

New Silicon Valleys: Tradition, Globalization, and Information-Technology Development in Bangalore, India

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This article argues that information- and communications-technology (ICT) office parks, with Silicon Valley, California as their referent, constitute a new transnational tradition. The article begins by explicating the Silicon Valley tradition. It then examines the Bangalore, India, campus of Infosys and its invocation of this tradition. The article argues that the Silicon Valley tradition constructs the ICT worker as a member of a global workforce by physically marking the landscape of cities around the world with cues to appropriate modes of behavior. In conclusion, it proposes that transnational traditions may be reterritorialized and eventually handed down to future generations.

Tradition and globalization would appear to be in opposition. Tradition, on the one hand, has been variously defined as that which constrains choice, that which is handed down through face-to-face interaction, and that which is highly place specific.¹ Globalization, on the other hand, has been defined as that which provides the penultimate choice, that in which a hyper “mediated quasi-interaction” is the principal form of social/cultural exchange, and that which is completely unbounded from the specificity of place.²

These definitions, however, are not exhaustive, monolithic, or mutually exclusive, despite the tendency of writers to cast them as such. In particular, definitions of globalization have treated it as a totalizing narrative of “sheer commodification.”³ But, as William Mazzarella has pointed out, such treatment denies “the problem of the concrete altogether” by ignoring the specifics of social and historical conditions, and it denies the fact that “images that have become increasingly important to the reproduction of capital are not reducible to the calculi of value.”⁴ This is important for the case presented here, as I will argue that a new “Silicon Valley tradition” relies on images transmitted transnationally, and that these images have concrete consequences in the built environment. In addition

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to Mazzarella's two critiques, I will emphasize that images, or representations of space, do not remain merely as images. In the words of Henri Lefebvre, "we may be sure that representations of space have a practical impact . . . by way of construction — in other words, by way of architecture."⁵

Like definitions of globalization, the various definitions of tradition outlined above are limiting, and tend to close off tradition as a useful framework for understanding the contemporary processes of globalization. However, as Nezar AlSayyad argued in *The End of Tradition?*, taken together, they "point to a more open-ended definition."⁶ This view grows from the perspective articulated in the earlier *Dwellings, Settlements and Tradition*, in which AlSayyad and Jean-Paul Bourdier proposed that tradition might serve as "a model for the dynamic reinterpretation of the present."⁷ It is in this vein that I will approach the notion of "tradition."

Edward Soja has argued that within the processes of globalization "there is a restructured global space economy that demands to be studied on its own emphatic terms."⁸ This is a phenomenon that Jane M. Jacobs noted "has delivered new conditions for its [tradition's] emergence; installed new mechanisms for its transference; and brought into being new political imperatives for its performance."⁹ Thus, the carefully circumscribed and in many respects opposing definitions of tradition and globalization are inadequate because the one seems to preclude the other. Fortunately, AlSayyad's framework allows a new reading of the intersection of globalization and tradition that helps bridge this gap.

The case I describe here suggests that tradition, now reworked, reconfigured, transmitted and respatialized through transnational processes of globalization, continues to offer a meaningful analytic frame with which to approach the contemporary structure of Soja's global space economy. One component of this process is cultural globalization, which Diana Crane has argued is "a complex and diverse phenomenon consisting of global cultures, originating from many different nations and regions."¹⁰ Given the existence of such "global cultures," defined individually as "the way of life of a people or a system of schemata transmitted symbolically [and whose] transmission occurs not only through language . . . but also through the built environment," a necessary product of globalization will be global or transnational traditions.¹¹ The key constituents of these global cultures and their attendant transnational traditions are norms or constraints on appropriate ways of behaving. These culture/tradition formations are therefore intimately bound up with the built forms through which individuals are disciplined to become and remain members of the group.

Such built forms are part of new geographic formations that are not city- or region-specific; instead, the processes of globalization and transnational tradition-making simultaneously disembed territories and re-embed them in a noncontiguous geography. In so doing, they become, as Kris Olds has suggested, one of "the concrete articulations . . . that

accompany the process of global flows under geographically and historically specific conditions."¹²

In the case of Bangalore, India, this is not a re-embedding or reterritorializing, but a move to define anew the region or territory as part of a transnational geography of information and communications technology (ICT), a non-geographically contiguous entity. It is in just such a geography that we find a "global culture" of ICT development to which geographically separated individuals belong, or wish to belong. And it is through a set of geographically unbounded or transnational traditions that this redefinition takes place.

These ICT enclaves — as well as aspects of their larger landscapes — are physical manifestations of the advance of simultaneously real and imagined places, "an exact copy of a city that has never existed."¹³ Specifically, the traditions that inform them are transnational in the ways they are constructed and passed on or transmitted. But, like all traditions, they continue to discipline members of a particular culture in appropriate behaviors. At the same time, they are particularized by the social, economic, political and spatial histories of the locales in which they are embedded.

These transnational traditions and their physical embodiments are yet in a nascent stage in Bangalore and other locations around the globe. As such, their final spatial outcomes are far from determined, much less completely understood. Nevertheless, they are important to consider in discussing urbanization and its link with tradition under conditions of globalization.

As Eric Hobsbawm and Terrence Ranger have noted:

*We should expect it [the invention of tradition] to occur more frequently when a rapid transformation of society weakens or destroys the social patterns for which "old" traditions had been designed, producing new ones to which they were not applicable, or when such old traditions and their institutional carriers and promulgators no longer prove sufficiently adaptable and flexible. . . .*¹⁴

Thus, to the extent that all traditions are invented, and given that globalization and information technologies have been hypothesized as marking out a "new mode of becoming human," a commensurate set of "new" transnational traditions, constructed within the context of contemporary globalization, should come as no surprise.¹⁵

To understand how the particular transnational tradition of ICT development operates within the built environment of Bangalore I will first examine the images and worldview that constitute the "tradition of Silicon Valley" and how it is bound up with the built environment.

A SILICON VALLEY TRADITION

In the 37 years since the term “Silicon Valley” was coined by journalist Don Hoefler, it has been transformed from a speculative description into an actual physical location — and, I would argue, a transnational tradition constituted in part through myth. As cities around the globe attempt to create futures based on their own milieus of technological innovation, Silicon Valley’s influence as a model of a technology growth engine has extended far beyond its own borders.

