Re-viewing and Reimagining Paul Rudolph’s Brutalist Architecture in the USA and Southeast Asia

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Introduction

Theodore Dalrymple famously described late modern expressionist (Brutalist) buildings as “totalitarian,” “cold hearted moral deformit[ies]” that should be demolished.1 Even during the 1950s and 1960s, arguably the style’s halcyon days, British critic Reyner Banham noted that critics of the “new Brutalism” regarded “the movement” as “a cult of ugliness.”2 Though Banham concluded that Brutalism represented “a contribution to the architecture of today,” he stated that the buildings of Alison and Peter Smithson - who coined the term ‘new Brutalism’ - exhibited both “ineloquence” and “bloody-mindedness.”3 Despite Banham’s and other critics’ reservations, this post-War modernist movement was a global one. Architects such as Germany’s Werner Düttmann (the Agnes Kirche in Berlin, 1964), Australia’s Peter Hall (the Residential Colleges at the University of New South Wales, 1962-1966), Argentina’s Clorindo Testa (Banco de Londres in Buenos Aires, 1966) were among those who embraced what Banham referred to as the “ruthless logic” of Brutalism’s functional style.4

In the United States, Louis Kahn, I.M Pei and several other architects also designed and built Brutalist structures. Nevertheless, Paul Rudolph (a student of Bauhaus founder Walter Gropius) is the American architect most closely associated with Dalrymple’s “cold-hearted” style. While architectural critics once considered Rudolph a rising star, by the 1970s he had “vanished” from the “architectural scene.”5 Many regarded his once-celebrated Art and Architecture Building at Yale (or A & A Building, 1963) as a failed design.6 Despite the lack of appreciation by the U.S. architectural community, Rudolph continued to work on projects in the United States and in Southeast Asia. Most notably, these included the Southeastern Massachusetts Technological Institute (or SMTI, which was begun in 1963 with the final building completed in 1989), the Wisma Dharmala Tower in Jakarta, Indonesia (1982) and the Bond Centre (1984) in Hong Kong. Like Rudolph’s other late commissions, these three projects are either forgotten or dismissed as exemplifications of his “personal and increasingly eccentric modernist vocabulary long after it had ceased to be fashionable.”7 Arguably, his Southeast Asian designs could be dismissed as outdated first-world incursions - as indigenous aliens - inserted into the non-Western landscape.

3 Ibid., 11.
4 Ibid., 12.
Such conclusions represent not only a fundamental misunderstanding of modernism as a singular, Euro/North American style, but also of Rudolph’s design philosophy. Like other mid-century modernists, he believed that architects should embrace new technologies and create simplified structures that celebrate functionality. Unlike adherents of the International Style, Rudolph did not reject tradition or ornament. Though he did not add embellishments to his buildings, the architect transformed the facades into textured, ornamental-like edifices. And yet, Rudolph did not embrace postmodernism, a style he decried as “part of complex montages of several historical styles all within one poor building.” Rather, he remained an avowed modernist until his death in 1997.

Rudolph did not, however, ignore modernism’s inherent contradictions. While he lauded technical modernization and its potential to transform the human condition - in Jürgen Habermas’ terms the modernist project - Rudolph recognized the social problems associated with it: “The two great limitations of modernism remain urbanism and a paucity of spatial concepts that satisfy man’s psychological needs.” Though Mies van der Rohe's designs were a “wonderful counterpoint” to traditional architecture, Rudolph concluded that the International Style “never had anything constructive to say about building for the city.” For him, the interconnection between architecture and the individual’s response to it was crucial: “We need sequences of spaces which arouse one's curiosity… and [give] direction . . . Most important of all we need those outer spaces which encourage social contact.” In other words, architects must design buildings that enhance the individual's and the community's sense of place.

As this paper will argue, Rudolph’s designs for SMTI, the Wisma Dharmala Tower and the Bond Centre (now the Lippo Centre) illuminate his sensitivity to location and setting. At SMTI, he designed an open spiral site plan to reach out to the nearby towns of Fall River and New Bedford. Although Rudolph attempted to connect the campus to the region in which it was located, he did not adopt its shingled regional style for the new university. Rather, he created a distinctly modern academic center, a public place that would nurture its commuter students. While Wisma Dharmala’s cantilevered spandrels and overhanging eaves reference the nearby traditional roofs, they also reflect his modernist, forward-looking architectural aesthetic. By contrast (nearby and at street level) the Bond Centre’s blue glass twin towers hardly stand out in Hong Kong’s dense urban center. Up close, with its massive podium and monumental pylons, Rudolph’s complex is isolated from the urban fabric. From a distance, however, the towers do participate in a dialogue with Hong Kong’s built environment - a clear indication of the architect’s interest in urbanism. To local residents, the shimmering blue towers, located between the busy Queensway and Hong Kong Park, are visual icons of the city skyline and way-finding markers for the urban pedestrian.

In the United States, the critical assessment of Rudolph has slowly begun to change. The successful renovation of Yale's A & A Building, with its addition by Charles Gwathmey in 2009, represents an important milestone in the reappraisal of Rudolph as a significant designer. Without this critical affirmation of the renovation, many of his other Brutalist structures might be demolished or completely altered. Thus, the architect’s distinct vision would be lost. In the final part of this essay, the authors suggest that Rudolph’s works readily lend themselves to reinterpretation. The reimagining of an addition to SMTT’s library (now the University of Massachusetts Dartmouth, or UMass Dartmouth) is very much in keeping with Rudolph’s modernist principles - principles rooted in his belief that architecture frames a civic space that benefits the community and each individual who uses it. This project, the authors contend, provides a template for other Brutalist structures. The ongoing, heated discussion about the fate of his Orange County Government Center in New York suggests that a portion of the North American public recognizes the value of this architectural asset. In other words, Brutalist buildings - especially Rudolph’s – are not necessarily the “indigenous aliens” (whether in Southeast Asia or in the U.S.) some critics purport them to be.

