

Article

The Function of Luxury: Visual and Material Abundance in Minoru Yamasaki's U.S. Consulate in Kobe and Federal Science Pavilion in Seattle (1954–62)

Joss Kiely

School of Architecture, Louisiana State University, Baton Rouge, LA 70803, USA; kiely1@lsu.edu

Received: 20 July 2018; Accepted: 4 October 2018; Published: 10 October 2018



Abstract: This article explores the visual abundance found in a number of early projects by Leinweber, Yamasaki and Hellmuth (LYH) and Minoru Yamasaki and Associates (MYA), which stands in stark contrast to the austere character of architectural form during the interwar period. Although Yamasaki received his architectural training in the 1930s, he was neither a true modernist, nor a fully postmodern architect. His aesthetic, and his firm's work, lies in the interstices between these two distinct architectural moments, in company with contemporaries Edward Durell Stone and Paul Rudolph, among others. The work of these architects embraced a kind of visual and formal excess but stopped short of approaching the playful linguistic games of postmodern architecture. With themes of visual and material excess in mind, I examine two early commissions from the U.S. federal government that put into play ideas of global exchange, power, and extravagance in architecture as the United States emerged as a major world power in the aftermath of World War II, including the U.S. Consulate in Kobe, Japan (1954–1955) and the Federal Science Pavilion at the Seattle World's Fair (1962).

Keywords: architecture; luxury; wealth; Yamasaki; modern architecture; globalism

1. Introduction

The visual and material abundance found in early projects by Minoru Yamasaki and Associates (MYA), and his earlier firms, stands in stark contrast to the stylistic austerity of architectural form during the interwar years, as well as in the firm's own early projects, such as the infamous Pruitt-Igoe Public Housing project in North St. Louis (1954) and the Federal Reserve Bank of Chicago addition in Detroit (1951).¹ Although Yamasaki received his architectural training in the 1930s, he is neither a true modernist, nor a fully postmodern architect. His aesthetic, and his firm's work, lies in the interstices between these two distinct architectural movements, in company with contemporaries Edward Durell Stone, Paul Rudolph, and Philip Johnson, among others. The work of these architects embraced a kind of visual and formal excess but stopped short of approaching the playful linguistic games of postmodern architecture. With themes of luxury and visual formal excess in mind, I examine two early commissions from the U.S. federal government that put into play ideas of global exchange, power, and extravagance in architecture as the United States emerged as a major world power in the aftermath of World War II. First, the United States Consulate in Kobe, Japan (1954–1955) became

¹ Minoru Yamasaki's architectural legacy involves a number of firms over the course of four decades. After moving from New York to Detroit in 1945 to take the position of chief architectural designer at Smith, Hinchman and Grylls, Yamasaki and several colleagues left the firm to form their own partnership in 1949. From then until 1955, two firms operated under the names Hellmuth, Yamasaki and Leinweber (based in St. Louis) and Leinweber, Yamasaki, and Hellmuth (based in Detroit). From 1955–1959, the firm was rebranded Yamasaki, Leinweber and Associates and then became Minoru Yamasaki and Associates until Yamasaki's death in 1986, after which the name was changed to simply Yamasaki Associates, Inc., based in Troy, Michigan, USA.

an important symbol of political unity and reparations between former enemies after World War II. Secondly, in his hometown of Seattle, Yamasaki joined a long list of architects and designers hired to design the pavilions and infrastructure for the Seattle World's Fair with the commission for the Federal Science Pavilion (1962). Alternatively known as Century 21, the fair was intended as a grand display of U.S. exceptionalism in science, culture, and technology with MYA's Federal Science Pavilion occupying a prominent position. These early-career projects helped to launch Yamasaki's fledgling firm and to lay the groundwork for larger commissions from private corporations and the U.S. government in the following decades that in many ways capitalized on excess as a brand of American architecture.

Taken together, the U.S. Consulate in Kobe and the Federal Science Pavilion in Seattle begin to illustrate the interrelationship of international architectural commissions from the U.S. government, Yamasaki's Japanese heritage, and a kind of architecture of excess. The two projects, unrelated except for their common architect and a shared status of governmental commission, offer a productive contrast. Between luxurious material finishes throughout the Kobe project, in an otherwise overtly modernist envelope, and visual formal excess in the lacy facades of the Federal Science Pavilion, MYA produced an image of the United States for the United States, capitalizing on its power and wealth in built form through the employment of architectural spectacle. Throughout his career, Yamasaki and the various firms with which he was associated often employed levels of ornamentation that bordered on the excessive. The resulting architecture, which Yamasaki referred to as "American contemporary technological design", produced a spectacle that was both entertaining to the masses, but also lay the groundwork for highly profitable cultural and economic exchanges for both public and private U.S. entities. This form of spectacle, produced by the display of visual and material abundance, is one way to understand the function of luxury in the architecture of Minoru Yamasaki and Associates.

