Close quarters: reimagining campus living and the student module

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Close Quarters

Reimagining Campus Living and the Student Module
The Question of Campus Living

Introduction

My thesis project combines research and personal narrative in the design of a conceptual dorm room for a college student.

First, to begin to trace the qualities essential in student housing, I investigated five examples of dormitories from other colleges that challenge the traditional dorm model and offer fresh, innovative living solutions. While these examples do not represent a complete timeline or full range of architectural styles, they consciously reimagine student life in a dramatic way, and they create a new kind of space for living at colleges and universities.

Next, I looked at the different models of residential life that emerged throughout Vassar’s history. From Main Building’s mixed-program model, to modernist Noyes House, to the radical cooperative-living style of Ferry House, Vassar has consistently pioneered modern visions for student living. In analyzing residential life and housing stock at Vassar, I also more broadly considered the elements that are critical in forming a living and learning community. How do students live in and occupy their spaces? Is the one-size-fits-all approach to living spaces truly beneficial? A dormitory represents a unique opportunity to plan communal living for a group of individuals who all belong to the same institution, where there is implicit community among the residents. The dorm is an inherently social place, but the architecture of that space can drastically alter the opportunities for social encounters, as well as determine the quality of personal space. It is truly a hybrid place for living that hosts activity at every scale, from the individual living unit to the collective space.
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Despite this remarkably vibrant program, dorms are frequently overly standardized, fluorescent-lit, cinder-block bunkers that lack adequate communal space and discourage spontaneous social interaction (Yee, 2015, Times). At Vassar, in contrast, residence halls are individualized historic structures, with designs that display conscientious ideas about how students should live and socialize.

Finally, I examined my experience living on campus for four years, in four unique spaces. Through renderings and diagrams, I investigated how I inhabited the various spaces I settled into on campus. In each instance, I rearranged the room and supplemented the existing furniture, lighting, and storage to make the room livable and feel like mine. In cataloguing the strategies I used, I was able to examine the logistics and requirements of an individual student living unit.

I approached the project of designing a conceptual living module from the perspective of both a user and a designer, which allowed me to assess the challenge from a personal perspective. My Student Room Design Project prioritizes functionality, customizability, modularity, and organization. It counters the generic, standardized approach to dorm and furniture design, and it offers a solution that supports students’ needs and encourages making spaces that allow for self expression.

Some questions central to my project are: What should a living space for a transient student population look like? How does the built environment of the existing dormitories influence student interactions? What do students need in a basic living module? Can a single module design somehow accommodate every student’s needs and lifestyle?
I.

Precedents
Baker House, Alvar Aalto’s iconic modernist dormitory, is one of the most striking buildings on the MIT campus. The project, constructed in 1948, has a curvilinear façade, which functions to maximize density, light, and students’ views of the Charles River. The communal dining space on the ground level can fit the capacity of the entire dorm (350 students), and also functions as a flexible space to host social events like dances (Perez). Unfortunately, fitting the program of the dormitory into the elegant curving design resulted in living spaces that are oddly shaped and somewhat awkward. Each floor has 22 different room shapes, which vary greatly in size. The smallest rooms are referred to as “coffins,” the middle rooms as “pies” (Durant, 2007). While Baker House transformed expectations of student housing at the time, and remains a radical example of modernist architecture, the building still utilized the traditional layout of individual rooms branching off of one hallway.

Aalto’s modernist dorm is in stark contrast to other student housing nearby, such as Harvard’s dorms, which were built in the traditional style of the eighteenth century English Country house (Bentel, 248). Aalto’s dorm was critical to the development of student housing design: it rejected the typical rectilinear appearance of the dorm, breaking the conventional mold that predominates across college and university campuses, and it offered a design that exhibits as much innovation and creativity as the students it houses. “Baker House was among the first of several buildings...[that] marked a departure from the 'traditional' American campus planning, which had sought permanence, stability, and visual continuity in the designs of buildings for institutions of higher education.” (Bentel, 245)
C.F. Møller designed student housing in Ødense, Denmark, in 2015, that was conceived as a “vertical campus” for the University of Southern Denmark (ArchDaily, April 2016). This fifteen-story, three-towered building sits in an open area and is approachable from all sides. While the height of the structure makes it appear disconnected from the surrounding nature, the design allows all faces of the building to have views and outdoor spaces, even on upper levels. The building has a café in the ground floor and a roof terrace. Private rooms line the outer edge of the building, and each has its own balcony. Each of the three towers has seven single rooms per level, with a shared kitchen and generous common space at the core. The limited clustering of rooms forms a smaller community, while the common space allows for larger floor-wide social gatherings.

