A Renovation to Develop Community, Build Connections and Support Student Needs in The Southwest Residential Towers at The University of Massachusetts Amherst

Brittany L. Haughton
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A RENOVATION TO DEVELOP COMMUNITY, BUILD CONNECTIONS AND SUPPORT STUDENT NEEDS IN THE SOUTHWEST RESIDENTIAL TOWERS AT THE UNIVERSITY OF MASSACHUSETTS AMHERST

A Thesis Presented

by

BRITTANY L. HAUGHTON

Submitted to the Graduate School of the University of Massachusetts Amherst in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

May 2012

Department of Architecture & Design
A RENOVATION TO DEVELOP COMMUNITY, BUILD CONNECTIONS AND SUPPORT STUDENT NEEDS IN THE SOUTHWEST RESIDENTIAL TOWERS AT THE UNIVERSITY OF MASSACHUSETTS AMHERST

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Approved as to style and content by:

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Kathleen Lugosch, Chair

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Max Page, Member

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William Oedel, Department Head
Department of Art, Architecture and Art History
DEDICATION

To the Kennedy staff of 2010-2011, the first staff I can say were my own, from whom I learned of the challenges and intricacies of living in a Southwest tower. To David Dillon, for giving me criticism and direction. To Kurt Ward, for friendship and the skill of beautiful hand drafting.
ACKNOWLEDGMENTS

This thesis would have not been possible without the support and mentorship of valued family, friends, colleagues and mentors.

The students and staff I have had the opportunity to learn from and know have been invaluable to this thesis’ content and my passion for its successful completion. It is from my interactions with these many individuals where I began to formulate my ideas of residence hall environments. Most importantly, it is in these environments where I found my passion for students, their academic pursuits and the built environment that will facilitate their success. I am forever grateful for the conversations with my students of how their built environment affects their everyday life, particularly as students. I owe thanks to many, but owe specific acknowledgment to Hayley Sullivan, Vince Molinaro, Robert Champagne, Chad Desisto, Daniel Leary, Roxane Li, Kyle Pratt, Emily Cutts, Nadia Kim, Julia Seavey, Jaxon Hall, Mia Shimokawa, Lisa Donaghue, Aidan Gilchrist, Aziza Lawal, Gabrielle Griffis, Caitlin Gauvin, Nida Nunka, Vanessa Krejcir, Shannon Griffin and Patricia Cahill for their contributions to this thesis and their residential community.

For eight years I have worked in the department of Residential Life at the University and the continued support of my colleagues has been vital to the success of this thesis. Dorwenda and Sanaye Bynum-Lewis, who have offered support and in a time of panic graciously learned the skills of architectural model making. It is because of their support and dedication to my success that this thesis was possible. To Patty McGill, for friendship, support and engaging academic conversation. Further, I owe thanks and gratitude to Amber Zinni, Honey Minkowitz, Stacey Steinbach, Dawn Briggs, Adrienne Cremins, Noga Flory, Wil Chen, Dylan Larke, Mohammed Good, Margaret Felis, Nina Gassoway, Christopher Hughbanks, Travis Gagen,
Jannah Handy, Jessica Austin, Maya Kumazawa and Brad Turner for friendship, support and enlightenment.

Kathleen Lugosch and Max Page, my thesis committee, have helped redirect this thesis towards a meaningful and constructive final product. I am grateful for their support, direction and criticism as they have made this thesis and its nuances possible.

I have had the guidance of many mentors, whether in design, work or somewhere in between. To Ray Mann for challenging me and believing in my skills as a designer, I am grateful for Ray’s support. To Sammy Tabari, a mentor, colleague and friend who has taught me so much at times about subjects so random, yet always fascinating. Diana Fordham, throughout my time in Residential Life, but most notably in the recent year, has offered me continuous support and understanding of which enabled me to complete this thesis. I have learned much from Ray, Sammy and Diana. Without the mentorship of these three intelligent and driven individuals my experience at the University would not have been as meaningful.

I owe acknowledgment to Dan Torres, a friend who helped me find direction and provided continuous criticism of my rhetoric not only in this thesis but as a writer. Dan’s contributions to this thesis are throughout, but are most notably in his continued research suggestions and giving me a space to work out its details through engaging conversation.

