Pisa.

Lina Malfona has pursued her research thanks to a number of prestigious post-doctoral research fellowships, among which a Fulbright Grant as a Visiting Scholar at the Institute of Fine Arts, New York University. In 2017-18 she carried out her research thanks to the CCA Visiting Scholarship (Montréal, Canada) and the Library Grant from The J. Paul Getty Research Institute (Los Angeles, US), while in 2015, she was awarded a grant as Visiting Fellow at the ATCH Center at the School of Architecture, The University of Queensland.

As a scholar, Malfona authored a number of essays and monographs on matters related to the history, theory and criticism of architecture, focusing on the relationship between architectural form and urban space. Over time, she analyzed the form of the city as a critical and political device for social and architectural innovation, and recently she is working on the impact of the digital revolution on architectural and urban design, theory, and critique. Among her books, *Il tracciato Urbano* (2012); *Tra Roma e il Mare* (2014); *Building the Landscape* (2018) and *Antonio Sant'Elia. Il Manifesto dell'Architettura Futurista* (edited with Franco Purini). Her writings have been published through Il Poligrafo, Gangemi, Quodlibet, and in *Ananke, Anfione e Zeto*, *Ardeh*, *The Avery Review*, *PLOT* and *Rassegna di Architettura e Urbanistica*, among others.

ABSTRACT

The examination of the greatest technopolis in the world is a way of exploring how an architectural as well as cultural, economic, and urban—or better, suburban—phenomenon, linked to a specific framework, has affected an international context. By studying Silicon Valley's phases of development, from its period of militarization during the Cold War to the era of counterculture and then of cyberculture, we can reread the history of information technology's centers of production that have contributed to broadcast the Valley's architectural and political image. Starting from the headquarters of Varian Associates—designed by Erich Mendelsohn and erected in Stanford Industrial Park in 1951—and moving through the campuses that consolidated the image of creativity for which Silicon Valley became well-known in the Eighties, we will be able to have a retrospective look at the physical as well as virtual organization of the first IT corporations which supported the rising of the most powerful medium, the internet. This paper's origin point is the examination of three texts written by the historian Reyner Banham between 1980 and 1987, and in particular the essay “La fine della Silicon Valley” [The end of Silicon Valley], published only in Italian in *Casabella*. References to facts, considerations, and events, taken from Banham's texts, pepper this study like a parallel story that problematizes this area, highlighting both its technological heroism and its approaching demise.

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Silicon Style. The words of Reyner Banham

In his article “La fine della Silicon Valley” [The End of Silicon Valley], published in *Casabella* in 1987, Reyner Banham expresses a position that is, by that point, far from the optimistic view of hi-tech that had characterized his early essays, where he painted Silicon Valley not only as a physical location but also as enlightened industrial consciousness.¹ This early position describes the immaterial nature of corporation, somehow recalling the Deleuzian point “in a society of control the corporation has replaced the factory, and the corporation is a spirit, a gas”².

The historian devoted three essays to the examination of this area, published in quick succession between 1980 and 1987. The first essay dates back to the year in which the Valley’s economy began to show signs of malaise, so much so that Banham noted that the time had come to stop and pin down the current state of Silicon Valley’s corporate vision and hi-tech architecture. During that exact year, the San José Museum of Art unveiled the exhibition “Architecture for Industry in the Santa Clara Valley,” which highlighted, as Banham wrote, “the requirements, problems and successes of the special kind of architecture that grows in the Fertile Crescent.”³ The information on the exhibition—that can be found in the 1980 article, which was published in the local magazine *New West*—was removed when the text underwent small cuts and interpolations for its 1981 republication in *The Architectural Review*. Therefore, historians never investigated this fairly significant event in the history of Silicon Valley’s corporate architecture; it was indeed never even cited.⁴ And yet, in this very article in *The Architectural Review*, Banham published part of the material on display in the exhibition, like photographs and relative blueprints of the offices of IBM, Qume, Alza, Digital Equipment, and Dysan, six of the

1. See Reyner Banham, “The Architecture of Silicon Valley,” *New West*, n. 5 (September 22, 1980): 47-51; Reyner Banham, “Silicon Style,” *The Architectural Review*, no. 169 (May 1981): 283-90; Reyner Banham, “The Greening of high tech in Silicon Valley,” *Architecture 74* (March 1985): 110-119; Reyner Banham, “La fine della Silicon Valley,” *Casabella*, no. 539 (October 1987): 42-43.

2. Gilles Deleuze, “Postscript on the Societies of Control,” *October*, Vol. 59 (Winter, 1992): 3-7, 4.

3. See Reyner Banham, “The Architecture of Silicon Valley,” *ibid.*, 48. The exhibition opened on September 2, 1980, and the archival material regarding the exhibition is currently housed in the History San José (HSJ) Research Library and Archive. The other corporations on display in the exhibition were: Adp Dealer Services, Fairchild Camera and Instrument, Hewlett-Packard (2 buildings), IBM (General Products Building), Intel (2 buildings), I.S.S. Sperry Univac, Memorex, Rolm, Syntex, Varian Associates, Xerox and Wyle Distribution Group.

4. There is a mention of the exhibition in Banham’s last article about Silicon Valley, “La fine della Silicon Valley” [The End of Silicon Valley], but it was only published in Italian, and it was ignored by American historians.

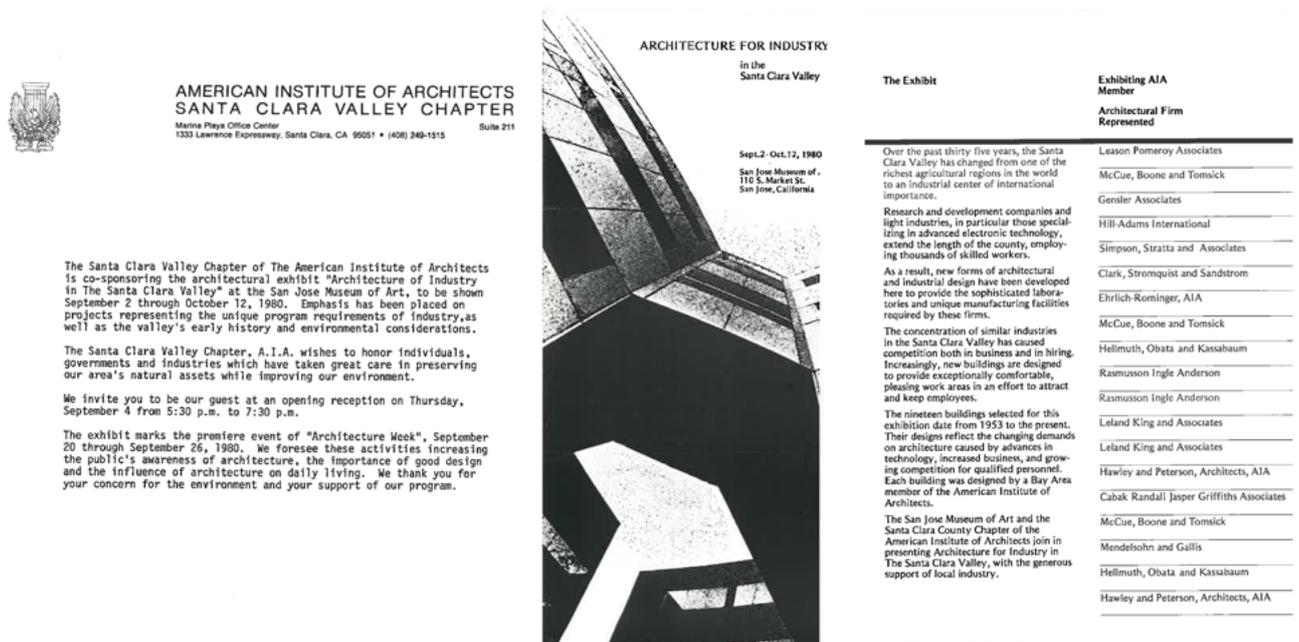


FIG. 1 Letter of invitation from AIA, Santa Clara Valley Chapter; Brochure for the exhibition “Architecture for Industry in the Santa Clara Valley”, 1980; List of the invited offices (courtesy Research Library and Archive, History San Jose, unpublished)

nineteen companies selected for the display of the “Santa Clara Valley” section of the American Institute of Architects. [Fig. 1]

In 1985, the magazine *Architecture* published Banham’s second text, a very meticulous investigation of the most representative and controversial architectural styles of an area with such powerful economic sway that it would soon impose its taste on the rest of the world... “What happens on your 18th birthday?” Banham wrote sarcastically. “Daddy gives you a Porsche?”⁵

Campbell High School’s conversion into a shopping center, the Rose-Croix University’s Egyptian revival architecture and the kitschy style of San José’s Winchester House of Mystery are merely a handful of examples of what Banham had sardonically defined as “Silicon Style”—a style that probably fascinated him precisely because of its strong contradictions. But how did Reyner Banham’s interest in this area develop? The English historian, who spent a large part of his life in the United States, was particularly attentive to the relationships between architectural form, technology, and mass culture, along with a special interest in digital industry. We need only think of the books that Banham published in the Sixties and Seventies—like *Theory and Design in the First Machine Age* (1960) and *Architecture of the Well-Tempered Environment* (1969)—and of his re-discovery in the Fifties of the Italian machinist avant-garde, of Futurism, which Banham brought to the attention of anglophone and international scholarship with a particular focus on the activities of Antonio Sant’Elia. Throughout his life, Banham was the author both of polemical, journalistic texts and of essays written from an expert’s point of view, which proposed new readings of architectural history revolving around its mechanistic aspects.⁶ Perhaps Banham was overly enthusiastic about the possibilities offered by technology, but he was prophetic in understanding that these new possibilities would signify a revision of the relationships between architecture and trade, between autonomy and heteronomy within the discipline.

