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SPECULATIVE

by Sara Stevens

Design and capital in the work of Gerald Hines.

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The word “speculative” gets short shrift in architecture. With the exception of “speculative practice” to refer to a research-based, exploratory approach to design, the term is overwhelmingly launched as an insult. Simply put, to call a project speculative is to call a building too closely affiliated with the profit motive. A “speculative building” serves nothing but the market. The term connotes that any project that is built simply to be sold must also be of diminished design quality. Architecture culture has a long-standing disdain for projects that sully themselves in the for-profit exchange of the marketplace. It instead tends to elevate projects with stories that repress their function as capitalist interfaces—we prefer the client as a muse, not as a means to keep the lights on.

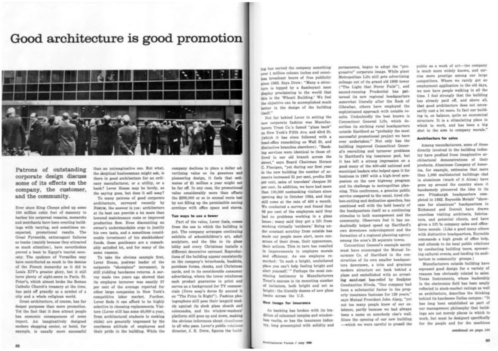
A speculative project is by definition built by a real estate developer, and no character in the standard tableau of architectural production is as typecast as they are. The developer’s role is to represent the baser instincts of capital.[1] In common parlance, a speculative project suggests that there is no specific tenant or end user in mind and that the building is not tailored to a specific occupant. In many ways, it can be understood as a shift away from the longer Western history and tradition of architect-client relations dominated by the patronage model—in which elite architectural production entailed the close alignment of the design and the patron’s goals. Even the legacy of Modern architecture in the twentieth century had a lot to do with the notion of tailoring. Tailoring, while ostensibly the fit between form and function, presupposes a certain relationship between architect and client: that the client is the user.[2] While in these older models, the building was designed for a specific use and user, the speculative project is developed for a generic use and user: the assumed average of, for example, all office workers. By the second half of the twentieth century, this generic user most likely emerged from the well-established tenets of consumer research, which increasingly influenced the discourse around design.[3] It might be possible to map a similar transformation on to speculative buildings as researchers began to engage with post-occupancy studies of buildings, which aggregated data on building users to operationalize it for future projects.

As the proverbial third wheel, the figure of the developer also threatens the idealized client-architect relationship. Architectural production within a culture of patronage collapses the client, user, and capital into a single person. The developer marks an opening between the client-as-user and client-as-financier. As the real estate developer plays matchmaker to secure financing, pairing investors with projects, the design process is increasingly aligned with capital and the architect, increasingly beholden to both user and financier. Architectural practice serves the profit motive. When the developer is the client, she acts as the middleman between capital and design. In this way, the developer is a different form of client, one that architectural practice has been adapting to since at least the mid-twentieth century.[4] Rather than a traditional client representing their own interests—a single point person concerned with usability, aesthetics, and costs—the developer’s responsibility is to assure good returns for investors, which translates into keeping costs low and ensuring the success of the project in the local real estate market.

The tension around the term “speculative” manifests as a conflict of interest between the reproduction of capital and the elevation of design, with the term underscoring that conflict (to speculate is to assume business risk in the hope of a gain). Capital wants low costs and high profits, which is in opposition to the way the profession of architecture has traditionally defined itself as a service outside the competitive marketplace (until the 1980s contract fees were set by the American Institute of Architects’ schedule of fees).[5] The assumption surrounding developer-driven projects is that they are generic—that is, badly tailored and profit-driven, thus, designed and built on the cheap. These supposed qualities mark the sources of conflict between design and capital. However, in an era of increasing financialization, it is important to evaluate the veracity of these preconceptions—to reframe the friction between design and capital and reconceptualize the figure of the client altogether.[6] And in many ways, there is no better way to do this than to look back at the work of real estate developer Gerald Hines.

