

Building of Requirement: Liberating Academic Interior Architecture

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The authors focus on the strategies employed in the recent renovation of the William Johnston Building at Florida State University, in which the historical exterior was preserved, while the interiors were adapted to new functions as classrooms, study centers, and common spaces with intentionally undefined purposes. The building's various use capacities, together with the flexibility of its interior environments, makes it a *building of requirement*. The paper reveals how the building's historical interior layouts and architectural elements defined the approach to realizing a postmodern and future-oriented building while fostering new encounters and forming new user familiarities, thereby contributing to the evolution of the structure as living history.

Introduction

Buried within the forms and structures of old buildings are layers of historical information. Old buildings are akin to archaeological sites that reveal prior user needs and values. By putting this hidden architectural heritage to use and actively engaging these data within contemporary architectural practice, historic preservation keeps our constructive past relevant and alive (Martín-Hernández, 2007). As Victoria Meyers (1999) has observed, however, these structures are also "overlaid by visions of our future" (p. 91). In a similar vein, Jorge Otero-Pailos (2005) in his essay *Historic Provocation: Thinking Past Architecture and Preservation* (pp. ii-vi), posed a question that has since become foundational: "What will have been?"

Historic preservation examines "how we relate to time through the spaces of the built environment," and may be likened to an "historic provocation" (Otero-Pailos, 2005, p. iv). Meaningful historic provocation cannot, however, be the ordinary result of just any rebuilding effort. It must stem from unconventional thinking, repurposing from the perspective of "counterfactual temporality" by deliberative designers (Otero-Pailos, 2005, p. iv). Historic provocation urges the designer to address "what is not, or not yet, but could be under different circumstances," bringing them into new, yet historically rooted realms of possibility in which the option is to act (to redesign, to repurpose, to modify), or not to act (to preserve unchanged) (Otero-Pailos, 2005, p. v).

Preservation and renovation strategies often include what Manuel Martín-Hernández (2007) has termed

"interventions" (p. 67) in which the designer focuses on re-contextualizing the historic environment. Educational buildings are particularly challenging for renovators as the goals are often twofold: firstly, to create a contemporary learning environment, reflecting, and even shaping, pedagogical practices; and secondly, to allow for the liberation of the learning process by broadening contexts for social and educational interaction. Academic architecture has itself been likened to a form of pedagogy (Orr, 1993; Brown and Lippincott, 2003; Oblinger, 2006; Van Note Chism, 2006; Dugdale, 2009; Taylor, 2009) that transmits an implicit curriculum and teaches as much as any course (Orr, 1993). Educational facilities are, after all, spaces in which architecture and learning most readily intersect, and the intersections between the potential for learning, as understood by prevailing pedagogical paradigms, and the planning, designing, and building of these environments must be at the forefront of the designers' thoughts (Taylor, 2009). Deliberately designed learning spaces should reflect these paradigms, and facilities built decades ago—let alone truly historical buildings from the more distant past—seldom accommodate contemporary, learner-centered modes of education (Oblinger, 2006).

Much recent educational theory places the learner at the active center of knowledge construction (Bransford and Cocking, 1999; Svinicki, 2004). The learner draws upon prior experiences while actively processing real-time information, fitting new understandings into existing schema, and establishing new knowledge. Environments that offer opportunities for individual engagement, stimulate users' senses, and encourage formal and informal exchanges of information, are most likely to foster learning (Van Note Chism, 2006). Students today are highly social, and maintain close connections with friends, peers, and faculty, both face-to-face and online, throughout the day, and even during the active learning process. Students

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greatly value this degree of social interaction, and expect their college experiences to facilitate and promote connectivity. It comes as no surprise, therefore, that students generally favor active, participatory, and experiential learning, patterned after their personal routines and lifestyles (Oblinger, 2006).