11 Ibid.
SMTI: Creating a Utopian Educational City

In 1960, Paul Rudolph was asked by the Boston architectural firm Desmond and Lord to assume the role of lead designer for a brand new public university that would be constructed on 650 acres of undeveloped farmland between the once-thriving cities of Fall River and New Bedford: the Southeastern Massachusetts Technological Institute (SMTI, now UMass Dartmouth) (Fig. 1). Although he completed only one building in the 1960s (Humanities 1) and one in the late 1980s (Science and Engineering/Dion Center), Rudolph’s vision informed the unified campus design. At SMTI, he built a campus for the Massachusetts’ young working class men and women who had to find work in a post-war struggling economy - an economy in which the textile mills of New Bedford and Fall River were largely silent. Rudolph’s utopian vision matched that of the state’s governor. As Endicott W. Peabody said at the ground breaking ceremony on June 14th 1964: “This is a great symbol for southeastern Massachusetts, for all of Massachusetts, for the United States itself, because it means that the young men and women of this area who have been too long neglected, in my opinion, by our state in the area of higher education - these young people can be assured of a first-class technological education which will enable them to take their places amongst the business, civic, and governmental leaders of the world.”

Rudolph’s initial design for SMTI reflected his distinctive modernist aesthetic, one that departed from the minimalist, stand-alone glass boxes of the International Style. He was not alone in rejecting the style associated with Mies van der Rohe. As early as the mid-1950s, critics in architectural journals were decrying the modernist planar glass wall’s ubiquitous presence: “The standard curtain wall - perhaps America’s single, most important building innovation in the past decade or so - is fast becoming, in the hands of less-than-sensitive architects and manufacturers, one of the most irritating eyesores on the U.S. scene.” To Rudolph, the International Style no longer met the needs of the individual as a social and psychologically sensitive being. He believed architects should think of themselves as creators rather than practitioners who wish to satisfy the corporate market’s need for functional, easily reproducible designs. Rudolph was joined by a host of others. At the 1954 annual conference of the American Institute of Architects, Eero Saarinen asked: “Have we gone overboard on too many big windows, creating too many thermo-problems? Is the flat roof really the answer to all problems?” Josep Lluís Sert went further. He stated, “Today we need a new vocabulary, rich and flexible... By now we should have something more than mere practicality, which need not conflict with the functional but should add other elements to it.”

12 After the completion of his master plan, he officially stayed with the design team only through construction of the Humanities complex (then known as Group I). Rudolph did, however, stay on as a consultant to Desmond and Lord and helped to oversee its development. Rudolph admits, “Yes, I was fired. But in a sense, my influence and efforts did not change that drastically - not at first anyway - because the other architects - and I have to emphasize that there were many architects involved - understood that there was a prevailing idea, a series of ideas, wielding the campus into one, and that it needed to be an ongoing effort, so the other architects actually came to my rescue, otherwise, it would not have worked.” (The Claire T. Carney Library Archives and Special Collections, University of Massachusetts Dartmouth site at http://prudolph.lib.umassd.edu and see “Conversations” in Writings on Architecture, 121). As noted on several occasions by Grattan Gill of Desmond and Lord, for all practical purposes we may consider the design for SMTI largely as Rudolph’s conception.

13 See the Paul Rudolph Archive at The Claire T. Carney Library Archives and Special Collections, University of Massachusetts Dartmouth site at http://prudolph.lib.umassd.edu/node/3321 for information about tapes of the Governor’s address. The tapes are listed in the archive as: Portion of Lt. Gov. Elliot Richardson’s Speech and Presentation of the Building by Paul Rudolph; SMTI President Joseph Driscoll’s Speech, Group 1 Dedication, June 5, 1966: Excerpts: Tracks 5-10, North Dartmouth, MA, (1966).


As if responding to Sert’s assertion, Rudolph sought to articulate his own rich design vocabulary - one in which textured forms, spatial fluidity, and a belief in traditional urbanism and new technologies/materials figured prominently.17 Throughout his professional career, Rudolph explored new building materials. Early on, he had experimented with tensile roof structures and flexible membranes. In the 1960s, he concluded that concrete was the optimal building material for his North American projects. To Rudolph, the structural capabilities of reinforced concrete allowed him to create the cantilevered, sculptural, textured forms that were an important component of his futuristic, monumental architecture.

Rudolph also believed that buildings, however well designed, are only successful if they contribute to an overall sense of place. Thus, when he was awarded the commission to create a brand new university on undeveloped farmland on the coast of southeastern Massachusetts, he created an aesthetically distinctive campus that framed an academic center: a place devoted to the education of the children of former textile mill workers. According to an early College and University Business: “The Southeastern Massachusetts Technological Institute has something that is very rare among today’s college and university buildings - a single architectural concept strong enough to control the design of the whole campus.”18 Later critics agree. Robert Miklos, of designLAB, recalls during the 1960s: “SMTI was [considered] a complete ‘Utopian Vision’, an oasis for commuters who leave their cars at the circular perimeter road and travel uninterrupted through a complex system of concrete caverns, cantilevered forms, and vibrant op-art interiors.”19 According to Timothy Rohan, Rudolph’s biographer, SMTI represented the “the most complete realization of his experiments with urbanism,” as though the campus “was a world unto itself.”20

SMTI Site Plan
Integrating the built with the natural environment to create “place”

“This brilliant master plan, moving south from Old Westport Road across the former fields and forests of prior farms, turns westerly at the site’s midpoint, where he has located the campanile, library, and amphitheater. Here he takes the organizing lawn down the gentle slope where it longingly terminates in the cool reflection of Cedar Dell Pond.”

(Grattan Gill, Commencement Speech, UMass Dartmouth 2009)21

For this “tabula rasa” University, Rudolph created a distinct site plan, one in which he separated the school from the nearby farmland and Route Six strip mall developments. Rudolph enclosed the academic buildings within two concentric circles: the first, a traffic Ring Road to accommodate students who drive to campus; and the second, an earthen berm to separate the academic buildings from the parking lots. Inside the protective berm - reminiscent of a medieval


20 Timothy Rohan, Paul Rudolph, 128.

wall - Rudolph created a contoured, spiraling campus center. He situated concrete multi-tiered, cantilevered structures along two crescents of the spiral plan’s perimeter (Fig. 2). From above, the geometric structures flatten into stepped planes that lead to the exterior staircases that “flow into” the sculpted green mall and then to a sunken Delphic-like amphitheater (Fig. 1). The campanile, located at the mall’s center, is a visual marker and anchor for the academic city. Indeed, the SMTI architecture and landscape seamlessly work together as part of a coherent unified ensemble. They function as Rudolph put it, as a “comprehensible exterior space.”