Born in 1925, Hines was a Purdue-trained engineer who started his career selling air-conditioners in Houston. By 1957, Hines managed to establish a speculative building practice that underminded previous models of development and the assumed incompatibility of design and capital in developer-driven projects. As a figure, Hines defied the stereotype of the real estate developer rushing toward the bottom line.[7] His firm completed large scale, high-quality projects with big-name architects that also happened to be speculative. His work with local firms like Neuhaus & Taylor and national firms like Johnson/Burgee, Skidmore, Owings & Merrill (SOM), HOK, and César Pelli fundamentally changed the landscape of Houston, especially in the late 1950s through the 1970s, and drew attention from national commentators like the *New York Times*' architectural critic Ada Louise Huxtable.[8] Hines' early projects included a series of speculative office complexes in southwest Houston, which together established the "Richmond Corridor," Houston's first business district outside downtown—it was the first suburban office park or proto-edge city in Houston and a precursor to the city's massive complex of oil and gas headquarters twenty miles west in the "Energy Corridor."[9]

While the practice is widespread today, Hines was one of the first commercial developers to pay higher fees for well-known architects. At the time, it was the corporation that was most likely to hire "star" architects to design its new headquarters and to construct symbolic meaning for the company and its brand. Hines, who recognized the significant drawbacks of owning a building—the extensive capital required for construction and the staff and expenses needed to manage it after—relative to renting office space, under flexible terms with no capital investment (low risk and cost), marketed a hybrid. He offered a distinctive, high-quality office building designed by name-brand architects, not unlike a corporate headquarters, but without the headache, time sink, and capital outlay required to build, own, and manage it. In the Richmond Corridor projects, he set his speculative projects apart by hiring architects who used a modest amount of low slung, late-modernist flourish to distinguish their buildings from others around town. Though not a new concept—*Architectural Forum* claimed that "Good Architecture is Good Promotion" in 1960—Hines was committed to this strategy: build architecturally "better" buildings, and in doing so, match the aspirational goals of a signature headquarters architecture with the low risk and economy of a speculative office building.[10] As one observer noted, Hines was transforming the image of the developer from a "penny-pinching Babbitt to cultural patron of the arts."[11] He was expanding the repertoire of real estate developer to include high-cost construction and to undercut the advantages of building and owning corporate headquarters.



Good architecture is good promotion

Patrons of outstanding corporate design discuss some of its effects on the company, the customer, and the community.

Ever since King Cheops piled up some 100 million cubic feet of masonry to harbor his corporeal remains, monarchs and merchants have been erecting buildings with varying, and sometimes unexpected, promotional results. The Great Pyramids, extravagant failures as tombs (mainly because they attracted so much attention), have nevertheless proved a boon to Egypt's tourist economy. The opulence of Versailles may have contributed as much to the demise of the French monarchy as it did to Louis XIV's greater glory, but it still lures plenty of sight-seers to Paris. St. Peter's, which almost broke the Roman Catholic Church's treasury at the time, has paid off grandly as a symbol of a city and a whole religious world.

Great architecture, of course, has far deeper purposes than mere promotion. Yet the fact that it does attract people has economic consequences of some import. An imaginatively designed modern shopping center, or hotel, for example, is usually more successful than an unimaginative one. But what, the skeptical businessman might ask, is there in good architecture for an ordinary manufacturer, or a utility, or a bank? Lever House may be lovely, as the saying goes, but does it sell soap?

To many patrons of good corporate architecture, surveyed recently by FORUM, the answer is yes: architecture at its best can provide a lot more than lowered maintenance costs or improved production flow. Even discounting an owner's understandable urge to justify his own taste, and a sometimes considerable investment of his stockholders' funds, these gentlemen are a remarkably satisfied lot, and for many of the same reasons.

To take the obvious example first, Lever House, postwar leader of the corporate "showpiece" movement, is still yielding handsome returns. A survey made two years ago showed that its employee turnover was exactly 37 per cent of the average reported for other large companies in New York's competitive labor market. Further, Lever finds it can afford to be highly selective in choosing replacements. Visitors (Lever still has some 40,000 a year, from architectural students to cooking clubs) are generally impressed by the courteous attitude of employees and their pride in the building. While the company declines to place a dollar advertising value on its generous and pioneering design, it feels that estimates of $1 million a year might not be far off. In any case, the promotional value considerably more than offsets the $200,000 or so in annual rents lost by not filling up the permissible zoning envelope with office space and stores.