5. Reyner Banham, “The Greening of high tech in Silicon Valley,” *ibid.*, 119.

6. See Marco Biraghi, “Swinging Banham Revisited,” in *Reyner Banham. Architettura della Seconda età della macchina. Scritti 1955-1988*, ed. Marco Biraghi (Milano: Mondadori Electa), 2004.

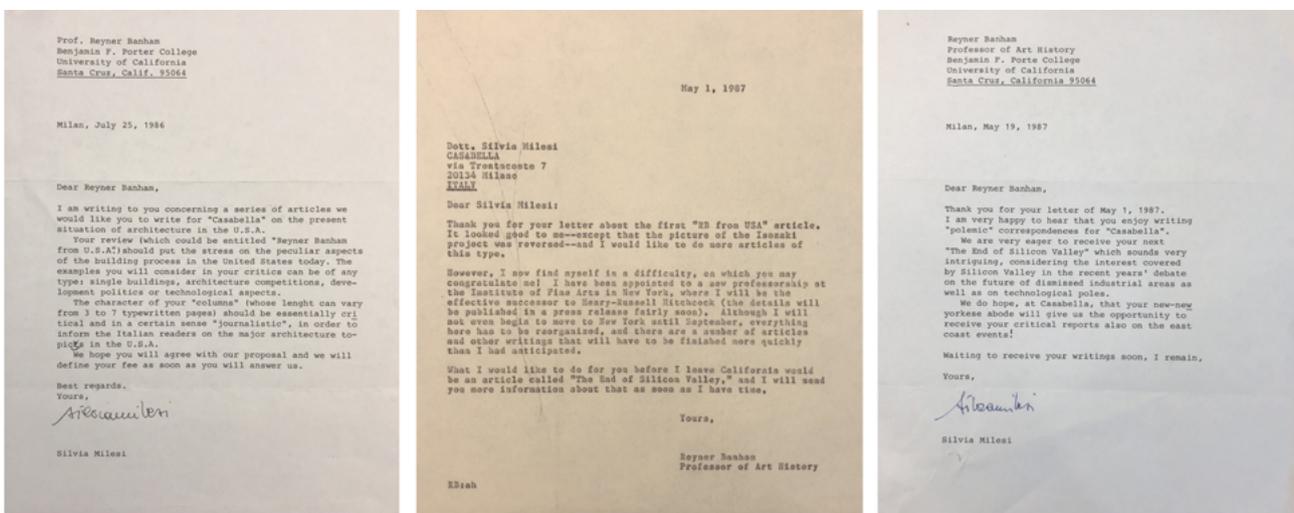


FIG. 2 Correspondence between Reyner Banham and Silvia Milesi about the article “The End of Silicon Valley”

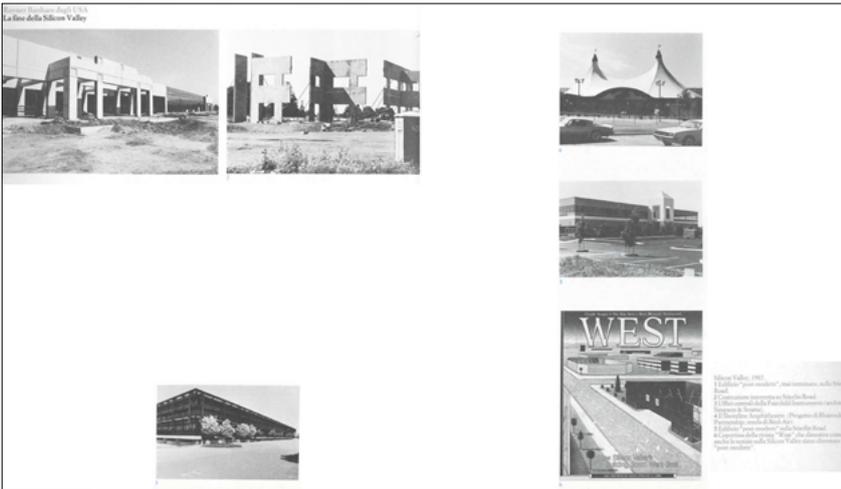


FIG. 3 Buildings in ruin on Stierlin Road; Post-modern building on Stierlin Road; Fairchild Building; Shoreline Amphitheater; New West, journal cover (photo by Reyner Banham, published in “La fine della Silicon Valley”, *Casabella*, n. 539, October 1987, 42-43, 42)

Banham’s third text on Silicon Valley was commissioned by Silvia Milesi (*Casabella*), as we know from the letter that Banham wrote to her in 1987 to accompany the typewritten draft of the article, which was never published in English. Banham sent the original text, “The End of Silicon Valley,” to Milesi, along with the cover of an issue of the journal *New West* from February 2, 1986, which demonstrated, according to Banham, how the coverage of Silicon Valley had become, like its architecture, feeble and post-modern! [Fig. 2]

In what turned out to be his last article on this subject, Banham described Silicon Valley as a spectral *geography* in ruins, made up of an enormous corpus of disintegrating or unfinished postmodern buildings that become relics before completion, and that are “ultimately derived from the works of Michael Graves and Aldo Rossi.”⁷ Out of this selection of buildings, Banham focuses on certain pre-existing buildings like the Shoreline Amphitheater, which bears the traces of its counterculture roots in the Bay Area, and the remains of militarization—like the Moffett Airfield, the hangars and NASA’s Ames Research laboratories—that remind us of how, throughout the Cold War, the Valley became a true command and defense center on the Pacific. The text is accompanied by a series of photographs taken by the author, in which one can observe the area’s state of decay. [Fig. 3]

What appears to be a landscape in ruins is quickly joined by the image of a landfill, since, as Banham writes, the Santa Clara Valley⁸—termed “Silicon Valley” starting in 1970—was “consecrated” to gigantic landfills:

The buried garbage ferments and produces large quantities of methane gas [...] and some of it filters up through the grass and on still, wind-less nights, enough gas has been known to collect to produce fires and explosions when some unsuspecting member of the audience flicks his Bic lighter and goes to apply the flame

7. Reyner Banham, “The End of Silicon Valley” [from the Banham’s manuscript, unpublished] (The Getty Research Institute, Research Library, Special Collections), published in Italian as: “La fine della Silicon Valley”.

8. The Santa Clara Valley started out as arable land for San Francisco, first accessible through the ancient path known as El Camino Real and the port at Alviso and, later, through the railway line that went between the financial and port center of San Francisco and the agricultural capital of San José. In the twentieth century industrialization began in the Santa Clara Valley, starting with the small-time farm owners that later grew into a hierarchical organization able to control the industrial sector. Meanwhile, the San Jose Chamber of Commerce incentivized the construction of military structures, Mountain View and Palo Alto became the main residential centers in the area and Stanford University was founded in 1891. In 1956, William Shockley was awarded the Nobel Prize for the invention of the transistor, which signaled a step forward in the development of semiconductors which, in turn, are used to make *chips* (consolidated highly integrated processors). In 1970 Don Hoefler, a reporter from *Microelectronics News*, coined the term “Silicon Valley” - that is, the geographical area in which *chips* were made from semiconductors like silicon.

to a cigarette or joint of marijuana... These apocalyptic moments, when fire springs from the ground like some Old Testament vision of Divine Vengeance, are very appropriate – symbolic even – to the present condition of Silicon Valley. What we can be seen along Stierlin Road is in many sense, the End of Silicon Valley”⁹

9. Reyner Banham, “The End of Silicon Valley,” *ibid.*, 42.

This apocalyptic and, at the same time, desecrating image is able to present a few contradictions inherent to Silicon Valley: suspended between the utopian ambitions of the digital age, which will drive it to become the world’s largest technopolis, and the pragmatic nature of its buildings’ architectural style. The opposition between reality and simulation, between physical separation and virtual connection, between the image of the dissolution of the city into the landscape of ruins and the apparition of new monuments are crucial aspects of the Silicon Valley phenomenon. Along with the image of a territory in ruins, Reyner Banham highlighted the



FIG. 4 Simpson, Stratta & Associates, Fairchild Building, Mountain View, end of 60s-1993, exterior and interior view (City of Mountain View Public Library, Computer History Museum Archives)

presence of a few meager monuments. One building in particular caught his eye: that of Fairchild Instruments, one of the first companies to emerge in the area, modeled after Eero Saarinen’s John Deere headquarters and Craig Ellwood’s Xerox Corporation headquarters in El Segundo. In the last part of his 1987 article, Banham weaved the praises and at the same time denounced the abandonment of the Fairchild Building, and through this condemnation he criticized the rapid ascent of the area, along with the relative lack of awareness shown by the companies that contributed to its expansion [Fig. 4]:

“Built in 1967 – barely twenty years ago, sic transit gloria silicon-vallensis! – [...] [the Fairchild Building] was the first modern building in the Valley to express a sense that good design might be an essential part of company policy and corporate image, and these corporate pretensions are clear. [It] seems an appropriate marker of the end of Silicon Valley, for the point in time where the Valley and its unrestrained industrial culture must finally assess their own position in a history they have tended to ignore completely,

preferring to pretend that there was no yesterday, just as they have built as if there were no tomorrow”¹⁰.

With these words, Banham seems to underline a certain degree of immaturity in the industrial culture of the area. Indeed, the image of Silicon Valley never crystallized around a definite urban form, making it possible to preserve the cultural dynamism that allowed for the birth of the first start-ups. However, this sense of optimism—encouraged by the engineering professor, dean and subsequently provost of Stanford University, Frederick Terman¹¹—quickly took the form of a futurist attitude characterized, in other words, by the juvenile, restless desire that the future become the present immediately. In this way, the partial nature of Silicon Valley’s architectural styles, along with their ludic and extravagant appearance—the “Silicon Style” that Banham referred to in 1981—are obvious signs of disconnect from the modernist tradition of the East Coast’s corporate offices, a model established by Eero Saarinen.¹² In Banham’s 1985 article, “The Greening of Architecture of Silicon Valley,” he was already insisting on this reading, concluding with a sense of disenchantment as good architecture either disappeared, readily replaced by kitsch, or survived only to be “reused,” as in the case of Campbell High School, a classic-style building that was converted into a shopping center. On the other hand, the Valley’s buildings that were designed in a kitschy architectural style are rigorously preserved as tourist destinations, as in the case of the Winchester Mystery House, a late nineteenth-century mansion that is similar to a Disneyland attraction, a kind of paradigmatic example of egocentrism and formal excess.¹³ It is not easy to alter the Valley’s flat, horizontal nature, but crudely creative attempts are made: suburban streets are “boutiquified,” writes Banham, while certain disproportionately large monuments are erected, as in the case of the enormous steel statue “to the eternal memory” of the Virgin Mary, known sarcastically as “Our Lady of Non-Erasable Memory.”