“We have forgotten how to make eloquent the relationship between buildings . . . [because] architectural space is similar to the movement of water. It has velocity, there are cross currents of movement, it surges forward or upward, it can trickle to a standstill, it can be deep and wide, or shallow and still, it can gurgle with the joining of tributaries, it can swirl, leap up or fall precipitously.”

At ground level, pedestrians viscerally experience this fluid space as they move through it. From the academic buildings, they walk down zigzagging sweeping staircases onto a mall that twists and turns as it gently slopes down to the concrete campanile. The campanile, like the bell-tower at the center of a Renaissance or Baroque piazza, guides the viewer from the Humanities I building to the library or amphitheater. This reference to classical architectural tradition is just one of the surprises that greets visitors after emerging from the futuristic, block-like modern buildings (the other would have been a clear view of one of the region’s ubiquitous rural ponds). According to American writer Henry James: “places are specific, but their elements are general; we comprehend places through sensory data; understanding of place is filtered through memory; and our delight in place is enhanced by a degree of mystery.”

Although a professed modernist, Rudolph was specifically inspired by the “vitality” of the Piazza San Marco in Venice. The piazza “has little to do with style, it has little to do with materials, and it has to do with the psychology of architectural space.” At SMTI, he attempted to create a similar kind of public plaza. Rudolph contoured the green and concrete outdoors spaces to flow down into and around the campanile to elicit each pedestrian’s visual and tactile response to this outdoor space (Fig. 1). He choreographed the pedestrian’s movements as if he or she were part of an urban theatrical ensemble - and one with a view of a campus that seemed to stretch to infinity (what Rohan refers to as Rudolph’s “forced perspective”).

Rudolph was influenced by Thomas Jefferson’s park-like mall at the University of Virginia (1817-1826) and by Frank Lloyd Wright’s Florida Southern College (1938-1958). Like Jefferson’s UVA campus pavilions, SMTI’s projecting volumes shade the recessed first floor and visually unify the campus. Rudolph’s cave-like spaces also function as sheltered places, as respite in the large open plaza. To connect the different academic buildings with each other and the campus green, Rudolph adapted the diagonal and spiral pathways Wright used at Florida Southern College. Similar to Wright’s, Rudolph’s vein-like paths channel students, visitors, and faculty across the campus. Many of them lead into flattened spiral-shaped benches, reminiscent of
seashells that have washed up against a protective beach (a possible reference to Dartmouth’s location by the sea). At SMTI/UMass Dartmouth, Rudolph’s nautilus benches contrast with the muscular projecting forms of the nearby buildings and function as protected places where students can rest, converse with others or simply enjoy the sweeping and changing views of Rudolph’s modernist campus.

The Academic Buildings

**Humanities I (also Group I and now known as the Liberal Arts Building)**

When the pedestrian or driver enters the campus, the first structure he or she sees is Humanities I, the only building Rudolph completed during the 1960s. From this viewpoint, Humanities I is an eclectic volume of projecting rectangles and squares centered on a large window. Two covered diagonal staircases, which unite the rectangular elements, appear to float on its façade. Rudolph transforms these functional architectural components into sculptural aesthetic elements that lead the eye around the building. As the driver circles Ring Road, Humanity I’s complex design fully emerges. The edifice, which has a 300-foot elevation, consists of three interlocking structures with nine distinct levels. Muscular piers, which support the projecting upper floors and terraces, underscore the building’s monumentality - a key feature of Rudolph’s design philosophy.

For his building plan, Rudolph adopted a 28 x 14 foot rectangular grid. He believed this module would allow for later expansion. Complex hollow piers, which house the building’s mechanical elements, anchor this simple structural system. To add exterior and interior architectural variety, Rudolph rotated the concrete piers forty-five degrees. With this adjustment, he eliminated many corner right angles on the projecting classrooms and offices and thus softened the façade. The piers also serve as a visual design element. They lead the eye rhythmically across and around the surface to the sweeping staircases that flow down to the campus center.

These Baroque inspired exterior staircases represent one of Rudolph’s singular achievements. Like the contoured outdoor mall spaces, they elicit an affective response from the pedestrian. Because of the unconventional short risers, the stairs compel the pedestrian to consciously move at a slower pace as if he or she is part of a ritualized procession. According to Jonathan Miller, staircases “act as metaphors for psychological states . . . Apart from their practical function . . . [they] are often theatrical in their nature. They enable human beings to stage their preoccupations, choreograph their politics . . . For that reason they are often designed with hyperbolic redundancy.” Although Rudolph’s spatially complex staircases doubtfully symbolize any specific political convictions, the architect did create a theatrical space he hoped would elicit the pedestrian’s psychological response to the campus’ built environment.

Rudolph’s use of textured concrete forms as the primary building material is equally significant (and the design element with which he is most closely associated). According to Tony Monk, “He used concrete and explored its different finishes, precast and *in situ* with different exposed aggregate and shutter board textures because he felt that it was a modern material and its plasticity...”

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29 Ibid.
30 For the Art History Department Senior Seminar Exhibition (2012), *UMassD: The Original Intent Behind this Concrete Jungle*, students measured the steps at UMass Dartmouth in Spring, 2012. As noted in the catalog for the exhibit, “Unlike most stairways, the university has about 4” risers to 18” treads, resulting in elongated steps with shallow impressions in between.” (See catalog of same name, 22).
gave him infinite flexibility in his dynamic designs.”32 At the same time, concrete allowed him to create ornamental textured surfaces across which shadow and light danced. In contrast to the corrugated, hammered-in-place concrete that he used at Yale’s A & A building, Rudolph encased SMTI’s façades with a much less expensive manufactured ribbed block. Ignoring Adolph’s Loos’ jeremiad that ornament should be banished (thus signifying his expressionist modernist tendencies), he covered the piers and the buildings’ masonry surfaces in these mixed crushed seashells and concrete ribbed forms. Though this was in deference to the University’s location by the sea, the textured forms allow for the play of light and shadow across the façades’ surfaces. This animates, enlives and lightens the imposing, tectonic edifices. At sunset, the muscular structures dissolve into tangerine boxes of colors that glow against the deepening blue sky (Fig. 3). They seem to embody Owen Jones remark from over one hundred years ago: “Form without color is like a body without a soul.”33 This play of light and shadow across the textured concrete walls complements the “flowing” staircases. In sum, Rudolph created architecture in which the two-dimensional and three-dimensional function in harmony - a strategy he would also employ on the interior of Humanities I.