Møller’s design is a significant milestone in dormitory design because of its considered treatment of the dynamics and relations between private and public space. The gradient of private to public areas facilitates interactions between students while allowing people to have individual rooms. The grouping strategy fosters layers of community and breaks the traditional model of isolated private rooms branching off a corridor. As Møller described his intention, “Moving inwards from the private rooms towards the communal kitchen in the centre, areas gradually become more and more collective: A shared living room acts as a social meeting place for the small cluster of seven rooms, which all residences are grouped in, and acts as a transition to the fully communal spaces.”
BIG’s Urban Rigger design for Copenhagen Harbor, designed in 2016, is a prime example of innovative solutions for spatial and material efficiency. The Rigger design consists of a stacked cluster of six shipping containers floating on the water. The project is a direct response to the housing needs of Copenhagen University, which is experiencing increased demand for student living spaces. In a city with limited land and increasing housing prices, building on the harbor is an unusual and intriguing response (ArchDaily 2016). BIG proposes this form of studio housing as a quick and logical solution to housing overflow needs. While only one cluster has currently been constructed, the plan lays outs the potential for an entire floating village. The units each have a central courtyard, and the clusters could come together to form a larger circulation network.
San Joaquin Student Housing

Lorcan O’Herlihy Architects, 2017

The San Joaquin Student Housing project in Santa Barbara, CA, was designed by Lorcan O’Herlihy Architects (LOHA) in 2017 for UCSB (Architect Magazine, July 2018). In the project, seven structures form a small student village and, like with Tietgen, the plan revolves around a central outdoor courtyard. In this case, however, the space is only partially enclosed and the circulation is much more free flowing. The project is notable for its environmental sustainability and its innovative use of conventional industrial materials. The variety of corrugated metal on the façade gives the surfaces a mix of textures. The design takes advantage of the temperate coastal climate, while strategically managing heat. The housing is apartment-style living, with three rooms (doubles) off a common kitchen, communal living space, and two bathrooms. The circulation is entirely outdoors, which creates natural ventilation and light, as opposed to the dim interior hallways typical in most dormitories. The outdoor corridors also create permeability across private spaces, contributing to the communal atmosphere. LOHA's elegant design is a prime example of integrating nature, light, and air into dormitory spaces. “Passive design strategies and innovative material choices resulted in a project that is substantially more efficient and utilitarian than standard new construction," the architects say, "and will continue to reduce ecological and economic impact in the years and decades to come.”
Tietgen Kolligiet is a student dormitory in Copenhagen, Denmark, designed by Lundgaard & Tranberg Architects in 2005. The dorm, which houses students from the University of Copenhagen, has a circular design that encloses an outdoor communal space in the center. According to the architects, they wanted to express the essential characteristic of a student dormitory, i.e. the relationship between individual and communal space (ArchDaily).

The building is composed of five sections, each of which has its own kitchen and common space. These elements project from the inside of the ring, creating a balcony space above and producing a visually variegated façade. The circle also creates the ultimate accessible and flowing space: there are no doors, no ends to hallways. The inward-facing communal spaces allow students to see and engage across the commons.