2. The Embassy as Architectural Pavilion: U.S. Consulate in Kobe, Japan, 1954–1955

Architecture was central to the ideology-building process of the tense postwar climate as architects were commissioned to design buildings at a range of scales on behalf of the U.S. government for political, cultural, and economic purposes. During this time, the United States exported ideas, goods, and services globally and developed a diplomatic presence in countries on every inhabited continent. These efforts were politically motivated, as the United States sought to define its role as a global superpower and a leading promoter of democratic ideals. One major component was the United States' establishment of the Marshall Plan, officially known as the European Recovery Program, in 1947, which intended to help rebuild European economies and infrastructure after World War II. U.S. The Marshall Plan was part of a larger "Cold War grand strategy" formulated by President Harry S. Truman and his then newly-appointed Secretary of State, George C. Marshall (Gaddis 2006, p. 31). As such, it was just one of many large-scale economic plans funded and put into action by major world powers in the postwar era, many of which fueled economic growth, cultural and social integration, and the globalization of world markets (LaFeber 1971).²

Similar economic recovery plans appeared throughout Asia, notably in Prime Minister Jawaharlal Nehru's successive Five-Year Plans first inaugurated in 1947 with India's independence from British Crown Rule (Keay 2010). Although India's economic plans were initiated as a domestic solution to a growing problem, foreign nations became involved by the late 1950s with the first World Agricultural Fair in New Delhi, opened in December 1959 by U.S. President Dwight D. Eisenhower. Just two years later, building on the perceived successes of previous foreign aid policies, President John F. Kennedy inaugurated the United States Agency for International Development (USAID) on 3 November 1961 with the passage of the Foreign Assistance Act. Much like the U.S. Pavilion in New Delhi, and previous U.S.-led aid policies, USAID was focused on both "creating markets for the United States ... in

² In the 1960s and 1970s, historian Walter LaFeber criticized the Marshall Plan as an American attempt to gain control in Europe through economic imperialism.

developing countries” and, at the same time, working to diminish “the threat of Communism by helping countries prosper under capitalism” (USAID 2018). USAID continued to rise in prominence throughout the twentieth century with a mission that was in near constant flux, adapting to the changing global landscape, ultimately shifting its focus from an overtly anti-communist stance to one couched in terms of humanitarian aid.

The United States’ embassy-building program, initially inaugurated by the federal government in 1926, took on new significance after World War II, and further utilized architecture to promote its global interests. As historian Jane C. Loeffler has noted, the U.S. embassy-building program was intended as outreach to promote international diplomacy by establishing a foreign presence across the globe:

The embassy-building program was, and remains, part of America’s largest effort to define its world role. Like the Fulbright educational exchange program—designed to promote international understanding and widely praised as a goodwill gesture—new embassies have been hailed as evidence of American goodwill and commitment, and their modern architecture, introduced in the late 1940s, has come to symbolize the openness of public diplomacy. (Loeffler 2011, p. 3)

Before the advent of widespread global televised news coverage, buildings played an expanded role in the image of a corporation, institution, or nation they represented. In the case of an American embassy or consulate, the building served to represent national values of transparency and democracy. In many other cases, architectural design was used to telegraph concepts such as technological advancement or economic prowess that helped to promote governmental institutions and private corporations alike. In the 1950s, the architectural press also began to weigh in on design proposals of particular embassies, and published congratulatory spreads when they opened in places such as Japan, Ghana, and Norway. Chief among them was *Architectural Forum*, which along with *Time*, *Life* and *Fortune* was owned by Henry Luce—an unlikely champion of modern architecture. Indeed, as Loeffler has noted, “Luce’s personal interest in architecture had prompted him to invest in architectural publishing, and he made no secret of his enthusiasm for modernism. More than an endorsement of political purpose, the *Forum* article was an endorsement of a design direction” (Loeffler 2011, p. 7). An article published in *Architectural Forum* in March 1953 illustrates the close relationship that was thought to exist between diplomacy and culture: “No country can exercise political world leadership without exercising a degree of cultural leadership as well. Whether consciously or not, the US Government has now made US architecture a vehicle of our cultural leadership” (U.S. Architecture Abroad 1953). One current that ran between the political and cultural projects was the overt dissemination of American democratic ideology. This occurred both through highly visible channels—U.S. consulates and embassies—and in less obvious places—under the guise of information displays in cultural exhibitions in politically important regions of the world. This was particularly evident in the design of Leinweber, Yamasaki and Hellmuth’s U.S. Consulate in Kobe, Japan.

The planned consulate in Kobe had program requirements of around 10,000 square feet, a modest commission that did not require extensive experience of the architect. As Loeffler noted, “These were not opportunities to reinvent the Lever House” (Loeffler 2011, p. 147). The State Department often made a concerted effort to pair architects whose ethnic heritage was shared with the countries in question, making Yamasaki an early contender for the Kobe project (Loeffler 2011, p. 148). In light of World War II and the United States’ devastating attack on Japan only a few years prior, the selection of a Japanese-American architect to design buildings meant to become symbols of American political and cultural prowess in Japan was intended as a reparative gesture, but it also represented a thinly-veiled display of dominance, or a kind of aspirational imperialism over Japan. *Architectural Record* called the move a “gracious double compliment” to the consulate’s host country (A Compliment to Traditional Japanese Architecture 1958, p. 163). But the commission also played into the long cultural exchange between the Western tradition of architectural modernism and Japanese architecture, which shaped generations of young American and European architects beginning before World War II. Having

visited Japan in 1954, both as part of the Kobe commission and his first round-the-world trip, Yamasaki brought back with him many ideas that he saw as softening the harsh, hard lines of modern architecture and bringing a more human-centered approach to his design work. In the process, the visual and material abundance that came about as a direct result of this aim produced work with a message far beyond the architect's claims. Yamasaki, and his firm, were acting as U.S. agents producing work that exemplified both U.S.-led technological advancement and an outward display of wealth through the application of luxurious materials and ornate surface treatment.

The site for the new compound (Figure 1) was located in downtown Kobe, in an area where “most buildings are closely crowded together, occupying 100% of their lots, much like New York City” (U.S. State Department Overseas 1955, p. 120). The program requirements called for an air-conditioned consulate building with offices, a separate apartment building for the employees of the United States, and a third building that housed carports and servants' living quarters. These functions were housed in structures of different massing, proportion and architectural concept, reflecting their distinct programmatic aims.

