

**MIAMI-DADE JUNIOR COLLEGE NORTH AND SOUTH CAMPUSES:  
ROOMS WITHOUT A ROOF**

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## ABSTRACT

The design of the North Campus and South (now Kendall) Campus of the Miami-Dade Junior College (now Miami-Dade College) offer a study in Brutalism as both an appreciation of an ethical socially progressive intention, through the campuses' master plans, and the 'honesty' nature of the style, an aesthetics described by its tectonic characteristic, presented in a tropical modern architecture context.

The open-door policy of the College attracted a diverse student body, under the idealism's spirit of high-education for all. The master plans and brutalist architecture of the Miami-Dade Junior College North (1961) and South (1967) campuses, designed by the architecture firm Pancoast, Ferendino, Grafton & Skeels (now Spillis Candela DMJM), are a response to a hope of a democratic approach to education. Brutalism as an architecture philosophy was often also associated with a socialist utopian. Architect Hilario Candela, who led the design of the campuses, was highly influenced by transitional spaces during his youth in Cuba. These spaces are what he calls *rooms without a roof*, the most important spaces in a community. The New Brutalism, defined by Reyner Banham, describes a 'programme' or an 'attitude to architecture'. Hilario Candela wanted to use the campus buildings as well as the in-between spaces, to create a place and then take any and all opportunities to excite the senses. For Hilario Candela, architecture comes with the responsibility of helping to shape the city. In the mind, it's a function of democracy.

For this study, the choice of Brutalism as an ethical attitude of an appreciation of socially progressive intention—the uncompromising, anti-bourgeois, posture—is summed with the aesthetics of Brutalism, described by the "honesty"—the sculptural qualities of the architecture. Brutalism, as Kenneth Frampton recalled, was a reform movement that advocated the return to functionalist principles—in services, materials, and structure.

Construction, in order to be architecturally effective, must find a convincing tectonic expression. The campuses' projects show an inventive engagement of materials and methods of construction. The structural system is disciplined by geometric modular proportioning, it is cost efficient and is capable of creating humane spaces. Geometry and proportion, which give discipline to the structure, are complemented by the care with which function is housed and the economy and integrity of its construction. Spatial form and function are joined to an efficiency and ingeniousness of construction. The buildings are strongly unified by their geometries masses and the use of exposed concrete and precast paneled walls. Joint design is a constant concern for the performance and the appearance of the buildings. The exposed structure is sandblasted concrete with precast panels, which have light coral rock aggregate faces and accent areas of all white or brown glass mosaic. Although the buildings are solids elements, open space runs into and through them. Generous roof overhangs produce pronounced shades and shadows. Gray precast exteriors are crisply articulated with strengthening flanges that throw varying shadows as sun angles change. The buildings employ the cantilever to weave together the horizontal and the vertical, making spaces between earth and sky. The College campuses' social spaces are defined by the interplay of light and shadow; concerns of light in architecture—how to use it, mold it, filter it, control its quality, in Florida and the tropics, to animate the forms and spaces.

### Keywords:

New Brutalism, community college, college campus social spaces

## **Miami-Dade Junior College North and South Campuses: Rooms without a Roof**

*Brutalism tries to face up to a mass-production society, and drag a rough poetry out of the confused and powerful forces, which are at work. Up to now, Brutalism has been discussed stylistically, whereas its essence is ethical.*

—Alison and Peter Smithson

Reyner Banham's search for characterizing and establishing a new ethic of architecture called "New Brutalism"—between the publications of the article "The New Brutalism" in 1955 and the book *The New Brutalism: Ethic or Aesthetic?* in 1966—globally degenerated into a rough concrete style. Despite the ordinary general dissemination of the "New Brutalism" aesthetics solely as a style of the use of bare concrete, the design of the North Campus (1961) and South (now Kendall) Campus (1967) of the Miami-Dade Junior College (now Miami Dade College)—after more than half century—still holds the New Brutalism appreciation of an ethical socially progressive intention, through the campuses' master plans and architecture. Since their opening, through an open-door policy, the College attracts a diverse student body, under its initial idealism's spirit of higher education for all. The planning and architecture of the Miami-Dade Junior College North and South campuses, designed by the architecture firm Pancoast, Ferendino, Grafton & Skeels (now Spillis Candela DMJM), are an example of a response to a hope of a democratic approach to education, sustained by the New Brutalism architecture philosophy described by Reyner Banham as an "attitude to architecture." For this study, New Brutalism is revised as both an ethical attitude of an appreciation of socially progressive intention and the aesthetics described by the "honesty" qualities of the architecture, through its tectonic characteristics, inserted in a tropical modern architecture context. The positive integration of a new building in January 2013 to the existing South campus master plan is a testimony of the success of its original design and architecture as a response to maintain its initial democratic spirit—demanded by the deep root in the programmatic needs of a society. In light of the contemporary architecture discussion of both the preservation and questioning of brutalist architecture, Miami Dade Junior College North and South Campuses present an example of structures that are important for social and urban innovations, much beyond the global dissemination of the New Brutalism philosophy that became diluted into a superficial aesthetic style of the movement.