While Silicon Valley is a physical geography, it has also become an idea linked to a mythologized history. The tradition of Silicon Valley is constituted by two mutually supporting imaginaries: a physical one, based on “representations of space” which have been made concrete in the landscape; and an economic one, based on economic success. An important part of this mythology is constituted by visual imagery and written descriptions of Silicon Valley transmitted through an increasingly globalized media. As Manuel Castells and Peter Hall have noted:

There is a[n] . . . image for the new economy that has taken its place in the last years of the twentieth century, but it is only just imprinting itself on our consciousness. It consists of a series of low, discreet buildings, usually displaying a certain air of quiet good taste, and set amidst impeccable landscaping in that standard real estate cliché, a campus-like atmosphere.¹⁶

Understanding how these media representations contribute to an image of “Silicon Valley” is an important first step in understanding how it constitutes a transnational tradition that can be invoked in other locations that aspire to similar status.

In her 2000 article “The Virtual Architecture of Silicon Valley” in *The Journal of Architectural Education (JAE)*, architectural historian Gwendolyn Wright described Silicon Valley, California, as a “seemingly endless repetition of flat, prosaic surfaces,” a place where “the prevailing norm is utterly banal.”¹⁷ Assessing general critical opinion of this landscape, Wright noted “there is only disdain for the flimsy facades of today’s third industrial revolution.”¹⁸ She contrasted this disregard with the admiration of Schinkel and Latrobe “for the straightforward, uncluttered presence of nineteenth-century brick factories” and the “painters, photographers and architects who were enthralled by the majestic assertiveness of Detroit’s automobile assembly plants.”¹⁹

While Wright’s assessments may be accurate, her view is not that which constitutes the standard image of Silicon Valley worldwide. This tends toward the mythic, eliding the prosaic in favor of both the spatial and socioeconomic spectacular. Indeed, the representations that form the image of Silicon Valley rarely, if ever, present it as banal. Instead, like the earlier celebratory rhetoric and imagery of industrialization, the landscape of high technology is depicted by its icons

or monuments; and, despite their frequent, real physical banality, these are nearly always constructed as extraordinary.

Early descriptions of Silicon Valley, such as Reyner Banham’s 1980 article in *New West*, “The Architecture of Silicon Valley,” even celebrated it for a sleek, distinctive aesthetic.²⁰ Banham’s descriptions are worth quoting. For example, here is what he wrote about IBM’s Santa Teresa complex:

Neat, silvery smooth and as slickly styled as an advanced computer, IBM Corporation’s Santa Teresa laboratory complex sits among ranch lands and orchards in the shelter of a ring of rounded, sun-dappled, yellow-grass hills. . . . It looks marvelous.

[I]t is IBM, more than any other company, that developed the sharp, modern imagery that high-technology industries feel compelled to present to the public . . . precise and elegant outwardly, almost an art gallery within.²¹

Discussing Digital Equipment Corporation, he nearly waxed poetic:

It is rock bottom image, the ultimate black box: a rectangle of dark glass on a skinny plinth, standing on a mathematically precise plane of green lawn . . . the image is inviolate: a dark crystal on a green velvet mount.²²

More recent examples illustrate the continued use of such rhetoric. Thus, *World Architecture*’s July/August 1998 article “An Instant Landmark in Silicon Valley” began: “Silicon Graphics Inc.’s new Research and Development Campus in Mountain View, California, combines cutting edge architecture by STUDIOS Architecture and stylized landscaping by the SWA Group.”²³ By contrast, Wright wrote of this same complex: “The giant purple cylinder and turquoise trapezoids don’t pretend to be more than upbeat ornamentation to enhance limited-budget, all-purpose warehouses.”²⁴

The photographs that accompany articles like the one in *World Architecture* on Silicon Graphics’ Mountain View campus reinforce this image of the spectacular. A case in point was that magazine’s 1995 profile of Gensler, a global architecture firm headquartered in San Francisco, which was accompanied by a nearly half-page photo of the Oracle campus in Redwood City that it designed (FIG. 1).²⁵ The views here are carefully framed and cropped to bracket the landscape, eliminating anything that might take away from the sense of buildings as spectacular icons of technology. As Mitchell Schwarzer has noted, however, the Oracle campus was in fact a developer-driven project to which the company had to adapt itself; it was not the monument to corporate identity the *World Architecture* profile made it out to be.²⁶

This juxtaposition of Wright’s analyses with the image presented in architectural periodicals is important. Aside from their diverging views, it speaks to the place of different



FIGURE 1. Oracle Headquarters, Redwood City, California. Photo by Sherman Takata, courtesy of Gensler. First published in *World Architecture* 39.

publications and the audiences they reach. *JAE*, an academic journal published in the United States by MIT Press, has a circulation of just 4,300.²⁷ *World Architecture*, before it ceased publication in 2003, had a paid circulation of 10,000, including subscribers in at least twenty countries.²⁸ Based on these numbers, it seems reasonable to assume the celebratory imagery of *World Architecture* would have had a greater reach within the profession than the critiques in *JAE*. Indeed, it would have been unlikely that architects, either in the U.S. or worldwide, would even have been aware of Wright's article. By contrast, images like those in *World Architecture*, Banham's *New West* article, and elsewhere in the architectural and popular press have done much to construct Silicon Valley as a place dominated by the monuments of ICT companies.

The second important constituent of the tradition of Silicon Valley — perhaps more important than this architectural imaginary — is its image as a place where technological development has created a new socioeconomic/business landscape, and where, notwithstanding the bursting of the dot-com bubble, success is assured. Here, anyone with a bright idea can become the next Steve Jobs or Bill Gates — or even more powerful in the case of Bangalore, Sabheer Bhatia, founder of Hotmail.