Conventional educational facility design, which promotes teacher-centered face-to-face pedagogy in a traditional classroom, is still dominant in most academic architecture. The landscape is quickly changing, however, and the concept of what constitutes a classroom, or a learning environment is in flux. Arrangements of functionally under-defined learning spaces are replacing mundane corridors of adjacent classrooms (Brown and Lippincott, 2003). The expansive functionality of these new learning spaces consists, in part, of the incorporation of new technologies, but it is also reflected in designs that are flexible in their programmatic and physical boundaries, thus accommodating new teaching modes and broadening opportunities for “collaborative and synchronous learning activities” (Brown and Lippincott, 2003, p. 14).

As delineations between academic disciplines blur, and educational and social activities intertwine, traditional categories of spaces that once supported distinct learning activities are less useful and may do more to restrict than enable learning (Bloland, 2005). We are witnessing a transition towards less specialized, free-form spaces in which students spend more time in diverse learning pursuits, deriving a wider range of educational benefits (Dugdale, 2009). With the eschewal of the simple, lectern-centered classroom, it is increasingly important that designers deliberate upon the evolving form and function of educational facilities. Greater mobility and accessibility offers students an array of choices for their study environments, and they tend to gravitate towards those spaces that they most enjoy using (Dugdale, 2009). If the designer does not devise the right sorts of learning spaces, students may not come. In today’s highly competitive world of higher education, every bit counts. Facilities that are student-friendly, aesthetically interesting, and accommodating to different learning styles and pedagogies undoubtedly influence students’ perceptions of the academic units housed within those facilities, and innovative architecture is a key marker of prestige among colleges and universities as a whole.

One challenge for designers thus becomes locating the proper balance between formal and informal learning spaces, while enhancing opportunities for student-student and student-instructor interactivity, and the use of social technological applications requisite to contemporary educational practice, all within a historical context that is mutable only to a point. The recent renovation and expansion of the William Johnston Building (1939/2011) on

the campus of Florida State University serves as an informative case study of one approach to repurposing and expanding a historic building, in which traditional educational spaces of historical section co-exist with more flexible, programmatically under-defined newly-designed areas, and in which, in the amalgam, the designers attempted to create a more liberated interior architecture, or, what we have termed in Hogwartian fashion, a *Building of Requirement*.¹

The Historic William Johnston Building

The William Johnston Building (WJB) (1939) was originally built as the main dining hall for the Florida State College for Women (FSCW). The New Dining Hall was designed by Rudolph Weaver, architect for the Florida Board of Control during the Depression-era Work Projects Administration. A brick-clad concrete and steel structure, it was designed and decorated in the Jacobean revival, collegiate gothic style that prevailed on American university campuses at the time (Bryn Mawr College, 2001) (Figure 1).



Figure 1. The William Johnston Building (1939). State Archives of Florida, <http://floridamemory.com/items/show/28448>.

The first floor was designed with an entry vestibule, a lobby, and the main staircase embellished with a salt-glazed tile wainscot extending up into the second floor. It incorporated cooking facilities and two informal large dining rooms with fourteen-foot ceilings, each seating approximately 400 students. The upper floor had two

¹ In J.K. Rowling’s world of Harry Potter, the “room of requirement” (also known as the “come and go room”) is a secret room in Hogwarts Castle that materializes when someone needs it, and assumes the shape and form most conducive to its intended uses at the moment. “Because it is a room that a person can only enter when they have real need of it. Sometimes it is there, and sometimes it is not, but when it appears, it is always equipped for the seeker’s needs.” (Rowling, *Harry Potter and the Order of the Phoenix*, 2004).

formal dining halls for 300 students each. Students were required to take all of their meals there, and to observe strict formalities. One upperclassman wrote about her dining routine in 1940:

I sit at the head of the table and serve. No one can start eating till I do, and no one can have her dessert till I do, and no one can be excused till I get up, and no one from another table can speak to someone at my table without asking me first. It is so exciting I can hardly stand it! (Sellers, 1995, p. 219)

The atmosphere of the formal dining hall was enhanced by an eight-foot oak wainscot running the perimeter of the room, and by monumental arched windows. Massive decoratively carved wooden trusses inlaid with hand-painted cork tiles depicting sparrows, butterflies, herons, and waves supported the thirty-foot vaulted ceilings. A mezzanine contained a generously sized president's private dining room, with leaded cathedral windows overlooking the two formal dining halls.

