Constructing a Transient Permanence
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A residence hall is a temporary home. Yet, it can be the most impactful campus environment on a student’s education and life. From lifelong friendships to retention rates, residence halls offer students as many opportunities their first opportunity to express their individuality and personal responsibility. No study can conclusively determine that one residence hall type is better than another. Rather, it is a hall’s overall gestalt that determines student satisfaction and a positive perception of community.

The question of my thesis explores how residence hall architecture can anticipate its role as an inspiring distraction to the individual that provokes interaction, engagement, and community as a building type that is not quite transient and not quite permanent.
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Preliminary Studies

Research

Residence halls typically take form around the standard hall styles: traditional, hotel, suites, apartments, and jack and jill. Each type comes with its own benefits and challenges, but what best determines a student’s satisfaction with the residence hall is its overall gestalt.

What the building represents to the student is the deciding factor as students look to free themselves from an inhibiting sense of regimentation and molding. The image of the conventional, cinder block dorm with double-loaded corridors has negative perceived value for most modern students. While a building can still be designed in a traditional hall style, unconventional design moments and features can create an overall unique effect that provokes interaction from the student.
Residence hall architecture highly influences a student's initial social acquaintances. In a study of dormitory architecture influences and patterns of social relations over time, 80% of dormmates lived together through senior year after meeting initially in the residence hall. These acquaintances were found to be predetermined by the architecture by way of functional distance.

Functional distance can be understood by the paths that residents take to fulfill their daily needs within the residence hall. Required paths form between sites of shared activity and student rooms. Active required paths can help encourage social interaction by increasing the possibility of meeting others. Effective required paths can then emerge from an architecture that organizes rooms around shared spaces.

The suite layout poses many opportunities and challenges. On one hand, suites have the potential to provide a greater network of emotional support, the possibility for different activities to take place simultaneously, and an increased sense of ownership in the space. On the other hand, suites can also lead to less integration by students into the hall as a whole and a lower overall sense of community.

The traditional suite layout creates an additional barrier between the residents and the hallway, where community connections are passively made. This spatial segregation leads to less integration into the community as a whole.

The idea of the porous suite aims to transition the community of the hall and beyond into the suite common room. Entry to the private student bedrooms still remains off the busy hallway, but a porous suite wall diffuses the interaction from the greater community and allows for enriched visual connections.
Precedent Studies

A comprehensive study of residence halls around the world and the impact of the physical environment on students formed part of my preliminary work. Questions of porosity of the urban form and communal connections created through spatial arrangement formed the basis of my analysis.

The halls:

- Baker House - MIT
- Simons Hall - MIT
- Edmands Hall - Harvard
- Brown Hall - Bryn Mawr College
- Mann - Virginia Residence Halls - University of Virginia
- The Lawn - University of Virginia
- State Street Village - IIT
- Rene Granville - University of Chicago
- Residential Village - St. Edward's University
- Indian Institute of Management
- Casa Dell'Accademia - Accademia di Architettura
- Colle dei Cappucini - University of Urbino
- Tietgenkollegiet - University of Copenhagen
- Campus Kollegiet - University of Southern Denmark
- Florey Building - Queen's College
- Cripps - St. John's College
Aalto approached the Baker House with concerns for the place of the individual and for the humanization of mass housing. In its design, he strived to find the balance between this humanistic approach and the realities presented by the site and program.

The building's form was a direct response to the difficulties the site posed to Aalto's vision of each room orienting south. The site's size led him to abandon the site geometry by creating a footprint of an undulating curve that increased the southern perimeter of the building in order to meet the required number of rooms.

The building's form results in a plan with twenty-two different room configurations and unique circulations and public spaces on each floor. Individualism is valued in the design of the rooms and the use of each window on the southern facade to represent each student inhabiting the room (i.e. single rooms have one window, doubles have two windows, and triples have three). The building is organized as a single-loaded corridor with most rooms on the south side and a staircase hung on the north side. Aalto envisioned the hallways and the nature of public space to reflect the traditional pedestrian streets of Italy, aiming to provide spaces for spontaneous social gathering.

Since its completion in 1949, the Baker House has housed 353 students each academic year and remains the most requested residence hall by incoming first year students. In his design, Aalto was able to realize an architecture that respects the individual, while honoring the community binding elements that enable communal cohesion.

Simmons Hall
MIT, Cambridge, MA
Steven Holl Architects, 2002

In 1998, MIT commissioned Steven Holl Architects (SHA) for a new master plan to include residence halls along Vassar Street. The 'sponge' scheme was chosen and developed around the idea of porosity and incorporating the concept of the city into the residence hall.

Simmons hall is organized in a double loaded corridor of hotel style rooms, half single occupancy and half double occupancy, each with its own bathroom. The residence houses 350 students each year, organized into ten houses of thirty to forty students, and features amenities such as a theater, a night cafe, and a dining hall on the street level.

The building is hollowed out through large, dynamic openings which create a vertical porosity between floors and become atmospheric lounge spaces within the program. A student reflects on her experience: “I really enjoy being in the blob-shaped lounges, but Steven Holl probably didn’t think of how the inverse of them would affect students’ rooms. But since they’re built from concrete, they make for rather excellent chalkboards.”