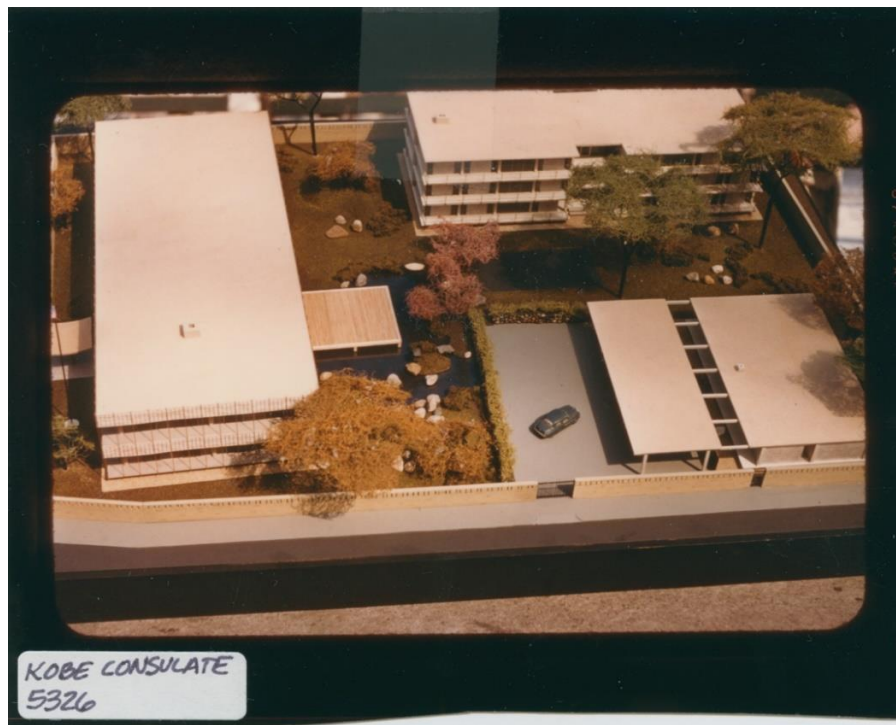


Figure 1. Leinweber, Yamasaki and Hellmuth, model of U.S. consulate in Kobe, Japan. Courtesy Archives of Michigan, Lansing, MI. Copyright: All pictures are used by permission.

The main building, housing the offices of the Consul General, was a two-story rectangular structure which stood within the walled enclosure and was the destination for most of the general public visiting the consulate (Figure 2). In addition to the main entrance, there were a number of secondary entrances located strategically throughout the compound as fire exits and to allow the inhabitants points of entry and exit that did not interfere with consular duties. Half of the ground floor contained offices of the Consul General and Vice Consul, as well as a large consular section which handled administrative duties for American citizens and foreigners applying for visas. The other half was reserved for a variety of other agencies including the United States Information Agency (USIA)—an agency that among other undertakings handled extensive American-driven propaganda campaigns

aimed at foreign audiences (Welch 1983).³ A variety of supporting consular services were located in the remaining areas of the upper floors, including space for events and parties held by the Consul General to promote the United States and celebrate visiting U.S. dignitaries and government officials. This consisted of both indoor and outdoor areas which overlooked the landscaped pond and garden, but also directly onto the parking drive and carport full of the latest models of U.S.-built automobiles.

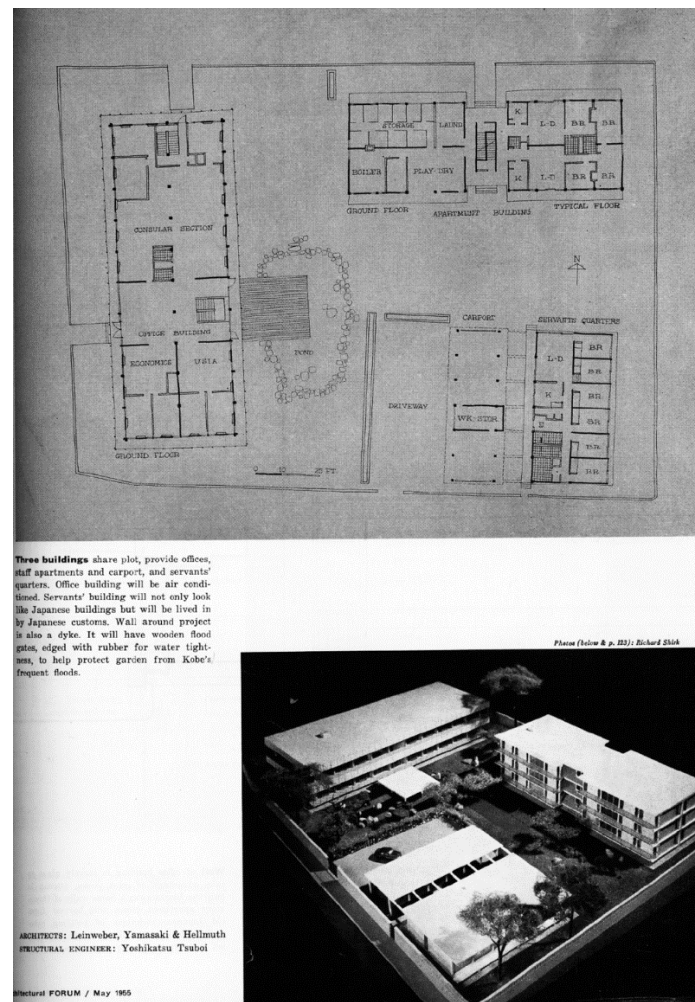


Figure 2. Leinweber, Yamasaki and Hellmuth, U.S. consulate in Kobe, Japan. Ground floor plans with gardens and model, published in “U.S. State Department Overseas”, *Architectural Forum* (May 1955): 121. Copyright: All pictures are used by permission.