I owe a special debt to my boyfriend, Sean Lynch, for without his loving support this thesis would not have been written. I have been fortunate to learn much from Sean. His consistent criticism of my writing and lessons of critical thinking have not only given me academic drive, but contributed to this thesis greatly. Sean, whose contributions are incalculable, knows the content, intention and purpose of this thesis more than anyone.
Finally, and most importantly, the support of my family has always been vital to my success not only as a student but as a person. My mother, Laura, her continuous support and understanding have enabled me to be successful in so many ways and more than she may realize. My father, Reginald has enabled me to be driven as he has always made his support of my academic pursuits evident. My sister, Cassandra, has offered me support and mentorship that no other could provide as she knows me and my challenges best. Last, my brother, Dylan, who so much younger I had never would thought to be such a close and supportive friend. I am grateful for his flexibility and humor as they have helped me through this last year of graduate school.
In a time of increased admissions at State Colleges and Universities students are at risk for various concerning factors including decreased academic performance, feelings of isolation and alienation from faculty, staff and their peers, and other issues of mental health. Intentional architectural programming, primarily the public spaces within residence halls, can help to alleviate these issues for students and ensure that they are connected to their residential community not only academically but personally.

This thesis will discuss how the increase in college admissions has affected residence hall communities and the personal development of students attending large academic institutions. It will analyze current residence hall spaces and propose a renovation for the Southwest Residential Area towers at the University of Massachusetts Amherst which house at least 580 students per tower. Issues of crowding, stress and over stimulation as a result of the built environment will be assessed and discussed to illuminate the need for renovation in the Southwest Residential Area towers, the largest halls on the UMass campus. The proposed
renovation focuses on providing students who live in towers with public spaces that connect the community. This renovation reflects the original design intent of Hugh Stubbins, the complex's architect, who designed the towers to consist of three vertically stacked houses. Each house, consisting of seven floors in the tower will be connected with a series of atria that feature small study and social spaces along their main circulation. The main public space floor of the residence hall, located at the center of the 7-floor vertically stacked house, will undergo the largest renovation of all the floors and will feature centralized service spaces such as mail, laundry and cooking facilities in addition to a large community gathering space and study spaces. The students’ personal spaces have also been renovated to maximize sunlight, reduce roommate conflicts, and provide personalized intermediary space that will architecturally draw students towards their public spaces.
PREFACE

My experience within residence halls began when I moved into the small community of Brooks Hall as a first year student in the Fall of 2003. Brooks Hall is four stories high and houses about 150 students. The hall’s main public spaces connect two floors, offering students a kitchen on the lower level and a study lounge on the top floor. Although they have been since been removed, the spiral stairs that served as circulation between these two community gathering spaces, connected the hall’s residents and facilitated a strong sense of community. These small, intimate community spaces offered students a view of the hill and contributed to both their academic and social success at the University. Little did I know at that time, my experiences within this space would inform my thesis nine years later. Here I learned what it was to live in a community of peers where I developed friendships and started my academic career. As a Resident Assistant in this hall for four years I found myself addressing issues that derived from the arrangement of the building’s spaces.

As a graduate student and Assistant Residence Director in the Van Meter and Butterfield cluster I continued to observe community spaces. In Van Meter hall the main public space on the basement level connected seven floors of students, and has done so even more successfully after its renovation in the Summer of 2011. In the Spring of 2010 I commenced my thesis research on residence hall environments but found myself seeking direction. It was at this point I decided it was best to defer completing my thesis and continue to take classes that would help give me direction.
During the Summer of 2010 I was offered an opportunity that I could not deny. I was asked to serve as the Residence Director for Kennedy Tower for the duration of the 2010-2011 academic year. I now had the opportunity to not only observe but live in and manage a tower in the Southwest Residential Area at the University. Again, little did I know, this decision would not only give me direction, but passion about residence hall design and renovation. Concurrently, I enrolled in a course at Hampshire College where I learned how the built environment and its inhabitants affected one another. I lived on the 19th floor of Kennedy Tower, with an apartment that faced directly into the center of the Southwest Residential Area alongside 582 students in a high-rise, in an honest and beautiful piece of modern architecture; naturally, I started observing how it affected my students.

Figure 1: Van Meter Basement, Central Residential Area, November 2011, by author
As I supervised Resident Assistants I would hear a common complaint about their floor community that I had never heard previously as I had only worked in traditional double loaded corridor style residence halls. RAs would tell me that their “odd side students know one another” and their “even side students know one another”. I kept this in mind as I met with students and would ask how they are connecting with students on their floor. It was true, students often said that they knew those on their side of the hall, but not the other. It was at this point I realized I had a direction for my thesis research.
Living in, and managing, Kennedy tower redefined the phrase “Living Learning Community” that the Department of Residential Life uses so regularly. I was learning while I was living there, but in a different way than the students might have been. I was learning about living in a Southwest tower. As I found myself moving from one residence hall to another I had observed slight differences in residence hall environments, but none as fascinating as what I observed and learned from Kennedy tower, its students and my staff. Here is where I learned that a student’s experience within a residence hall environment was directly related to the design of the building itself. It was in Kennedy where I learned that it was not only about the address and the experience, but that the address, rather the building itself, plays a large role in shaping a student’s experience on campus both socially and academically. I came to realize that the design of the building affected my students, their interactions and ultimately their sense of community.