### **Higher Education for All**

In the 1960s, the North-American state system of colleges and universities expanded considerably and college education was made available to almost everyone. Miami-Dade Junior College, established in 1959 and open in 1960 as Dade County Junior College, became part of the state community college system in 1968.<sup>1</sup>

Prior to World War II, only a small minority of the U.S. population—most of whom were male and white—continued schooling after high school. The initial expansion of American higher education came immediately following World War II. In the 1950s, there was an expansion of the middle class, increasing family wealth, and the rapid development of suburban areas. For these families, a college education became a ticket to social and economic mobility, and the children of the middle-class began enrolling in higher education in increasing numbers. Upward social and economic mobility and overall national economic growth continued, causing a general increase in demand for higher education. Social and political changes, such as the Civil Rights and Women’s Rights Movements and expanded federal financial aid, opened access to higher education for underrepresented populations—women, minorities, part-time and intermittent learners, and students well past the traditional ages of college attendance. Building on the advances made in the 1950s, American higher education showed a period of unprecedented growth during the decade of the 1960s and through the mid-1970s.<sup>2</sup>

Expansion in enrollment also led to a sharp increase in the number of institutions, as well as a fundamentally different mix of institutions, as the diverse needs of students became reflected in the programmatic and institutional structures of the education system. In the late 1960s, the American Association of Junior Colleges predicted more than fifty new community colleges a year for the next ten years—a modest predication considering the enthusiasm for the two-year public colleges with its academic and vocational curricula.<sup>3</sup>

A community (or junior) college is generally very different architecturally from other colleges and universities. Miami-Dade Junior College North and South campuses are considered complete campuses, architecturally and academically. Their innovative and locally inspired curricula relied on equally innovative planning and architecture to give them the identity—the “sense of place”—to overcome the fluidity of their diverse commuting student bodies. Both campuses were designed to increase the interaction between students of different curricula (academic and trade-technical), different cultural background and different ages. With the social ideal of offering practical access to higher education, the Miami-Dade Junior College campuses’ location were based on inducing community’s attendance to college. The College emphasized—and continues emphasizing—learning, by opening new campuses. By the end of 1960s, Miami Dade was already planning its third campus to be located in downtown Miami, the Wolfson campus, also designed by the Pancoast, Ferendino, Grafton & Skeels architecture firm.

Miami Dade Junior College North and South campuses were planned to serve ten thousand students each campus. North campus was chosen to be located in a 230-acre site, in an area of rapid population growth and near an expressway to serve its commuter student body; while South campus was located in a 185-acre remote site to be served by two major expressways. The planning of the North and South campuses had to facilitate easy reach from miles away and it had

to provide parking areas to accommodate large numbers of automobiles. The buildings of both campuses were situated in the main core of the campus master plan, where only pedestrians are permitted, and parking lots were located in the outer edge of the site, limiting a five-minute walk from a parking lot to a building.<sup>4</sup>

## **New Brutalism**

The British architects Alison and Peter Smithson coined the term “New Brutalism” in 1953, from the French *béton brut*, or “raw concrete”, a phrase used by Le Corbusier to describe the poured board-marked concrete with which he constructed many of his post-World War II buildings. The term gained wide currency when the British architectural critic Reyner Banham published his article “The New Brutalism” in the *Architectural Review* in December 1955 .

The architectural style known as Brutalism and the architectural and urban theory known as New Brutalism may be regarded as two different movements, although the terms are often used interchangeably. The New Brutalism of the British members of Team 10, Alison and Peter Smithson, is more related to the theoretical reform of the CIAM (in architecture and urbanism) than to *béton brut*. Reyner Banham discussed this difference in his book: *The New Brutalism - Ethic or Aesthetic?*, published in 1966.<sup>5</sup>

For the study of the Miami-Dade College North and South campuses, Brutalism refers to “The New Brutalism” and the intended meaning of the term, when the Smithsons described their project for a townhouse in the SoHo neighborhood of London.