Luxurious material finishes were an important aspect of the project that blended Western and Eastern sensibilities. The lobby in the main building featured polished terrazzo flooring and polished marble walls, which were popular in the United States at the time, while the other buildings emphasized Japanese architectural detailing. The luxurious finishes indicated, at least in part, some of the project’s priorities: in addition to its consular affairs and propagandistic undercurrents,

³ In spite of popular criticisms to the contrary, the agency maintained that it strictly disseminated “information, not propaganda”. Welch, Jim. 1983. *United States Information Agency, 1953–1983*. Washington, DC: The Agency. 1. The USIA, including the Voice of America program, was well-known outside the United States, but was essentially unknown to U.S. citizens by congressional decree. For a complete history of the USIA, refer to Cull, Nicholas J. 2008. *The Cold War and the United States Information Agency: American Propaganda and Public Diplomacy, 1945–1989*. New York: Cambridge University Press.

the U.S. Consulate was itself an object that projected an image of U.S. wealth and prosperity, further underscoring a dominant relationship to Japan, while attempting to appeal to the local context.

A Japanese design ethos appeared throughout the project. First, the entire compound was surrounded by a perimeter wall made of lava stone (Figure 3)—a decision Yamasaki made in order to meet United States security requirements and to avoid “putting up grilles over windows and rolling steel shutters over doors for protection from agile, second-story men” ([U.S. State Department Overseas 1955](#), p. 120). Beyond the client’s security requirement, enclosure walls were also common elements in Japanese architectural design, a fact frequently highlighted in the American architectural press. Second, incorporating an enclosure “permitted [Yamasaki] to design an office building of considerable delicacy, surrounded by a light grille of bronze with panels of shoji-like [sic] plastic shading the glass walls” ([U.S. State Department Overseas 1955](#), p. 120). Furthermore, the end façades of each apartment building incorporated “Araidashi consisting of 1/8 to 1/4 in. round black stones set in concrete which is partly brushed away to provide an interesting and attractive textured surface” ([A Compliment to Traditional Japanese Architecture 1958](#), p. 164). This stone-setting technique was traditionally used for constructing sidewalks, and is similar in its finished form to unpolished and un-sanded terrazzo. Yamasaki’s acknowledgement of Japanese architectural formal traditions in this and later projects became a central focus of discussion in the U.S. architectural press in the years that followed this early-career commission, marking a lingering postwar fascination with Japan and Japanese culture.

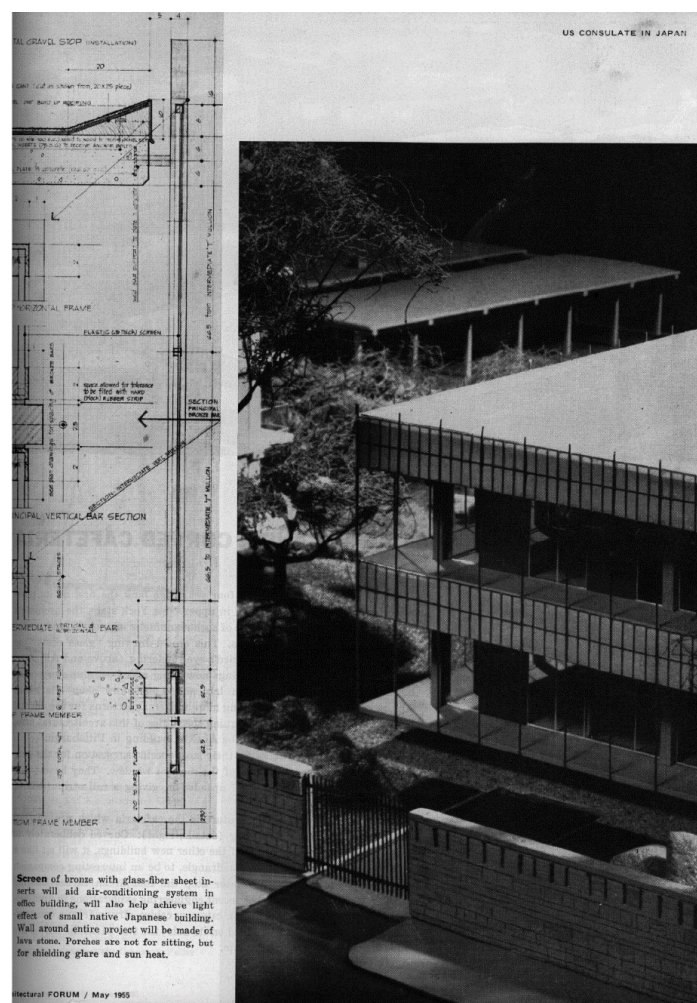


Figure 3. Leinweber, Yamasaki and Hellmuth, U.S. consulate in Kobe, Japan. Partial detail drawing and view of model depicting “shoji-like screens” and the perimeter wall. Published in “U.S. State Department Overseas”, *Architectural Forum* (May 1955): 123. Copyright: All pictures are used by permission.

At first glance, the American Consulate in Kobe seems like a one-off: the sleek lines and hard geometry of the squat buildings speak to a conservative high modernist aesthetic but are tempered with Yamasaki's subtle allusions to vernacular Japanese architectural features, which he discussed in a 1959 interview given at the Detroit Institute of the Arts:

Japanese architecture is very much copied in this country and in Europe. And we are told that it's a great influence for modern architecture. If you examine this, I think that you will find that it's the mechanics of Japanese architecture that have been thought of as the direct influence upon our architecture. In other words, such things as the simple use of post and beam which is used in our structures, or the integration of house and garden. (Yamasaki 1959)

The referencing of Japanese vernacular architectural forms does not simply situate the buildings within a Japanese context, but also acknowledges the larger stylistic concerns of American late modernism, pointing to a larger project of global American diplomacy through architectural form. As the leading designer of his firms, Yamasaki was not a pure modernist, but neither a true postmodern architect, but rather occupied the interstitial space between these two distinct movements due to his employment of visual and material excess. In the U.S. Consulate in Kobe, and in late projects, his firm leveraged excess in architecture as a means to promote the United States as a leader in political, social, and economic realms.