Annalee Saxenian has noted the pioneering spirit that supposedly defines this new landscape. “The early entrepreneurs of Silicon Valley saw themselves as the pioneers of a new industry in a new region. They were at once forging a new industrial settlement in the West and advancing the development of a revolutionary new technology, semiconductor electronics.”²⁹ This ethos forms an important part of the Silicon Valley tradition. Today, corporate founders like Bill Hewlett and Dave Packard are celebrated for their risk-taking, technological innovation, and personal success. As Saxenian noted when discussing Fairchild Semiconductor,

“the family tree [of firms spun off from Fairchild] glorifies the entrepreneurial risk-taking and competitive individualism that distinguishes the region's business culture.”³⁰

The metaphor of pioneers going west to create something new, as a glorious exploration of the unknown, is apt, especially since many of Silicon Valley's first-generation leaders were transplants to the area. But like other California dreams, this myth leaves out important ingredients. As Saxenian has shown through comparison with Boston's Route 128, Silicon Valley's pioneers did create a remarkably different business model.³¹ Yet, among its many features was the notion that failure was not a bad thing; one could simply get up after a failure and try again. Thus, failure is rarely part of the Silicon Valley story. In fact, the existence of failure is in some respects celebrated as part of “a daredevil, risk-taking culture” where final success is always the focus.³²

This Silicon Valley imaginary has been capitalized on by the ICT industry, the real estate industry, and government, and both its spatial and business components are now firmly embedded in media representations. Thus it is that buildings like the Oracle headquarters, as presented in *World Architecture*, have become models for the aspirations of architects, developers, government officials, local IT companies, and software workers in places like Bangalore.

In this new Silicon Valley tradition all things are considered possible. And through representations of spectacular ICT architecture and a bold legacy of economic success, Silicon Valley has become, as Banham noted, “not simply a geographical location . . . , but a kind of heightened industrial consciousness based on the seemingly unlimited market for spiffy gadgetry. . . .”³³ Thus, while the landscape described by Castells and Hall in *Technopoles of the World* may aptly be described as banal, it is the myth that proliferates and travels to far-away destinations through the flows of globalization.

In this process, both constituents of the Silicon Valley tradition — the spatial and the economic — elide important components. The spatial myth suppresses the banal and prosaic that forms so much of the landscape, instead constructing it as spectacular and monumental. And the economic myth focuses only on spectacular success. As *Business Week* reported in 1997, “Here [Silicon Valley] you can reap wealth from sheer brainpower.”³⁴ However, this economic myth ignores a soft underbelly of Silicon Valley that is vital to its functioning as a high-tech industrial region. The service workers who make much of Silicon Valley work are largely, if not completely, ignored by the powerful myth-making machinery, and the landscapes they inhabit are invisible in most accounts.

I am not suggesting here that Silicon Valley, California, represents an authentic tradition, in juxtaposition with inauthentic reproductions, or simulacras, produced elsewhere. On the contrary, the original Silicon Valley is every bit as imagined, mythologized and invented as its supposed replicas. Yet, as a transnational tradition, the idea of Silicon Valley is informed and transformed by instances of replication. And together with representations of the original, it is now constituted as a global imaginary with which individuals identify themselves as a means of embedding themselves in a meaningful geography within a constantly shifting global landscape.

Unlike images of other types, such as the advertising discussed by Mazzarella, however, architecture also constructs physical space. It thus simultaneously creates a commodity image and a part of Soja’s space economy. This means that those who aspire to reproduce the images of Silicon Valley, such as architects and ICT corporate executives, may also create real exchange value within a global space market. In other words, the concretion of Silicon Valley images into built form, as architecture, can also be consumed through inhabitation by ICT workers who aspire to be part of a global software culture.

But it is also through attempts to make such images concrete, in social and historical circumstances removed from their place of origin, that the abstract conditions of their production are laid bare. That is, it is in each such attempt that their ability to “bestow authenticity upon any set of appearances” can be most obviously be questioned.³⁵ In other words, as the Silicon Valley tradition is reproduced in diverse new locations — in Galway, Saigon, Suzhou and Bangalore, to name only a few — each attempt must explicitly or implicitly invoke the tradition of Silicon Valley, California. Yet, in every instance, the local social and historic circumstances make exact reproduction an impossibility.

ELECTRONICS CITY: A COPY OF A PLACE THAT NEVER EXISTED

Bangalore, in the South-Indian state of Karnataka, is one instance of this attempted reproduction (FIG. 2). Eleven kilometers south of Bangalore’s former colonial cantonment



FIGURE 2. Bangalore location map.

(now an emerging CBD), and well beyond its postcolonial ring of housing and industrial development, lies what is arguably the epicenter of India’s growing ICT economy — Electronics City. Despite its overburdened infrastructure and ever-increasing traffic, there is little doubt that Bangalore is India’s information-technology hub. Fully 34 percent of Indian software exports for 2003–2004 originated from Bangalore-based ICT firms, the largest of which were based at Electronics City.

To better understand the landscape of ICT in Bangalore, and Electronics City more specifically, it is important to recognize that Bangalore’s image as “The Silicon Valley of India” has been deliberately constructed and deployed by government agencies, the real estate industry, and ICT companies. These actor/institutions have used both visual and textual representations to create the image of a city entirely given over to ICT development. As Tim Hall and Phil Hubbard have pointed out, the urban entrepreneurial policies which capitalize on this imagery are meant “to promote the comparative advantage of the city relative to other cities which may be competing for similar investments.”³⁶

To promote Bangalore as equivalent to other high-tech cities, and so compete in a global ICT space economy, verbal descriptions and visual images of the city (and, more specifically, its ICT developments) employ many of the same strategies as marketing efforts worldwide. Thus, buzzwords such