Early Brutalism was, in part, a “plucky response to rebuilding post-war London.”<sup>6</sup> In America, Brutalism rose—and fell—along with the “liberal consensus” that supported the largely civic and academic architecture. “Liberal consensus,” coined by historian Godfrey Hodgson, “describes how Americans left and right agreed to expand social programs, education, and infrastructure in the name of progress during the post World War II years.”<sup>7</sup>

The definition of a New Brutalist building, introduced in Reyner Banham’s seminal article on Brutalism in 1955, derived from three key characteristics: “Memorability as an Image,” “Clear exhibition of Structure,” and “Valuation of Materials 'as found.’” Banham stressed that “an Image is what affect the emotions; that structure, in its fullest sense, is the relationship of parts; and that materials 'as found' are raw materials.”<sup>8</sup>

In this essay, the discussion of the planning and architecture design of the North and South campuses of Miami-Dade Junior College is based on the fundamentals of the meaning carried in the New Brutalism’s definition—“Memorability as an Image,” “Clear exhibition of Structure,” and “Valuation of Materials 'as found.’”—, associated with its historical context that offered the theoretical and philosophical concepts that originated the Brutalism architecture movement.

## “Memorability as an Image”

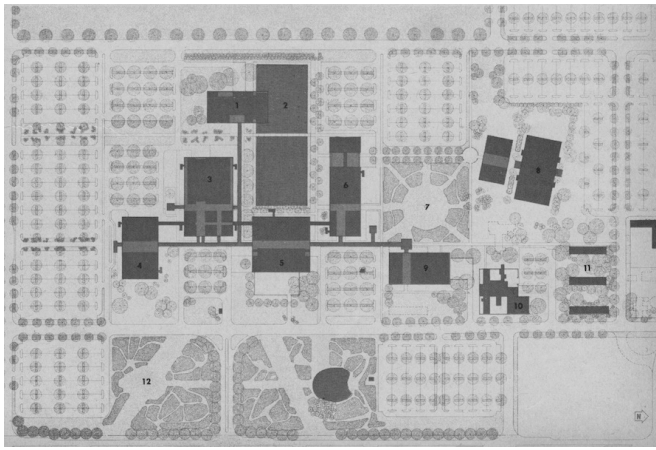
Memorability, term originated in Britain in the years of post World War II, would be an emotional response to the recent past as an engagement with cultural politics.<sup>9</sup> “At once a dictum for clarity of form and material articulation, Brutalism also represented a socialist ideology whose meaning was diluted in its translation across the Atlantic.”<sup>10</sup> However, it is observed that the strategic geographic location of Florida—especially Miami—and its own history of a land that attracts foreign people searching for more egalitarian social opportunities offered a scenario for the development of the brutalist architecture philosophy principles in the 1960s.

Reyner Banham insisted that a brutalist building should produce an affecting image, “something valuable.” Brutalism, according to Banham, sought to provoke rather than to please the senses.<sup>11</sup> Accordingly, Banham’s New Brutalism describes a “programme” or an “attitude to architecture’.” Image was understood as a “symbolical” or “ideological form.” “Image was the ideological representation of scientific knowledge and its progress.” New Brutalism was therefore, above all, “an expression of scientific progress.”

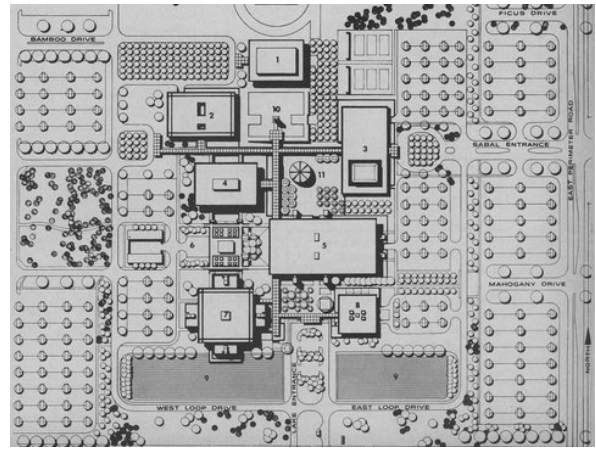
Banham argues that “what moves the New Brutalist is the thing itself, in its totality, with all its overtones of human association.” Memory permeating material could be site-specific, or could be culturally specific, or could be formed as response to an aspect of the brief. In an existential sense, the haptic, rather than the visual, is made the dominant sensation.