Tietgen is remarkable for its powerful conceptual design, which seems to remedy nearly all the unpleasant qualities considered inevitable in average, poorly designed student housing, in particular, spaces that are cramped, standardized, and unconsidered. In addition, Tietgen is designed down to the smallest detail: student rooms feature a wall unit with a built-in bed platform, storage shelf, cabinets, and desk alcove. According to the architects, “The architectural idea mirrors what's unique about the dormitory as type of accommodation: The meeting between the individual and the collective.” Above all, Tietgen is a place students are proud to live and call home—if only for a semester.
Interior of Tietgen Room
Lundgaard & Tranberg Architects

Exterior View
Lundgaard & Tranberg Architects
Students Outside Cushing House
(Vassar Archives)
Vassar has historically been on the forefront of modernizing college housing, and it was one of the first colleges to pioneer the model of cooperative living. Initially, the entire program of the college was housed in Main Building, where students and faculty lived, studied, went to class, and ate meals (Van Lengen, 2004). In this centralized model, the whole college community operated out of one building. By the 1890s, however, Vassar could no longer house its growing student body in Main Building. In 1893, President Taylor oversaw the construction of the college's first traditional dormitory, Strong House. Strong was built to embody “cottage-style” living, with accommodations such as parlors and common rooms. Following the model of Strong, the dormitories constructed next at Vassar College housed a large number of activities: students not only slept and studied in the residence halls, but ate meals and socialized there. All these dorms—Strong, Raymond, Davison and Lathrop—promoted a home-like style of student living that was popular among the all-women's liberal arts colleges at the time (Van Lengen).

This model of living was re-examined with the onset of the depression, when many students struggled to pay room and board fees. As an alternative, Raymond was designated as cooperative housing. In this model, students performed chores (formerly done by maids) in return for a significant reduction in room and board costs (Miscellany News, 1937).

In response to the success of cooperative living, and in response to labor shortages after World War II, Vassar shifted the whole structure of dorm life to become more cooperative. By the mid-20th century, students in all the dorms

Students playing cards in Noyes, ca. 1960s (Vassar Archives)
were expected to work jobs such as waitressing in the dining halls and cleaning the houses. In select residence houses, students also cooked meals. A “Vassar Education,” at this time, extended beyond academia into the residence halls, where students learned practical domestic skills. This structure was intended to teach students to be independent and self-sufficient and instill a sense of collective responsibility for the communal spaces. It also formed new, stronger social communities within each building. This model of cooperative living was embraced by students and faculty (Miscellany News, 1937).

After the initial movement towards more independent living on campus, a small group of students formed a cooperative living group in the top floor of Blodgett, a building designed for academic use. Students in Blodgett were even more independent, and paid minimal room and board to the college. One resident said, “In Blodgett, the students make and keep a wide variety of friendships, and develop good habits of work and a fine sense of responsibility” (Miscellany News, 1937). As more students became interested in departing from the traditional living model and demand for cooperative housing continued to grow, Palmer house was established in 1938. Twenty-three students lived in this off-campus house, formerly faculty housing, with structured jobs and roles.

In 1947, Palmer House was closed and construction began on Ferry House, designed by renowned modern architect Marcel Breuer. All 27 of the Ferry students (or “adventurers,” as they were referred to in one article) worked in the house: as cooks, dishwashers, table-setters, cleaners, and in other miscellaneous jobs. Equipped with a grand piano, a kitchen full of equipment, and a freezer that was 20 cubic feet, Ferry House was a major step in the experiment of cooperative living at Vassar (Musser,
1951). When it opened in 1951, the “modern, shiny new, white brick building” represented a new horizon for what student living could be (Musser, 1951). By constructing the house in the center of campus, the college not only embraced modern architecture, but also demonstrated its commitment to student innovation and independence. While cooperative housing grew out of necessity, it evolved to define the core of Vassar’s culture, and came to represent the independent spirit of both the institution and its students.

Sarah Gibson Blanding, Vassar’s first female president, served from 1946–1964, and was responsible for the construction of Noyes House and Ferry House. President Blanding welcomed new models for residential life at Vassar, implementing her vision for integrating modern architecture on campus that embodied equally modern ideas for living. She also made changes to the structure of the college’s housing system, introducing the house fellow program, which integrated faculty into the dormitories (Van Lengen, 2004).

Vassar has not constructed a new dormitory since Noyes House was built in the 1960s. It has, however, built numerous prefab-modeled townhouses and terrace apartments. These are situated on the periphery of campus, and follow a more suburban model of living; the houses have parking and green space and are designed for four or five people.