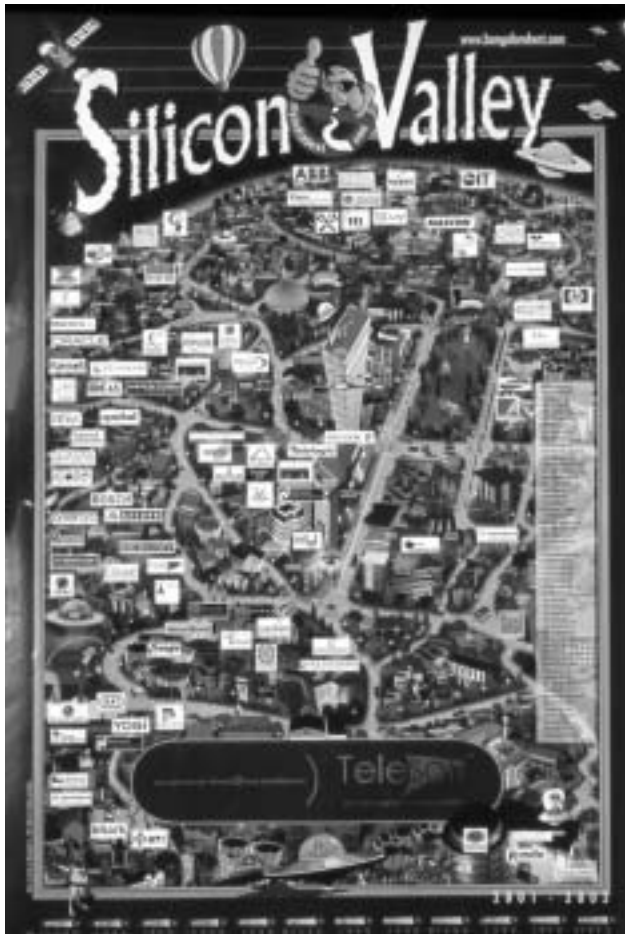


FIGURE 3. Cartoon map of Bangalore.

as “world-class,” “international standards,” and “modern” proliferate in descriptions of Bangalore’s built environment. And the visual representations of its ICT developments are, like the photo of Oracle’s California headquarters, tightly bracketed to eliminate the complexity of the picture just beyond the field of view.

These representations construct an image of Bangalore not unlike that shown in the accompanying cartoon (FIG. 3). This image, widely distributed in Bangalore, depicts the city as a homogenized landscape populated only by ICT companies. But this view of Bangalore’s ICT landscape is, like most efforts to market cities, a distortion. Despite the attempt to represent ICT as ubiquitous across the entire city, the density of ICT establishments, mapped by postal (PIN) code across its entire 531 sq.km., is in fact quite uneven (FIG. 4).³⁷ Notwithstanding this unevenness, Bangalore remains known as “the Silicon Valley of India,” and real estate advertisements frequently refer to it this way, as in the sign just beyond the boundary of Electronics City (FIG. 5).

While several features of the ICT geography shown in Figure 4 are notable, including the concentration of activity

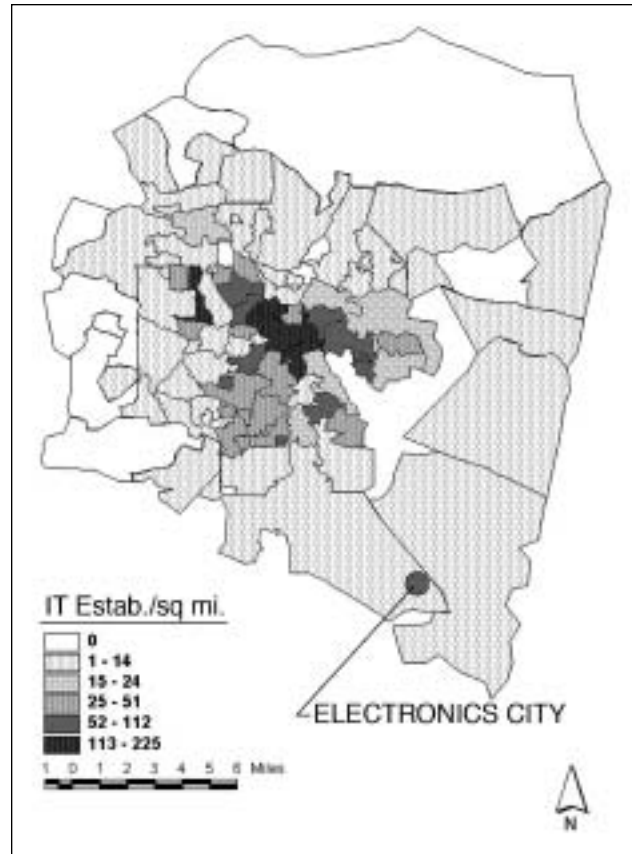


FIGURE 4. Citywide density of ICT establishments.

in the central business district, it is the “island” of development to the south of the city that is most noteworthy. Here, at Electronics City, the national and state governments and the ICT industry have constructed an ICT enclave.

Electronics City has been described as “an assemblage of gleaming marble and glass buildings where Indian tech



FIGURE 5. Real estate signage near Electronics City.



FIGURE 6. Hosur Road at Electronics City entry.

companies have taken root”; yet, the entry to it on Hosur Road marks the border between the controlled corporate world and the seemingly chaotic space of the city (FIG. 6).³⁸ Vendors, pedestrians, all manner of transport, and India’s ubiquitous wandering cows, all converge outside its gates. Meanwhile, inside, the image of Bangalore as the Silicon Valley of India is carefully tended, in a framed tableau of corporate campuses.

Among the ICT establishments at Electronics City is Infosys. One of Bangalore’s and India’s largest software

companies, Infosys has come to represent the ideal for many Indian companies aspiring to success in the ICT sector. And its flagship campus at Electronics City, reputed to be the first in India, has likewise become the referent image of the built environment for these companies (FIG. 7).

Before looking at the Infosys campus in more detail, it is useful to contextualize the exurban development at Electronics City within the larger social, historical and spatial history of Bangalore. This history can be understood according to four broadly defined political and economic regimes. During each period, prevailing political, economic, planning and architectural paradigms shaped different locations in the city and left behind concrete reminders of their existence, creating a landscape onto which today’s ICT development is being accreted.

Following its founding in 1537, Bangalore remained for many years a regional trading and mercantile center surrounded by a rural landscape dotted with villages and tanks (reservoirs). During this period, it consisted of two parts, the *pettah* (market) and the fort, built by the city’s founder, Tippu Sultan (FIG. 8). The *pettah*, characterized by its organic form and densely packed shops and housing, evolved according to an irregular pattern of narrow streets and alleyways. Bangalore largely retained this form until the British defeated Tippu Sultan in 1791.



FIGURE 7. Aerial photo of Electronics City with Infosys campus highlighted. Includes material © Space Imaging LLC.