All this has nothing to do, then, with the “quiet moderation” and informality that Lewis Mumford noted as the unique characteristics of Bay Area architecture. According to Mumford, West Coast architects managed to reconcile mechanical and human, multicultural and indigenous elements: they absorbed the lessons of science while joining it with human needs and respecting both nature and topography, according to the teachings of Frederick Law Olmsted.¹⁴

And yet there is another building, owned by Stanford University, that Banham mentions and that can be compared to the glorious modernist tradition of the Bay Area. It is the prototype of SCSD System, a sober, Miesian structure designed by Ezra Ehrenkantz that was, at that time, used as a credit union. But Banham insists on specifying that “This, however, is not ‘the real Silicon Valley.’ Nothing quite like this aloof elegance and elitism will be seen again in almost 60 miles of valley!”¹⁵ Because the real

10. Reyner Banham, “The End of Silicon Valley,” *ibid.*, 43. The highlighted text is from Banham. Inspired by the work of Eero Saarinen, Simpson, Stratta & Associates from San Francisco designed the Fairchild Building in the end of the sixties. Unfortunately, it was demolished in 1993. The Fairchild Building got the “American Institute of Steel Construction Awards for Excellence” and it was published on the journal *Modern Steel Construction* (Volume 8, Number 3, Third Quarter 1968, 14).

11. He is considered the Silicon Valley’s father, his actions laid the groundwork for the development of Stanford University and the birth of hi-tech companies like David Packard and William Hewlett’s HP.

12. See Louise A. Mozingo, *Pastoral Capitalism: A History of Suburban Corporate Landscapes* (Cambridge, MA: The MIT Press, 2011), 44-99.

13. See Langdon Winner, “Silicon Valley Mystery House,” in *Variations on a Theme Park: Scenes From The Few American City and the End of Public Space*, ed. Michael Sorkin (New York: Hill and Wang, 1992), 31-55.

14. See Lewis Mumford, “The Architecture of the Bay Region,” in *Domestic Architecture of the San Francisco Bay Region*, exhibition at the Museum of Art, Civic Center, San Francisco, September 16, October 30, 1949, unpaginated.

15. Reyner Banham. “The Greening of high tech in Silicon Valley,” *ibid.*, 112.

Silicon Valley is presented as a fully postmodern composition made up of architectures that cite and reposition modernist syntaxes, with a set of variations that range from complete anonymity to an excess of signs, until they reach a pastiche of deconstructivist, neo-futurist and pop styles.

To some extent, Silicon Valley can be read as the epitome of the theme park, the cyburbia made up of multinational corporations, where the concept of main street is replaced by an invisible worldwide tangle of economic relations. According to Michael Sorkin, three characteristics mark this kind of illusory and globalized cities: a generic and a-geographic urbanism; the obsession with technological as well as physical surveillance and segregation; the architecture of deception or, the empire of simulation.¹⁶ Silicon Valley, then, has countless faces: on the one hand, it looks like a ghost town, where companies' buildings hide in a flourishing but congested landscape entirely lacking any elements of urban scale; on the other hand, it appears as the new Las Vegas of electronics and cyberculture, a fake city of signs and billboards in capital letters. If, in the past, the Valley was the monument to a nation's technological ambitions, today it appears as the museum of those ambitions: the illusory city of technology that comes up with products that will be manufactured elsewhere. What, then, will become of Silicon Valley? Will it become a geographic region populated by new monuments, ever more armored and representative of an architectural style at the mercy of the free market? Or will it survive merely as the physical deposit, the dispersed archive and museum of digital culture?

16. See Michael Sorkin, "Introduction. Variations on a Theme Park," in *Variations on a Theme Park: Scenes from the Few American City and the End of Public Space*, ed. Michael Sorkin (New York: Hill and Wang, 1992), XI-XV.

Local Roots of a Global History

Silicon Valley is a techno-industrial complex that developed without any form of urban planning throughout an area measuring 70 x 15 km. It appears to be the epitome of what Manuel Castells and Peter Hall defined as a "technopolis," a private settlement erected near establishments—like universities and research institutes— that promote the birth of an information economy. Information economy is characterized by complex organizational forms, where the horizontal nature of the network replaces the verticality of the bureaucratic apparatus and opens up possibilities of global development. However, Castells and Hall's global model of the information economy is not always able to cut across national borders; national governments, in most cases, still retain their status as major players in new strategies of international competition. In fact, according to Anna Lee Saxenian, the foremost expert of Silicon Valley's economic history, the area's development occurred hand-in-hand with other factors, including the advantages supplied by geography, the presence of the university, the atmosphere of encouragement surrounding new enterprises, and the benefits of clustering and financial contributions

from the government, a “regional advantage” according with her words.¹⁷ The Santa Clara Valley’s transformation from a mostly agricultural settlement into the capital of the semiconductor industry and, subsequently, into the largest center of hi-tech enterprises in the world has become one of the most imitated cases of regional development in the field of hi-tech. Furthermore, Silicon Valley represents a rare case of the integration of intellectual and financial resources: Stanford University, in particular, has been identified as the key agent of the process that occurred between the federal government (which supplied research funds), industry, and the university.¹⁸ Finally, the Valley’s history cannot be examined without considering the fact that, during the postwar era, this part of California became a hub for technological research on data processing, aeronautics, electronics, aerodynamics and rocketry, all through the Department of Defense. The Santa Clara Valley’s regional development is often compared to the analogous phenomenon that took place around Boston and Route 128, although the technological community in California, based on the idea of competition, differs greatly from the technological complex that developed in Massachusetts, which was characterized by strongly defined hierarchies. Route 128 developed around MIT, which in 1918 carried out a technological plan to encourage large corporations to become a source of financial support. Professor Vannevar Bush obtained government funding for the university’s military research, revolutionizing the relationship between science and administration and turning MIT into the primary center of national research. Starting in the Fifties, MIT founded a number of laboratories to conduct research on defense—above all, on the study of long distance radar, digital processors and alarm systems for aerial defense—and hired 5,000 scientists and engineers. In 1975, with the development of the minicomputer industry and the 100,000 workers employed along Route 128, people were talking about a “Massachusetts Miracle.”¹⁹

The development of the Santa Clara Valley, on the other hand, began when the company Hewlett-Packard (HP) was founded in 1937, supported by Frederick Terman, the provost of Stanford University. Terman wanted to strengthen the relationship between academia, government, and industry on the West Coast by exporting the model employed by Vannevar Bush, his mentor at MIT. Thus, through a cultural transfer from the East to the West Coast, he created a community of technician-scholars and set a series of contracts, funded by the federal government, in motion, in order to subsidize the completion of local companies and university laboratories. Frederick Terman firmly believed that the advantages of a location near an excellent academic center were superior to those of a location near markets or centers of material production or manufacturing. In 1951, therefore, he created the Stanford Industrial Park, which functioned as connective tissue between the university and local companies. In 1953, Varian Associates was the first company to move

17. See Anna Lee Saxenian, *Regional Advantage: Culture and Competition in Silicon Valley and Route 128* (Cambridge: Harvard University Press, 1996).

18. See Robert Kargon, Stuart W. Leslie, Erica Shoenberger, “Far Beyond Big Science: Science Regions and the Organization of Research and Development,” in *Big Science: The Growth of Large Scale Research*, eds. Peter Galison, Bruce Hevly (Stanford: Stanford University Press, 1992): 334-354.

19. See Anna Lee Saxenian, *Regional Advantage: Culture and Competition in Silicon Valley and Route 128*, *ibid.*, 11-33.

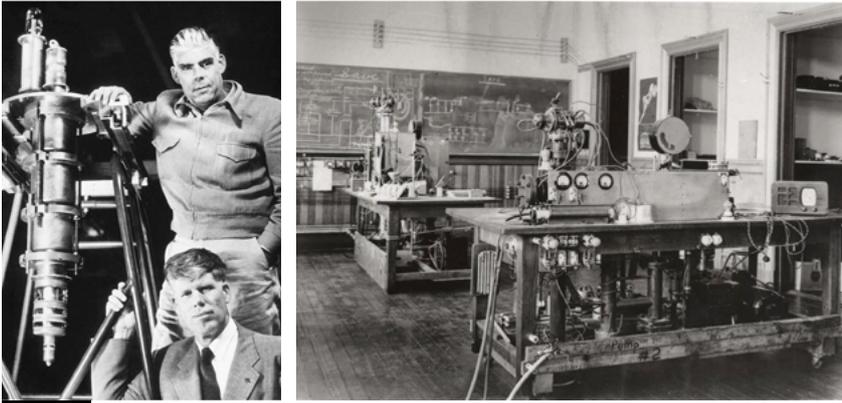


FIG. 5 Russell and Sigard Varian; Room 404, experimental laboratory, Stanford University, 1940s

its Research & Development (R&D) center into the Stanford Industrial Park, paying rent to the university and hiring young Stanford graduates in physics and electromechanical engineering [Fig. 5]. After Varian Associates, the aerospace company Lockheed also established a research laboratory in Stanford Industrial Park, as did IBM, Raytheon, Westinghouse, Philco-Ford and IIT, subsequently. In 1954, William Shockley, one of the inventors of the transistor, left AT&T's Bell Laboratories and established the Shockley Transistor Corporation—which later became the Fairchild Semiconductor Company—in Palo Alto, funded first by the Air Force, and then by the National Advisory Committee for Aeronautics (which later became NASA). NASA had a privileged role and position in the Valley, since it rented the area of Moffett Field (Sunnyvale) for its Ames Research Center, which became an important hub for aerospace research. As is widely known, this sector expanded the Valley's technical infrastructure, brought funding to local supply companies, and caused the emergence of a number of startups for the manufacture of technologies from microwaves to medical instruments. In 1970, the Xerox Corporation established its research center in Palo Alto and that very year the Santa Clara Valley, thanks to the strong presence of manufacturers of the semiconductors that were the foundation of all electronic devices, became Silicon Valley.