For architect Hilario Candela, who led the design of the Miami-Dade Junior College North and South campuses, architecture comes with the responsibility of helping to shape the city. In the mind, he continues, “it’s a function of democracy.”<sup>12</sup> Candela was highly influenced by transitional spaces during his youth in Cuba. These spaces are what he calls “*rooms without a roof*,” “the most important spaces in a community.” He observes, “these are places where anything can happen.” Candela wanted to use the campus buildings, as well as the in-between spaces, to “create a place” and then take any and all opportunities to excite the senses.<sup>13</sup>

Candela and his partners describe the South campus as “a small city of interconnected geometric masses and urban plazas.” The compact plan gives it much of its urban character.<sup>14</sup> The South campus entry plaza—which serves as an atrium to the whole campus complex—is defined by building masses and covered walks. The academic plaza is the main area of students gathering.<sup>15</sup> Covered pathways connect all buildings, defining a continuous datum that unifies the whole complex of the South campus. At North campus, to define the paths and make walking between buildings as pleasant as possible, covered walks connect all major elements of the campus and act as transition elements between the hot outdoors and the non-air-conditioned, three story skylighted concourse and the almost windowless air-conditioned instructional spaces which open off the concourse. Bridges at second floor level limit the amount of vertical travel between sections of a building and between buildings.<sup>16</sup>



1- M-DJC North Campus Master Plan 1964



2- M-DJC South Campus Master 1965



3- North Learning Resources Center 1966



4-South Usina Hall of Science 1967



5- South McCarthy Classroom 1972

The reduction of Brutalism to a stylistic label, exclusively associated with concrete, coincided with changing attitude toward government and the decline of state investment in public realm. New Brutalism was originally defined to reflect the democratic attributes of a powerful and influential civic expression. “Like the ethic-or-aesthetic of Brutalism, “heroic” refers at once to the formal attributes of the buildings themselves — powerful, singular, iconic — and to the attitudes of the architects and institutions that created them.”<sup>17 18</sup>

### “Clear exhibition of Structure”

“Clear exhibition of structure” could imply a rigorous materiality and a transparent integrity of process, wherein form and aesthetic function become one. The term New Brutalism also describes a construction ideology, manifested through the “legibility of plan and clear exhibition of structure” and “valuation of materials for their inherent qualities.” The exposure of the buildings intended services (i.e. elevators, stairs) became one of the main characteristics of the Brutalism architectural movement, which quickly became synonymous with the large civic and institutional constructions of that time. Deeper than just a style, Brutalism, at its best, was an ethical stance of allowance, of letting the materials simply “be” and unabashedly asserting the inherent integrity and value of form as well as function. The movement dictates the honesty of form, integrity of material, and transparency of execution, aspects of Brutalism that informed and guided the architects of that period.

Construction, in order to be architecturally effective, must find a convincing tectonic expression. Miami-Dade Junior College North and South campuses' projects show an inventive engagement of materials and methods of construction. The structural system is disciplined by geometric modular proportioning, it is cost efficient and is capable of creating humane spaces. Geometry and proportion, which give discipline to the structure, are complemented by the care with which function is housed and the economy and integrity of its construction. Spatial form and function are joined to an efficiency and ingeniousness of construction.

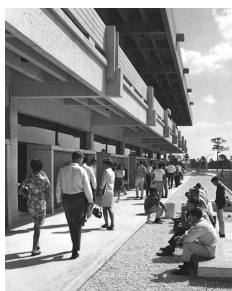
Though all the North and South campuses buildings are vigorously individual, a strong sense of unity is achieved throughout the whole complex. The buildings are strongly unified by their geometries masses and by the use of exposed concrete and precast paneled walls. The exposed structure is sandblasted concrete with precast panels, which have light coral rock aggregate faces and accent areas of white or brown glass mosaic.<sup>19</sup> Joint design and detailing is a constant concern for the performance and the appearance of the buildings. The South campus science building typifies the clear articulation of function that the architects have achieved in each of the unique structures. Around the enclosed central court, specialized labs are grouped in four blocks; offices link these in a projecting second level; and more general classroom spaces form a forceful cap to the entire complex.<sup>20</sup>

Although the buildings are solids elements, open space runs into and through them. Generous roof overhangs produce pronounced shades and shadows. Gray precast exteriors are crisply articulated with strengthening flanges that throw varying shadows as sun angles change. The buildings employ the cantilever to weave together the horizontal and the vertical, making spaces between earth and sky. The College campuses' social spaces are defined by the interplay of light and shadow; concerns of light in architecture—how to use it, mold it, filter it, control its quality, in Florida and the tropics, to animate the forms and spaces.