In 1947, the Florida Legislature rededicated the Florida State College for Women as the co-educational Florida State University, and blandly designated the facility as Building No. 17. It functioned as a dining hall until 1964, when it became a kind of surge space for a number of academic programs and administrative offices. The building was popularly known as the New Dining Hall well into the 1980s, at which point it was renamed the William Johnston Building in honor of a retired university administrator (Facilities Department, 2007).

The Renovation

The renovation and expansion of the Johnston Building began in late 2007 and was completed in 2011. The Department of Interior Design within FSU's College of Visual Arts, Theatre and Dance was at the center of the recent redesign and expansion. There were several design goals. First, the building had to be preserved as an important element of the campus's architectural heritage. The architects were instructed to renovate and restore selected portions of the original building to highlight unique architectural features and period details of prominent and inspiring spaces, including the central staircase and two formal dining rooms (Facilities Department, 2007). A second goal was to provide an addition to the existing building to increase the space dedicated to academic purposes. This addition had to be architecturally compatible, and appear proportional and stylistically consistent with the historic building from the exterior. The architects were also charged with creating a unique interior identity for the new annex appropriate to the departments housed within. Special consideration had to be given to interior spaces' long-term flexibility and

adaptability to serve a variety of needs and functions, both at present and into the future (Facilities Department, 2007). In short, the designers were asked to meet current needs while anticipating, to instance Otero-Pailos, "what will have been" (2005, pp. ii-vi).

The restored building consists of two distinct sections separated by a transitional area: the old dining hall, or west wing, which occupies about one-third of the overall footprint, and which retained its historic appearance in the "prominent" and "inspiring spaces" (Facilities Department, 2007, p. 11); and the new, high modernist-styled, voluminous east wing. The first floor of the old structure maintains the original vestibule, where almost all of the historic interior components were preserved and renovated, including the salt-glazed tile wainscot, plaster cornices and ceiling trim, and original stairs leading to the second floor. Flanking the vestibule to the east and west and lining the periphery of the west wing are an array of faculty offices and support spaces. At the core are a number of smaller classrooms, and a moderately-sized student lounge area (Figures 2 and 3).



Figure 2. WJB First Floor Plan. Drawing courtesy of Gould Evans Architects.

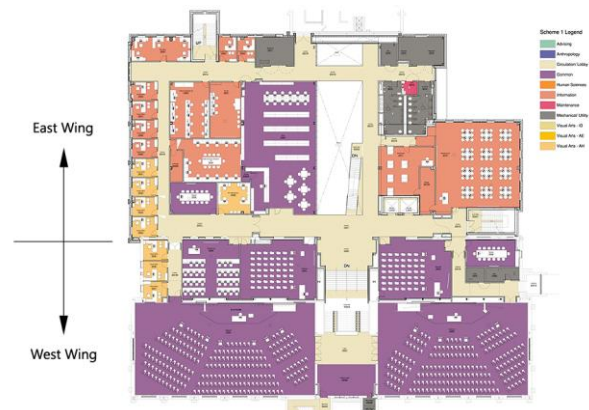


Figure 3. WJB Second Floor Plan showing two former formal dining rooms converted onto lecture halls. Drawing courtesy of Gould Evans Architects.

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The historic part of the building and the new east wing modernist addition are connected by a complex threshold configuration containing the original grand staircase and a wide passageway and landing (Figures 4 and 5). This transitional area opens abruptly onto a five-story-high airy atrium inside of which rises a glass and stainless steel interior structure incorporating classrooms, gathering and lounge spaces, an art gallery, an art library, display spaces, computer labs, and numerous multipurpose study areas that ring the atrium on various levels. These spaces are visually open to the atrium, and are accessed by wide passageways dotted with smaller seating and gathering areas (Figure 6).



Figure 4. WJB section illustrating the original dining hall (on the left), threshold area, and the new addition (on the right) defined by the 5-story open atrium. Drawing courtesy of Gould Evans Architects.