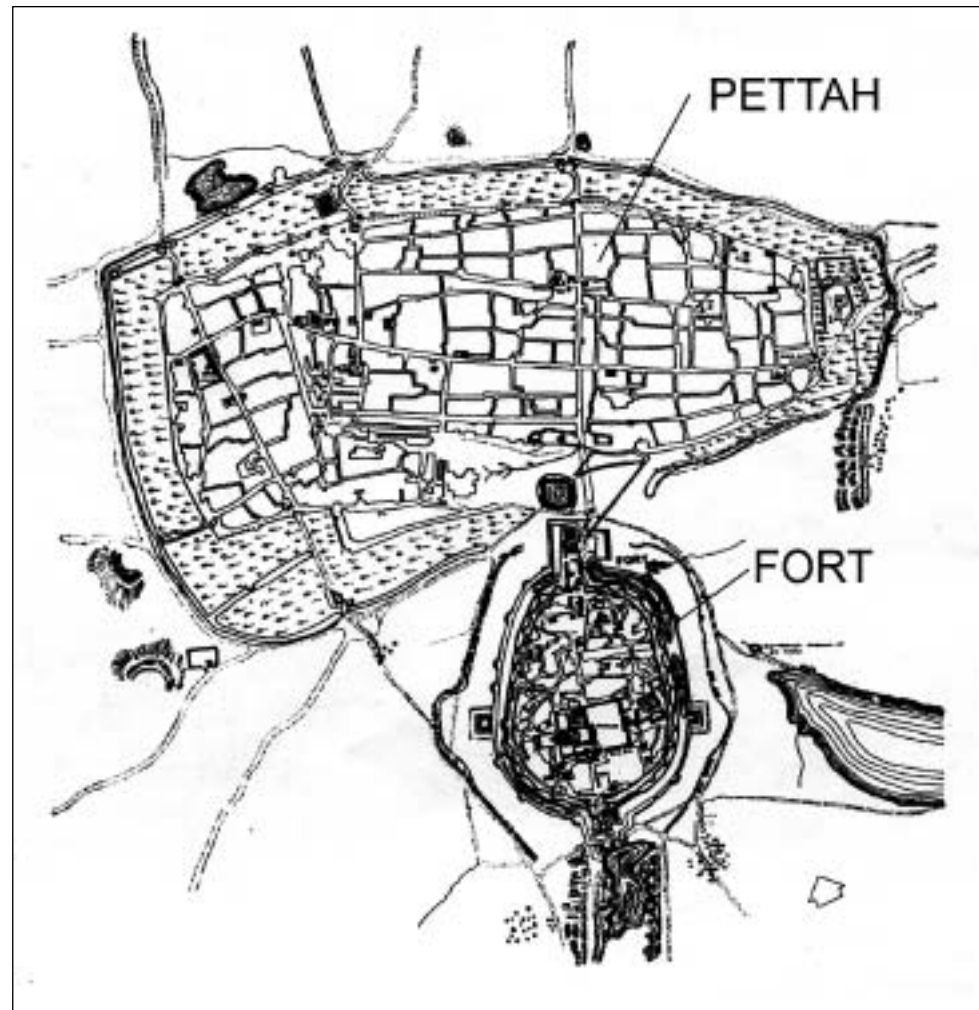


FIGURE 8. Map of Bangalore, c.1537. Source: Census of India.

The urban fabric of the period that followed reflected a radical shift in economic, political and social structure within the city, the establishment of British colonial control, and the construction of Bangalore's cantonment. The cantonment, and its accompanying "civil lines," provided an area for housing both British military and civilian personnel. As Veena Oldenburg noted, "the aim [of the cantonment] was to create a small European cosmos at the edge of the city not only to compensate the officers for the hardship of serving in an alien land but also to provide European soldiers with adequate recreational facilities so that they would be less tempted to taste the pleasure the city had to offer."³⁹

The differentiation of the Bangalore cantonment as a separate social and political entity resulted in a binary urban system, and its physical planning assisted in this differentiation of the "native" city from the colonial one (FIG. 9). Such differentiation was achieved through scale, street organization, and physical separation. In terms of scale, the cantonment, measuring nearly 5 km. in the east-west direction, dwarfed the *pettah*/fort complex.⁴⁰ Likewise, its street layout,

consisting of an orthogonal grid (or at least broad, straight streets), contrasted with the narrow, winding streets of the old city. The cantonment was also physically separated from the native city by a strip of land some 1.5 km. wide. This *cordon sanitaire* served several purposes. First, it separated Westerners from the perceived dangers (health and otherwise) of the native city. Second, it created social distinctiveness for the colonial population. As R. Ramachandran stated, "The civil lines and cantonments highlight the social distance deliberately maintained by the British from the mass of Indian urban dwellers."⁴¹ The cantonment also introduced a low-density, almost suburban, or garden city-like, pattern, whose broad, tree-lined streets and sprawling bungalows contrasted with the high-density *pettah* (FIG. 10).

India's independence in 1947 signaled the beginning of Bangalore's third period of urbanization. In this postcolonial period, the new government of India embarked on policies of state-led industrialization, emphasizing heavy industry, and protecting domestic goods through the imposition of tariff barriers. Calling Bangalore "India's city of the future," Prime