Ten ways to use a tower

Part of the value, Lever feels, comes from the use to which the building is put. The company arranges continuing exhibits of schoolchildren's art, adult sculpture, and the like in its glass lobby and every Christmas installs a different decorative carousel. Reproductions of the building appear consistently on the company's letterheads, booklets, purchase forms, checks, and Christmas cards, and in its considerable consumer advertising, where the tower reinforces each product guarantee in print and serves as a background for TV commercials (Dove soap's doves fly around it on "The Price Is Right"). Fashion photographers still pose their languid models against its sleek glass sheath and colonnades, and the window-washers' platform still goes up and down, making the obvious inferences about cleanliness to all who pass. Lever's public relations director, J. E. Drew, figures the building has earned the company something over 1 million column inches and countless broadcast hours of free publicity since 1952. Says Drew: "Many a structure is topped by a flamboyant neon display proclaiming to the world that this is the 'Whozit Building.' We feel the objective can be accomplished much better in the design of the building itself."

Not far behind Lever in setting the new corporate fashion was Manufacturers Trust Co.'s famed "glass bank" on New York's Fifth Ave. and 43rd St. (which it has since followed with a head-office remodeling on Wall St. and distinctive branches elsewhere). "Banking services were identical to those offered in our old branch across the street," says Board Chairman Horace C. Flanigan, "yet during our first year in the new building the number of accounts increased 31 per cent, profits 200 per cent, sales of travelers' cheques 30 per cent. In addition, we have had more than 100,000 nonbanking visitors since opening day in October 1954, and they still come at the rate of 400 a month. We conducted a survey and found that 96 per cent of the employees said they had no problems working in a glass house; many said they got a lift from working virtually 'outdoors.' Being under constant scrutiny from outside has made our people more alert, more conscious of their dress, their appearance, their actions. This in turn has resulted in improvements in employee morale and efficiency. As one employee remarked: 'In such a bright, uncluttered place you can't help feeling bright and alert yourself.'" Perhaps the most convincing testimony to Manufacturers Trust's success is its mounting number of imitators, both bright and not so bright: the literally dozens of new glass banks across the U.S.

New image for insurance

As banking has broken with its tradition of columned temples and windowless vaults, so has the insurance industry, long preoccupied with solidity and permanence, begun to adopt the "progressive" corporate image. While giant Metropolitan Life still gets advertising mileage out of its grand old 1909 tower ("The Light that Never Fails"), and second-running Prudential has patterned its new regional headquarters somewhat literally after the Rock of Gibraltar, others have employed the sophisticated approach with notable results. Undoubtedly the best known is Connecticut General Life, which describes its striking rural headquarters outside Hartford as "probably the most successful promotional project we have ever undertaken." Not only has the building improved Connecticut General's recruiting and turnover problems in Hartford's big insurance pool, but it has left a strong impression on a good many of the 400-odd national and municipal leaders who helped open it for business in 1957 with a high-level symposium on the new highway program and its challenge to metropolitan planning. This conference, a genuine public service compared to the usual, tired ribbon-cutting and dedication speeches, has combined well with the bold beauty of the headquarters itself as a continuing stimulus to both management and the community. Observers feel it has undoubtedly helped speed up Hartford's own downtown redevelopment and the formation of a regional planning agency among the area's 28 separate towns.

Connecticut General's example surely must have encouraged the Mutual Insurance Co. of Hartford in the construction of its own smaller headquarters downtown, a trim and gracious modern structure set back behind a plaza and embellished with an arresting sand-cast bas-relief by Sculptor Constantino Nivola. "Our company had been a substantial factor in the property insurance business for 129 years," says Mutual President John Alsop, "yet not too many people knew of our existence, partly because we had always been a name on somebody else's wall. Since the opening of our new building—which we were careful to presell the public as a work of art—the company is much more widely known, and carries more prestige among our large competitors. Where we rarely got an employment application in the old days, we now have people walking in all the time. I feel strongly that the building has already paid off, and above all, that good architecture does not necessarily cost a lot more. In fact our building is, on balance, quite an economical structure. It is a stimulating place in which to work, and has been a big shot in the arm to company morale."