It is my responsibility as a Residence Director to facilitate community development within my residence hall community, second to ensuring the safety and wellbeing of my students. My observations and discussions with students demonstrated that that this environment in particular can be a challenging environment in which to facilitate the meaningful connections between students that would create a sense of community and ultimately define their experience on campus in their residence hall environment.

This thesis is the culmination of my observations within residence hall environments over nine years, in five of the six residential areas on campus and in seven of the university’s 45 residence halls in which I have lived. It is intended to educate the campus community, its students, staff and administrators, that a residence hall environment, its architecture, quality and plan, play a vital role in the success of our students and campus community. Although this
thesis and the proposed design could be applied to all of the five towers in the Southwest Residential Area, it is intended for Kennedy as it was the staff, students and community of Kennedy where this thesis was realized
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CHAPTER 1

FUSING ACADEMICS WITH RESIDENCE

Introduction

It is early September; the air is crisp and there is a new energy in the atmosphere. There seems to be more traffic, and it is clear that there are more people around town. Department stores start stocking their shelves with small refrigerators, plastic tote shelves and laundry baskets; they are preparing for students to move on campus. Every year at the beginning of September college towns and campuses are populated with an influx of students moving from home and summer internships. Students are eager, anticipating the new and exciting academic year ahead of them. They are excited to catch up with old friends, make new ones and to set up their room. They come with a fresh set of notebooks, flip flops for the shower and sometimes written directions as to how to do their laundry. They have prepared for this day for weeks and have even lost sleep over it. They are nervous, excited, and some, scared out of their minds.

Students and their families arrive, navigating a busy and hectic college campus buzzing with energy and excitement. First-year students are nervous, some even contemplating their decision to go to college; others are ready to hit the ground running. They have packed their cars to the brim with anything and everything they might need right down to a month’s supply of shampoo and bottled water. They finally arrive at their residence hall and are greeted by hall directors and resident assistants who are eager to meet them. Students unpack their rooms and say their good-byes to their family. Parents assure their students that they will be okay on their own and encourage them to call home often. They start getting to know their roommate, a
much anticipated and exciting interaction they have been waiting for since new student orientation. Another new face, their Resident Assistant, stops by their room to say hi and invite them to an event later that night. This is where residence hall programming and community development begins.

Residence hall staff members plan social programs to ensure that students make friends and form a support system within their residence hall. The primary charge of the staff is to ensure their students’ personal and academic success, and this is done primarily through events put on by Resident Assistants. Intentional public spaces within a residence hall are essential to the success of its community and students. Currently residence halls have limited spaces for student interaction. At the University of Massachusetts Amherst many of the halls’ public spaces have been renovated into temporary student housing to accommodate the university’s compounding increased admissions. The removal of these spaces does two things: more students have the opportunity to attend school, yet the students in these halls suffer socially and potentially academically as the spaces intended to be the community’s primary social and study spaces have been reprogrammed. The architectural programming of some halls has become a problem to the point where Resident Assistants have to hold floor meetings in hallways. The lack of these important social spaces has forced RAs to hold community gatherings in spaces where students are uncomfortable. They are awkwardly squeezed into hallways and small lounges denying them the opportunity to socialize and interact with people on their floor.

Many institutions across the nation offer students residential academic programs, where their housing assignment is based on their academic interests and majors. In the past decade, halls have seen major changes in terms of what student population lives where and who
they live with. Institutions have intentionally programmed their residence halls to organize students based on interests and majors in an effort to not only give students an initial connection to other community members, but to ensure the academic focus of a student’s experience and to set them up for success both socially and academically. This is a great start to integrating the academics into a residence hall setting, but there is more that could be done.

**Interest and Major Specific Halls**

Universities across the nation are offering first-year students interest and major specific halls that have designated themes such as Culture & The Arts and Writing & Literature. Within halls that have designated themes each floor has its own residential academic program, or RAP, each comes with its own set of classes geared to that specific floor’s interest. For example a RAP in a Culture & The Arts themed hall is performing and lively arts, which includes introductory level theater and music classes that fulfill general education requirements. Often, RAPs give students a taste of the theme they are interested in paired with one or two general education classes.