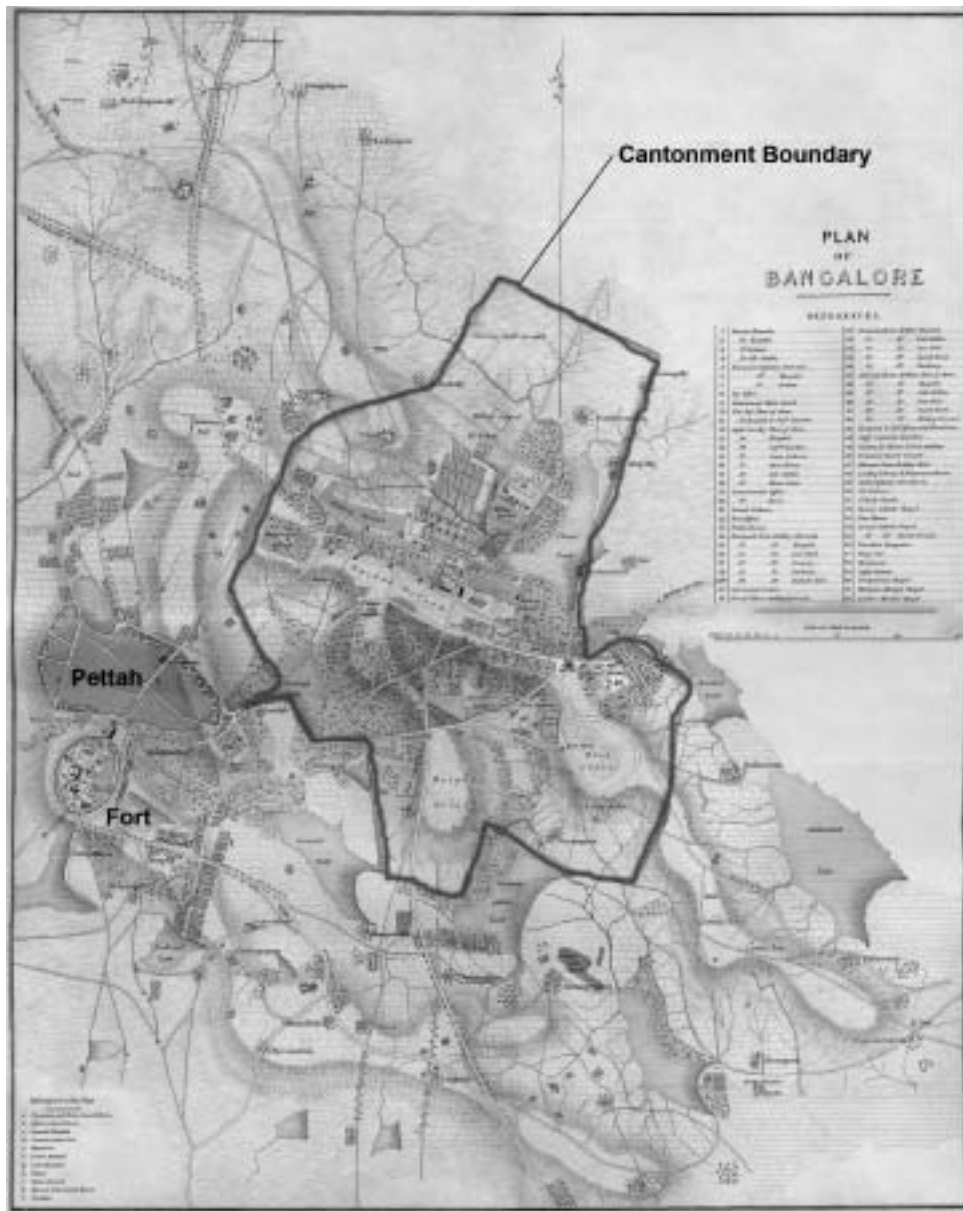


FIGURE 9. Map of Bangalore, c.1854. Source: An Atlas of the Southern Part of India, Pharoas and Company, 1854.

Minister Jawaharlal Nehru set a course for national policy that funneled investment in industry and research to it.⁴² Accompanying this state-led economic development there was a corresponding rapid growth in Bangalore's population, matched by the development of large new residential areas. Together, industrial development and increasing population led respectively to the construction of industrial estates and vast housing layouts planned and constructed by the Bangalore Development Authority (BDA).

As a part of this development, a number of architectural works in the city sought to embody the new identity of the nation and Bangalore's South-Indian heritage. These included the State Legislature Building, known as the Vidhana Soudha, and the central post office, both built in a Neo-



FIGURE 10. Bungalow compound, central Bangalore.



FIGURE 11. Post office, central Bangalore.

Dravidian style (FIG. 11). Charles Correa's Visvesvaraya Tower of 1980 also marked the skyline with an icon of modernist design in the Corbusian tradition (FIG. 12). During this period, the original settlement of fort, *pettah* and cantonment were all but surrounded.

The fourth period of Bangalore's development began in 1991 in the wake of national economic liberalization measures. These measures, building on Bangalore's strength in education and defense, gave birth to the ICT industry and to firms like Infosys. This new round of urbanization has since been characterized by the redevelopment of many postcolonial housing estates, the development of a new CBD in the former cantonment, and the accretion of ICT developments along the periphery of the city. It is these exurban ICT developments that house firms like Infosys.

INFOSYS: CORPORATE VILLA TO GLOBAL OFFICE PARK

Founded in 1981, and growing rapidly from "body shopping" in 2002–2003 to become India's top software exporter, Infosys is in many ways the darling of the Indian software industry.⁴³ The company now has more than 50,000 employees in seventeen countries. Its Bangalore campus (with the exception of several buildings constructed in last three years) presents a unified picture that belies the somewhat unplanned nature of its development. The campus also shows the development and maturation of the corporate image of Infosys and the direct influence of this image on the architectural styles it has chosen. More importantly, it shows how the influence of the Silicon Valley tradition, discussed above, has penetrated locations like Bangalore, literally half a world away.



FIGURE 12. Visvesvaraya Tower.

After Infosys' move to Bangalore from Pune, the company was initially housed, like many Bangalore ICT companies, in small offices around the city. By the early 1990s, however, Infosys had outgrown these facilities and acquired ten acres in Electronics City on which it planned to build a facility for up to eight hundred employees. Retaining the Bangalore-based architectural firm Chandavarkar and Thacker, Infosys constructed its first facility at Electronics City in 1993–94. This building is now somewhat ironically called “the heritage building.”

As the accompanying plan and photo show, the heritage building presented a complex arrangement of space, form and materials in concert with a carefully considered landscape, resulting in a cohesive architectural statement (FIGS. 13, 14). In particular, its rough-hewn granite slabs and brick exterior were in keeping with local building methods, which had long employed readily available granite, as in the case of the Vidhana Soudha. The open-air building also took advantage of Bangalore's mild climate. However, although costs were low, construction time was relatively long. And by November 1998, when the building was published in *Indian Architect and Builder*, Infosys was already rapidly increasing its workforce and moving beyond both the spaces it provided and the corporate image it presented.