Architecture for sales

Among manufacturers, some of those directly involved in the building industry have profited from imaginative architectural demonstrations of their products. Aluminum Company of America, for example, estimates that more than 1,000 multistoried buildings clad in aluminum (much of it Alcoa) have gone up around the country since it handsomely pioneered the idea in its own Pittsburgh headquarters completed in 1952. Reynolds Metals' "showcase for aluminum" headquarters in Richmond and Detroit have drawn countless visiting architects, fabricators, and potential clients, and have given a lift to company sales and office-force morale. (Like a good many others with distinctive headquarters, Reynolds commands a high grade of office help, and attends to its local public relations by conducting building tours, sponsoring cultural events, and lending its auditorium to community groups.)

Manufacturers outside building have espoused good design for a variety of reasons less obviously related to sales. Texas Instruments, whose leadership in the electronics field has been amply reflected in stock-market ratings as well as architecture, describes the thinking behind its handsome Dallas campus: "It has long been established as part of our management philosophy that buildings are not merely places in which to work, but must be designed specifically for the people and for the machines

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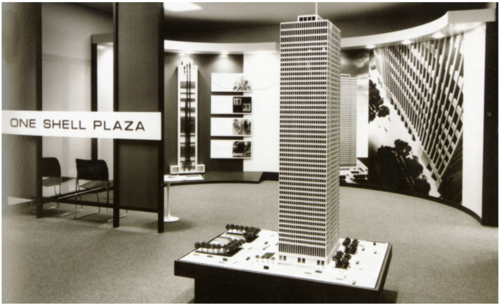
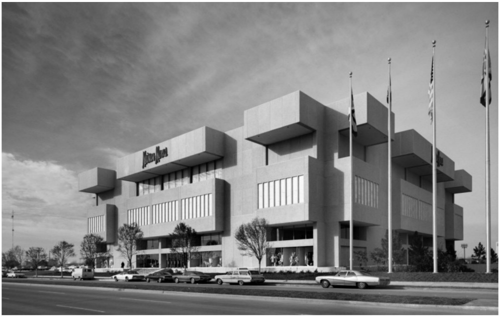
"Good Architecture Is Good Promotion,"*Architectural Forum*, vol. 113 (July 1960): 88–89.

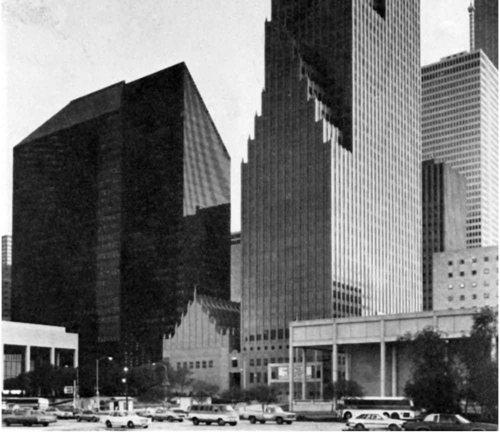
As his practice shifted toward signature towers and high-end shopping malls in Houston, Hines continued to hire more nationally recognized architecture firms. He hired Bruce Graham of SOM to design One Shell Plaza after meeting him at a beachside resort in Point Clear, Alabama in 1961—One Shell Plaza was developed, built, partially owned, and managed by Hines despite being named after its primary tenant, Shell Oil Co. He worked with Gyo Obata of HOK on a Neiman Marcus department store at his Galleria shopping mall on Houston's southwest side; and at the recommendation of a cabinetry scion, considered working with I.M. Pei and Roche Dinkeloo. Through this same connection, Hines hired Philip Johnson for a three-tower suburban complex and a tower downtown. All of these affiliations occurred before the mid-1970s. Johnson and Hines collaborated on fifteen projects together, including Houston's Transco Tower, with its allusions to 1930s skyscrapers, and the gothic-inspired Republic Bank Center. Johnson, no stranger to hyperbole, would later praise Hines: "Everything I've done and everything I've been, I owe to Gerry Hines."[12]