Cooperative or communal living arrangements, intentional democratic communities, honors housing, thematic units, residential colleges, language houses, and living learning centers are just a few examples of attempts to integrate aspects of the students learning milieu within his or her place of residence.¹

This gives the students an initial connection with one other as they will have common interests with their fellow residents. Students in these halls are more likely to develop relationships and
support systems with one other, in turn naturally creating a sense of community, having a support system and are more successful academically.

Living learning communities are defined communities that “...are designed, implemented, and endorsed in collaboration between student affairs and academic affairs”\(^2\) that “...emphasize programming related to a theme and the exploration of special interests through affiliation with others during extracurricular hours.”\(^3\) “Learning communities integrate in-class and out-of-class experiences, as well as the intellectual and social interaction between students and faculty and among students...”\(^4\)

**Faculty in Residence**

To ensure the academic focus of residence halls some institutions have faculty in residence programs where a faculty member, usually a professor, lives in a private apartment within a residence hall, much like Residence Directors do. Faculty in residence programs are particularly useful at large research universities:

Students at large research universities encounter at least two potential challenges to faculty access: first is the large student-faculty ratio which inherently limits opportunity for direct interaction with faculty and second is an emphasis on research which can focus faculty attention on graduate students at the expense of undergraduates.\(^5\)

Institutions seek to assist students in academic and personal development and benefit from increased interactions between students and faculty. Faculty in residence programs enhance students’ experiences within their residence hall community. “Positive and close
interactions between undergraduates and their professors precipitate students’ favorable educational experiences as well as their greater academic and personal development.”

It is clear that students value and benefit from connections with faculty members. “By building social connections with students, I have been better able to address some of their education-related concerns.” Faculty in residence programs are effective in assisting in the personal development of a student within their residence hall. Faculty in residence assist in the academic programming within the halls and further connect the theme of the building to a student’s academic experience. Given the right spaces, such as classrooms and lecture halls, faculty in residence can serve as a mentor and academic resource to students. Themed residence halls with students that have common interests and majors can benefit greatly from faculty in residence programs as they will foster student learning and provide a much needed connection to faculty members, especially at large institutions of higher education.
Notes


7 Rhoads, Robert A. "Reflections of a Professor on Nine Years of Living in the Dorms ... I Mean Residence Halls!" About Campus 14.3 (2009), p. 18.
CHAPTER 2

INCREASED UNIVERSITY ADMISSIONS

Present

Even more so today, high school graduates experience social and economic pressure to complete a college degree in order to be successful. As a result, colleges and universities across the United States have seen a dramatic increase in applicants and in turn have increased admissions rates and minimum qualifications.

Similar to the 1950’s shift in college population demographics, state colleges and universities are faced with a similar increase in admissions today. Given the current economy “...even more families are having the initial gut reaction that the public university will be cheaper so they won’t even look at or consider private colleges...as more families apply to the public colleges, the competition to get in will get tougher.”¹ State school admissions are skyrocketing and becoming increasingly competitive because students who would have originally gone to more expensive, private institutions are opting for more affordable, yet academically competitive state schools. As a result of the economy, state schools’ budgets are being cut. In order to make up for decreased state and federal funding, state schools are increasing the number of students they accept generating more revenue to hopefully sustain dwindling academic programs and resources.

However, for students who are able to get into the increasingly competitive state schools, they are experiencing overcrowding in residence halls and classrooms. Students are less likely to connect with faculty members and resources on campus become scarcer. Increased
enrollment is the cause for the decline of the university community, yet the university needs to thrive in tough economic times, and students do benefit from interacting with a more diverse, larger student body.²

A student’s experience at college needs to be more than academic pursuits, teaching “how to live in the world” rather, “it must be concerned with the total development of the individual.”³ A student has much to learn within their residential environment. Students learn conflict mediation skills as they live with roommates and other community members. Personal freedom is experienced, for some students this may be the first time living away from home. Students begin to develop their identity within the larger community, who they are and how their personal values shape their behaviors and experience, which are essential to community living. A residence hall environment needs to be on in which a student can learn independence, build a peer support system and flourish not only academically, but as a person. Through intentional spaces and a careful program students can thrive as they once did when increased admissions affected the community’s scale in the 1950’s.

**From Dormitories to Residence Halls**

To student affairs professionals student housing is no longer called “dorms” or “dormitories”. Previously “dormitory” referred to a place where students lived while in school at an institution. “With a dormitory philosophy staff are concerned only with the two most basic needs, physiological and security. Physiological needs deal with the basic human needs of food, shelter and clothing…security needs deal with individual’s feelings sage in their environment.”⁴ Now referred to as “residence halls” or “living learning communities”, halls are intended offer
more than just a place to sleep. Residence Halls are integrated with the student’s learning experience by focusing on personal development and civic responsibility because “institutions are recognizing that a great deal of learning takes place beyond the classroom. For many campuses, residence halls are an ideal setting for promoting student learning and development.”