Beyond the establishment of Silicon Valley as a techno-industrial complex, it is deemed necessary to consider that Santa Clara Valley witnessed the meeting of three types of utopias: the spiritual one of California's Spanish missions, small religious communities in which both intellectual activities and commerce flourished; the social and collectivist utopia of counterculture, which developed in the Bay Area from the Sixties onward; the technological utopia of cyberculture, in opposition to postwar militarization, from which both hacker culture and startups originated. Analogously to the widespread model of the farm, the missions were a series of twenty-one religious outposts created by the Spanish Franciscan Order to spread Christianity throughout the American population between 1769 and 1833. These structures, which became an underlying architectural reference for college campuses, were above

all a model for settlement and organization: a concentrated system of productive activity surrounding a spiritual center.²⁰ In this regard, it is interesting to note how the term *clerical*, which is used to describe office work, highlights how the monastic organizational model—a clerical one, in fact—was the origin of the bureaucratic system. So much so, in fact, that the segregation of spiritual centers like monasteries is analogous to that of the US corporate campus [Fig. 6]. The design of Stanford University indeed drew on Spanish missions, as educational and utopian communities, and the domestic tradition of California’s ranch houses, structured around a central patio. Stanford University’s masterplan was designed by Frederick Law Olmsted (1888) to be a linear system made up of a series of patios, surrounded by a double ring of individual buildings and connected by a complex system of colonnades. When Leland Stanford commissioned the project to Olmsted, he expressed the desire to come

20. See Karl F. Brown, Ray Floyd, *California Missions. A Guide to the Historical Trails of the Padres* (New York: Garden City Publishing & Co., 1939); see also Karen J. Weitze, *California’s Mission Revival* (Los Angeles: Hennessey & Ingalls, 1984): 19-24.

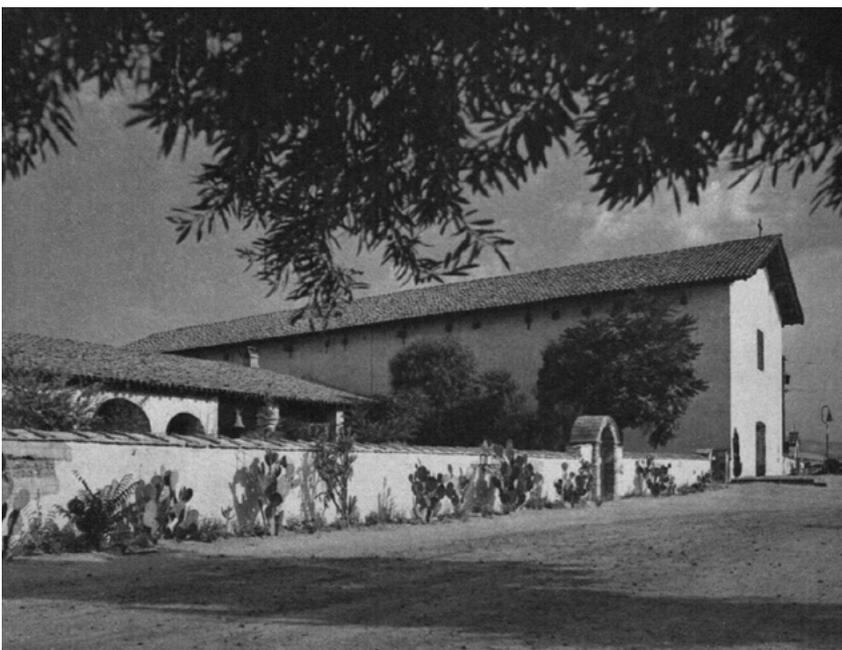


FIG. 6 Mission de San Miguel Arcángel; Santa Inés, Cloister

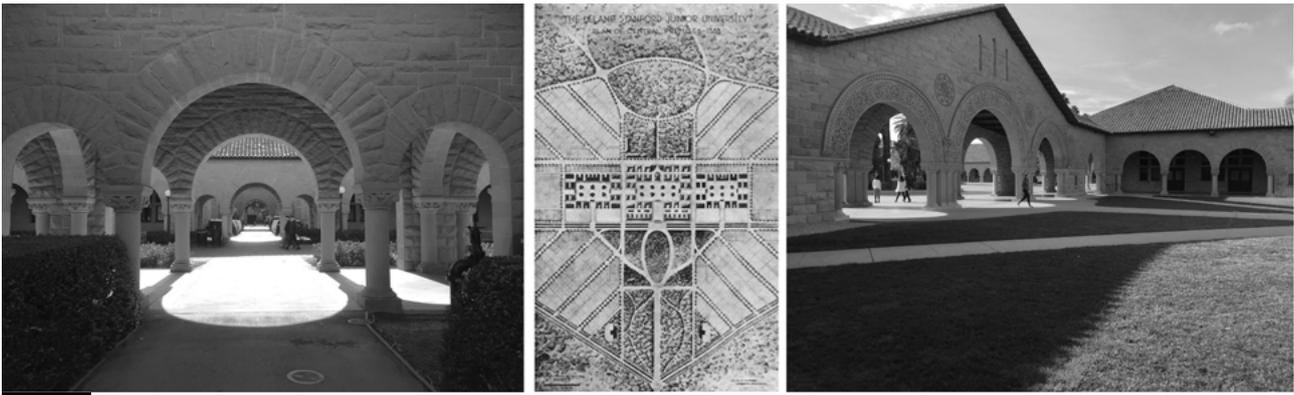


FIG. 7 Stanford University (photos by the paper's author); Frederick Law Olmsted, Stanford University Masterplan, 1888

up with a distinctly Californian complex that was directly inspired by the architectural style of the missionary fathers' churches and early buildings. The campus' planimetric configuration and the use of thick, massive walls and colonnades seem to derive from the aforementioned models. [Fig. 7]

Besides Christian community and academic campus, starting in the 1960s more than 10,000 communes emerged. Rebelling against the military-industrial complex and mass culture, the commune members gave life to a revolution that favored the birth of digital culture: information technology and cybernetics could potentially have created an alternative model for them. The contribution of the charismatic Stewart Brand, a Stanford University graduate, was fundamental for this movement, in that it became the link between the hippie movements and the technological experimentation that was occurring in Silicon Valley. Similarly, the ethos of the commune members was fundamental for Brand's *Whole Earth Catalog* (1968-72), the revolutionary instrument intended to give each individual the possibility to autonomously oversee his or her own education. The *Whole Earth Catalog*, in fact, became a sort of informational machine, a primitive digital platform, almost an ancestor of Google.

Many groups of scientists that gravitated around Stanford University embraced the commune members' theories, seeing computers as instruments for changing thought, and thus as social instruments. Along with a few activists, these scientists began to conceive of computers as a personal technology, especially when Steve Jobs began presenting personal computers as instruments of countercultural change. An important chapter was the episode of the Free University of Palo Alto, a university without a physical location, which emerged during the sixties as the initiative of a few Stanford students. In this free symposium of thought, teaching was understood to be the free exchange of ideas and teachers were graduates who offered lessons on their area of specialization. According to the Free University vision, knowledge has to be shared in a horizontal manner, with the aim of toppling any form of hierarchy, thus students are free to decide the topics of their classes and the barriers between students and teachers are finally broken down.²¹

21. See "Free University of Palo Alto Started by Graduate Students," *The Stanford Daily* 148, issue 51 (4 January 1966).

Despite the counterculture movement's decline in the Seventies—when technology became an instrument of power and the communitarian utopia was transformed into ideology—the concept of interactivity, as both a technological interface capable of simulating the exchange of information and a moment of sharing and cooperation, was seized by the nascent digital culture. We only have to think of the initiatives organized by the New Games Foundation, the movement that promoted in the seventies cooperative and non-competitive play.²² These initiatives seem to have contributed to broadcast the teamwork model, what would later be defined as the HP Way, developed on the campuses of hi-tech companies and based on boosting interaction and social life as a way of increasing productivity.²³

22. See New Games Foundation, *New Games Book* (Main Street Books, 1976).

23. See David Packard, *The HP way: how Bill Hewlett and I built our company* (New York: Harper Business, 1995).

From College to the Factory. Corporate Architecture 1950s-1980s

The origins of the corporate campus can be traced back to the romantic idea of a college surrounded by a natural landscape. The term campus derives from the Latin, meaning a place far from the corruption of the city and defined by specific behavioral expectations. Drawing inspiration from this model, the *corporate campus* positions itself as a synthesis of the distant city. Complexes like the Bell Telephone Laboratories in Holmdel and the IBM Manufacturing and Training Facility in Rochester, both designed by Eero Saarinen, are domestic or homelike workspaces, where researchers, engineers, and employees are kept far away from issues of traffic and distraction. But although on the one hand corporate isolation recalls the idea of professional integrity, on the other it reinforces an elitist culture derived precisely from the tradition of the college campus, of which the corporate campuses seem to be the extension.