Rudolph designed the Humanities I interior around a central open core (Fig. 4). Massive cathedral-like windows frame each central void. Cantilevered seating areas, which project into the open space, represent the “caves” that Rudolph deemed to be an important component of architectural spatial experience.34 These hexagonal concrete enclaves “serve an important purpose by providing places for informal conversation and small meetings.”35 Students, who enter these spaces to converse or study, are momentarily removed from the hustle and bustle of the noisy corridors and staircases. In addition, these pod-like “caves” function as spaces from which to observe and be observed. From them, visitors can view the vast open interior as well the exterior campus mall.

As with the exterior, Rudolph used an 8” x 16” ribbed concrete block for all the walls and columns. Light from the enormous windows transforms the interior spaces into multi-textured places of light, shadow and color. According to the architect: “Reflected light coming from the wall is the most human of all light. Since light travels in straight lines, the reflections from the walls come back to you as an individual, putting you in direct contact with the walls themselves. It is almost as if the walls are caressing you with their light.”36

In Humanities I, Rudolph (in conjunction with interior designer Bill Bagnall), complemented the grey concrete forms with brilliant orange covered banquets, crimson banners and richly textured carpets. On a sunny day, warm color bounces from the walls onto the nearby stairs and seating areas. Even in the more drably decorated CVPA and Engineering buildings, the brilliance of Rudolph’s open atrium design is still evident. Such color was meant to stimulate conversation - to create small student-centered communal spaces.

Rudolph also used structural and service elements (supporting piers and stairways) to frame spaces of exchange and learning. By rotating his massive piers forty-five degrees, he created multi-faceted, octagonal shaped lecture halls to stimulate dialogue between students and faculty.37 Similarly, his interior staircases also function as communal places where conversation between students might occur. In his spatially complex stairwells, Rudolph altered the dimensions of the conventional step. Like those on the building exteriors, the interior steps are shorter in height and longer in width than conventional stairs. This can be treacherous for the wired student and book-

33 Owen Jones, The Grammar of Ornament. Illustrated by examples from various styles of ornament. One hundred folio pages drawn on stone by F. Bedford, and printed in colour by Day and Son (London: Day and Son, 1856). This quote was cited by several scholars at Harvard University’s symposium "Ornament as Portable Culture: Between Globalism and Localism," Organized by the Departments of Art History and Architecture, Harvard University, April 21-4, 2012.
35 Ibid.
37 See Rohan’s discussion of SMTI in Rudolph, 136-139.
carrying professor. The small step forces pedestrians to slow down. Because these central staircases also unite the half-floors, visitors often stop on them to ask for directions. Students, who have learned to quickly run up and down them, can look into the cantilevered “pods” and participate in the conversations above or below them. Thus, the stairways, which visually and functionally unite the voided central core with the cantilevered enclaves and corridors, promote the sense of place that was so important to the architect.

Rudolph’s belief that architecture should foster individual social interaction informed every aspect of his design for the SMTI campus. Evidence as to whether or not he was correct can be gleaned from simple observation of how students and faculty use the public spaces. In the campus center, hundreds of people gather to meet, eat, rally and converse each day. Other spaces have not been quite as successful. Prior to its recent renovation, few UMass Dartmouth students regarded the library as a congenial place to meet. Because students’ research and study practices have changed since the 1960s, the library’s twentieth century design no longer worked for them. In fact, the building had become the subject of campus folklore: with students describing it as “dark, dreary, confusing, cold” and replete with satanic symbolism. The optimism, exuberance and excitement that had greeted its opening was now gone. But this would not surprise Rudolph. Buildings must change, as its users’ needs also change. As long as the campus central core remained intact, for Rudolph, the library could and should evolve over time.

SMTI / UMassD Library

The library, which is the tallest building on campus, represents the physical and metaphorical center of campus (Fig. 1&2). Adjacent to the campanile and amphitheater, it delineates the signature moment when the campus shifts southwest, framing views to the Cedar Dell Pond. Viewed from a distance, this heroic structure consists of several interlocking horizontal planes anchored by massive vertical piers. The polygonal piers support the projecting terraces and enormous windows that define and enrich the horizontal floors. Like Humanities I and Walter Gropius’ Dessau Bauhaus, light and shadow transform the library facade into glowing fields of color. At night, the dematerialized structure appears as though it is an energy force field - an apt metaphor for an educational center.

Prior to its renovation, the library’s light sculptural qualities would diminish as pedestrians approached its southeast entrance. To enter the pre-renovated library at the ground level, they would walk around a massive pier to an almost hidden door. Pedestrians could also climb a rather treacherous narrow staircase to a second floor entrance. Both doors, which were framed by windowless concrete walls, appeared lost within the massive facade. Though inspired by Wright’s cave-like hidden entries, first-time visitors found it impossible to find either door. Moreover, students, faculty, staff and local residents from the nearby communities regarded the discolored, gray façade as cold and uninviting - as out of place on the Massachusetts southeast coast.

The entries and discolored façade were only part of the problem. The “link,” which connected the library to the Science and Engineering building, no longer functioned as Rudolph had envisioned. Intended as the main threshold and gateway from the Ring Road parking lots to the main campus green, the link’s massive gray façade had not weathered well (Fig. 7 inset & Fig. 10 top half). Although it housed the three busiest lecture halls on campus, the almost windowless hulking structure was off-putting to the hundreds of students who attended classes inside it. Moreover, its interior spatial design no longer made sense in the twenty-first century. Rear projection screen rooms, adjacent to the three elevated lecture halls, had become dark, storage spaces. Between these rooms and the lecture halls, an enclosed dark north/south passageway

38 As discussed in UMassD art history senior seminar exhibition catalog: UMassD: The Original Intent Behind this Concrete Jungle. (Also see note 30).

functioned as the primary circulation route between the library and the remainder of campus. This corridor did not provide a place for students to congregate, nor did it offer any views of the expansive campus lawn immediately to the east. In sum, only "skateboarders" and students who played "humans versus zombies" used the open-air space beneath it. Indeed, one might regard this moldy, dark cave-like space as a metaphor for the link's architectural problems.