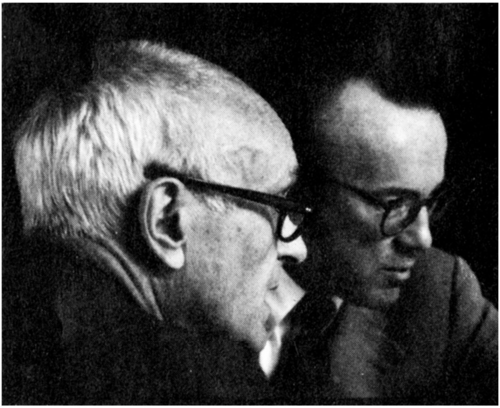
Promotional display of One Shell Plaza, Houston, Texas, SOM (architects), Gerald Hines (developer), 1971.



Neiman Marcus department store at Houston Galleria, Houston, Texas, HOK (architects), Gerald Hines (developer), 1969.

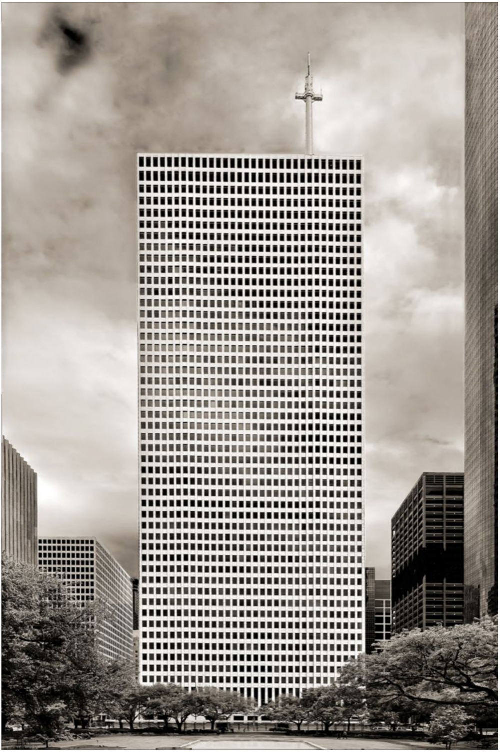


Two Philip Johnson towers developed by Hines sit side by side in downtown Houston. Trapezoidal tower on the left is Pennzoil Place, 1976. Gothic-inspired tower on the right is Republic Bank Center, 1987.

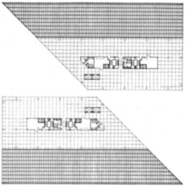


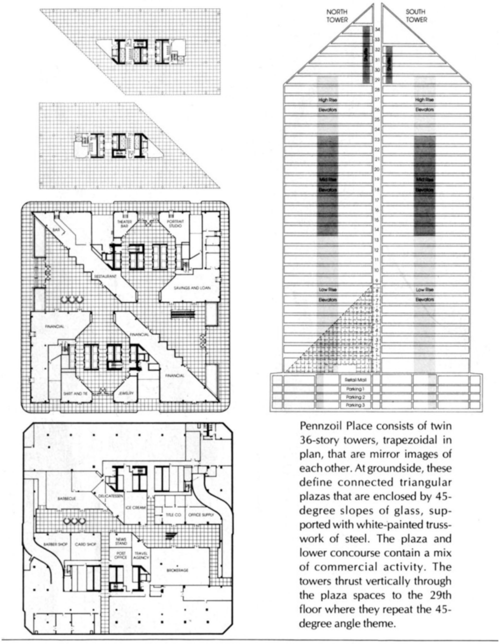
Philip Johnson (left) and Gerald Hines (right), c. 1976.

After the chairman of Pennzoil visited his lawyers in Hines' recently completed One Shell Plaza, he approached Hines to develop a tower for his own company. Hines first asked Bruce Graham of SOM to design the building. However, unimpressed with his proposal to build a bundled tower like the Sears Tower in Chicago—much preferring the marble façade of One Shell Plaza—Hines approached Johnson once again. Hines struggled with the high cost of the land, which by his pro-forma required 1.2 million square feet. After explaining the need for another major tenant to help finance the project (Pennzoil only needed 400,000 square feet), Philip Johnson proposed a double-tower, double-trapezoid plan —a proposal famously sketched on an airplane napkin. With Pennzoil already committed, Hines took the Johnson scheme to Zapata Oil, who agreed to lease in the second tower.[13]