Holl envisioned the building as a porous mass, and thus devised a method of precast concrete construction that would serve both as the structure and as the envelope. The mass of the building serves as a natural insulator and its thickness allows for the windows of the student rooms to allow the winter sun to enter but block the higher rays of the summer. Holl also designed the furniture for the rooms, creating a modular set where two drawers equal the height of the bed and three drawers equal the height of a wardrobe.
Hereford College
University of Virginia, Charlottesville, VA
Tod Williams + Billie Tsien Architects, 1992

Designed by Tod Williams + Billie Tsien Architects, Hereford College is a modern mani-
ifestation of the residential college model in the context of Thomas Jefferson's University
of Virginia Campus. Inspired by the “lawn”, the project consisted of five dormitory
buildings, a dining hall, a faculty residence, and a computer facility. All of the buildings
are organized on a 100-foot-wide site and collagenate in a rhythm of the landscapes
offering students a variety of indoor and outdoor spaces.

Completed in 1992, Hereford offers a modern alternative to the traditional Jeffersonian
architecture on campus and a recluse from the central campus. About a 20 minute walk
from the rotunda, it was important that in conceiving the Hereford campus that it must
be self-sufficient for student’s daily needs. Two dormitories (or houses) are part of the
college, Whyburn and Norris, offering single and double rooms organized in a traditional
hall. Each floor has a common lounge for students to further engage in their hall commu-
nity, and each building houses a full kitchen.

The community of Hereford is as much created by the space between the buildings as the
space within. A stepped amphitheater outside the Vaughan House extends the building’s
potential for fostering community outdoors. The buildings splice an expansive lawn cre-
ing pockets between the Whyburn, Norris, and Vaughan houses and allow residents to
host outdoor community events and for spontaneous interaction.

Kim + Tritton Residence Halls
Haverford College, Haverford, PA
Tod Williams + Billie Tsien Architects, 2012

Completed in 2012, Kim + Tritton residence halls were commissioned by Haverford
College, a school with deep Quaker roots and a 216-acre campus nationally recognized
as an arboretum. Tod Williams and Billie Tsien architects responded to the college’s commission for a residence hall to house 160 students and to break away from the tradi-
tional cinder block student housing and common areas in campus living.

Williams and Tsien sought to design a site in which the buildings would blend into
the landscape in keeping with the Haverford's rule of sensible simplicity. The site is located
at the south end of campus and unexpectedly proved to be composed of unusable fill.
In response, Williams and Tsien applied the unusable soil from the site to sculpt a central
berm that serves as a hub of circulation between the two residence halls. Stairways and
stairs are carved into the berm, connecting to bridges that access the second floor of
each hall. Kim + Tritton are unique in that they offer no interior stairs or elevators within
the halls themselves, thus forcing an interaction with the central courtyard.

Each building contains a courtyard, bathrooms, and common rooms within their core
and 40 single rooms on each floor form the perimeter. The buildings are clad in hand-
formed Danish bricks and each room is furnished with oak furniture designed by Wil-
liams and Tsien’s firm.

While Haverford students were a part of the design process, the building has been met
with some criticism. Many students feel that the building does not honor the Quaker val-
ues of simplicity and believe the budget was misguided in the use of expensive materials
and certain amenities. Despite it is the newest housing option for students, it has proved
to be less desirable than other dorms, some of which even lack basic amenities like laundry.

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CONSTRUCTING A TRANSIENT PERMANENCE

PRELIMINARY STUDIES

1+1=3

The precedents most influential to the thesis utilized the simple idea of overlapping geometries to break away from the institutional mold of campus residences. Where two parts of the architecture came together, a third element was formed and enriched the relationship of parts within the whole.

A residence hall is expected to foster a number of contrasting programs. It is a place to rest, work, and play. Designating space for these functions is crucial, but overlapping these functions within the architecture of the residence hall allows for stronger connections and transitions. It is the antithesis of the residence hall to isolate these elements.

Layers created through overlapping geometries have the ability to enrich the residence hall environment for students. On a humanistic scale, a dynamic and integral community space can form between elements of private residences. By also considering the situation of the residence hall within the site surroundings, the architecture as a whole can form a compelling transition between the public and private sphere.
The site is located on Virginia Tech’s campus, situated in a transitional zone between the traditional campus and the downtown district of Blacksburg. The site is spliced by pedestrian streets in relation to existing paths. Five buildings form within the splices, while the pedestrian streets at the ground level invite passersby to weave through the architecture. The condition of the polis, a space for the many, is thus formed in the composition of these separate parts. Unlike the typical exclusive nature of the residence hall, the public sphere allows for discussion and confrontation between residents and non-residents in the interest of the public good.