3. The Federal Science Pavilion at the 1962 Seattle World's Fair

Back on U.S. soil in the late 1950s, Minoru Yamasaki and Associates received a commission to design the Federal Science Pavilion as part of the larger Century 21 Seattle World's Fair, which ran for six months in 1962, a time that was indelibly colored by the Sputnik launch and the heightening "space race". Examining the Federal Science Pavilion in Seattle foregrounds the role that a kind of luxurious, opulent architecture played in creating a perception of North American exceptionalism to U.S. audiences and by forging new economic opportunities for U.S.-based corporations.

By this time, Yamasaki was familiar with world's fairs and their emphasis on nationalistic grandstanding. Indeed, before being commissioned to design the U.S. Federal Science Pavilion in Seattle, Yamasaki had attended and exhibited at the International Building Exposition in Berlin (1957), at the American Pavilion in Brussels (1958), and at the American National Exhibition in Moscow (1959).⁴ The American National Exhibition in Moscow's Sokolniki Park of 1959 included a display of recent projects completed by American architects, among them, Hellmuth, Yamasaki and Leinweber's St. Louis Air Terminal of 1956. Photographs of these and other of the firm's projects' were displayed under a series of interconnected "plastic umbrellas" designed by George Nelson, along with Edward Steichen's photographic exhibition *The Family of Man*, which was first shown in 1955 at the Museum of Modern Art in New York. The experiences of attending and exhibiting at world's fairs not only increased MYA's visibility and international profile, but were also formative ones for Yamasaki himself, who would draw upon his personal experiences at the fairs for the design for the 1959 U.S. pavilion in New Delhi and the 1962 Federal Science Pavilion in Seattle.

One of the most popular attractions at Moscow 1959 was a large, gold anodized geodesic dome housing exhibitions and a film by Charles and Ray Eames entitled, *Glimpses of the USA* (Masey and Morgan 2008, p. 179).⁵ The exhibit, projected on seven screens, depicted vast differences in life in the United States from urban centers to bucolic farming communities; a display that became its own type of architectural space (Colomina 2001, p. 12).⁶ In other words, the display put together by the Eameses

⁴ Projects on display included the 1956 St. Louis Air Terminal as well as Detroit-area elementary and high schools.

⁵ Although the dome is often attributed to architect Buckminster Fuller, it was most likely the work of California-based Welton Becket.

⁶ As Beatriz Colomina has argued, "The huge array of suspended screens defined a . . . space within a space. The film breaks with the perspectival view of the world. In fact, we find ourselves in a space that can only be apprehended with the high

privileged the fast flow of information from screen to viewer in mosaic form, rather than through a linear storyline. The exhibition depicted the United States as a country focused on investments in architecture and expression in the arts. But the grand displays also served an economic purpose: by introducing a wide array of new products intended to enhance everyday life, U.S.-based corporations hoped to expand their sales by tapping into large, global markets. Taken together, the many aspects of the United States on display at the fair portrayed a nation that was a leader in science and technology of the day, forging domestic advancements easing the everyday life of ordinary Americans, and full of exciting new promises—through convincing political and economic propaganda. This was also true in the Seattle World's Fair, although unlike in Moscow, the audience was a primary domestic one.

The Seattle World's Fair itself was originally conceived by the organizing committee as “a festival for the West” commemorating the Alaska–Yukon–Pacific Exposition, a popular regional fair that had taken place in 1909. As plans for the exhibition came together, the festivities morphed into a larger operation combining the commemorative fair with a celebration of Seattle's new civic center. Given the enlarged scope of the program, the entire state of Washington became involved, and state agencies began sponsoring exhibitions promoting the state's many, varied resources (Unknown author 1962, p. 2). One of the initial goals of the fair was to help “speed up the Pacific north-west's slow population growth,” which lagged far behind the East Coast and Sunbelt regions of the United States (Findling and Pelle 2008, pp. 323–30).⁷ Despite Seattle's relatively small population—at the time it was barely 600,000 inhabitants—the city was able to attract the official designation as a world's fair and thus secure \$13 million in federal funding for the exposition—just under four times the amount approved by Congress to spend on the U.S. entry in Moscow in 1959 (Morgan 1962).

The overall aim of the many pavilions and exhibitions at Century 21 was “inspired by the promise of a new age before the world—the age of space” (Unknown author 1962, p. 2). The space age had never had more meaning, or been more apparent to the world, than in the wake of the Soviet Union's Sputnik launch in 1957 and the formation of the National Aeronautics and Space Administration (NASA) by the United States in 1958, resulting in the so-called “space race”. The Sputnik launch alarmed the U.S. population, but at a news conference on 9 October 1957, President Eisenhower suggested that the satellite marked progress in scientific developments, not a military threat (Mieczkowski 2013, p. 1). As Yanek Mieczkowski suggests, “the Sputnik uproar was more apparent than real. It was the press and politicians who generated noise, capitalizing on the event for attention and electoral gain” (Mieczkowski 2013, p. 2). In any case, the launch propelled the United States into deeper development of space technology. New scientific research became intertwined with political and militaristic advancement as the world's major powers rushed to gain a competitive economic advantage over one another. In the United States, these efforts were in part undertaken by the USIA and various initiatives set forth by President Eisenhower, including the “Atoms for Peace” project, further expanded in January 1958 to simply “Science for Peace”, which ultimately became a “priority theme” for the remainder of 1958 (Cull 2008, p. 152). While the Federal Science Pavilion took on the aims of this larger scientific project, the larger fair encompassed entertainment of all varieties—from the tawdry to the elegant.