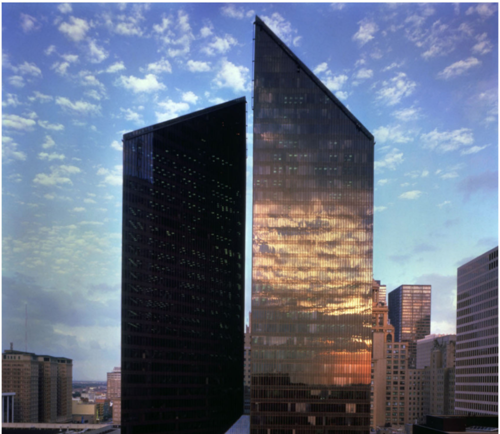
One Shell Plaza, Houston, Texas, SOM (architects), Gerald Hines (developer), 1971.





Pennzoil Place consists of twin 36-story towers, trapezoidal in plan, that are mirror images of each other. At groundside, these define connected triangular plazas that are enclosed by 45-degree slopes of glass, supported with white-painted trusswork of steel. The plaza and lower concourse contain a mix of commercial activity. The towers thrust vertically through the plaza spaces to the 29th floor where they repeat the 45-degree angle theme.

Plans and sections of Pennzoil Place, as published in William Marlin, "Pennzoil Place," *Architectural Record*, vol. 160, no. 7 (November 1976): 102.



Pennzoil Place, Houston, Texas, Johnson/Burgee (architects), Gerald Hines (developer), 1976.

The tailoring of building to client here is twofold. Hines accommodated both the needs of capital (a site of that size and cost required a certain amount of square footage to be profitable) and the needs of two clients (Pennzoil and Zapata both got a tower they could point to as their own). He matched an iconic architectural image with the company's marketing needs. Hines said of Pennzoil Place: "I asked Johnson for a building with two images. He came up with two buildings."[14] Architectural historian Adrian Forty has shown that the idea of functionalism, and the fit between form and function, shifted in the 1960s. If in the 1930s, the term was imported to the United States by Henry-Russell Hitchcock and Johnson as a stand-in for German modernist ideas, washed clean of their political and socially revolutionary character, a full theory of function in architecture never appeared. Only in the 1960s, with reactions against modernism, did the correspondence between a building's design, its function, and its user take on the qualities we now expect. "To give functionalism specific attributes was a necessary part of developing a critique of modernism," Forty explains.[15] The leap from here to a market research driven aggregate-of-the-user as defining the fit between program and building is not far. To do so might also suggest that the aggregate-of-the-user, the average, works to lessen the conflict of interest between design and capital, bridging the gap by allowing a different kind of tailoring: market research as well-designed fit.

Interior ground floor of Pennzoil Place, where two main tenants share an elevator lobby, Houston, Texas, Johnson/Burgee (architects), Gerald Hines (developer), 1976.

Unlike many developers, Hines retained equity in the projects he developed rather than selling it off to raise capital for subsequent work. In this way, he was financially quite conservative. In the deals he made with Pennzoil, Shell, and Zapata Oil, Hines approached the banks for loans only after having agreements with his tenants, a practice he began in his Richmond Corridor projects.[16] Pennzoil Place was financed primarily with a loan from New York's Bowery Savings Bank—it was early days still for new financial instruments (commercial mortgage backed securities or real estate investment trusts) to have been an option. In a review of Pennzoil Place in the *Times*, Ada Louise Huxtable gushed over such "a notable work of architecture" with its "delicately raised and slotted mullions" and Hines' ability to calculate "the cost advantages with a finesse that equals the architecture." Reinhold Martin has described Johnson and Burgee's design for Hines' Pennzoil Place as a way to think through the idea that architecture contributes to the fetishization of oil, providing a legitimizing image that deflects attention in the mirrored surfaces and materiality of the design.[17] At the same time, the project can also be used to think through the role of the real estate developer, as broker between an engineering-driven culture of business, both eager for and hesitant about new risks, and a culture of architectural practice focused on signature buildings.