6- North Campus Classroom & Administration

7- North Campus Paul R. Scott Hall 1966



8-9-10- South Campus Usina Hall of Science 1967



## “Valuation of Materials 'as found.’”

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Brutalists favored the instant archeological veracity. Naked walls of exposed concrete eliminate cosmetic and decorative layers of mass-produced materials and finishes. Alison and Peter Smithson considered the “machine” as a means of producing architecture, associated with the processes of industry, using building materials as they found them. In the Smithsons’s work, steel and brick were incorporated with traces of production upon them.<sup>21</sup> In the New Brutalist buildings, industrial nature was, therefore, kept intact and as an appreciation for industrial techniques. Brutalism emphasized raw materials and the clarity of structural elements. As the Smithsons explained: “the woodness of wood, the sandiness of sand.”

The brutalist aesthetic has been mainly expressed through the technology of *in situ* concrete work and precast concrete. The plasticity of the *in situ* concrete, associated to its unique craft and technical crudity, has been emphasized as the main formal language of Brutalism. “Brutalism rallied around the imprints left by rough-hewn timber shuttering on poured concrete: the hallmark of Le Corbusier’s *béton brut*.” Beautifully done concrete walls bore another impression: “a grid of small circular holes produced by spacers.” “The pairs of plastic cones, separated by a rod stabilizing opposing sheets of plywood shuttering, are removed after setting, leaving circular cavities.”<sup>22</sup> The profusion of dotted concrete is a popular feature of the aesthetic syntax of Brutalism.

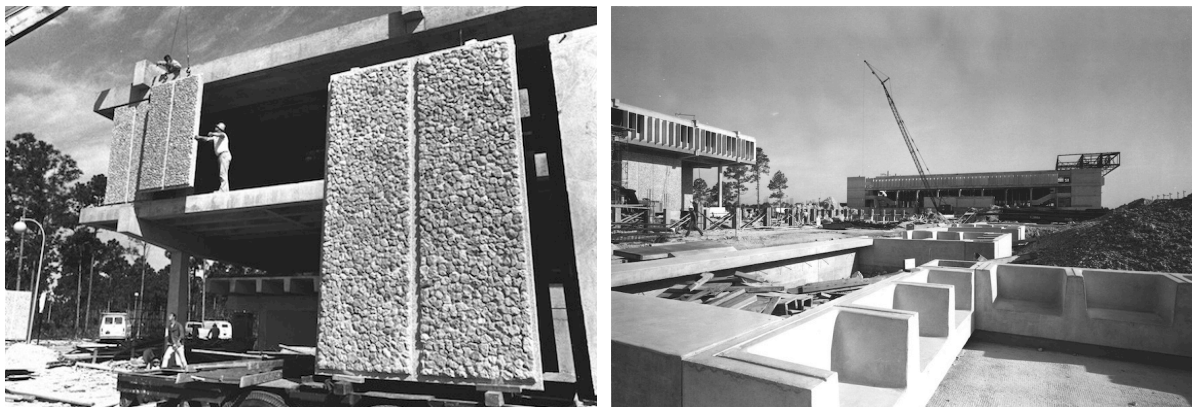
However, brutalist architects found the most revolutionary potential in precast concrete. Fordist mass production of precast concrete technology made affordable housing, institutional and government projects.<sup>23</sup> While the sensuality of the plasticity of the *in situ* concrete generally expressed the architects’ individualism approach to architecture, it was the precast concrete that manifested the ethics of the Brutalism philosophy through the forms of its structures. The recurrent use of the precast concrete, through its ordinary kit-built approach throughout the years, imposed the generalized lack of appreciation of brutalist buildings. The so common “ugliness” of commercial brutalist structures comes from the production and reproduction of similar-looking buildings. The social worthiness of brutalist buildings does not necessarily have to be tied to the manifestation of the ordinary.

In the search of being honest and true to the material—revealing about how buildings are made—Brutalism used a lot of bush-hammering and acid wash surfaces that were often applied to precast concrete, in the 1960s and 1970s, to achieve texture, besides the formwork texture. One of Paul Rudolph’s architecture signatures is the bush-hammered concrete walls developed for his masterpiece, the Yale Art & Architecture building.

Other architects indeed went in search of the beauty in precast. Many master architects, not necessarily using the Brutalism aesthetics, explored the beauty of the intricacies of precast concrete technology in well-known buildings: Le Corbusier (Unité d’Habitation), Eero Saarinen

(American Embassy London), Frank Lloyd Wright (Millard House, Pasadena), Josep Lluís Sert (Boston University Law School), Alison & Peter Smithson (Robin Hood Gardens), I.M. Pei & Associates (Silver Towers, NYU; Denver Hilton), Marcel Breuer and Associates (IBM Research Center, France; Torin Corp. Factory, Nevelles, Belgium; Technology Building II, NYU Uptown Campus), Paul Rudolph (Blue Cross Blue Shield Building) and James Stirling (Melville Hall, St. Andrews University).