History

Since the 1950’s, “residence hall programs have experienced a variety of significant developments.” This was a reaction to a shift in

...demographics, increasing diverse student populations, changing economic agendas, faculty concerns about the widening gap between ideal academic standards and actual student learning, increased demand for greater accountability, and the eroding public confidence.

Shifting college demographics in the 1950s were a direct result of “the GI Bill, the National Defense Student Loan program, special programs for minority applicants, and other special government subsidies [that] changed the homogeneous...” faculty and student population.
The 1960s followed suit with the Civil Rights Act of 1964 and the Higher Education Act of 1965, which fostered continued growth in college attendance and by the end of the decade more than half of all high school graduates were accepted into college. This resulted in an “all but abandoned responsibility for moral, ethical, or emotional development in favor of admission standards…”

Notes


CHAPTER 3

HIGHER EDUCATION AND RESIDENTIAL LIFE

The Importance of Community Development

Community living and social responsibility are integral parts to a student’s success outside of the college atmosphere. Residence halls should foster a student’s learning of what it means to live in a community and how their choices affect those around them. Students who are involved in their community aside from their classroom experience are more prepared for the much feared real world.

Previously students were more successful when connected to a professor or faculty member who served as a mentor; however at large institutions, especially those that focus on research, this is unrealistic. In large universities and colleges it is important that a student feels connected to their residence hall community as they may not have a chance to connect with a faculty member. Increasing class size and an institution’s focus on research can result in fewer opportunities for students to connect with faculty members.

As universities grew and became more egalitarian and research oriented, they became more compartmentalized. Each department soon had its own academic and physical (building or laboratory) territory. Faculty contact with students was limited to in-class experiences and as faculty became more specialized, faculty lost sight of students as individuals within the context of their education and instead concentrated only on the intellectual development of students within their areas of academic specialization.¹
Now Residence halls have been given the responsibility to connect their students with the campus community. The compartmentalization of academic departments on college campuses “has brought about survivalist philosophy and an insensitivity toward the affective needs of the students.”

Resident Assistants

Residential life staff members are available to students at many levels. The staff members who have the most direct interactions with students are Resident Assistants, also known as “RAs”. RAs are peer role models who serve as a resource and mentor to students within their residence hall. They are students who live in the hall, often on the same floor, as the students they oversee. RAs enforce housing and code of conduct policies to ensure that the residence hall is a safe place for all its students. They assist in community development of the building, often holding floor meetings and events to connect residents with one another.

One of the most important tasks RAs are charged with is crisis intervention. Often, RAs are the first responder to incidents of crisis within the halls. RAs focus on creating a safe and welcoming environment for their residents. The primary method Residential Life staff members use to develop their communities is through programming efforts. By offering students events within their halls they help students feel connected to their community and in the long run retain students at their institutions. “[Ginny] Racette [the housing and campus life director at Sheridan College in Sheridan, Wyoming] feels that the residential program has aided retention, and she has seen students come back for second, third and in some cases a fourth year.” Hall programming and community development foster a student’s community pride and sense of
home. Often, students in first year halls who are much invested in their communities become RAs in order to continue to be involved in their first year residence hall community.

RAs are in need of large spaces where they can hold floor meetings, community events and showcase campus resources to best assist the needs of the students on their floor. RAs further develop community and offer resources to their students through bulletin boards. Bulletin boards give RAs the opportunity to address community issues without singling a student out, help get people to know one another and post information about up and coming events. Residence halls often do not provide RAs with a space to work on their bulletin boards and large advertisements for events. Additionally, halls need to provide their staff with a centralized space to advertise large community-wide events.
Professional & Graduate Staff

Professional staff members, often called Residence Directors, oversee and supervise RAs. Residence Directors focus on community development throughout the building, intervention with students who break the universities’ code of conduct policies and general administrative work to keep the building running smoothly. Residence Directors often serve as liaisons between residential life and the larger campus for their students. “When problems take place in students’ out-of-class lives, residential education staff often are the first to whom higher-level administrators turn.”4

Figure 3: Students Squeezed into Kennedy 19 Lounge for Not Ready for Bedtime Players Performance, Kennedy Tower, Southwest Residential Area, March 2011, by author
They will encourage students and RAs to take advantage of the spaces within their halls and may even hold large community events themselves. Residence Directors often help to organize and put on events for their students as well as staff. They too, like RAs, need large community event spaces paired with easily accessible and spacious storage to keep the various supplies and equipment required to facilitate such events.