According to Louise Mozingo, the suburban corporate office expresses the idea of a pastoral capitalism, in that the term pastoral was used for the first time by Frederick Law Olmsted to evoke a natural, familiar, and calm atmosphere, intended as an instrument of social order and based on Jefferson's model.²⁴ Thomas Jefferson was a key character in formulating the idea of the American campus, meant to be an "academic village," a little urban experiment, that transfers medieval English universities' model of the *collegiate* overseas. The college's autonomous nature seems to be a characteristic unique to the American university, which takes Jefferson's University of Virginia as its architectural as well as social model, a kind of second home and a miniature version of the city itself.²⁵ Similarly, the campus of the digital technology firm, which can be perceived as a proper building-city, inhabits this same models.

24. See Louise A. Mozingo, *Pastoral Capitalism: A History of Suburban Corporate Landscapes*, *ibid.*, 1-19.

25. See Paul V. Turner, *Campus, An American Planning Tradition* (Cambridge and London: The MIT Press and New York: Architectural History Foundation, 1984): 215-248.

However, the West Coast campus distances itself from the elegant elitism of the East Coast tradition, replacing the canonical with the experimental and the hybrid. One example of this can be found in the community

college, a typically Californian model meant to serve commuter students and thus lacking dormitories, which was developed near major highways in the Sixties and Seventies.²⁶ Unlike the typical Ivy League campus, the community college has an anti-monumental, informal appearance, probably tied to the counterculture phenomenon or perhaps simply intended to be more open to the city and to vehicular traffic. Wurster, Bernardi, and Emmons' Center for Advanced Research in Behavioral Sciences (1954) and Ernest J. Kump's Foothill College (1962) are two such examples.²⁷ If the latter is a sort of picturesque, rural village, whose buildings sport saddle roofs that look at Erich Mendelsohn's Luckenwalde Hat Factory, the Center for Advanced Research takes inspiration from Mendelsohn version of the Bay Region Style: the Varian Associates Building.²⁸ William Wilson Wurster was the dean of the Architecture School while Erich Mendelsohn was teaching at the University of California Berkeley, and the weight of the German master teaching is evident in the configuration of the buildings in the Center for Advanced Research: they are grouped around patios, whose centrality is underlined by the presence of wide porticos. [Fig. 8]

Erich Mendelsohn designed the first of three buildings erected for Varian Associates, the first company to move to the Stanford Industrial Park, but this building—which ended up becoming one of the most significant architectural presences in Silicon Valley—was neglected even by scholars like Reyner Banham²⁹. He glossed over the building, describing it as simply “a boring structure with an irredeemably '50s-ish wave canopy over its entrance.”³⁰ [Fig. 9] However, Banham's position on the architecture of this building was partially modified in the historian's reply to a letter from a California architect, who specified that the building that Banham had mistakenly attributed to the German master had instead been designed by his associate, Michael Gallis:

26. See Paul V. Turner, *Campus, An American Planning Tradition*, *ibid.*, 286-291; Gwendolyn Wright, “The Virtual Architecture of Silicon Valley,” *Journal of Architectural Education* 54, no. 2 (November 2000): 88-94.

27. See Paul V. Turner, *Campus, An American Planning Tradition*, *ibid.*, 286-290; Gwendolyn Wright, “The Virtual Architecture of Silicon Valley,” *ibid.*, 88-94.

28. In a letter dated November 7, 1947, Mendelsohn wrote: “The World University on the hills of Berkeley uses the shore of San Francisco's Bay for water sports and social activities. All colleges, grouped around open patios form architectural entities.” *Erich Mendelsohn: Letters of an architect*, ed. Oskar Beyer (London, New York, Toronto: Abelard Schuman, 1967): 171.

29. The Bauhaus architect, who spent the last years of his life as a refugee in San Francisco, planned the campus with Michael A. Gallis (the designer of the other two buildings erected for Varian Associates) between 1951 and 1953, but the campus was only completed after Mendelsohn's death.

30. Reyner Banham goes on to assert that this is not the only building in the Valley to be designed by a master of the Modern Movement, since Frank Lloyd Wright's Hanna House (1937), a “delightful” residence with a hexagonal plan, is enclosed within Stanford University's campus. Reyner Banham, “The Greening of high tech in Silicon Valley,” *ibid.*, 111.



FIG. 8 Wurster, Bernardi, Emmons, Center for Advanced Research in Behavioral Sciences, Palo Alto 1954-60 (UC Berkeley, Environmental Design Archives)

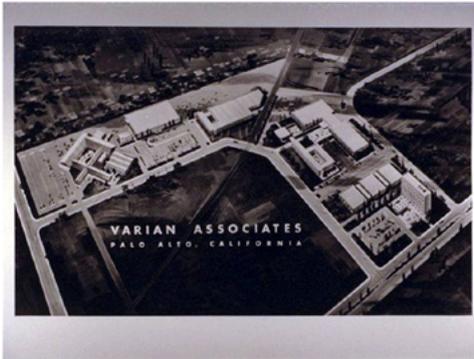


FIG. 9 John Savage Bolles, Douglas Baylis, IBM Cottle Road Campus, San Jose, 1958 (Sourisseau Academy for State and Local History, History San José)

“Reyner Banham is mistaken in his attribution to Erich Mendelsohn of the Varian Associates building illustrated in the March issue (page 111). This was designed, after Mendelsohn’s death in 1953, by his associate, Michael Gallis. Before this was built, Mendelsohn designed the Varian Administration building that still stands facing El Camino Real. It was, however, a bit of an oddity because it is a one-story pitched roof building with redwood exterior - Mendelsohn rather uncomfortable trying to come to terms with the Bay Region style.

Reyner Banham responds: I thank Christopher Arnold for clarifying something that I (and not alone) have always found confusing on the territory, since the single-story block is such an “oddy” that it looks even less like Mendelsohn than the Gallis block does”³¹.

Mendelsohn’s building was the first element in what should have been Varian Associates’ large complex, which in the end was only partially completed. In the last years of his life, Erich Mendelsohn dedicated himself to planning this factory of the digital age, conferring the dignity of a place

31. Christopher Arnold, “Letters. Mendelsohn in Silicon Valley”; Reyner Banham, “Reyner Banham responds”, *Architecture 5* (1985): 16.

of shared labor upon what could have been a simple industrial establishment. From the original sketches and the planimetric view the building looks like a block gathered around a vast central court, like a factory-city or a monastery; however, from the streetview the building appears quite delicate, as if the architect had wanted to channel the lightness of the Bay Region Style canonized by Lewis Mumford. The building is placed diagonally with respect to the surrounding plot of land, probably for aesthetic reasons, but the choice may also be functional, since the nearby HP buildings, built a little later, follow the same orientation.

We know relatively little about this building, apart from Mendelsohn's sketches, collected by Bruno Zevi. The axonometric sketch of the complex in particular is very similar to its completed form; however, it shows a system of differently sized flat roofs, with natural light entering into the long building from the ceiling as well as from the sides. It is similar to the cross section of a cathedral, which seems to be the building's source of inspiration. Actually, it is probable that the building utilizes the planimetric characteristics of Spanish missions, whose strong presence in the area must have been notable to a European planner. This building does seem to be made up of a large hall and a cloister from which certain more delicate wings expand outwards. The planimetric sketches reveal a profound uncertainty, characteristic of the initial phases of a work, when the architect's mind is torn between a floor plan with one courtyard or with multiple courtyards, between a symmetrical building or an off-kilter one, between a serial design—covered, perhaps, by an industrial roof that would make it look like a factory—or the closed plan of a convent. And yet, the final choice confirms the central nature of the courtyard and the complex's planimetrics seem to recall those of a spiritual center, made up of communicating, interconnected elements and traced by deep porticos and by the courtyard itself. On the contrary, external views of the building do not detach it too much from its context: in fact, according to the planners, the establishment was intended to have a human feeling rather than an industrial one, with a colonnade surrounding its entire perimeter and a low, saddle roof, used as a space for machinery.

The only information we have about the complex is provided by Erich Mendelsohn's wife, Louise, who, in a long account on her husband's life and work, wrote:

"Energy for the University of California, on the Berkeley hill, and the Varian Plant on grounds belonging to Stanford University. Both Varian brothers are dead now. They were two geniuses: during the war they invented the *klystron tube* which made radar possible.

When they approached Erich Mendelsohn to ask him to build for them, they had a little shed and asked Erich Mendelsohn to enlarge it. They manufactured the tubes they had invented themselves and after a short

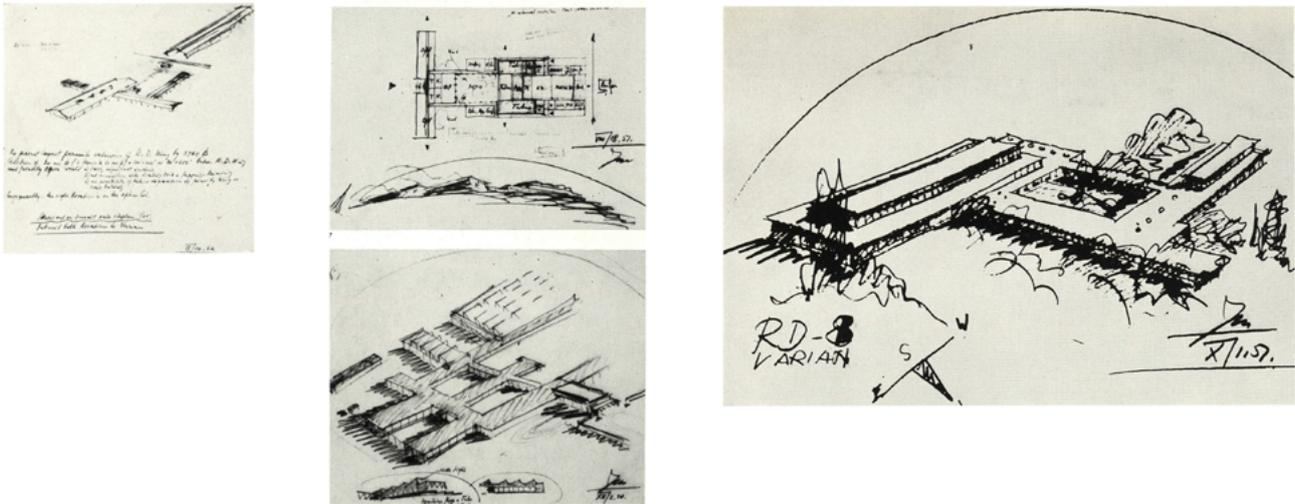


FIG. 10 Erich Mendelsohn, Varian Laboratories in Palo Alto, 1951-53, sketches

time production became so overwhelming that they had to build a plant. They applied for a piece of ground on the vast property owned by Stanford University. For the first time, the administrators overlooked their principle not to lease property for industrial purposes, but they insisted on a building which would not alter rustic atmosphere of the grounds. The property leased to the Varian Brothers was on the far edge of the University grounds and entirely treeless and exposed to great heat during the summer months. Erich Mendelsohn conceived the plant, which consisted of administrative offices, research laboratories and the actual manufacturing plant. For the second time in his long career, Erich Mendelsohn used sloping roofs as a protection against the heat, as he had done in Palestine for the Agricultural School in Rehovoth. The buildings were very successful – suited to the climatic conditions, fine in proportion and fitting to the demands of the University”³².