Figure 5. Historic grand staircase leading to the new building addition.



Figure 6. Central atrium in the new addition with corner sitting areas.

Analysis

The designers' approach went well beyond programmatic requirements for the William Johnston Building renovation. A balance was struck between old and new, and a number of aesthetically and functionally complex spaces were created. Per the University's direction, the collegiate gothic façade was preserved, restored, and extended throughout the exterior of the new addition. The interiors of the historic core, although preserved in their period styles, were modified significantly, and adapted to new functions as classrooms, faculty and student offices, counseling suites, open-planned study centers, and common gathering areas. The designers invested many interior public spaces with a "condition of diminished specificity" (Meyers, 1999, p. 92), the highest and best uses of which would be determined on a daily or hourly basis by the needs of their student users.

At first glance it appears that the architects adopted a conventional grid approach to the layout. Following Weaver's original 1939 design, the structure is symmetrically arranged around the historic staircase in the old dining hall. In the new east wing, the layout adheres to the rationalist approach, with centralized atrium, public, semi-public spaces, and private offices placed along the perimeter of the building. Closer examination of the layout, however, reveals that the spatial configuration is no simple adaptation of the modernist repertoire. The architects re-contextualized the old west wing and, in so doing, prompted a conversation between the historic and new sections of the building. The grid system is the underlining common spatial arrangement in both parts of the building, but it is akin to a sonata where the 'main theme'—the rigid, symmetrical grid of the historic building—develops in looser variations as it applied to the new east wing spaces.

The latter picks up on the formality of the former, but introduces irregularities and asymmetrical elements while maintaining the overall rectilinearity of the spatial arrangement. Beyond the echoing spatial layout, however, the interior architecture and design of the two buildings develop in distinctly different directions. Each of the two sections anticipates diverse user requirements, making the whole an expressly postmodern creation, a “building of requirement” composed of incongruous yet dialogical parts.

Postmodern architecture has been defined by its heterogeneous, discontinuous, and fragmented formal systems, characterized by an internal “diagonal dialogue” between the building and its historical, social, and formal contexts (Lynn, 1993/2010, p. 36). Such diagonal dialogues can develop in two directions. They may be dynamic, tense, and acute, comprised of “conflicting geometries, materials, styles, histories, and programs which are then represented in architecture as internal contradictions,” or they may be dialogues of “unity and reconstruction” (Lynn, 1993/2010, p. 36). The interior architecture of the Johnston Building combines both tendencies. The diverging geometries and aesthetics styles form conflicting diagonals, but these diagonals, although noticeable, are non-confrontational, and participate in a mediated dialog between interior elements and aesthetics of old and new. The oppositions are present in the building’s formal systems: leaping off from diverging geometries, they contrast in materials, styles, and aesthetics, but converge again in functions.

Diverging Geometries and Juxtaposing Materials

Diverging geometries find their realization in contrasts of volumes formed by the vertical and horizontal segmentation of interior spaces. Although the historic part appears highly subdivided—first by the main staircase and further by the interior partitions between the faculty offices, the administrative offices, and other functional spaces—the new addition awes with its visual openness and spaciousness. As it happens, there are numerous small units contained in the new building and several large spaces within the old. The perceived divergence of spatial geometries—small and enclosed versus vast and open—is amplified by the contrasting visual qualities of the construction materials and surface treatments—brick, plaster, warm woods, and earthy salt-glazed tile of the old section against the reflective glass, cool white terrazzo, and shiny metals—of the new section (Figures 7 and 8). The designers play with impenetrability and transparency throughout the building by gradually transitioning from impermeable brick exterior and attached partitions to core spaces that are almost entirely glazed. The central atrium is

a comparative void wherein a relative absence of opacity implies absolute transparency.



Figure 7. Looking east to west from the new addition to the third level of the original structure.



Figure 8. Juxtaposition of volumes between the central atrium void and circulation paths in the new addition.