Unlike many colleges, Vassar's residential halls are all historic, a unique condition that is integral to the school’s aesthetic and identity. It is also a large part of the joy of living on campus and gives each house character. However, the way the spaces in the halls are used has changed dramatically over time. Rather than updating those spaces, or designing a new dorm, I have tried to conceive of a strategy that could change the way the rooms themselves are used.
Vassar College

Where Students Live

Dorms: 1,895 Students
Non-Dorms: 686 Students
Vassar College

Vassar’s Residential Buildings: A Timeline

Centralized Model

1861
Main

Cottage-Style Living

1893
Strong
1897
Raymond
1901
Lathrop
1902
Davison
1907
Jewett
1912
Josselyn
1927
Cushing
Campus Modernism

1958
Noyes

1951
Ferry

Suburban Model

ca. 1980s
Townhouses
(Old)

c. 1980s
Terrace
Apartments
(New)

c. 2000s
South
Commons

c. 2010
Townhouses
(New)

c. 2010
Terrace
Apartments
(New)
Vassar College

Dormitories

Main
1861
James Renwick Jr.
Population: 351

Strong
1893
Francis R. Allen
Population: 162

Raymond
1897
Francis R. Allen
Population: 200

Lathrop
1901
Allen & Vance
Population: 180

Davison
1902
Allen & Vance
Population: 191

Jewett
1907
Pilcher and Tauchau
Population: 195

Josselyn
1912
Francis R. Allen
Population: 237

Cushing
1927
Allen & Collens
Population: 202
Vassar College

Non-Dorms

Noyes
1958
Eero Saarinen
Population: 178

Ferry House
1951
Marcel Breuer
Population: 20

South Commons
ca. 2000s
Population: 50

Townhouses - Old
ca. 1980s
Population: 250

Terrace Apartments - Old
ca. 1980s
Population: 180

Townhouses - New
ca. 2010
Population: 50

Terrace Apartments - New
ca. 2010
Population: 70
IV.

Inhabited Spaces

Noyes Dorm Room, 1958
(Vassar Archives)
Inhabited Spaces

Freshman Year

A double on the second floor of Josselyn House.

To uncover what a student needs in a dorm room, I illustrated the rooms I lived in and how I occupied them. I reconstructed each of the spaces where I lived over the course of four years of college, taking inventory of what came with the room and what I added. I found that the standard furniture provided by the college was inadequate to meet my needs, so I supplemented it. For storage I added bins underneath the bed, hangers in the closet, a bedside table, laundry basket, etc. The single overhead light fixture did not provide enough light to read by, and was harsh and florescent, so I got a desk lamp and a few other lights to put around the room. I added sheer curtains over the windows, and a rug to cover the wood floors.

If, like me, your home is far from Vassar, all these supplemental materials have to be stored somewhere over the summer from year to year, which costs money. As an alternative to paying for storage, I noticed on move-out day that many people throw out things like storage bins, mirrors, rugs, fridges, and mattress toppers, which end up as landfill. (In many cases, these are items that would be purchased again in the fall.)

Of course, part of my urge to supplement my room grew out of necessity and meetting functional needs, but a good deal also came from my urge to make the space feel like my own. Though we were instructed not to, I tacked posters and photos to the walls and nailed up strings of lights, a mirror, and a calendar. Whenever I visited someone else's room, I took careful note of how they occupied the space. Some people looked like they could move out in a matter of ten minutes, with little on the walls and a single sheet on the bed; others looked like they considered the room—though only theirs for nine months—as more of a home, a place they had taken time to settle into.
Sophomore Year

A two-room double on the first floor of Josselyn House.
Junior Year

A suite on the third floor of Main.
Inhabited Spaces

Senior Year

A room on the first floor of a Terrace Apartment.
V.

Design
Design I: Versatile Shelving Unit

While the rooms I lived in came in a variety of shapes and sizes, they all came with roughly the same four pieces of furniture. Configuring these elements was like a puzzle. Many people found odd but resourceful solutions, lofting their beds or shoving their dressers in the closet to free up floor space. In analyzing these adaptations, it occurred to me that what students truly need for furniture is a set of building blocks—a kit that can be configured to fit any space or any user's preferences.