The Varian Associates Building is a testament to the Valley’s first phase of development, when one single complex housed various buildings: administrative offices, research laboratories, and the manufacturing plant. [Fig. 10] This integration of multiple activities within a single organism appears to be one of the unique characteristics of the corporate campus—a characteristic that would disappear over time, as the manufacturing plants began to be removed from the Valley and relocated elsewhere. Thus, the corporate campus ended up regressing into the corporate office; in other words, a simple office building without research laboratories or manufacturing plants. This was one of a number of substantial transformations that IT companies’ campuses underwent in the age of the Internet.

In 1970, the Xerox Corporation established its research center in Palo Alto and the new Xerox PARC (Palo Alto Research Center) campus was designed by the HOK firm (Hellmuth, Obata + Kassabaum), which in those years was one of the foremost architectural firms in the world. It spe-

32. Bruno Zevi, *Erich Mendelsohn: The Complete Works* (Basel, Boston: Birkhäuser, 1999): 278-279.

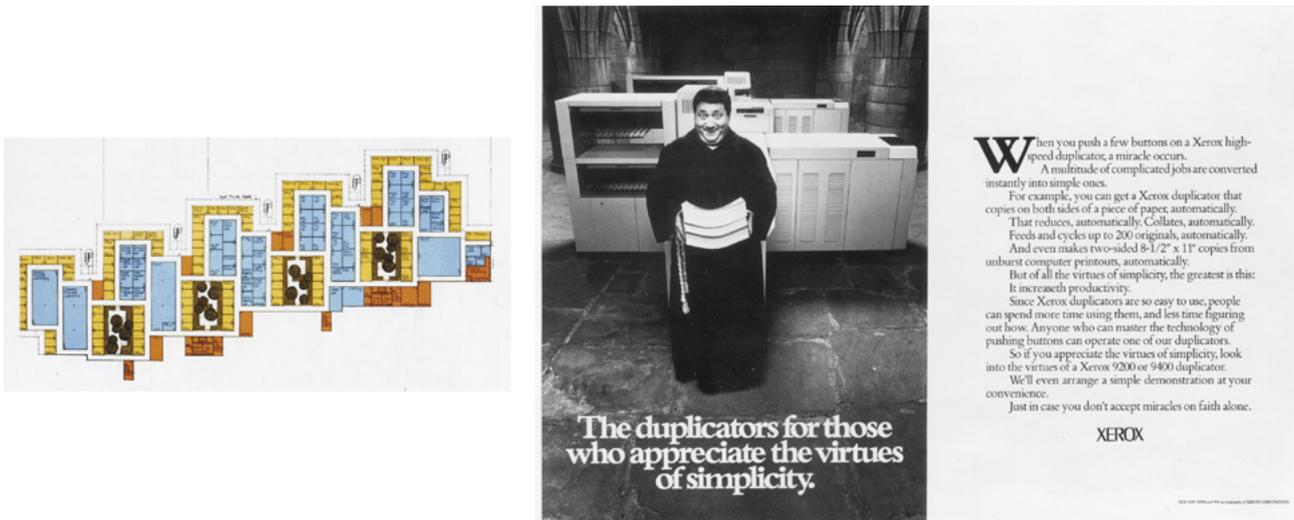


FIG. 11 Hellmuth, Obata + Kassabaum, Xerox PARC, 1970; Xerox advertisement

cialized in designing corporate buildings but was also known for more contained, local structures, like the Stanford University Library, erected in 1965. PARC was where Xerox's major inventions were developed, like the computer mouse, the laser printer, the Ethernet router, and the Graphical User Interface (GUI) for what would become the first PC model, the "Xerox Alto" (1973). Steve Jobs, along with a few members of his team, visited the building on Coyote Hill Road in 1979 for a demonstration of Xerox products and, in particular, the graphic interface of the "Xerox Alto".³³ The PARC campus looks like a fortress made of unpainted, unfinished concrete that unfolds around four tree-lined courts, conceived of as social spaces, surrounded by offices and large conference rooms. One side of the building is embedded in the ground, and the other surveys the vast Santa Clara Valley from above, facing out toward the flourishing landscape through a series of sloping terraces that only partially take away from the building's massive size. The configuration of the campus perfectly corresponds to its functional plan, almost reaching a sort of hyper-rationalization of the workspace.³⁴ Indeed, the campus reflects an organizational model that is no longer widespread but is extremely efficient, where teamwork is subordinate to individual work, which is made possible thanks to a large number of small cubicles for each worker. [Fig. 11]

During the sixties and the seventies, the corporate campus built in Silicon Valley was mostly designed in accordance with modernist guidelines, but emptied of the heroism that had set the campus masterpieces apart.³⁵ These buildings were characterized, formally and spatially, by what Banham had termed the "Eliot Noyes/Museum of Modern Art Vision,"³⁶ in reference to the IBM Laboratories in Santa Teresa (MBT Associates, 1975-77), which had been designed according to the ideals of abstraction, neutrality, and compositional purity. Consider also the IBM Manufacturing and Administration Building of Cottle Road, in San José (also known as the Advanced Research Building), that the architect John

33. After this visit, Jobs stated: "If Xerox had known what it had and had taken advantage of its real opportunities, it could have been as big as IBM plus Microsoft plus Xerox combined - and the largest high-technology company in the world." Malcolm Gladwell, "Creation Myth. Xerox PARC, Apple, and the truth about innovation," *The New Yorker* (May 16, 2011): 14.

34. We can attribute this, in part, to the strict seismic code regulations along the San Andreas Fault line: in fact, the building survived the 1989 earthquake.

35. We are referring to the Research and Development (R&D) Buildings of Varian Associates, Fairchild Instruments, Xerox PARC, Hewlett-Packard, and IBM.

36. Reyner Banham, "Silicon Style," *ibid.*, 284.

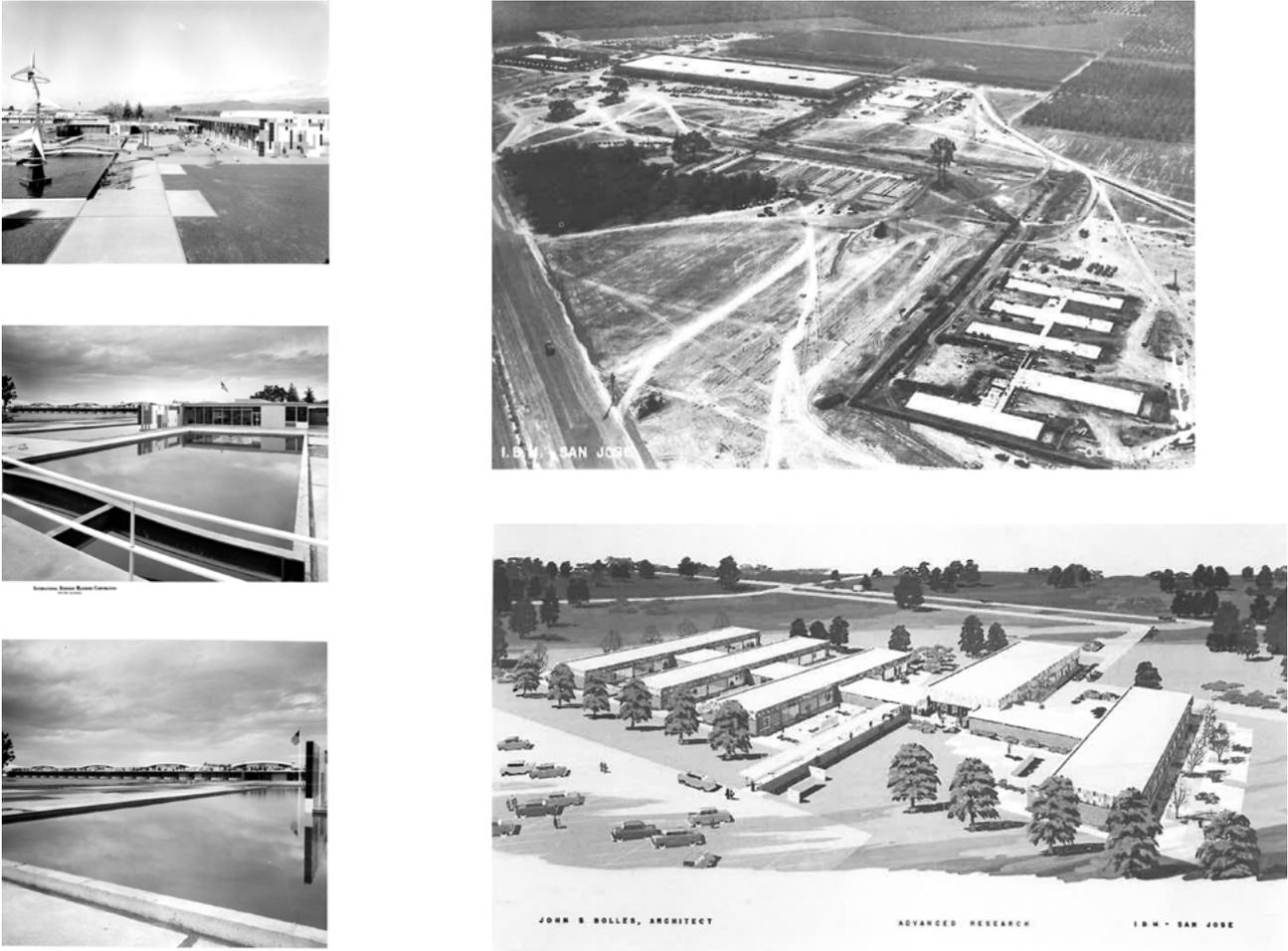


FIG. 12 John Savage Bolles, Douglas Baylis, IBM Cottle Road Campus, San Jose, 1958 (Sourisseau Academy for State and Local History; History San José)