The Seattle fair was roughly divided by an elevated skyway system into two main parts spread out over 74 acres. The south and west portions of the exhibit were primarily dedicated to science, commerce,

technology of telescopes, zoom lenses, airplanes, night-vision cameras, and so on, and where there is no privileged point of view.”

⁷ As the author outlines, one concern of Seattle residents and city officials was the rapid suburbanization of the metropolitan area, fueled in part by Boeing's plants necessarily located far from the city center. It was hoped that by bringing a World's Fair to downtown Seattle, the city's core would be both reinvigorated with development, rendering Seattle a more cosmopolitan city, and consequently, more attractive to workers and families from across the United States. The Seattle fair was the first of three such expositions in the United States that aimed to catalyze development in cities that had struggled to grow their populations. Like Century 21, fairs in both San Antonio (1968) and Spokane (1974) had positive outcomes in this regard. These good fortunes changed by the early 1980s when similar expositions in Knoxville and New Orleans proved largely unsuccessful, marking the end of international exhibitions on U.S. soil.

and industry, whereas the north-east quadrant placed a greater emphasis on arts, entertainment, and culture. The Skyride, an aerial gondola that was intended as both a popular attraction in its own right, as well as an efficient means to transport fairgoers across the compound, connected the Monorail terminus to the “International Mall”, which housed pavilions representing nations, organizations, and city-states. Each of the many themed zones provided a host of entertainment options for visitors, ranging from international exhibits and exotic foods to a family-oriented theme park with carnival rides to Las Vegas-styled, adult entertainment (Morgan 1962).⁸

Located near the south entrance to the fairgrounds, the MYA-designed Federal Science Pavilion was composed of a series of five buildings arrayed around a central water feature and landscaped gardens. Initially the design team had planned a single tower that was to rise 110-feet high, but the idea was ultimately scrapped in favor of five smaller ones due to perceived visual conflicts with the nearby Space Needle, which rose to a height of 650 feet and served as a focal point in the city’s skyline (Yamasaki 1979, p. 70). Unity in the design was reflected in the complex’s overall form; each building had a different footprint and height, but the formal attributes remained similar, bringing visual cohesion to the project. Visitors arrived at the complex via an elevated walkway composed of five vaulted towers set amid reflecting pools and lighted fountains (Figure 4). Attendees worked their way through the entire exhibit, moving from building to building with the occasional opportunity to step outside and view the reflecting pool and fountains as a break from the exhibit halls.



Figure 4. Minoru Yamasaki and Associates, Aerial view of Federal Science Pavilion illustrating the overall composition of the project as well as the pronounced elevated entry sequence (at right), Seattle, WA. Seattle Municipal Archives, Seattle, WA. Copyright: All pictures are used by permission.

The program comprised four themed areas, a resting zone, and an exhibition summary near the exit. Each offered graphic displays, theatrical demonstrations, or films introducing fairgoers to new research and developments that agencies of the government had undertaken in recent years. The first

⁸ Morality around the fair was unevenly regulated. Even though some shows featured bare-breasted showgirls, and Seattle residents could evict permanent tenants to profit from fair-going attendees—two rather large concessions—the sale of alcohol was still banned on Sundays, which to many seemed like a missed revenue opportunity. Refer to Murray Morgan, “Seattle”.

pavilion housed a theatre which introduced attendees to the “Frontiers of the Future”. Alternatively called “The House of Science”, the exhibit focused on science as an area of research that was constantly evolving. The animated film inside utilized an architectural metaphor to convey its message. “Science is seen as a house that grows a room at a time over many centuries in increasing complexity and size but with an essential inherent unity of design” (Unknown author 1962, p. 9). Visitors next entered the exhibit hall entitled “Law of Science” or “The Development of Science”, followed by the much touted “Spacearium” in which a domed auditorium featured a film that every 15 min that took viewers on a “60-thousand-billion-billion-mile roundtrip into space.” As the fair’s *Official Guidebook* explained, “The imaginary 10-min excursion to the outer galaxies simulates what in actuality would be a two-billion light year journey” (Unknown author 1962, pp. 14–15). A smaller rest area offered respite to exhibitgoers with an internal space as well as an outdoor patio overlooking the reflecting pools and towers of the central courtyard. The final two buildings of the pavilion housed “The Spirit of Science” and lastly a “Summary” exhibit that recapped the many new and varied discoveries, inventions, and investigations presented within the pavilion, which included a hands-on laboratory for children between the ages of eight and 13 called “Doing Science” (Unknown author 1962, p. 22).

Given the complex’s intricately detailed façades, some discussion was given to its surface treatment and formal composition (Figure 5). Officially, the United States Department of Commerce ascribed the significance of the five buildings to the five basic laws of science. The design team refuted this idea, arguing that the decision for five interconnected pavilions was “made entirely for design reasons” (Yamasaki 1979, p. 70).⁹ Yamasaki argued further that the main reasoning behind this arrangement was to emphasize a sense of enclosure, giving visitors an internal focal point around which to gather. This, the architect hoped, would limit what he saw as visual competition from neighboring pavilions he had experienced at previous world’s fairs.



Figure 5. Minoru Yamasaki and Associates, Construction view of the Federal Science Pavilion depicting ornate façade detailing, Seattle, WA. Museum of History and Industry, Seattle, WA. Copyright: All pictures are used by permission.