Having started his firm in the oil-centric Houston economy, Hines was undoubtedly shaped by the rules of business in that world, winning projects with his ability to relate to oil executives through his engineering background. The relationship between architecture and oil in this period highlights the complexity of capital: the towers needed to be monuments to the importance of the oil economy, and at the same time deflect attention from, for example, its unsavory environmental geo-political implications—to dazzle the passer-by with reflections in mirrored glass rather than pause too critically on the existence of these new monuments to oil. In Ada Lousie Huxtable's interview of Hines in the *Times*, of all places, Hines describes the 10 percent increase in cost that his building represents, and breaks down exactly how he feels that upcharge pays off, in both short and long terms.[18] Even Huxtable considered those financial details critical to understanding Hines' role as a patron of architecture. Hines operated in the realm between investors, corporate tenants, and design teams, and spoke with corporate-ese when discussing the future of his business (cost controls, market research, diversification, equity yields versus borrowing against net worth). *Forbes* magazine described him in 1978 as sounding "like a manufacturer might"—describing the marketing, financing, and management of projects with little whiz-bang in his tone. Thus, part of how Hines deflected attention was through his self-presentation as an efficiency-minded engineer, full of reason and sound financial knowledge, while all the while offering up iconic, fetishizable architecture: high end, low risk. In a later article, after noting Hines' net worth was over $300 million, *Forbes* indulged readers on the fact that he still carried a slide ruler in his pocket.[19]

Architectural critic Paul Goldberger reviewed Hines' recent work in 1976 in a piece titled "High Design at a Profit." In it, he stated:

> Architects and real-estate developers have had use, but rarely admiration, for each other. Architects like to think of themselves as concerned with innovation, esthetics and the sheer pleasure of the building art; developers, on the other hand, put up buildings to make money—a goal that seldom leaves room for those aspects of design that most interest the architects.[20]

Goldberger allows architects a list of concerns (excepting the one reserved for developers, apparently), and limits developers to the narrowly defined profit motive. Hines, Goldberger recognized, surpassed this simplistic mold. Not unlike other work by Hines during this period, the Pennzoil tower combined the benefits of a signature headquarters building with the economic and operational advantages of a speculative office building for his clients. A 10 percent cost increase over a typical building earned a lower interest rate and fewer construction delays, in addition to the expected higher per-square-foot rentals he could charge. In favor of high quality design, synonymous with signature architects and high-cost material finishes, Hines collapsed, or rather reeigneered, the conflicting goals and values of speculative design. Rather than value engineer high-end features out of a building, he could use them to gain higher returns. And like a skilled marketer, Hines recognized that good architecture was good promotion. In representing both his tenants and investors in the design process, he reminds us of the need to reconceptualize the category of the client. Whether through the lens of the fit between form and function or through the profit motive, the real estate developer might work to confound some stereotypes. But more importantly, this particular form of client offers new insights on architectural production in an age of financialization that we are only beginning to consider.

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1. Another role of the developer is to provide cover for an architect's concern for the bottom line. See quote from Paul Goldberger at the end of this essay. ^

2. Adrian Forty, "Function," in *Words and Buildings: A Vocabulary of Modern Architecture* (New York: Thames & Hudson, 2000), 174–95. For more on functionalism and the user, see Kenny Cupers, ed., *Use Matters: An Alternative History of Architecture* (London and New York: Routledge, 2013). ^

3. See Barbara Penner's discussion of market research as seen through architectural critic Reyner Banham and Vance Packard's 1957 book *The Hidden Persuaders*. Barbara Penner, "Designed-In Safety," *Places Journal*, October 15, 2013., https://placesjournal.org/article/designed-in-safety/. ^

4. The Urban Land Institute, founded around 1940, helped to establish the professionalization of the real estate developer; see chapter two of my book, *Developing Expertise: Architecture and Real Estate in Metropolitan America* (New Haven: Yale University Press, 2016). ^

5. On the fee schedule, see Jay Wickersham, "From Disinterested Expert to Marketplace Competitor: How Anti-Monopoly Law Transformed the Ethics and Economics of American Architecture in the 1970s," *Architectural Theory Review*, vol. 20, no. 2 (May 4, 2015): 138–58, http://www.tandfonline.com/doi/full/10.1080/13264826.2015.1129349. On the longer history of professionalization, see Mary N. Woods, *From Craft to Profession: The Practice of Architecture in Nineteenth-Century America* (Berkeley: University of California Press, 1999). In the process of professionalizing, architects in the United States chose to position (or rather present) themselves outside of the competitive marketplace by setting contract terms that stipulated payment as a percentage of project costs—rather than allowing firms to compete for projects based on winnowing down their fees. Good architectural service, and by implication, good design, was above such squabbling. ^