Could there be a set of “standardized” furniture that had the potential to be reconfigured to fit every room on Vassar’s campus?

This design for a shelving unit seeks to make a piece of standardized furniture customizable, so it can be transfigured to suit the various needs of the user and be adapted to each environment. The existing standardized furniture in dorm rooms has a prescribed, specific, singular use, limiting students’ ability to use the space the way they desire. In a typical dorm room, the bed is supposed to be for sleeping, the desk and chair are for studying, and the dresser is for storage. In reality, a dorm room houses infinite uses; it is a site for social gatherings, ranging in size and activity from movie screenings to board game gatherings, parties, and group study sessions (and these are only a few of the things that might take place in a person’s bedroom). Given the wide range of program it supports, each piece of dorm furniture should be flexible in nature and able to transform to accommodate the needs and preferences of the inhabitant.

The unit encompasses the function of the dresser, desk, bed, and closet while also having the potential to address other needs of seating, table space, bed risers, etc. These configurations are only starting points; the true potential of the unit is up to the inhabitant.
Versatile shelving unit functions as a porous wall in a double.
Bed Configuration 1
Bed Configuration 2
Shelves can be turned on their sides to function as a table and stools.
One dorm room staple is decoration on the walls—posters, tapestries, string lights, pictures, flags, and other display items. This is likely because tacking things up on the walls is one of the fastest and easiest way to make a space feel inhabited and personalized (despite the fact that it’s against the rules). To accommodate this desire, I propose that one wall of students' rooms be made of a sheet of thick felt designed for students to tack things into. Like a gigantic corkboard, the wall would provide a platform for students to express themselves. Dorms are very loud places; the felt would also help protect people's personal space acoustically.
Conclusion

In my initial investigation of student housing design, I was captivated by modular systems at a very large scale. It seemed logical for a dorm to be composed of distinct units, to provide privacy and separation, and to express those qualities in its form. The preceding examples I studied are proof of the success of design that pays careful attention to the critical issues in student housing. With this philosophy in mind, the crucial challenge became how to enhance the way students inhabit the living spaces that already exist on campus.

As I honed in on the design segment of the project, the scale I focused in on became increasingly smaller, until I was considering the singular unit, expressed as an individual module. Each unit must be self-sufficient, but simultaneously function within the whole. Thinking about how students are constantly packing and unpacking their lives to settle into a space, I started to inventory the ways in which dorm rooms are used and to consider the spatial and programmatic issue of how best to occupy existing spaces.

In developing my final design for the versatile shelving unit and expression wall, I determined to make something that could be used in ways that were not predetermined, but could be interpreted and reinvented as needs arose. My presentation of the project is shown alongside the model, and I invite viewers to actively reconfigure the object and to improvise new potential uses and scenarios for the blocks. Constructed at 3’ x 3’ x 3’ (40% of the full-size scale), the model is small enough to be easily manipulated, but large enough to visualize the real space.

By the end of the project, I felt sure that the work I was doing was significant and responded to a very real need. We have to put more care put into the spaces that matter most. Good design is too often reserved for public spaces or spaces that are considered important or for show. In reality, dorm rooms are the space where college students spend the majority of their time, and the level of design should reflect that. The room a person comes back to at the end of the day could be blank and anonymous or a place of refuge—a space to celebrate your identity and configure to your exact liking. In a college setting, many students are living apart from their families for the first time, and that makes them vulnerable. College is a place that is entirely new, and it can be especially daunting at the beginning. Though people only live in their dorm rooms for a year at a time, that space needs to accommodate all their personal space requirements and supply all their domestic comforts. College is a place of intense emotional and intellectual development. The space that a student retreats to—where they work and worry, celebrate and rest—should go beyond a bed and a desk. In its fullest potential, the dorm room should foster creativity, incite happiness, embody the individual, and truly become a home.
Student studying in Noyes, ca. 1960s
(Vassar Archives)
Thank you to thank my advisor Tobias Armborst, my fellow project-mates Diego and Oshana, construction master Mark Briscoe, the wonderful Urban Studies Department, and my roommates from the past four years. This project would not have been possible without you.
Thesis Project

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