Savage Bolles designed in 1956-58 together with the landscape artist Douglas Baylis. This campus was organized around five interconnected buildings made of iron, cement panels, and glass, with vast brick and ceramic surfaces.³⁷ The campus was certainly, in those years, an experimental workplace based on the figure of the worker and the integration of internal spaces and the external landscape, both natural and artificial. In fact, the complex was organized around patios in which gardens were located. Furthermore, it was surrounded by basins of water and dotted with a collection of sculptures by Bay Area artists Bob Howard and Gurdon Woods. A suspicious fire destroyed the building in 2008, when it had just passed into the hands of the large commercial chain Lowe... “Sic transit gloria siliconvallensis,” Banham would have exclaimed yet again! [Fig. 12]

During the Eighties and Nineties, the headquarters of emerging IT corporations began to be designed according to postmodern guidelines: from utilitarianism to ludic transgression, from geometric deconstructivism to pop.³⁸ In this phase of Silicon Valley architecture, the models of the American college campus, the productive villa, and the Spanish mission became a merely conceptual, vaguely taxonomic point of reference. As we will see, in certain cases this extreme creativity slides into the extreme

37. John Harwood, *The Interface. IBM and the Transformation of Corporate Design, 1945-76* (Minneapolis: University of Minnesota Press, 2011): 118-119.

38. 3Com, the current headquarters of Marvell Semiconductor Inc., was designed in 1979; Sun Microsystems was founded in 1982 and acquired by Oracle in 2009, while, in 2011, its headquarters were bought by Facebook; Silicon Graphics Inc. was also founded in 1982, with its headquarters in Mountain View. In 2004 that building was ceded to Google Alphabet Inc., and Silicon Graphics Inc. moved to the nearby Crittenden Technology Center Campus, designed by STUDIOS.

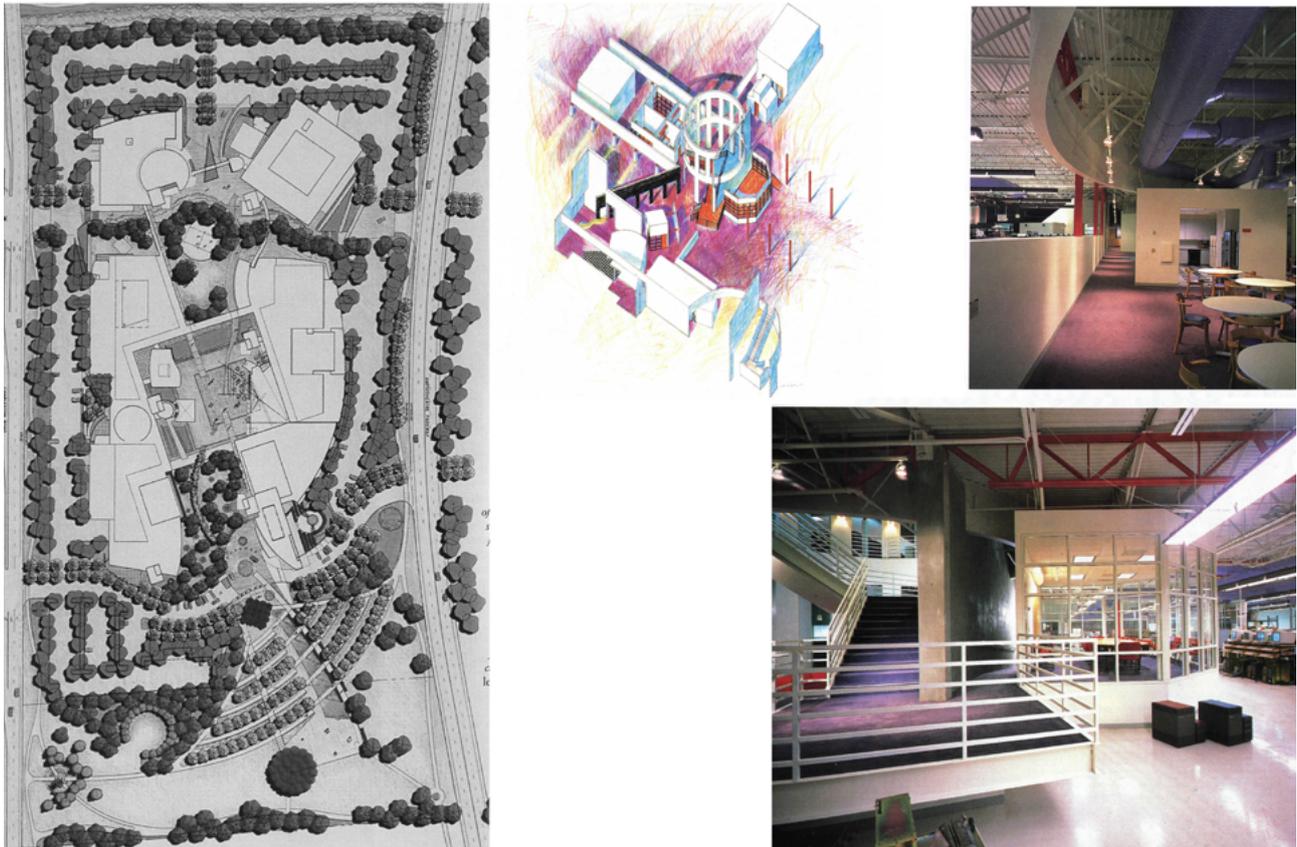


FIG. 13 STUDIOS Architecture, Google Headquarters (ex Silicon Graphics SGI), Mountain View, 1997, aerial view, sketches and interiors

individualism of formal solutions marked by excess, where design renounces any relationship with the area's cultural roots, and architecture becomes a kind of gadget. Added to the formal excess is the use of a symbolic, not a metaphorical, language, that recalls either the form or internal structure of the tech industry's products, or software engineering, from the computer's motherboard to the bureaucratic systems for archiving files or the very components of a processing unit. But we must also specify that these designs were contrasting the sprawl that characterized the Valley with a decidedly urban framework. In most cases these campuses were, in fact, structured according to a spatial organization based on precise formal principles: they were, in a way, micro-cities that were, in some cases, rigorously planned and laid out.

The architecture firm that was most involved in designing digital technology companies' buildings in the Eighties and Nineties was STUDIOS, the author of both 3Com and Silicon Graphics Inc.'s headquarters. Both of these campuses are made up of juxtaposed and deconstructed buildings, rotated and distorted masses, put together in a panoply of colors and a collage of various materials. The campuses' atmospheres are casual, and creativity and efficiency compensate for the apparent lack of hierarchy.

Silicon Graphics Inc.'s North Charleston Campus, in Mountain View, which currently hosts the Googleplex—the most characteristic section of Google's offices—is a cluster of buildings surrounding a square courtyard,

a space full of concentrated creativity and theatricality. The campus is located near the Shoreline Amphitheater, an arena for rock concerts “donated by the legendary Bill Graham, who in 1957 in San Francisco was the hero of the hippie ‘Summer of Love’”: this serves as a testament to the Valley’s involvement in the creative and rebellious season of counterculture.³⁹ It would seem that from the amphitheater’s stretched-out tent and its tall spires took inspiration the histrionic design of what became Google’s campus in 2004, where even the design of the floor recalls the curves of the amphitheater’s arena [Fig. 13]. Even if SGI corporate campus seems to be dictated by pure formalist caprice, its interiors are hyper-structured planimetric designs. Despite formal exuberance, the plans are rigorously and intricately organized and anchored to almost scientific geometrical and compositional rules. It is interesting to reference what Aaron Betsky writes about this campus, and, more in general, this studio’s controversial work: “there is a method to their madness,” according to Betsky. “STUDIOS Architecture has concentrated on isolating the moments where the routines of everyday life give way to rituals that give meaning to such drudgery.”⁴⁰ However, the balance between rules and programmatic exceptions, so central to the work of the “New York Five” who inspired STUDIOS, tends to become excessively off-kilter in the California firm’s work. What happens as a result, then, is that both the hierarchical principle and the structural, geometric, and circulatory grid that are at the base of these designs are lost in the final product: Betsky terms this excessive and redundant style “office Baroque”.

After the postmodern breeze, corporate campus starts to be intended as a large factory, opening up to a less formal design. Since the space of the campus becomes more and more oriented toward the production of capital flows, the parameters of its design are largely dictated by economic concerns. Therefore, both big and small companies—and especially startups—require spaces that are affordable, expandable and, above all, able to be quickly completed. Companies’ headquarters and locations, in fact, change about every two years and sometimes companies rent spaces in industrial parks, only carrying out interior remodeling. Even Google, the big corporation par excellence, transferred its headquarters to Sun Microsystems’s campus in 2004 and renovated the spaces designed by STUDIOS with a new and appealing remodel carried out by Clive Wilkinson Architects, the firm that built the headquarters of the famous Los Angeles advertising firm TBWA Chiat Day.