Hilario Candela and the architects of the Miami-Dade Junior College North and South campuses valued the elegant finishes and weather-proof quality offered by precast panels made in a plant. The architects derived architectural inspiration from its modular design implications. Each architecture element became strongly expressed of its individual function within the overall system. It is clear in the structures of North and South campuses that the architects strongly associated the vocabulary of the precast elements of their buildings with their architectural quality. Candela and partners used high-quality precast elements around an *in situ* core in most of the campuses buildings. Generally, the high-quality precast external elements of the campuses' buildings have survived in very good condition after decades.

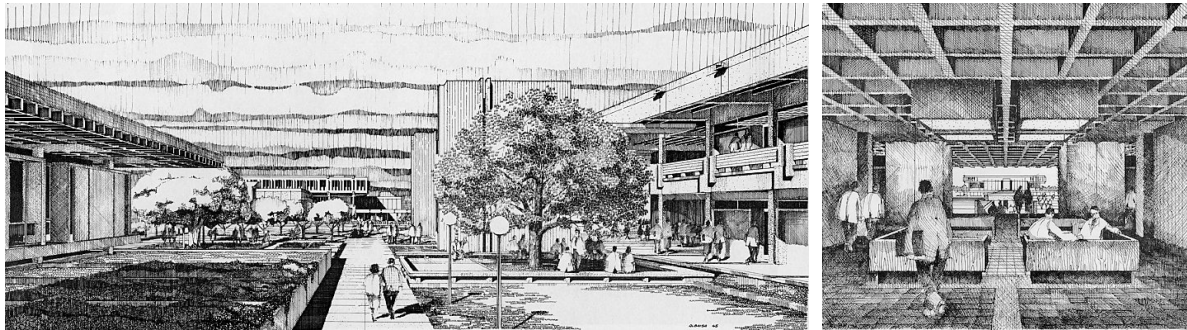


15- South Campus Fine Arts Building Construction 1968 16- South Campus Gibson Health Center Construction 1970

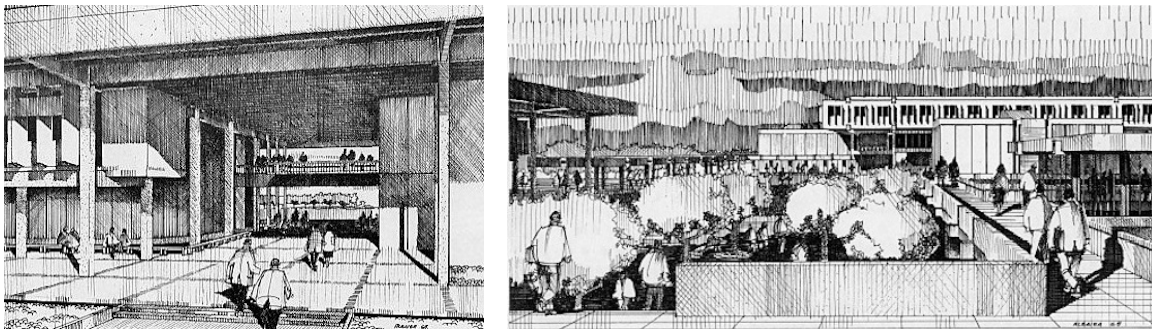
A recent study, comparing the precast concrete production plants in fifty-eight states across the United States and Canada in 1969 and 2013,<sup>24</sup> shows that in general the quantity of precast concrete plants have diminished. This study indicates the precast concrete trends in both countries. Interestingly, in 1969, Florida was the state that had the highest number of precast concrete plants—about twenty-five plants. Today, Florida has fifteen plants. In general, during the last half century, most of the states—thirty-seven in total—had the number of plants decreased one-third, half, or even two-thirds from the original 1969 number of plants. Twenty-one states have increased the number of plants, being California the most noticeable state, with an increase of about fifty per cent, going from about a dozen plants to about twenty-two plants. Those statistics of the number of precast concrete production plants in the United States and Canada suggest directions of contemporary architecture.

Brutalism’s characteristic of “valuation of materials ‘as found’” is also expressed in perspectives drawings rendered in pen & ink technique. Such perspectives drawings could lend themselves to rhetorical exposition. Rhetorical here means that the aim is not simply to represent as faithfully as possible an architectural space or mass, but to present it to the viewer so as to emphasize the particular goal of the design—to persuade. The interior and exterior perspectives for the South campus of Miami-Dade Junior College emphasize the perspective effects—the materiality of the brutalist structures and the role of the use of bare concrete, precast concrete elements, rough finishes imprinted in the architecture, interiors and landscape design of the campus.