The library's interior spaces, though graced with large sweeping windows and ribbed concrete columns, had also suffered over the years. Other than the top floor, offices broke up the sweeping views that were so important to Rudolph. In addition, the muted earth-tone fabrics, which had replaced his colorful carpets and wall hangings, hardly complemented Rudolph's rough grey concrete. The carved-up spaces, poor light, and muted color reinforced the students' view of the library as cold and unforgiving. Though Desmond and Lord's interpretation of Rudolph's design had initially been successful, the 150,000 square foot library needed substantial re-programming and remodeling.

Southeast Asian Brutalism: Wisma Dharmala Tower and the Bond Centre

While Rudolph was finishing the Dion/Science and Engineering building for SMTI in the late 1980s, his primary clients were in Southeast Asia. According to Robert Bruegmann, critics believed that this late work "ceased to be innovative..." and that he had transferred a design "vocabulary into new and inappropriate settings." Such statements are, as Bruegmann rightly concludes, incorrect. For one, they do not take into account the relationship of his Southeast Asian architecture to its urban setting. For Rudolph, each building "must define and render eloquent its role in the whole city scheme." To accomplish this, he designed forward-looking structures that respected local urban design traditions: "Urban design deals with the old and the new, the expanded and the contracted, the humdrum and the extraordinary. It brings people together. It separates people. It commemorates history."

Rudolph's Wisma Dharmala Tower (now the Intiland Tower) represents one of his most successful Southeast Asian designs (Fig. 5). As such, it is not quite the "indigenous alien" critics purport it to be. In Jakarta, Rudolph adapted his muscular, geometric aesthetic to the hot, human climate and to the local architectural traditions of this modernizing Indonesian city. The Wisma Dharmala tower consists of a substantial podium and a vertical twenty-six-story tower that rises from it. For the tower, Rudolph employed a basic square floor plan, which he rotated around structural columns to create a sculptural volume whose geometries change every three floors. This allowed him to employ cantilevered spandrels and overhanging eaves to shade the windows in this tropical climate. Though these architectural elements recalled Jakarta's traditional rooms, they were rational, modern adaptations that made architectural sense. Nevertheless, Rudolph's interpretation of Jakarta's sloping roof does reflect his general sensitivity to the building's surroundings: "Indonesian architecture covers some 13,000 islands... The unifying element in this rich diversity is the roof... The Dharmala Office Building takes the 'roof' and adapts it to a high rise, air conditioned building." This roof, continues Rudolph, gives the building its "sense of place."

Along with cantilevered spandrels and overhanging eaves, Rudolph used glazed windows, "venturi" wall passages, and a ground-floor open breezeway to cool the interior. His encasement of the entire structure in ceramic white tiles to protect it from moisture represented a design solution that was both practical and visually stunning. According to Tony Monk, the Tower

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40 Quote by Catherine Fortier Barnes, cited in Fred A. Bernstein, "Claire T. Carney Library and Renovation, in Architectural Record, (February 2013), 71.
“creates a feeling of cool, pristine, white elegance.”\textsuperscript{45} At the same time, “the small tiles give a friendly scale and texture to this otherwise large building.”\textsuperscript{46}

This is also true of the interior courtyard. Like the central voided spaces of SMTI’s Humanities I, Rudolph designed a vast open plaza. This white-tiled space, which consists of stepped back offices with overhanging plants, canals and waterfalls, frames a public place that exquisitely integrates the building with the local setting and environment. As Monk notes, this “inverted cone” is both inviting to the public and “appropriate” for a corporate headquarters.\textsuperscript{47} In fact, Rudolph hoped the courtyard would be “like a village, with all the ease of access and variety that villages always possess.”\textsuperscript{48} In the lower level of the plaza, the architect carved out a bowl-shaped protective space, one that recalls SMTI’s cave-like enclaves. As with his North American designs, Rudolph wanted to create a sense of place for the building’s occupants and for the Jakarta community.

Despite Rudolph’s intention, Wisma Dharmala has not been integrated into Jakarta’s urban fabric. Although the horizontal podium and interior courtyard are welcoming, they are far above the local street level. Parking garages – which reflect the importance of the automobile to Rudolph – separate the building from the street. Moreover, the adjacent six-lane boulevard with its overwhelming noise and traffic is hardly pedestrian-friendly. Clearly, Jakarta’s planners have favored the automobile over the pedestrian. Like the Bond Centre, the Jakarta building is located on a traffic-congested road (Jenderal Sudirman). In contrast to the Bond Centre, the Wisma Dharmala complex also reflects Jakarta’s recent economic difficulties. Because of street crime, it has been walled off from the nearby residential area.\textsuperscript{49}

Improved economic conditions and “place-making” urban planning might change the Jakarta building’s relationship to the city. Officials could introduce a plan that would favor the pedestrian over the automobile – one that “combines site, architecture and surroundings into an organic entity that supports community.”\textsuperscript{50} If this should occur, Rudolph’s original design for the Wisma Dharmala Tower should be revisited. Ideally, architects could “lighten” the concrete infill of the podium and add a transparent ground floor entrance that would be inviting to the public (see discussion of SMTI/UMass Dartmouth’s renovated library). They would introduce more transparency with physical and view corridors into and through the podium levels. Moreover, it would soften the powerful concrete podium and better engage the streetscape. Such softening could result in a clear public connection between Rudolph’s interior “village” courtyard and the surrounding community. With some modifications, a once enclosed space intended for only the building occupants might then become a public amenity the adjacent community could embrace – an urban plan Rudolph had originally envisioned.