It is possible to have a brief overview on the changes that occurred in corporate campus design from 2000 onward, just summarizing some of the design strategies adopted in order to renovate industrial buildings. The insertion of workspaces detached from the warehouse’s external shells and treated as free-standing offices is the most frequent strategy. These little studios, following the model of the ancient *studiolo*, or the box

39. Reyner Banham, “La fine della Silicon Valley,” *ibid.*, 42 [from the Banham’s manuscript, *unpublished*] (The Getty Research Institute, Research Library, Special Collections).

40. Aaron Betsky, “Introduction,” in *STUDIOS Architecture: Selected and Current Works*, ed. STUDIOS Architecture (Mulgrave, Victoria: Images Publishing, 2002): 10.



FIG. 14 Clive Wilkinson Architects, TBWA Chiat Day, Los Angeles 1998; Antonello Da Messina, San Girolamo nello studiolo, 1474-75



within the box, are formal devices with great visual impact, marking the internal space rather than subdividing it, creating individual and collective microspaces for small group meetings or break times [Fig. 14]. Corporate design turns into performative design: the factory is set up, rather than designed, in order to guarantee maximum flexibility to the workplace, which is characterized by empiricism and theatricality, where the structure is dynamic and where the stairs—following the prophecy of the Futurist poet Volt—are replaced with toboggans, slides, and roller coasters.⁴¹ [Fig. 15] In so doing, the large warehouse becomes a creative factory and this new look displays the character that the company wishes to communicate and broadcast. The “creative” character can be compared to the “eco-friendly” component that was in vogue starting from the Sixties, when the front exteriors of corporate offices were shielded by walls of trees and even the interiors were enriched by the presence of greenhouses and gardens. It is possible to see these interior gardens in the Bell Labs Building in Holmdel, designed by Eero Saarinen in 1966, as well as in the further Qume Corporation in Santa Clara, designed by Hawley and Peterson in 1980, whose interior space echoes the Roche-Dinkeloo’s Ford Foundation building.⁴² This use of green expressed, according to Banham, a kind of trickery: the new face of power, in fact, carried with it a new, flattering image of the campus, “a new and less intimidating face on an industry whose links to power may not appeal to the current preferences for softened technology and a simpler society.”⁴³ Similarly, the creativity that is presumed to be present in these dynamic-looking and performative workplaces is a communication strategy in the hands of the corporations

41. Vincenzo Fani Ciotti (known as Volt), “Del funambolismo obbligatorio o aboliamo i piani delle case,” *L’Italia futurista*, no. 37 (January 15, 1918); Vincenzo Fani Ciotti, “La casa futurista. Indipendente - Mobile - Smontabile - Meccanica - Esilarante,” *Roma Futurista*, no. 81-82 (April-May 1920).

42. As for Qume Corporation, see Reyner Banham, “Silicon Style”, *ibid.*, 288; Reynold Martin, Kadambari Baxi, *Multinational City. Architectural Itineraries* (Barcelona: Actar, 2007): 1.10-1.13; as for the Ford Foundation Building, see Kenneth Frampton, “A House of Ivy League Values,” *Architectural Design* (July 1968): 305-11.

43. Reyner Banham, “Silicon Style”, *ibid.*, 288.

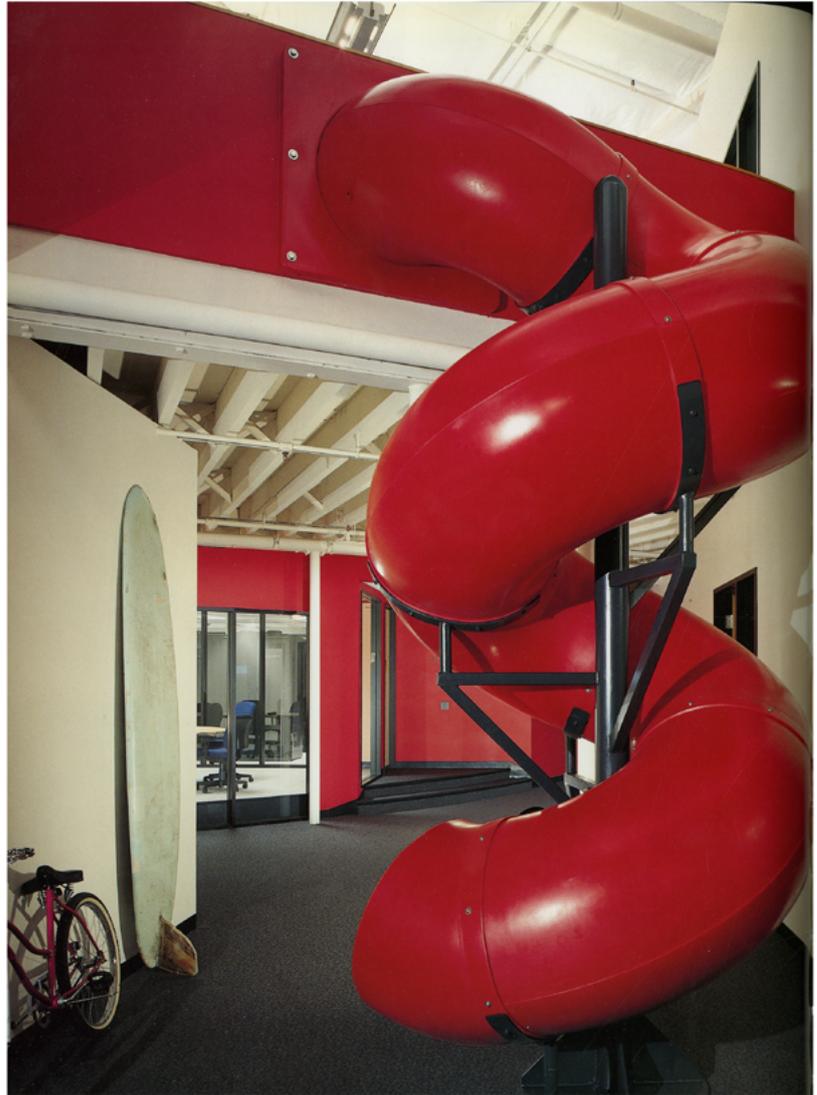


FIG. 15 STUDIOS Architecture, Excite Headquarters, Redwood City, 1997-98, plan and interior

that have a monopoly on information. They still need the physicality of a hyper-technological monument or a workplace of talent like the Futurists' "tumultuous shipyard", in order to promote the company's products. But what happens when such a forceful trademark—for instance that of Facebook or Apple—meets an equally forcefully authorial design?⁴⁴

Conclusions

In the postwar period, architecture becomes a universal language, controlled by the new communication technologies, and buildings no longer represent an institution, as they did in the past, but rather a corporate philosophy that prioritizes functional, technological, and media necessities. From the first building erected on the land of the Stanford Industrial Park to the most recent buildings completed in Silicon Valley, the organizational structure of the new campus of digital age has noticeably changed. Since corporate productivity is seen as a variable that depends on workers' level of satisfaction with their social lives, the corporation needs to provide

44. See Lina Malfona, "The Apple Case. Architecture, Global Market, and Information Technology in the Digital Age," *Ardeth*, no. 03 (Fall 2018): 53-75; see also Lina Malfona, "The Circle: Geographies of Network vs. Geometries of Disjunction," *The Avery Review*, issue 30 (March 2018), accessed December 3, 2019, <https://averyreview.com/issues/30/the-circle>.

the conditions that make a satisfying social life possible. The corporation does so through the transformation of the campus' very architecture, by creating meeting places within the workplace and providing access to a series of activities that are "offered" to the worker, such as free meals, vacations, and parties organized by the company, according to what is termed "The HP Way."⁴⁵ With their cafeterias and gyms, these campuses recall the atmosphere of college, with the same desire to reap the benefits of innovation, competition, and collaboration.⁴⁶ On further examination, however, both the collective nature of the work environment, which gives up the isolation of the individual office, and the message of "serious fun" transmitted by the interiors—where there is no lack of basketball courts, fitness clubs, and playground—become a corporate ploy to attract workers. In this way, the metaphor of "one big family" is used to broadcast the image of a campus intended as a creative factory.⁴⁷

This new kind of creative factory distances itself from the mechanization and the rationalization which characterized both the Albert Kahn's factories and the Fairchild Building, the most representative building of Silicon Valley's first architectural wave.⁴⁸ That industrial image has given way, in these new buildings, to the performative, ludic, and bluntly creative, which can only be celebrated through the definitive schism between an outside that becomes a mediating screen and an inside that is constantly in the making. Is this schism the last expression of the long-lasting conflict between architectural design and capitalism? Can architects still have a critical role inside the information age? This study leaves certain questions unanswered, and the reader is called to reflect on these questions.

45. The HP Way had many precedents, consider for instance the Bell Laboratories in Murray Hill (East Cost), where in the 1950s and 1960s were already available cafeterias, amenities and collective facilities, according to the words of A. Michael Noll. See A. Michael Noll, *Memories: A personal History of Bell Telephone Laboratories*, Copyright © 2015 A. Michael Noll, accessed July 15, 2019, https://ethw.org/w/images/1/1e/Memories_-_A_Personal_History_of_Bell_Telephone_Laboratories.pdf.

46. See Cathy Lang Ho, "Silicon Valley", *Metropolis* (October 1995): 70-72, 88.

47. Rather than voluntarily giving up the isolation of individual offices, the increase in personnel and the subsequent lack of space in the Fifties forced corporations to adopt more flexible configurations, using mobile partitions and eliminating private offices. See Richard Sennett, *Building and Dwelling. Ethics for the City* (London: Allen Lane, 2018), ch. "Tocqueville in Technopolis"; Nikil Saval, *Cubed. A Secret History of the Workplace* (New York, Doubleday, 2014).

48. See Jean-Louis Cohen, *Architecture in Uniform. Designing and Building for the Second World War* (Paris: Editions Hazan, 2011); Nina Rappaport, *Vertical Urban Factory* (New York: Actar Publishers, 2015).