As Infosys' business increased in the run-up to Y2K, it quickly outgrew the heritage building, and the image it projected to both employees and clients was superseded by other concerns. Describing this shift in thinking, architect Sudakhar Pai, who worked for Chandavarkar and Thacker at the time, noted:

[The heritage building] was in keeping with the idea of N. Murthy [founder and CEO of Infosys], a simple person, [with] Indian values, [who] had seen the West, [and] came back. He wanted Indian values. His issue was simple: give me any material, but make it world class. His issue was never give me alucobond and steel. But then his organization was five hundred. As soon as it got to one thousand the aspirations of people who came in changed. The next set of people who came in were immediately: why don't you have glass? Most of these campuses are for their employees to feel comfortable. He would want a campus so that the MNC's coming in also don't have an edge over Infosys.⁴⁴

This shift in the aspirations of employees and the corporation, driven respectively by the need to see themselves as “global” software workers and to compete in a global marketplace, had a profound impact on the buildings constructed on the rapidly expanding campus. Infosys engaged several architects for these expansions, but Sundaram Architects of Bangalore designed most of the additional software-development blocks.

The buildings designed by Sundaram are of a completely different nature from Chandavarkar and Thacker's heritage building, and respond to the shift in corporate thinking.

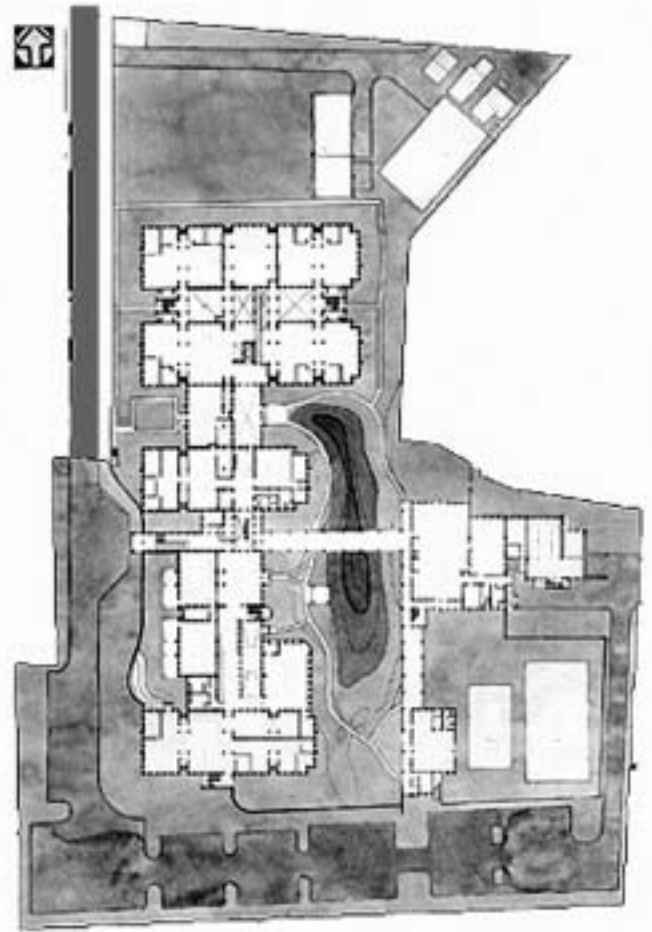


FIGURE 13. (TOP) Heritage building plan, Infosys. Courtesy Chandavarkar and Thacker.

FIGURE 14. (BOTTOM) Heritage building, Infosys.

In 2003, Mohandas Pai, then the Chief Financial Officer of Infosys, explained the company's thinking about the heritage building and the newer buildings, by saying “at that time . . . we didn't know what buildings were.”⁴⁵ Surveying the campus



FIGURE 15. Typical new office blocks at Infosys.

from the window of his upper-story office, he later added, “In terms of image, it has to be global.”⁴⁶ Or, as K.P. Nagaraj of Infosys’ infrastructure development office put it: “he [Mohandas Pai] likes to have more working space, more work stations — more money generating.”⁴⁷

In other words, increased awareness of the relationship between architecture, image and revenue led to the remainder of the campus being filled with buildings that could be constructed on a very tight schedule (three to six months, typically), and that could seem at home in any office park around the world. Enclosed by a thin facade and sited amid green lawns, these newer buildings have large floor plates and a minimum number of columns, the better to house a maximum number of software workers (FIG.15). These new buildings are global, and they are banal. They are also the key element of a new “global” tradition, and they are the quintessential example of Castells’s and Hall’s, as well as Wright’s, descriptions.

To reinforce this new corporate image, the company also took the remarkable step of plastering and painting the heritage building’s exterior of rough-hewn granite. This happened at the time of a visit to the campus by Bill Gates. When asked about the reasoning behind this, Mohandas Pai claimed it had nothing to do with corporate image. He then averred: “It [the heritage building] didn’t reflect the high-quality feeling of the place we wanted.”⁴⁸ In other words, it *was* about image. As Sriraman J. of Infosys’ Infrastructure Development office confirmed, “the reason that the heritage building was thought to be changed was that we wanted to give a global picture. We wanted to give a modern building with technological facilities. We wanted to project to our clients.”⁴⁹

Ironically, the *Indian Architect and Builder* article from November 1998, “Programmed to Fit,” which had praised the heritage building, had begun: “In this age of facade-ridden

buildings, the Infosys office designed by Bangalore based Chandavarkar and Thacker articulates a design intention which reaffirms that good architecture never goes out of style.”⁵⁰ Apparently, this is not the case.

More recently, Infosys has added a number of new buildings to the campus. Like the communications center shown in the accompanying photo, these have become even more like the Silicon Graphics building critiqued by Wright (FIG.16). As embodiments of a global transnational tradition, they are spectacular objects housing banal functions. This is most readily apparent on their interiors, which are essentially warehouses in which to locate software workers.

In my interviews with company officials, the projection of a “global” image was repeatedly articulated as the impetus for the development of the campus and for its architectural form. This global image is developed and deployed for two audiences: first, for clients; and second, for employees. The desires of both were reflected in the observations by Sudakhar Pai about the campus’ architecture, quoted earlier.