By contrast, Jakarta officials might choose to invest more in roadways and large isolated skyscrapers than in pedestrian-friendly pathways and plazas. If so, the relationship of the Wisma Dharmala building to the city would be similar to that of the glass-sheathed Bond Centre (now the Lippo Centre) to Hong Kong’s commercial district - a congested center distinguished by automobile-friendly streets, largely non-descript skyscraper boxes, underground malls and passageways, and covered walkways. With its elevated walkways and ground floor parking garage, the Bond Centre clearly fits into this setting (though not exactly as the architect had intended). Viewed from the Queensway sidewalk, the complex is overwhelming. Two eight sided towers, with interconnected projecting elements, rise from a four story horizontal podium. The podium, anchored by massive pylon columns, isolates the building from the street. Rudolph apparently ignored his own statement: “why can’t [buildings] be placed over the street,” if the “area along the

\textsuperscript{45} Monk, \textit{The Art and Architecture of Paul Rudolph}, 15.
\textsuperscript{46} Ibid.
\textsuperscript{47} Ibid.
\textsuperscript{48} Paul Rudolph, “Dharmala Sakti Office Building, Jakarta,” 19.
\textsuperscript{49} Rohan, \textit{Paul Rudolph}, 241.
\textsuperscript{50} Max Robinson, “Place-making; the Notion of Centre,” in \textit{Constructing Place: Mind and Matter}, edited by Sarah Menin (London and New York: Routledge, 2003), 143.
street then becomes a plaza.”\footnote{Rudolph, “The Changing Philosophy of Architecture,” \textit{Writings on Architecture}, 16} With its multiple walkways and uninviting ground level entrance, Rudolph’s barb that “we have too many site planners who are concerned only with... ‘how quickly one can get there,’ never ‘how to get there’” would seem to apply to the Bond Center.\footnote{Rudolph, “The Changing Philosophy of Architecture,” \textit{Writings on Architecture}, 15.}

From a distance, however, Rudolph’s design is quite successful. The shimmering blue towers, located between the busy Queensway and Hong Kong Park, are visual icons of the city skyline (and not as “indigenous aliens”). To the local press and Hong Kong citizens, the towers’ projecting volumes are reminiscent of “koala” bear climbing trees.\footnote{See http://www.paulrudolph.org/biography.html} Moreover, many believe the Centre has positive feng shui.\footnote{See Rohan, \textit{Paul Rudolph: The Late Work}, 17.} When viewed from Hong Kong Park, those who do not ascribe to this philosophy would probably agree. Because the park’s green shrubbery obscures the Bond Center’s uninviting podium, we can appreciate the towers as “urban art.”\footnote{Rohan, \textit{Paul Rudolph}, 238.} From this vantage, Hong Kong Park’s rambling pedestrian paths also illustrate “how to get there” – a possible lesson for future planners and architects. Up close, as Timothy Rohan aptly notes, the Bond Centre is hardly one of Rudolph’s noteworthy accomplishments. Unlike the “accessible public space at the base of [Norman] Foster’s HSBC building,” Rudolph’s Bond Centre is entirely cut-off from the bustling street in which it is located.\footnote{Paul Rudolph, “Notes regarding the Architectural design of the Bond Centre, Hong Kong,” January 18, 1988. PMR 3088-1. Cited in Rohan, \textit{Paul Rudolph}, 235.} In this regard, his shimmering blue towers hardly contribute to Hong Kong’s urban life in the way he had intended.\footnote{Robert Miklos, Interview, \textit{Metropolis Magazine}.}

\textbf{Looking towards the Future:}

\textbf{Brutalism Reimagined at the UMass Dartmouth Claire T. Carney Library}

As noted earlier, SMTI/UMass Dartmouth’s 150,000 GSF Library was sorely in need of renovation. Though the original design reflected student and faculty needs of the 1960s, research and study practices had significantly changed by the twenty-first century. Moreover, maintenance had been deferred and aging mechanical systems not replaced. After many years of planning, the University hired designLAB architects to renovate the library and upgrade its mechanical, electrical and wireless services. They hoped the architects could transform the library into a collaborative learning and social center for the UMass Dartmouth campus community.

The firm, which had recently completed work at Boston City Hall (Kallmann McKinnell & Knowles) and Skillman Library at Lafayette College (Vincent Kling), was already familiar with the challenges of renovating mid-century modernist architecture. However the powerful Brutalist, and often overwhelming sculptural expression of Rudolph’s work at SMTI required, at least initially, a cautious level of “courtship” before any renovation and expansion could be undertaken. For designLAB, preserving the communal, collaborative learning “sense of place” was the driving force throughout the design process. The building should not simply house books, but should enhance the student’s learning experience and ties to the campus community - a conviction shared by Paul Rudolph as well. Robert Miklos, designLAB principle, notes:

“\text{The design was guided by Rudolph’s ideas and intention rather than faithful replication. The process involved restoration, interpretation, and transformation, each strategically applied throughout the complex to achieve the programmatic goals. Spaces that served program needs well remained intact, those that did not were modified, and some that were lost were restored. Buildings evolve, and we are responsible for directing that evolution. It’s not a dogma. It’s a judgment call that is made after much research and hours of debate between the members of our design team.”}^58
Summary

To upgrade and transform the library into a learning center and gathering place for the campus community, designLAB reconfigured the existing spaces in the main library and completely redesigned those in the connecting link (Fig. 6). In the former, the architects removed interior walls and combined several small rooms into large, open spaces with sweeping campus views. These consisted of a multi-story glass-encased Grand Reading Room on the first floor and a quiet study area on the second. The team also added a learning commons with “honeycombed” collaborative workstations, new computer and media labs, glass enclosed group study areas, and easily accessible individual workstations. In the library’s upper stories, the architects reoriented the bookshelves to allow daylight to penetrate further into the interior. Because of this spatial reconfiguration, light now flickers across the rough concrete walls and bathes all the interior spaces in a warm glow - as Rudolph had originally intended.

In contrast to the main library, the former “link” has been completely reimagined as a glass-enclosed atrium. The architects lightened the façade by removing substantial portions of the concrete façade (Fig. 7). designLAB transformed the dark second floor corridor into an open passage, which they subsequently enclosed within two 120 foot-long glass walls. The building’s occupants can now sit in colorful seating enclaves, near the former exterior piers (Fig. 8).