**First Year Experience Staff**

Many universities and colleges further support students and develop community in their residential communities by employing staff members in specialist positions that focus on the success of first-year students. More recently, universities are creating these positions geared towards first-year students, especially at universities that house first-year students together in designated halls. Universities have begun to focus on their first-year students’ needs as they are more likely to fail out or leave college within their first year. It is for these reasons that the department of Residential Life at the University of Massachusetts Amherst has announced that starting in the Fall of the 2012-2013 academic year that they will reduce the number of first year students living in tower residence halls in the Southwest Residential Area. Residential Life has passively acknowledged that towers are not ideal environments for first year students. Later, this essay will further explain the nuances of living in a residential tower and how they are not conducive to students’ academic and social needs in more detail.

First-year experience staff members supervise Peer Mentors, student staff who focus solely on offering academic support to a building’s residents, and offer them support similar to that of Residence Directors to RAs. First year experience staff members, primarily focus on the
academic components of residence hall programming. These staff members need spaces for one on one tutoring, faculty lectures and workshops that will develop their students’ academic experiences. Spaces that facilitate these essential academic components to a residence hall program are needed for students and staff to use both formally as well as informally.

**Assistant Directors of Residential Life**

Assistant Directors supervise Residence Directors in a particular area of campus. These staff members provide support and leadership at a larger scale to ensure that clusters of buildings are working together to create community at large. Assistant Directors hold weekly staff meetings for Residence Directors and Graduate staff members to keep them informed of area-wide issues and provide professional development. In addition to office space to support the general everyday work of the area’s operations and office staff, Assistant Directors need conference rooms to not only hold staff meetings, but to use as a space to welcome new RA and Peer Mentor staff every year. Additionally, conference spaces would also be effective in training new student staff members.
Notes


4 Rhoads, Robert A. "Reflections of a Professor on Nine Years of Living in the Dorms ... I Mean Residence Halls!" About Campus 14.3 (2009), p. 19.
CHAPTER 4

STUDENT POPULATIONS

First-Year Students

New students all have commonalities despite their individual needs. They want to make friends and succeed academically. They come with hopes and fears that many of us do not understand. New students fear the unknown and hope they will make it to graduation. Some may come with the knowledge their older siblings have passed onto them about what it is like to go to college and live on campus; but many may not know what to expect and could be unaware of the challenges that lie ahead of them. Additionally, given recent economic trends, universities are seeing their student population change. Today, more non-traditional students are going to college. This group includes students who attended an institution of higher education previously and are returning to finish or even start a new degree. Veteran and transfer students are populations that are increasing, especially at the University of Massachusetts Amherst. These students’ needs may be best met with defined communities that house these groups together in order to provide specific and intentional programming and resources to these students within their residential community. Defined residential communities for these student groups and many more have been created and implemented at the University of Massachusetts Amherst.

A residence hall’s spaces need to support its students and develop community among its residents. These environments are particularly important for first-year students as they, more so than other students, need residence halls to provide them with the spaces to interact with their peers and meet new people. This is the reason that the University of Massachusetts Amherst
requires all first-year students to live on campus for at least one year, yet their residence halls lack spaces that attract students. Again, the first year of a student’s experience at an institution is very important because first year students are more likely to drop out. “Freshman class attrition rates are typically greater than any other academic year and are commonly as high as 20-30%.“¹ In order to retain its students, an institution needs to offer its students spaces to interact with one another as the success of their first year is dependent on their residential community, its public spaces and most importantly, their sense of community within the campus.

Figure 4: First-Year Students in Van Meter Basement Lounge, Central Residential Area, November 2011, by author

Personal Development

“Personal development is promoted through student experiences in leadership roles, living with roommates, and participating in programs that enhance behaviors students will need
in post-graduate life.”

Personal development starts from the student’s first stay at a college during new student orientation. “Orientation programs primarily focus on course registration and financial aid, but they also promote personal development.” This commences a four-year life skill learning process in which the student may be faced with issues such as diversity, identity development, and drug and alcohol abuse.

When students move into their residence halls, they begin an experience that will further their development as an individual. Residence hall staff assist in developing their students’ self-awareness, which will help them grow into a more responsible, socially aware, and active participant of their community. This starts with helping the student develop their identity and their place within the community. RAs assist students to personally develop through community engagement, bulletin boards, social programs, and encouraging social interaction among one another to help them gain a greater understanding of what the real world is like. For some students, this is an important learning experience of diversity, and its importance within a global community. Public spaces within residence halls play a vital role in facilitating social interaction and community development. Furthermore, they act as the primary venue for a student’s individual development.