According to Mohandas Pai, the “global” image, as articulated in the more recent buildings, “is a marketing tool absolutely. It is a marketing tool and a brand tool.”⁵¹ No building on the campus serves this image-building project more explicitly than the executive building, sited at the entry to the campus (FIG.17). According to Pai, this represented a “very conscious effort to have that as the entry for a very simple reason: what we wanted was a modern building in the sense that it can be placed anywhere in the world which could house software.” When asked why it was important that the building look like it could be anywhere in the world, he replied:

It is important because . . . we are a global software company. We happen to be in India because India is the best



FIGURE 16. Infosys communications center with village land use in the foreground.

place in the world to develop software. Tomorrow, if some other country becomes the best place to develop software, we could be there. While we have an Indian nationality, we are brown-skinned, we are Indians. But the fact is we are part of a global workforce. We think of Infosys as a global company. . . . Building One is saying to people that it is solid. It is high-quality, it is neat. It gives a feeling that it is a part of the global culture. It is a very standard building.³²

Constructed for Infosys by Sobha Developers, one of the city's largest property developers, this "standard" building is used to market Infosys to a worldwide clientele. Discussing this with Pai, it became clear that this was an increasingly important motivation in developing the campus' image. As he related:

Whenever clients come here, they walk in, they walk through this chaos; they are confused because they see . . . coming straight at them, they see cattle on the road; you see people crossing the road, you see the buses going helter-skelter, you see the road is crowded, you see dirt on the road, and you are confused. You don't know where you have landed. And they come here and suddenly they see order, they see beauty, they see aesthetics, they see a lot of well-dressed people moving about. There is order here. And then they believe that there can be quality software here. But you know we are dealing with someone who lives eight thousand kilometers away in a different culture where there is order, where there is high quality as they perceive it, and less disorder and chaos.



FIGURE 17. Executive building, Infosys.

We want that kind of atmosphere here so that clients get confidence, and it tends to reflect the kind of quality they want because we have extremely high quality in the most dirty place. But they will not believe you because they see the surroundings, so that here, when they come, they feel at home, and they feel more comfortable.⁵³

Aside from this client focus, the global image also serves Infosys by establishing an atmosphere that is conducive to the production of software. As a marketing tool, it appeals to prospective employees because it fulfills their image of themselves as members of a global ICT workforce. But it is also a means of isolating and transforming the employee while they are on the campus. As Sriraman made clear:

He [Narayan Murthy, Chairman of Infosys] keeps saying that the moment the employee comes into the campus we want the employee to get into a world-class environment where mentally and physically he [they are predominantly male] transforms himself. . . . Once he comes to the office he switches off his mind from what he went through outside, gets into a different mode so that he [is] able to deliver an international-quality product.⁵⁴

The executive building and the rest of the more recently constructed buildings are explicitly about image, projecting their “global” and “international” associations predominantly through their exterior surface and placement in the green landscape. The success of this architecture is based on its equivalence and interchangeability with any other ICT space worldwide. An architecture of anywhere is the explicit aim, as it matches both the corporate need for an image that can compete with that of other ICT locations worldwide and satisfy the desires of employees to belong to a global community of software workers. It is the Silicon Valley tradition of the banal, constructed as spectacular, and transformed into the exemplar in Bangalore.

Given that the image these corporations and the government actor/institutions want to project is one of equality with other ICT establishments and cities worldwide, it is no surprise that they are striving to build and occupy space in ways similar to the Silicon Valley imaginary and to the actual Silicon Valley banal. In addition to seeking to replicate this physical image in their physical facilities, they are also seeking to portray their workforce as one capable of producing goods that meet global standards.

DYNAMICS OF A TRANSNATIONAL TRADITION

The architecture of Infosys and other sites within Electronics City transmits the image of a global informational culture. It also provides software workers with cues to appropriate behavior. If the transnational tradition of Silicon Valley, embodied through its architecture, is considered in this light,

one can better see how software workers of Bangalore and other informational cities define and redefine their identities as members of a global culture. This accords with AlSayyad’s argument that “the tangible products of tradition are those processes by which identities are defined and redefined.”⁵⁵ The transnational Silicon Valley tradition as constructed at Electronics City and Infosys is therefore a means to construct such an identity. It does not, however, represent the unlimited choice suggested by the global marketplace, where all choices seem equally available. On the contrary, it is deployed, as the management team at Infosys made clear, specifically to constrain choice in order to construct a globalized informational workforce.

To the extent that Infosys can homogenize the environment and construct it as equivalent to Silicon Valleys everywhere, the management team is able to achieve this end. However, this homogenization of culture and tradition can only be achieved within the limited geography under the control of Infosys. Even Mohandas Pai, who has now become the Head of Human Resources at Infosys, noted that

. . . our culture is deeply steeped in us. So when we come to this place, when we come and work here, we behave culturally, in manner of speech, or whatever it is, like people who could be comfortable in the U.S. or the U.K. or wherever it is, working in the same industry. But when we go home we revert back to what we are. Our mode of dress is different, our eating styles are different, our . . . local language, our rituals, and our practices are totally different. We do it extremely well. Do you understand?⁵⁶

The architectural manifestation of the transnational tradition of global informational culture as seen at the Infosys campus in Electronics City serves to establish employees as members of a global community of software workers. It also establishes and legitimizes the apparatus and actions of the state as a part of a new global tradition based on an informational socioeconomic regime. In this respect, Silicon Valley tradition is “linked to the necessities of progress and competition in a global era.”⁵⁷ And, along with many other cues from the built and social spaces of Bangalore (like its new consumer culture and newly constituted nightlife), the architecture of this transnational tradition socializes software workers — and to a more limited extent, the larger community — inculcating a global system of behavior commensurate with “global,” “international,” or “Western” standards.

The intention, carried out with great success, is to use space to separate employees from the environment outside. As Sriraman noted, the company’s goal is to help employees switch identities from the local to the global.⁵⁸ Yet, as Mohandas Pai also pointed out, aside from the impact of this type of campus development on the corporate culture and employees of Infosys, “the greater impact of this kind of campus is what it has done to Bangalore and other cities. This has become symbolic of people’s aspirations.”⁵⁹

I would posit the possibility that we are not witnessing the end of tradition in the era of globalization, but rather an interregnum. Whether and how a presently transnational, and therefore geographically unbounded tradition may be reterritorialized and eventually passed on from one generation to

another after a period of “hyper” mediated transmission will have to wait for the next generation to be revealed. That such transnational traditions will inevitably be altered as they are re-embedded within particular geographic locales and places seems to be a certainty given the evidence from Bangalore.

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All photos and drawings are by the author unless otherwise indicated.