Fig. 6. (below) Diagrammatic floor plan of renovated library and addition main floor. 2013. 1st Inset: Photo of new addition east elevation with renovated library beyond. 2nd Inset: Walnut ‘happening’ seating alcove in new addition (both insets: Aug. 2013)
Fig. 7. (following page, top) Photo of addition east elevation at dusk (looking northwest). Inset: Original east elevation prior to renovation and addition. Aug. 2013
Fig. 8. (following page, bottom) Photo of new 2nd floor main campus passage with new seating enclaves looking out to campus green beyond. Inset: Existing campus passage prior to renovation and addition. Aug. 2013
As Fred A. Bernstein aptly states, this design “brought students into close proximity with Rudolph’s béton brut.”59 The first floor, which students can see from the second-floor passageway and seating areas, includes a large reading room, café, fireplaces, multiple seating areas and colorful mobile furniture. In this new library addition, students can now read, relax and have coffee before they go to the library or to classes in one of the three lecture halls above. With its bright light-filled interior, the 26,000 square foot extension does indeed function as a campus living room.

Framing Space: The New Addition

Rudolph had hoped that the link building would serve as the campus gateway to the library and to the other academic buildings. As noted earlier, this did not happen. Unlike the main library, the link needed extensive work and reimagining if it were to serve as the campus living room. Rather than demolish it or obscure the tectonic concrete projections, designLAB opted to showcase Rudolph’s textured monumental forms by leaving the entire underbelly exposed (Fig. 9 & 11). For inspiration, the team looked to Rudolph’s early designs.

Early in his career, Rudolph’s projects were largely in Florida, most notably in Sarasota.60 Though the climate and environmental conditions were quite different from southeastern Massachusetts, these early works included some of the design elements he developed more fully at SMTI and also at Yale’s A & A building. Rudolph’s attention to surface detail, interest in the play of light across textured surfaces and the incorporation of the exposed structural frame into the building’s visual design recalls these later projects. The Sarasota High School is, arguably, the best example of Rudolph’s employment of the exposed structural frame as a visual design element. At the high school, he delineated large expanses of space within a simple rectangular module. Expressed through both open-air and glass enclosures, these frames connected the outdoors to the surrounding environment.

The Sarasota High School was of particular interest to the design team. The simple, transparent entry pulled the student into the heart of the school. The exterior view of its interior circulation animated the simple structure. In sum, the large glass window connected the students to the community and the architecture to its surroundings. designLAB adapted the Sarasota School’s welcoming and inviting entry for the UMass Dartmouth library. They hoped a visible, rational structural framework at the former library link would help create a public space (and a clear view into the library) where none had previously existed.

On the eastern face of the link, designLAB opened up Rudolph’s façade. In order to achieve a north/south passage that would support the influx of students and provide a warm and welcoming entry to the library and lecture halls, the team removed the in-fill concrete from projection rooms that were no longer used. Although designLAB demolished a substantial portion of Rudolph’s façade, they preserved its “bones.” They also converted the second-floor projection rooms into group study spaces that provide sweeping views of the campus green and the café and passageway below (Fig. 8). The architects wrapped their “composition” in a veil of glass and stainless steel fins (the latter, reminiscent of Rudolph’s metallic mesh curtains, provide necessary shade) (Fig. 11). In the new addition’s open light-filled spaces, viewers can now appreciate Rudolph’s sculpted forms at close range.

While the Sarasota High School inspired the architects to frame rectangular spaces, they looked to his earlier Florida houses to create the small alcoves. Although the Florida houses were small in scale, Rudolph designed these houses with open floor plans and sweeping views of the natural landscape. designLAB architects learned a great deal from how Rudolph created sheltered places

59 Fred A. Bernstein, “Claire T. Carney Library and Renovation, 74.
within these open spaces. For example, he “separated” the kitchen and living room through simple design choices. These included changes in finish, a dropped soffit, and the strategic installation of a kitchen wall to function as both spatial divider and equipment storage unit. In the living rooms, Rudolph carved out sunken pits with built-in seating in order to allow owners and guests to relax, converse, and entertain. Though on a much more intimate scale than evident in his later work, the promotion of social interaction was a mainstay in these Florida designs. Rudolph continually developed and refined these conversation enclaves over the course of his career. They re-emerged later at SMTI and at Wisma Dharmala.

The Florida houses’ conversation spaces inspired designLAB’s interpretive spatial interventions or “happenings.” Named after the many impromptu performance art expressions of the 1960s, the “happenings” enclave was a device that allowed the architects to develop collaborative social spaces. They employed the formal geometries of Rudolph’s concrete nautilus and hexagonal forms to create dynamic, sculptural “moments” or “spaces to pause” within an open field of columns (Fig. 6). Rather than concrete, the architects used walnut: a material that warms the grey ribbed forms and softens the intense interior colors. The walnut enclaves function in dialogue with Rudolph’s concrete underbelly and with the new wooden seating area on the building’s exterior terraced lawn.

The Significance of Color

“One of the aspects of color that fascinates me is the reflected light from the color. I have worked with concrete, at least earlier, a great deal and I would often make a very warm-toned carpeting. The reflected light changed the concrete and bathed it in a warm light. I find much architecture very offensive in terms of its color, as a matter of fact.”

(Paul Rudolph: Interview with Robert Bruegmann, 1986) 61

designLAB’s reintroduction of vivid color is one of the architectural firm’s singular achievements. Though inspired by Rudolph’s intensely hued carpets, seat covers and banners, the architects looked to other sources as well. Josef Albers’ paintings and studies of complementary colors (especially his Homage to the Square series, 1950s-1970s) and Julien Stanczak’s dynamic image patterns (1960s) provided color templates for them. Paco Rabanne’s chain-link dress from the 1960s served as an inspiration for the metallic window shades. Finally, designLAB adapted mid-century modernist super-graphics for their new way-finding signs.