**The Importance of Student Interaction**

“Meaningful relationships with other individuals are fundamental to the mental health of all persons…” In addition to their academic and personal development, Student interaction is an essential component to a college student’s mental health. One of the primary goals of Residential Life staff is to assure that students have support systems. Interacting with other
students and making friends is one of the main ways Residential Life staff help to ensure a student is supported and successful. This is most frequently done through social programming and why it is essential for a residence hall to offer its residents the appropriate spaces to facilitate these interactions. “Social and community-building activities are not just fun and games but, more important, are aimed at helping students form the connections and social support systems that are helpful for academic success.”

Resident Assistants organize monthly and sometimes weekly events to get their residents on their floor community to get to know each other. The intention of these events is to allow students to have a peer based support system within their residential community so they do not feel isolated. Isolation, which will be discussed in more detail later in the context of residential towers in Southwest, can be measured in a variety of ways and is a direct result of the lack of successful public spaces in a student’s residence hall community.

Students with little or no peer support system are less likely to succeed and more likely to commit suicide, especially at large universities. In a study conducted looking at student suicides during the academic years 1963-1964 and 1964-1965 which assessed the educational environments and the circumstances surrounding their students’ deaths found two trends involving their educational setting.

The most striking of these was inadequate social identification within the school environment. Case after case revealed students who were, in a literal sense, almost unknown as individual personalities both by faculty and peers. Minimum social identification was particularly pronounced in larger schools where students were seemingly swallowed up in the press of a thousand or more classmates...
Suicide is an urgent concern for higher education professionals and is “the third leading cause of death among college students” next to homicides and traffic accidents.

Notes


5 Rhoads, Robert A. "Reflections of a Professor on Nine Years of Living in the Dorms ... I Mean Residence Halls!" About Campus 14.3 (2009), p. 20.


7 Ibid, p. 11.

CHAPTER 5

RESIDENCE HALLS

Architectural Programming

In order to ensure a building’s success as a living learning community it is important to understand what actually goes on in a successful residence hall because “…a building design facilitates the activities and interactions that shape a community”\(^1\) Purposeful architectural programming in a residence hall environment is essential to offset feelings of isolation and crowding, especially given the university’s compounding increased admissions. A residence hall’s program needs to offer its students a variety of spaces in order to foster student support systems, sense of community and academic connections that they need to succeed both in and out of the classroom.

Renovation and Academic Integration

At the University of Massachusetts Amherst many halls are outdated and need improvements particularly when it comes to architectural programming. A well thought out program of the University of Massachusetts Amherst’s halls programs will help students on campus to gain a sense of community pride while helping them to grow both personally and socially and most importantly succeed academically as a result. In the Summer of 2011 one first-year student residence hall, Van Meter Hall, located in upper Central with the theme of Culture and the Arts underwent a major renovation. The renovation implemented a program of spaces
that supports arts students. It provided the students in the hall with spaces to study, socialize and most importantly spaces to contribute to their specific academic fields. On the first floor of the building, adjacent to the main lobby public space there are three conference rooms and a classroom. The conference rooms, often used by Residential Life staff to hold meetings, double as spaces for students to do homework. Often students use these spaces to work on group projects or socialize while doing separate homework assignments. Students take advantage of these spaces in a variety of ways. Often the rooms serve as public art spaces where students use their artistic talents to draw on the white boards in the rooms. The white boards have become more of a community mural space than a space to write out math problems. Additionally, the Residential Life staff have raised money and purchased drafting tables for these rooms. In the classroom space students who study music have access to a piano, which is also used to teach a general education music class through the College of Humanities and Fine Arts. The drafting tables and piano are a direct connections between the facilities provided in the hall and the department's goal of academic integration within the hall. Finally, on the basement level of the building, students have access to a soundproofed dance studio and music practice room.

The deliberate academic and social integration of the architectural programming within Van Meter residence hall is needed in all residence halls at the University of Massachusetts Amherst. For the purpose of this thesis the assessment and renovation of a tower in Southwest will not include spaces specific to one area of academic study. Since the student population of the towers will change in the next academic year, once the Residential Honors College Complex is built. While it is stressed that this integration should be specific to a student’s academic college, the towers will house the students at large. Finally, a focus on academic study in general
will be implemented in the proposed renovation, but will not be specific to one student population. Therefore, the proposed renovation is academically inclusive as it is universal.

