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DUDA|PAINE ARCHITECTS AND

the Design of Duke

UNIVERSITY'S STUDENT HEALTH AND WELLNESS CENTER

by David Vinson, PhD

Located in the east-central part of the Piedmont region along the Eno River, Durham, North Carolina, is a mid-sized city that functions as the core of the four-county Durham-Chapel Hill Metropolitan area. Durham is also home to Duke University, a highly selective research-based institution that is consistently ranked among the top universities in the United States, and whose campus spans over 8600 acres on three contiguous sub-campuses.

Duke's West Campus incorporates Gothic architecture and includes the Duke Chapel at the campus' center, which is within earshot of the university's Medical Center. Duke's East Campus is comprised of Georgian-style architecture and is home to all first-year students. First-year students are especially lucky to begin their college experience in an area of campus that is situated between Durham's Night Street District and its historic downtown.

Campus aesthetics at Duke are complimented by extensive forest and wooded areas, in addition to the Sarah P. Duke Memorial Gardens. This natural setting in the region of West Campus is informed the design of Duke's Student Health and Wellness Center, which was completed by the team at Duda|Paine Architects in March 2017. As explained by Turan Duda (FAIA, Founding Principal) and Scott Baltimore (AIA, Associate Principal), the design for the building's massing and scale "drew inspiration from the forms and patterns of the West Campus context and its historic structures."

What follows is the story of how Duda|Paine Architects tackled the design of Duke's Student Health and Wellness Center. The governing objective was for the facility not simply to serve as an extension of its Wilson Recreation Center, Bryan Student Center, or its Western Campus union, but rather to function as a nexus between the realms of student experience, those including residential halls, student life, athletics, and academic study.

"The facility's vision was to complement and link wellness with these programs and with the surrounding natural environs for students as they went about their daily lives at Duke."

Transforming a Vision into Reality

Unlike other examples of the work completed by Duda|Paine Architects on Duke's campus, including the new Welcome Center for the Sarah P. Duke Memorial Gardens and the Trent Semans Center of Health Education, the design of the Student Health and Wellness Center was expected to include the following characteristics: a welcoming, inviting, and inspiring entrance congruent with the healing process; many windows, where natural light can enter and provide a restorative effect; an outdoor area with a meditation/herb garden and labyrinth to promote reflection and relaxation; and an environment where students would seek refuge from the stressors of daily life and find themselves inspired to focus on their health and well-being.

With so many objectives at hand, Duda|Paine Architects embraced one of its core philosophies, that wellness design must provide access and connections to nature. This process began with an evaluation of the site's natural and environmental conditions, including its adjacency to the historic Anderson Woods and its location at the corner of Towerview Road, a main campus thoroughfare. Consideration was then given to existing greenspaces and quads, pathways, and modes of access to the site. The project's master plan created new greenspaces and public plazas around the building to intuitively attract student use and engagement with the architecture and programs offered at the center. These areas utilized native plantings, hard and soft landscape materials, seating walls, and low-maintenance strategies.

Duda|Paine Architects analyzed the architecture of the Towerview Road context, including historic West Campus Residence Halls, the Schwartz-Butters Athletic Center, the Duke Law School, and the Sanford School of Public Policy. According to Duda, "Patterning, scale, color, stone, and other material and architectural features of



[the] buildings were juxtaposed with the more modern translations of Union Drive Buildings: the steel and glass architecture of the West Student Union, the glazed expanses of the Duke Penn Pavilion, and the contemporary stone expression of the Bryan Center.”

Three Buildings in One

For the Towerview Road elevation, the massing, form, and rhythm were inspired by historic West Campus and nearby Rubenstein Hall, the latter of which uses a pattern of three minor vertical bays in succession with a major vertical bay. The exterior façade is comprised of three tower elements characterized by a terra cotta rain screen system in two-toned gray, and the effect is to conjure the palette of Duke stone on campus. Terracotta panels capture the Neo-gothic color range and reinterpret it for modern design.

A three-level entry pavilion is the project’s primary organizing element. A super-structure of glulam columns and beams wraps its living room volume in wood, creating a sense of lightness and echoing the site’s nearby forest. Materials from the outdoors come to the

interior, including a slate and loose fill river rock floor on plane with the exterior courtyard flooring. Rough texture bark wood echoes the adjacent historic Anderson Forest. Material and physical connections to nature are further highlighted by the glulam timber super-structure. Terra cotta baguettes, vertical wood louvers, and fritted glass offer solar shading and privacy screening. The lobby’s multi-story glass façade contains a system of custom extrusions that break up the curtain wall, and a grand entry stair highlights the building’s intersection of care, prevention, alternative therapies, and social interaction in achieving wellness. A translucent wall etched with abstracted leaves marks the staircase on all three levels.