The composition of the architecture allows the residents to coexist as students sharing a greater campus and creates an transitioning interplay between the campus community and the community of the residence hall.
Design Investigation

The site forms a unique situation with the university’s campus. As part of the border between the downtown district of Blacksburg and the rest of campus, the site is urban in nature and has the potential to make the transition between town and university more engaging. The site is part of the planned ‘creativity and innovation district’ on campus and is envisioned to accommodate three hundred students in a living-learning community focused around creative technologies and innovative entrepreneurship.

Considering the mission of the university, the living-learning community, and the individual student is crucial to the architectural process. The student population in this community may value expressing their individuality and moments for spontaneous collaboration, while the university aims to increase relations between faculty, students, and the town and move toward an interdisciplinary studies approach. Understanding these missions gives the architecture purpose and helps leverage a physical space that advances such aspirations.
CONSTRUCTING A TRANSIENT PERMANENCE

Otey Street

A SCIENCE HALL FOR A CREATING AND INNOVATIVE LFF

Program

- Workshop - Society
- Exposition - Social History (the 1st Art Museum)
- New life, interaction
- Community, - School, Language
- Rural / Nature
- Outdoors,- Exhibition
- Mixed Use

A large model of the proposed building site and its surrounding area.
A Residence Hall

The site steps down in three terraces, organizing five buildings along a central pedestrian street. The composition of the buildings allows for these pedestrian streets to penetrate the ground floor and encourage an engagement with the architecture.

The buildings host offices, classrooms, and support facilities for the residence hall. As part of the innovation and creativity living learning community, maker spaces, workshops, and a gallery are also located on the ground floor to create a visual connection between the community and pedestrians passing by.

The main axis through the building is complemented by urban equipment and plantings on a humanistic scale, and encourages interaction between the passerby and the architecture.
On the upper residential floors, the five buildings bridge together to form a continuous connection between the hall communities. The private resident rooms wrap the exterior of the building, while communal spaces are found in the core. The rooms are organized into suites of 3-4 rooms and a shared living space. A row of columns separate the ‘porch’ of each suite as the hallway transitions into lounge spaces designated for study and entertainment.

The overall gestalt of the architecture stands for a break from the traditional and an embrace of the community ideas of innovation, creativity, and interdisciplinary connections. The spatial organization of the building seeks to advance the mission of the university and the living-learning community.
Spatial Qualities

The residential floors of the building are wrapped by a precast stone screen that allows for a porous architecture. The density of the screen varies depending on purpose of the room beyond. Resident rooms are the most dense, while suite living rooms are least dense to convey the communal aspect of the space. The screens continue on the interior suite walls to create a porous transition between the communal hall and the more private suite.

On the ground floor, honed limestone clad walls ground the delicate language of the upper floors. The block walls frame views into the workshops, gallery, and maker spaces that give the public a glimpse into the living learning community.
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138 OTLEY STREET
CONSTRUCTING A TRANSIENT PERMANENCE
The porous suite materializes in the building using the same screen language as the exterior. Screened suite walls diffuse the activity from the hall and create the opportunity for visual connections throughout the building. The entrance into the private condition of the student room maintains a degree of separation from the active hallway in the transition that the disassembly of the suite wall barrier creates.

In the same way that shared functional paths can passively build community, the condition of the hallway aims to evoke the same effect through enhancing visual connections, or shared visual paths.
The ground floor is activated by pedestrian streets that carve their way through the building, allowing someone walking through to be engaged with the architecture without having to go inside. A regulated screen enhances the language of the limestone cladding and offers passersby a glimpse into the activities happening within the building. In walking through these streets, a person could get a sense of what the community’s mission is by looking into some of the maker spaces or the gallery of student work.

The architecture of the ground floor aims to create more shared functional paths between the different types of people that pass through campus each day. Because of the mixed-use nature of the program, a student could encounter conversations with townspeople, faculty, and professionals contributing to innovation within Blacksburg.
Project Conclusions

In designing a residence hall architecture that works, the mission of the university, the housing and residence life community, and the student must be considered. The architecture should be seen as an opportunity to advance this mission and not just as student storage. With the ability of the residence hall to make lifelong impacts on the students who inhabit it, the architecture finds meaningful purpose in fostering this advancement at all scales within the institution.

The residence hall should support the needs of the student without becoming a one-stop-shop for their daily needs. The building should encourage a hall community as much as it encourages the student to seek a diverse set of learning experiences on campus and in the town beyond. By incorporating live-in faculty, a mixed-use program on the ground floor, and a public space, students have the opportunity for confrontation and discussion with a diverse population each day.

The student housing environment is most enriched by overlapping geometries that arrange the necessary functional aspects in a way that activates more engaging spaces. Wrapping residential rooms around central communal spaces increases the shared visual and functional paths that students take and allows the corridor to become more than circulation. Splitting the building and creating a public outdoor experience helps transition the isolated community of the residence hall into the greater campus.

No perfect answer to residence hall design exists. The architecture has the potential to manifest itself as a device for representing what the university, community, and students stand for if the mission of those impacted is considered. Creating a healthy environment for students to sleep, relax, and study is as essential as encouraging exploration beyond the building and creating an environment for public discourse. Overlapping geometries enrich the residence hall environment with more spatial opportunities and a cohesive sense of communal living.
Bibliography


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