6. On increasing financialization, see Greta R. Krippner, "The Financialization of the American Economy," *Socio-Economic Review,* vol. 3, no. 2 (May 2005): 173–208; Rachel Weber, *From Boom to Bubble: How Finance Built the New Chicago* (Chicago: The University of Chicago Press, 2015); Peter Wissoker et al., "Rethinking Real Estate Finance in the Wake of a Boom: A Celebration of the Twentieth Anniversary of the Publication of the Double Issue on Property and Finance," *Environment and Planning A,* vol. 46, no. 12 (2014): 2787–94, http://journals.sagepub.com/doi/abs/10.1068/a140431c. ^

7. Hines, Inc., as we know it today, is a global real estate development firm with offices and well-known projects around the world. ^

8. Ada Louise Huxtable, "Architecture View: Houston's Towering Achievement," the *New York Times*, February 22, 1976. On Hines' impact on Houston's landscape, see Anna Mod and Barry Moore, "The Richmond Corridor: Where Gerald Hines Went to Graduate School," *Cite* 57 (Spring 2003): 14–15; Rives Taylor, "The Business Strip," *Cite* 40 (Winter 1997): 28–29; Bruce C. Webb, "City Under Glass," *Cite* 65 (Winter 2005): 20–23. ^

9. Mod and Moore, "The Richmond Corridor: Where Gerald Hines Went to Graduate School;" Gerald Hines and Paul Hobby, "Oral History of Gerald Hines by Paul Hobby" (Houston Public Library, December 13, 2007), http://digital.houstonlibrary.org/oral-history/gerald-hines.php#; Gerald Hines and Joe Mashburn, "Gerald D. Hines Visits His College," *Cite* 78 (Spring 2009): 28–31. ^

10. "Good Architecture Is Good Promotion," *Architectural Forum,* vol. 113 (July 1960): 88–89. ^

11. Ross Miller, *Here's the Deal: The Buying and Selling of a Great American City* (New York: A.A. Knopf, 1996), 99. ^

12. *Gerald Hines: A Legacy of Quality in the Built Environment* (Bainbridge Island, Washington: Hines and Fenwick Publishing Group, 2007), 32. ^

13. Hugh Liedtke was the chairman of Pennzoil and also sat on the board of Zapata Oil. When Hines gave the Pennzoil project to Johnson and took it away from SOM, Bruce Graham didn't speak to Hines for two years. Pennzoil later merged with Zapata Petroleum. Both are now owned by Shell, making all the oil companies mentioned in this article now a single entity. Zapata Oil was founded by George H. W. Bush, Hugh Liedtke, and others. Hines and Hobby, "Oral History of Gerald Hines by Paul Hobby." ^

14. "Hines Changes Houston's Skyline—Profitably," *Business Week*, April 19, 1976, 115. ^

15. Forty, "Function," 194. ^

16. Hines' biggest competitor in Houston was Kenneth Schnitzer, the developer of Greenway Plaza, a one billion dollar planned commercial, recreational, residential, and office complex between Hines' Richmond Corridor and the Galleria. Schnitzer, who did not do a preleasing arrangement for Greenway, bragged that the project was done on a speculative basis, "with no commitment whatsoever from major tenants." *Big Town, Big Money (the Business of Houston)* (Houston: Cordovan Press, 1973), 101. Schnitzer was convicted in federal court in 1989 of bank fraud related to his savings and loan, Banc Plus. ^

17. Reinhold Martin, *Utopia's Ghost: Architecture and Postmodernism, Again* (Minneapolis: University of Minnesota Press, 2010), 94–104. ^

18. Ada Louise Huxtable, "Architecture View: Deep in the Heart of Nowhere," the *New York Times*, February 15, 1976; Huxtable, "Architecture View: Houston's Towering Achievement." ^

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