As the materials change and spaces become more visually accessible, volumes increase to form diagonal oppositions. The old dining hall contains many faculty and administrative offices, and for the most part appears to be enclosed and comprised of compartmentalized spaces. The large glass spaces of the new addition pivot around the open atrium, making the space visually more accessible and arguably more democratic. Metaphorically, glass spaces are thin spaces, and impermeably partitioned spaces are thick spaces (Lynn, 1993/2010). This juxtaposition of thick and thin spaces—where thick is interspersed with thin and thin with thick—provides an additional layer of complexity to the diagonal dialogue between the building’s interiors, prompting exploration of spaces “as thin as air

and with invisible boundaries on the one hand, and the density of space with many walls, on the other” (Lynn, 1993/2010, p. 36). The architects’ choice of glass for the interior was partially programmatic, in keeping with the University’s goal of creating a model twenty-first-century dynamic, open and socially-oriented learning environment. Glass partitions make visual boundaries between spaces more membrane-like. As a result, the physicality of spaces within the new addition appears under-defined, fluid, and full of potentialities, all characteristic aspects of a “building of requirement.”

This contrast is plainly by design, and is essential to the goal of maintaining a sense of settled history on the one side and the unencumbered potentiality on the other. Thus, the “building of requirement” (i.e., that part of the renovation and expansion that awaits undiscovered uses that can be all things to all users; that part which is a reflection of burgeoning pedagogical consensus on the need for multipurpose learning environments) is perceived to be the addition, notwithstanding the mostly equivalent spatial geometries and delusive visual effects of veneers. As such, the post-modern dialogue of unity and reconstruction is subtly achieved, while users carry on with the impression that the building is riddled with internal contradictions.

Converging Functions

Significant levels of geometric three-dimensional complexity and juxtaposition of materials influence users’ perceptions of spatial functionality. At their best, the interiors of the William Johnston Building enter into something of a temporal dialogue: the building’s dining hall past, with timetables governing student routines, and hierarchies of class and rank, confronts its present as a loosely-defined center of learning. In the past, the interiors functioned to regulate and restrict behavior. The grand staircase was enclosed and dark. It led into a vestibule with two symmetrical entryways to virtually identical dining rooms. The open layout of the dining rooms provided a field wherein every deviation from decorum could be observed. The renovation kept the existing footprint of the dining rooms and access points without modifications. The dining rooms, however, now function as lecture halls (Figure 9). By definition, a lecture hall is a space where behaviors are also restricted by timetables and governed by a pedagogical model wherein attention is focused on the lecturer, an authority figure, who actively transmits information to relatively passive learners. By making former dining halls into lecture halls, the architects paid homage to the building’s cultural past as an ordered place. The new addition contains similar types of formal and programmatically defined classrooms, which also require

adherence to traditional pedagogical methods of instruction and learning.



Figure 9. Second floor lecture hall. Originally one of the two formal dining rooms, both spaces now function as large lecture halls. Photo courtesy of Gould Evans Architects.

The grand staircase and the threshold area play an essential role in controlling the transition between the old and the new sections of the buildings and in defining it as an educational environment. As mentioned earlier, the entire transitional zone has low ceilings, little light, and, most importantly, its configuration appears to be ‘turned away’ from the new addition of the building. Although the stairway is supposed to be an important link connecting the historic and contemporary parts of the building, it does so reluctantly, as though trying to conceal the new addition from space users, to arrest their movement, and to contain them within the boundaries of the old dining hall. Thus, the old section of the building appears to be in control of its domain: it still holds strong to traditional programming and delineation of spaces, including the two large lecture auditoriums, and thus demands and determines that the teaching that takes place there adheres to the traditional pedagogical model of teacher-centered lecturing and passive learning-listening.

Once in the new addition, however, the pedagogical paradigm changes. Although the annex contains a significant share of traditionally designed classrooms for formal lecture-type classes, some spaces break out from this orderly designation into places where informal, individualized and personalized, open-ended learning occurs. The balance of the educational spaces in the new addition may be divided into two groups: first, semi-regulated and functionally under-defined spaces, including counseling suites, and user-designated lounge spaces, and second, open-planed and functionally un-defined hallway sitting areas. In addition, generous allocation of circulation routes throughout the building allows one to study almost anywhere in the building (Figure 10).