⁹ Initially, the design team had planned a single tower 110-feet high, but that was scrapped in favor of five smaller ones due to the nearby Space Needle, which at a height of 650 feet, they worried would visually compete with their design.

When Century 21 opened in April of 1962, John Canaday of the *New York Times* suggested the “event has spectacle and significance”—a combination that well describes Yamasaki’s delicate design for the Science Pavilion (Canaday 1962). The following January, however, the editors of *TIME* suggested something quite different, positing that its outward design had little to do with the modern scientific displays on its interior:

Though the Pavilion was devoted to showing modern science, it looked as if it could have been the setting from a poem by Coleridge. From any angle, it casts a spell. It had reflecting pools, stage set lighting, delicate bridges, six buildings decorated with Gothic tracery. Inside, it subtly lured visitors along, stopped them just where the designer intended that they should pause and look. (*TIME* 1963, p. 54)

Indeed, we might understand the Federal Science Pavilion as an architectural world of its own, created by MYA through the employment of dramatic arches that critics and journalists ascribed to an abstracted Gothic arch—even though Yamasaki denied it—and by capitalizing on modern precast concrete elements with roof spans up to 135 feet (Yamasaki 1979, p. 70). Historian Dale Gyure has noted that Yamasaki continued to refute any Gothic impulses in the design when he wrote about the project in his autobiographical monograph, *A Life in Architecture*, suggesting that for the architect, “the label still stung” (Gyure 2017, p. 162). Whether intentional or otherwise, the geometric latticework suggested a modern infrastructural architecture that undeniably recalls fine tracery from the Gothic cathedrals of Europe. And yet, the ethereal or space age theme is underscored in the light fixtures suspended from the towers, making them appear as though they are satellites orbiting in a pseudo-historical representation of outer space, firmly tethered to the earth. The effect was particularly spectacular at night (Figure 6).



Figure 6. Minoru Yamasaki and Associates, Nighttime view of the Federal Science Pavilion water feature and towers, Seattle, WA. Museum of History and Industry, Seattle, WA. Copyright: All pictures are used by permission.

Throughout the preceding centuries, world’s fairs were often viewed as a collective display of technology, artistic achievements, inventions and discoveries, and occasionally became sites of intense rivalry between nations. As historian Andrew Wulf noted in *U.S. International Exhibitions during the Cold War*, “world’s fairs from the beginning have expressed through nationalistic displays certain dualistic functions that satisfied on the one hand the virtues of brotherhood, education, and free trade,

with the morally and physically corrupt hegemonic pretensions of the *nation displayed* on the other” (Wulf 2015, p. 23). These events reflected the increasingly interconnected and interdependent world in the twentieth century. This was fueled in part by an expanding global exchange of goods and services, and significant advancements in shipping and aviation which meant that a much wider group of people visited the exhibitions. Indeed, once the fair received international recognition and official world’s fair status, much needed to be done to convince Americans across the country to make the lengthy journey to Seattle and make the event a financial success.¹⁰ In the early 1960s, a cross-country journey was neither simple nor affordable for the average American. Yet the fabricated lore of the west was strong, and civic leaders and corporate heads were eager to capitalize on Americans’ deep curiosities about their own country, in addition to the world’s cultures and inventions the fair showcased.

The fair coincided with a moment in architectural production that historians are only really beginning to explore—the late modern period in which the austerity of high modernism was cast aside for a more playful approach to surface treatment and ornament that was still a far cry from the overt historical references championed in architectural postmodernism. MYA was one major player in the production of a brand of architecture that Douglas Haskell, editor of *Architectural Forum* and longtime friend of Yamasaki’s, has referred to as an “architecture of popular taste” (Haskell 1958, pp. 104–9). The firm’s work shares a number of formal similarities with the projects of Edward Durrell Stone, Philip Johnson, and Paul Rudolph, including an emphasis on highly articulated façades. In many ways, Yamasaki and others were directly responding to a new emphasis on luxury and consumption, a topic which Alice Friedman has convincingly argued in *American Glamour and the Evolution of Modern Architecture*. This new mass consumption helped create a different kind of architectural output that engaged “new technologies, popular visual imagery, and the cultural aspirations of postwar Americans” (Friedman 2010, p. 4). This was particularly true in the glittering hotels of Morris Lapidus, which combined new conveniences with elaborate form and lavish material finishes, “creating fantasy experiences that permitted guests to escape, however fleetingly, from the everyday . . . Lapidus’ resorts were designed as all-encompassing worlds of make believe” (Friedman 2010, p. 150).¹¹ Similar ambitions can be read in a number of projects by Minoru Yamasaki and Associates, where the architecture often became a kind of business of entertainment in its own right—championed by corporate and governmental clients, loved by the public, and ridiculed by architectural critics.

4. Conclusions

Although they were quite distinct in location and program, the U.S Consulate in Kobe and the Federal Science Pavilion in Seattle offer an insight into the ways in which the United States federal government invested in architecture as a means to promote both its democratic ideals and bolster its economy by showcasing the latest research and technology. In each case, we might understand the architectural citation of style in terms of Annette Condello’s arguments on luxury in architecture. Among other definitions, Condello has argued that “Buildings composed of various architectural styles out of their original context were deemed exotic in new locations and this is what made them luxurious in other places. They represent the ‘luxation’ of architecture” (Condello 2016, p. 147). This condition of luxury arguably appears in both projects, but with quite different outcomes.