The perspective architectural drawing is not just a document containing the required data, but bears the stamp of the architect’s personal architectural beliefs and that of the time and place. Further, a drawing may serve as a graphic form of architectural theory, conceived not only to illustrate the designer’s principles, but to persuade the user of their design ethical beliefs.



11- View from East Walk into Entry Plaza 12-View of entrance hall of Administration Building toward Science Building



13-Concourse through Learning Resource Center 14-View across sunken court toward Science Building

South Campus Master Plan 1965 – Pen & Ink Perspectives

## Preserving Meaning

It can be difficult to extract architecture from its socio-political context. In many cases, such context forever frames architecture, which can be seen as unforgiving that we believe we must turn our backs on it forever. Generally, this pits the old against the new where the dialectic discussion between preservation and demolition lies. Perhaps the question is neither solely the preservation of structures nor the immediate act of demolition, but the conservation of the meaning of its original design context. The essence of architecture lies on its contextual meaning, expressed in its form. Separated from its original context and reduced in meaning, many significant buildings of the

brutalist movement have been demolished. Why have many others been preserved and have their intended use been kept, without affecting considerably their original design?

In January 2013, a new building was added to the South campus original master plan with the goal of maintaining a democracy's college by following the institution's mission of changing lives through the opportunity of education. The new LEED-certified building, designed by the architecture firm Perkins + Will, is located at one of the outer edge of de campus. The building, which is connected to the campus through a covered walk that leads to its adjacent building, translates in its design many characteristics of the existing buildings. It produces an "affecting image" and defines a "sense of place" through its central atrium, a void that acts as a datum of the design composition, where the main horizontal circulation area becomes also a place for gathering. The building also expresses, through its symbolical form, concrete structure and contemporary finishes, the brutalist markers of "legibility of plan and clear exhibition of structure" and "valuation of materials for their inherent qualities." The exposure of the buildings intended services is manifested through an external staircase, which is linked to upper floors through bridges, limiting the amount of vertical travel between sections of the building. The "honesty" of the materials is mainly represented by the textured imprinted on the raw concrete and finishes surfaces.

After half a century, the planning and architecture of Miami-Dade Junior College North and South campuses still reflects the ethical and democratic attributes of a powerful civic expression—authenticity, honesty, directness, strength—of the Brutalism movement.



17 through 21 – Building R – 2013 addition to South Campus – Perkins + Will Architects (Photo August 2013)

## Ethics + Aesthetics

*Ethics and aesthetics are one.*  
—Ludwig Wittgenstein

Brutalism rooted in Britain during the post-war, when the social order was being radically redefined. Despite the end of war, its communal attribute remained through the shared humanity of people. “Formally, Brutalism modular spaces manifested a social desire for a standardized society—cultural cohesion, shared values and a fair quality of life for all.” In the work of Ludwig Wittgenstein, “values and formal qualities are similar because neither are inherent properties of the world. A thing can be no more intrinsically ‘beautiful’ than an action can be ‘good.’” In this context, the significance of an architecture movement “very rarely has much to do with its aesthetic as it does the social ethic implicit in its forms.”<sup>25</sup>

Accordingly, after half a century, Miami-Dade Junior College North and South campuses are true examples of brutalist architecture. The campuses still manifest the essence of the philosophy of the movement—the social ethical aspiration that recapture an idealized sense of civic solidarity—implicit in the forms of the buildings. The design of the campuses perhaps suggests a path to reflect the renaissance of Brutalism in recent years and its role in contemporary architecture.

Despite the contemporary view of the reduction of the aesthetics of Brutalism—as a process of cohesive formal homogenization through its formal economy, ruthless aesthetics and assumptions of regularity and uniformity—, physical movement and social connectivity, which as part of brutalist philosophy, promote insights for a vital component of today’s mobile urban society.

The current global recession scenario—similarly to the post-war years—requires civic solidarity to be expressed through the formal syntax of buildings.

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## ILLUSTRATIONS

Illustration 1 – Architectural Record, November 1967, p. 163

Illustration 2 – Architectural Record, November 1967, p. 165

Illustration 3 – Courtesy of Miami Dade College Archives

Illustration 4 – Courtesy of Miami Dade College Archives

Illustration 5 – Courtesy of Miami Dade College Archives

Illustration 6 – Courtesy of Miami Dade College Archives

Illustration 7 – Courtesy of Miami Dade College Archives

Illustration 8 – Courtesy of Miami Dade College Archives

Illustration 9 – Courtesy of Miami Dade College Archives

Illustration 10 – Courtesy of Miami Dade College Archives

Illustration 11 – Miami-Dade Junior College: The Planning of South Campus 1965 - brochure