Figure 10. New addition corridor: students waiting for class.

Most of these spaces are located closer to the core of the building, as defined by the central atrium, and are articulated by glass interior partitions, counter-high dividers, posts or railings, and furnishings. Glass is the predominant material in the atrium area. It was chosen for its transparent qualities that allow for the visual under-definition of social and informal learning spaces and lounge areas, suggest flexibility in functional interpretation of these spaces, and symbolize the permeability of disciplinary, social, and hierarchical boundaries in contemporary higher education. The library, exhibit gallery, student lounge and a few classrooms allow passers-by to see students being 'studious,' socializing, goofing off, resting, or sleeping, and thus reveal the many possible functional adaptations or appropriations of these spaces. The many lounge areas that dot circulation paths of the new addition are similarly left open for interpretation and use. They most often serve as informal individual study spaces for students, many of whom utilize them even when they do not have scheduled classes in the building. Some faculty and student users report occupying these spaces for a few minutes to have a break from their work, to step away from their offices and change scenery for a few minutes, to enjoy the spaciousness of the atrium, and to enjoy looking at people instead of at books or their computers. Paradoxically, open and exposed to passersby, these areas appear to offer some student users more privacy and even quiet than the library, partitioned

graduate lounge, or other semi-private spaces nearby (Figure 11), in which it is much more common to encounter groups of people engaged in boisterous discussions or working jointly on projects.



Figure 11. A student working alone, but engaged in social networking, in one of the atrium sitting areas.

The diverse activities that take place in these highly visible, open, and easily accessible spaces constitute today's educational modes. The process of sitting and reading a book or listening to a lecture has been supplanted with something more complex and social and interwoven into the fabric of students' and faculty members' lifestyles. Learning is no longer limited to hierarchical exchanges of information à la the classrooms of old. It is now intertwined with leisure, polyvalent, and boundary-less. The functionally under-defined spaces of the William Johnston Building support these heterogeneous modes of learning. Students are not compelled to learn in a certain way while using these spaces. To the contrary, students turn them into spaces of "requirement"—an individual quiet study area, a place for small group work or discussion, a change of scene or a place of rest. Programmatically liberated and socially oriented, these spaces lift formal behavioral and pedagogical restrictions and foster social communication and shared learning, or unregimented individual studying, and thus support learner-centered pedagogy, leading to a greater sense of student ownership of the learning process and its outcomes.

Conclusion

The design of the renovated William Johnston Building integrates traditional instructor-centered educational practices with newer student-centered ways of learning—individualized, social, and experiential. With the twin goals of preservation and innovation, the designers intervened to

expand the facility and transform it in meaningful ways into a “building of requirement.” The lecture halls and traditionally designed classrooms of the building’s historic section require conformity to instructor-centered methods of teaching and learning, while the many informal programmatically under- and un-defined sitting, lounge, and study spaces become just what users need. This strategy plays to learners’ advantages by containing within one corpus a range of typologically and functionally diverse interior spaces. From the convention of the dining rooms turned lecture halls to the flexibility of the numerous public and semipublic spaces, oppositions are joined to create a heterogeneous architectural context primed for both structured learning and unrestrained information exchange.

The newly renovated William Johnston Building represents an approach to historic preservation in which the architecture of “now” is more than an intervention. It overtakes the historical part, wraps it in modernity, but does so respectfully and without diminishing the significance and meaning of the old building. The modern addition stylizes the material poetry of the old building, from which the larger narrative of the new building emerges. The design strategies of diminished specificity create a heterogeneous yet continuous system, in which formal elements, meanings, and histories enter a dialogue “between past programs of occupation and a contemporary language of form” (Meyers, 1999, p. 94). And, perhaps most importantly, the renovation of the Johnston Building emphasizes the contemporary educational and pedagogical practices of flexibility and accommodation of learners’ unanticipated “requirements,” and embraces the conflicts and contradictions inherent to anticipating what will have been: the myriad modes of learning that await discovery.

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