The U.S. Consulate in Kobe, intended as a longstanding outpost of U.S.-led diplomacy inserted into the cultural fabric of Japan, was a project that formally embraced a kind of modified modernism—a

¹⁰ With this in mind, fair officials knew they needed to provide ample reason to attract visitors—and excite them enough to entice their friends and family to visit as well. This was achieved both through formal advertising campaigns and by word-of-mouth among fairgoers. Once in Seattle, visitors also needed ample reason to stay and explore the Pacific north-west. The state of Oregon ran color advertisements touting to fairgoers its “free beaches”, “air-conditioned climate”, and “scenery galore”. Alaska Airlines further suggested attendees extended their trip northward to Alaska via their “Golden Nugget Jet Service” which provided all the latest in Jet-Age comforts.

¹¹ For an expanded treatment of luxury in modern architecture, see also Condello, Annette. 2016 “The Dispersal of Modern Luxury.” In *The Architecture of Luxury*. London: Routledge.

delicately crafted object of modern architecture that reflected Japanese tradition, finished in materials that exuded U.S. wealth, prosperity, and power. In many ways, this project set the stage for more extravagant architectural exploration in later projects. Furthermore, the project's siting amid lush Japanese gardens created an internally-focused architectural space that was also the viewing ground for the display of the latest American-produced automobiles—a symbol of both technical prowess and unbridled freedom. In the Federal Science Pavilion, on the other hand, MYA produced a kind of architectural “fantasy world” that appealed broadly to Americans’ sense of excitement and desire to explore the unknown—an escape from the specter of the Cold War in everyday life. At the same time, the exhibits showcased U.S.-led scientific advances in a manner that was also meant to reassure the general public of the nation’s prowess on the international stage—in spite of the Sputnik scare.

In both cases, the architecture was essentially an elaborate envelope that was distinct from the programmatic ambitions of the interior spaces. The Japanese-influenced exterior of the Consulate masked the American diplomatic duties and information gathering by high-ranking U.S. officials that took place within, making the project appear as symbolic of Japanese–American relations. On the other hand, the ornately detailed facades and delicate towers of the Federal Science Pavilion had little in common with the exploration of space and the harnessing of atomic energy that was proudly reflected in the didactic displays within. In effect, the function of luxury, evinced by the visual and material abundance on display, was the most American aspect of the projects, which formally took their cues from anything but an American architecture.

Funding: A portion of this research was generously funded by the American Council of Learned Societies Luce/ACLS Dissertation Fellowships in American Art and the Rackham Predoctoral Fellowship Program at the University of Michigan.

Conflicts of Interest: The author declares no conflict of interest.

References

1953. U.S. Architecture Abroad. *Architectural Forum* 98, no. 3 (March): 101–15.
1955. U.S. State Department Overseas. *Architectural Forum* 102, no. 5 (May): 119–23.
1958. A Compliment to Traditional Japanese Architecture. *Architectural Record* 123, no. 2 (February): 157–66.
- Canaday, John. 1962. Art: Preview of Seattle World’s Fair. *New York Times*, April 17.
- Colomina, Beatriz. 2001. Enclosed by Images: The Eameses’ Multimedia Architecture. *Grey Room* 02 (Winter 2001): 6–29. [[CrossRef](#)]
- Condello, Annette. 2016. *The Architecture of Luxury*. London: Routledge. First published in 2014.
- Cull, Nicholas J. 2008. *The Cold War and the United States Information Agency: American Propaganda and Public Diplomacy, 1945–1989*. New York: Cambridge University Press.
- Findling, John E., and Kimberly D. Pelle. 2008. *Encyclopedia of World’s Fairs and Expositions*. Jefferson: McFarland & Co., Inc.
- Friedman, Alice T. 2010. *Glamour and the Evolution of Modern Architecture*. New Haven and London: Yale University Press.
- Gaddis, John Lewis. 2006. *The Cold War: A New History*. New York: Penguin Books.
- Gyure, Dale Allen. 2017. *Minoru Yamasaki: Humanist Architecture for a Modernist World*. New Haven and London: Yale University Press.
- Haskell, Douglas. 1958. Architecture and Popular Taste. *Architectural Forum* 109, no. 2 (August): 104–09.
- Keay, John. 2010. *India: A History*. New York: Grove Press.
- LaFeber, Walter. 1971. *Origins of the Cold War, 1941–1947*. New York: John Wiley & Sons Inc.
- Loeffler, Jane. 2011. *The Architecture of Diplomacy: Building America’s Embassies*. New York: Princeton Architectural Press.
- Masey, Jack, and Conway Lloyd Morgan. 2008. *Cold War Confrontations: US Exhibitions and Their Role in the Cultural Cold War*. Baden: Lars Müller Publications.
- Mieczkowski, Yanek. 2013. *Eisenhower’s Sputnik Moment: The Race for Space and World Prestige*. Ithaca and London: Cornell University Press.
- Morgan, Murray. 1962. Seattle: Portrait of a Fair City. *New York Times*, April 15.

- Unknown author. 1962. United States Science Exhibit. In *Official Guide Book: Seattle World's Fair 1962*. Seattle: Acme Publications.
- TIME. 1963. The Road to Xanadu. *TIME*, January 8.
- USAID. 2018. Who We Are. Available online: <https://www.usaid.gov/who-we-are/usaid-history> (accessed on 17 April 2018).
- Welch, Jim. 1983. *United States Information Agency, 1953–1983*. Washington: The Agency.
- Wulf, Andrew James. 2015. *U.S. International Exhibitions during the Cold War: Winning Hearts and Minds through Cultural Diplomacy*. Lanham: Rowman and Littlefield.
- Yamasaki, Minoru. 1979. *A Life in Architecture*. New York: Weatherhill.
- Yamasaki, Minoru. 1959. Oral History Interview with Virginia Harriman. Transcript. Detroit, MI, August. Courtesy of the Archives of American Art. Available online: <http://www.aaa.si.edu/collections/interviews/minoru-yamasaki-interview-6235> (accessed on 5 January 2015).



© 2018 by the author. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).