The single-story Wellness Pavilion holds shared project amenities. The façade is set back and is fronted by Duke stone walls. Glass, metal panel, and glulam columns define this pavilion with proportions that reinforce connections to the scale and patterning of campus while also helping control solar heat gain and glare. Framed views, extensive glazing, clerestory lighting, a garden of loose river rock, and the selection of natural

flooring and paving materials enhance the seamless merging of indoors and outdoors. The use of site-harvested wood, locally milled and constructed for interior finishes and furnishings, imparts warmth and provides a backdrop for students studying, socializing, or simply taking in the views.

A Commitment to Sustainability

To achieve LEED Silver certification, the Student Health and Wellness Center had to embody Duke’s emphasis on integrating wellness into daily campus life. Particular emphasis was placed on energy savings and sustainability through design, orientation, new technology, and material. Sustainability was also integral to the project’s healthy building initiative: controlling air quality during construction; the use of low emitting materials like paint, sealant, adhesives, flooring systems, and composite wood materials, along with the control of lighting and thermal comfort for building users. The use of natural light was also critical to implementing a sustainable project that aligned with Duke’s core values.

Moreover, even before construction began, an impact study was conducted to determine how to maximize the amount of forest that could be saved around the construction site. Only select trees were removed to create just enough space to build the new facility, and the same trees were then reclaimed and reintegrated into the building through use in wood veneer for furniture, decorative wood wall paneling and whole-tree benches. Site-harvested timbers were minimally milled for bench seating, and a contemplative garden focused on Anderson Forest encourages further connections to nature.

All building levels are tailored with a wood feature wall that contains information screens and randomly distributed, acrylic panels screen-printed with images taken of the original site and etched with quotes from diverse thinkers such as Gandhi and Maya Angelou. On the ground floor, these graphics represent an eye-level forest view; on the second floor, they reflect rising through the stand of trees; and at the upper, the pattern of branches and sky reflects arrival at the forest canopy. Beyond this wall, users enjoy privacy for clinic reception, and privacy strategies increase as one moves deeper into the building for services. Plaques throughout

the building provide education opportunities with information about the reclaimed wood and the forest outside. A highlight feature of the building is the outdoor meditation garden that overlooks the Duke Forest.

The Sustainable Duke office and the Wellness Center united in order to examine the overlap between sustainability and wellness on campus, which in turn encourages students to explore the interconnectivity of these two concepts and apply sustainable principles to personal wellness practices on campus.

A New On-Campus Refuge

An aspiration of Duke University's Dr. Sue Wasiolek, the primary client of Duda|Paine Architects, was "for students to come to the [Student Health and Wellness Center] even if they are not sick." After the second month of opening its doors, the facility was voted the second most popular place on campus to study with friends (preceded only by the library). It's also a space for spontaneity and

fun: A baby grand piano sits in the second entry level hall to encourage students to put on a performance. According to Wasiolek, "We've never scheduled anyone to play the piano at any time—it just happens."

In the year following the project's completion, Duke was witness to a remarkable increase in metrics. DukeReach, which directs the campus community to helpful resources for a student in need, rose from three to sixty-three walk-ins in the first year alone, up over twenty-fold. The CAPS program experienced a 28% increase. Selfcare spaces called Oasis at Duke are those that promote well-being and stress reduction—usage of these spaces increased by ten to fifteen students per day. Program attendance has increased 40%, and clinical appointments rose 6%, with 10% fewer no-shows.

The architects at Duda|Paine are especially proud of the Student Health and Wellness Center's role in furthering Duke's vision with spaces and aesthetic features that "move beyond standard campus clinical facilities

to support social, physical, psychological, personal, and environmental wellness." Private universities and colleges like Duke are recognizing the value of merging preventative and holistic mind-body-spirit practices into both everyday life and medical care.

To put their design philosophy into perspective, Duda and Baltimore of Duda|Paine Architects stress that "nature is at the core of infusing wellness into all building types ... the inclusion of nature in interior spaces and direct connections to exterior gardens [are] active parts of a building's program and [they are] vital to all architecture, not only to wellness projects."



ABOUT THE AUTHOR: Dr. David Vinson has a PhD in English with specializations in transatlantic literature and cultural studies. He is a committed scholar, teacher, and dad. If you ever meet David, avoid the subject of soccer. His fandom borders on the truly obnoxious.

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