For all the carpets, wall hangings, cushions and furniture, designLAB chose a simple palette: orange, red and purple. At the entry to the library, the team introduced large banners to honor the building’s namesake, Claire T. Carney. They inserted bold CTCL lettering (for the Claire T. Carney Library) into a landscape of jewel colored squares. The banners, which were placed within the monumental double-height spaces, complemented Rudolph’s cool grey sculptural concrete forms. They provide a welcome to students, faculty and visitors who enter the library (Fig. 12).

From the circulation desk on the first floor, students and visitors walk along a polished cool concrete floor to either the main library or to the campus living room. If the former, they will pass by an art gallery on their way to the orange carpeted collaborative work-stations in the library’s learning commons. From the learning commons, the visitors would walk down a set of stairs into the large, multi-storied Grand Reading Room. With its ruby red textured carpets, metallic shades and massive widows, the room functions successfully as a lecture hall and as a meeting place.

While its walnut tables and Mad Men atomic lighting were not part of Rudolph’s vision, they warmly complement and update his late modernist forms. Indeed, this grand, colorful rectangular space - and the vistas it provides of the campus - is a clear example of how Brutalist architecture may be successfully updated.

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The architects used color programmatically throughout the library. Warm oranges and reds define first floor social spaces; cooler purples accent the third floor's library stacks and study areas. designLAB employed separate color accents in carpet and furnishings to identify key programmatic spaces. With color to delineate book collections, collaborative study places, and private study rooms, the architects could eliminate the partitions that had been used to demarcate spatial function. Natural light now flows into the renovated library interior. On a sunny day, a "kaleidoscope" of color dances across the ribbed concrete walls - evoking a sense of place for students and the casual visitor.62

SMTI/UMass Dartmouth's New Library: Conclusion

Since reopening, the library has received enthusiastic reviews from students, faculty, and staff. The Assistant Dean of Library Services reports that, "People who have not visited the library now come to the building to meet with others in social and scholastic gatherings."63 She estimates that three times more people use the library than had before its renovation. This has far exceeded the planners’ expectations. Indeed, the library has successfully evolved into the "third place" for students to enjoy coffee, conversation, and study. This is especially important for a population that has transitioned from a commuter to a residential one.

In designLAB’s 2014 poll of current students, the overall response to the transformed library is overwhelmingly positive. They now refer to it as “bright, refreshing, and inviting,” noting that the library’s color scheme and natural lighting could serve as a model for other areas on campus. One student described how the renovated library “opened up space to meet and be productive by offering better lighting and a better, more comfortable, atmosphere.” Some stated that they now visit the library two to three times per week. Prior to the renovation, most students only used the library once or twice a month. Now, they choose it as their preferred place to meet to collaborate with peers. One described the library as “a great talking point on how beautiful the campus can be.”

This renewed enthusiasm, illustrates that the transformed library now frames the sense of place Rudolph had envisioned for it. A Boston Globe critic writes: “It’s a lesson in mixing the old and the new and getting a result that’s better than either... often the best way to get a good new building is to grab a great old one, give it a good hard shake, and reinvent it for another era.”64 The students, who once rejected the architecture as “satanic” or “alien,” have now become outspoken advocates for the school’s continued transformation. For them, the library engenders a sense of community that is absent elsewhere. Citing the library as a model for future renovations, with its vibrant colors, clear graphics, and inviting spaces, the University leadership is now calling for new campus design standards. In sum, the Claire T. Carney Library represents a bold model for future improvements for the campus and for other Brutalist buildings. As Robert Miklos puts it:

“We believe the most significant result is not the programmatic, environmental, or economic success. The most important accomplishment is to see a current generation of university students embracing an artifact from 40 years ago, where they have no direct connection or nostalgia. This library is now theirs, in this time.”65

65 Robert Miklos, Interview with Susan S. Szenasy, Metropolis Magazine.
Concluding Thoughts: Brutalism and its Global Future

During the UMass Dartmouth library transformation, the public was engaged in a heated debate about the fate of another of Rudolph’s masterworks: the Orange County Government Center (OGCD). The similarities between the projects are striking. Like UMass Dartmouth, the OGCD needs to be updated for the twenty-first century user. This would include spatial reconfiguration, new technology, and structural renovation. Upon hearing that the local government had scheduled a final vote to demolish and replace Rudolph’s Brutalist structure with a Neo-Georgian building, an outcry erupted from the architectural community and from many local citizens. In an open letter to the County lawmakers during the height of the debate, designLAB suggested that Orange County think of renovating rather than demolishing their Brutalist headquarters. The updated UMass Dartmouth Library, the architects suggested, might serve as a template for a reinvented OGCD. While the future of Orange County remains in a political limbo, the fates of this project and other late modernist expressionist structures may have a newfound hope in the successful renovation and expansion of the Claire T. Carney Library at UMass Dartmouth.

Purists like Fred A. Bernstein, who applauds the main library renovation but suggests that Rudolph’s muscular link is now enclosed in a “glass vitrine,” also concludes that designLAB’s reinvention of Paul Rudolph’s structure gives “Brutalism a boost ... [since] Rudolph designed the campus as a city, and a city can absorb changes to a façade or two.”66 There are also other examples of reimagined Brutalist structures to which Orange County officials might refer. The Centre National de la Danse in Paris (National Dance Center) represents another example of successfully revitalized Brutalist architecture. The original concrete structure, designed by Jacques Kalisz as an Administrative Center for the city of Pantin in 1972, had been unused for many years. Architects Antoinette Robain and Claire Guieysse, lighting specialist Hervé Audibert, and artist/designer Michelangelo Pistoletto utterly transformed the abandoned, concrete office complex into an animated, neon-lit award-winning arts center.67 As with the renovated UMass Dartmouth Claire T. Carney Library, the Centre National de la Danse serves as a template for planners who wish to renovate their outdated mid-century modernist buildings.

In sum: Wisma Dharmala and other Brutalist structures could be creatively updated for the twenty-first century visitor and user. Like the renovated UMass Dartmouth Library, an updated Wisma Dharmala that engaged pedestrians at street level could indeed give the city of Jakarta a “boost.” Such a transformation would undoubtedly please Paul Rudolph, an architect who strongly believed that architecture should frame spaces that foster social interaction and help create a sense of place.

67 The authors wish to thank an anonymous reviewer for bringing this reference to their attention.
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