Illustration 12 – Miami-Dade Junior College: The Planning of South Campus 1965 - brochure

Illustration 13 – Miami-Dade Junior College: The Planning of South Campus 1965 - brochure

Illustration 14 – Miami-Dade Junior College: The Planning of South Campus 1965 - brochure

Illustration 15 – Courtesy of Miami Dade College Archives

Illustration 16 – Courtesy of Miami Dade College Archives

Illustration 17 – Marcia M. Lopes de Mello

Illustration 18 – Marcia M. Lopes de Mello

Illustration 19 – Marcia M. Lopes de Mello

Illustration 20 – Marcia M. Lopes de Mello

Illustration 21 – Marcia M. Lopes de Mello

## NOTES

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<sup>1</sup> It was renamed Miami-Dade Community College in 1973 and Miami Dade College in 2003.

<sup>2</sup> Patricia J. Gumpert et al.. "The United States Country Report: Trends in Higher Education from Massification to Post-Massification," Standford University / University of Pennsylvania, 1997.  
<http://www.citizing.org/data/projects/highered/Trends%20in%20HE%20from%20Mass%20to%20Post-Mass.pdf>

<sup>3</sup> Elizabeth K. Thompson, "Building Types Study 377 – Community Colleges: Architecture for Identity," *Architecture Record*, November 1967, 155.

<sup>4</sup> *Idem*, *ibidem*, 162.

<sup>5</sup> "Brutalist Architecture," <http://www.saylor.org/site/wp-content/uploads/2011/05/Brutalist-architecture.pdf>, 1.

<sup>6</sup> Alastair Townsend, "Concreteness," *Clog Brutalism*, February 2013, 89.

<sup>7</sup> Timothy M. Rohan, "The Rise and Fall of Brutalism, Rudolph and the Liberal Consensus," *Clog Brutalism*, February 2013, 61.

<sup>8</sup> Reyner Banham, "The New Brutalism," *Architectural Review*, Vol. 118, December 1955, 361.

<sup>9</sup> Ben Highmore, "Banham's Recruitment Drive," *Clog Brutalism*, February 2013, 19.

<sup>10</sup> Sean Khorsandi, "New, Newer, Newest," *Clog Brutalism*, February 2013, 65.

<sup>11</sup> Reyner Banham, "The New Brutalism," *Architectural Review*, Vol. 118, December 1955, 361.

<sup>12</sup> Hilario Candela, "On Building a Firm," in *At Spillis Candela and Partners*, (New York: Edizioni Press, 2001), 6.

<sup>13</sup> *Idem*, *ibidem*, 6.

<sup>14</sup> Elizabeth K. Thompson, "Building Types Study 377 – Community Colleges: Architecture for Identity," *Architecture Record*, November 1967, 164.

<sup>15</sup> Herbert L. Smith Jr., "Building Types Study 381 – Campus Planning: Design as tool for Identity and Continuity," *Architecture Record*, March 1968, 155.

<sup>16</sup> Elizabeth K. Thompson, "Building Types Study 377 – Community Colleges: Architecture for Identity," *Architecture Record*, November 1967, 162.

<sup>17</sup> Michael Kubo; Chris Grimley; Mark Pasnik, "Brutal," *Clog Brutalism*, February 2013, 166.  
Michael Kubo; Chris Grimley; Mark Pasnik, "Heroic," *Clog Brutalism*, February 2013, 167.

<sup>18</sup> Nearly one in five professional architecture degrees in the United States are earned in Brutalist buildings. Brutalist architecture schools can be found coast to coast, from Paul Rudolph's Art and Architecture Building at Yale University to the Wurster Hall at the University of California Bekerley. Erik Herrmann, "Brutalist Architecture Schools of the U.S.," *Clog Brutalism*, February 2013, 102-103.

<sup>19</sup> Herbert L. Smith Jr., "Building Types Study 381 – Campus Planning: Design as tool for Identity and Continuity," *Architecture Record*, March 1968, 156.

<sup>20</sup> *Idem*, *ibidem*, 156.

<sup>21</sup> Alex Kitnick, "Introduction," *MIT / October* 136, Spring 2011, 4.

<sup>22</sup> Alastair Townsend, "Concreteness," *Clog Brutalism*, February 2013, 89.

<sup>23</sup> Barnabas Calder, "Heroic Precast," *Clog Brutalism*, February 2013, 47.

<sup>24</sup> "Precast concrete production plants across the U.S. & Canada," *Clog Brutalism*, February 2013, 50-51.

<sup>25</sup> Jack Self, "The morality of concrete," *Clog Brutalism*, February 2013, 29.