Southwest Residential Area at the University of Massachusetts Amherst

Consisting of five high-rises and eleven low-rise residence halls, the Southwest Residential Area houses over 50% of the University of Massachusetts Amherst's on-campus student population. Built in 1968 and designed by architect Hugh Stubbins, the complex sits on a sloped 35 acre site in the south west corner of the campus. It was designed based on modernist architecture principles that derived from Le Corbusier's five points, and exemplifies the 20th century trend in architecture that focused on both the individual and the collective. Its materials, brick and concrete signify the buildings' program. Concrete, a modern and industrial material, represents the collective or public spaces within the complex. The individual, the student rooms, spaces are faced in brick. This is not only to contrast the concrete spaces, but to give the buildings a texture that is vernacular to the campus while stressing the individuality of students as brick is a material that must be laid by hand, by a person. Further focusing on the individual, the fenestration gives an individual feel to the façade of the buildings and although it seems sporadic has an intentional individualistic quality.
Figure 5: Southwest Residential Area Site Plan, by author.
As Southwest is itself a city, it offers its residents a variety of services including communal dining facilities, an art gallery, grocery store and is home to some of the University's cultural centers. Focusing on the collective, the complex offers students large social spaces where they can meet other students in the area. The main central public space, referred to as the “Southwest Beach” or the “Horseshoe” by students is a square of grass with a basketball court in the center. In the spring season students flock to the space to socialize, get a tan and enjoy a game of basketball.
Administratively the complex is divided in half. The first-year residence halls are overseen by one Assistant Director of Residential Life, while the upper class or “mixed-year” halls are by another. Each building, or cluster of buildings, is overseen by a Residence Director (RD) and one to two Assistant Residence Directors (ARDs), depending on the number of students who live in that community. In the towers the RD and ARDs live on the public space floors (19, 12 and 5) of each tower. Each of the eighteen floors where students live house a Resident Assistant. Those which house first year students, currently Kennedy and John Adams) have one Peer Mentor for every three floors.

**Current Tower Conditions**

The five residential towers in Southwest are designed to create smaller communities within each tower. “Each tower consists of three vertically stacked 'Houses', social groupings of
192 students.¹ Each House has its own lounges, meeting rooms, and recreational facilities.² Each tower has 22 floors, 18 of which house students; three are public space floors and the last, a main entrance lobby floor. The vertically stacked house, one-third of the tower, consists of one public space floor sandwiched by three floors, above and below, where students live. Each floor has eighteen rooms, four of which are single occupancy; the remaining fourteen rooms were designed as double occupancy rooms. Ten of the rooms on the floor are called Z rooms, referring to their configuration in plan. Starting in the Fall of 2011 the University made four of the double Z rooms per floor into what are called economy triples. The economy triple rooms, originally designed for double occupancy are a result of the housing shortage on campus due to the high demand to live in the University's residence halls.³ These students pay a reduced room rent rate for the semester and are given priority in room selection processes throughout the semester.

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¹ Each vertically stacked house was designed to house 192 students, however Resident Assistants get a double room to themselves as part of their compensation. Thusly, each vertically stacked house actually houses 186 students.
The vertically stacked houses are intended to create a smaller community for students within such a large building. The towers are the largest buildings on the University of Massachusetts Amherst campus and were designed to house 582 residents, however with the additional students living in economy triple rooms some now house 618 students per tower.

The towers in the Southwest Residential Area have not been renovated since they were built in 1968. In fact only two of the 45 halls on the University of Massachusetts Amherst campus have been renovated in the past decade. Gorman residence hall in the Central Residential area was renovated in the Summer of 2010, and Van Meter hall in the Summer of 2011. Their renovations have contributed to student success in many ways, most importantly socially and academically. Both halls house first-year students and are part of the university's initiative to attract and retain its students. The towers, while they are maintained by a hardworking team of maintenance and operations staff, are in need of a renovation in order to not only improve the quality of living conditions within the halls, but to remedy many social, behavioral and academic issues that are apparent in tower communities.
Notes


CHAPTER 6

ASSESSMENT

Introduction

In order to understand the importance of a residence hall environment upon a student and their experience it is necessary to assess the current conditions of a tower in the Southwest Residential Area. Both in section and plan, the towers show evidence of isolation, lack of sunlight and crowding. The height of the buildings can cause a variety of fears and stressors among its residents.

The height of a building affects a student’s experience in a residence hall. Access to the building through its skip-stop elevators has shown to be ineffective in creating community among its vertically stacked houses. Research has shown that access to one’s room in a timely manner can directly affect a student’s mental health and can cause stress, frustration and social disconnect within their community. Finally, the height of the building does offer some benefits as those who live at the top perceive their rooms, that are the same size as those below, as physically larger.

These environments have been strongly criticized for their apparent inability to facilitate successful social connections and learning environments as asserted by Paul Keegan in Lingua Franca: "the bizarre cities of teenagers . . . not only mock the basic concept of an academic environment and stunt the intellectual and psychological development of their residents but also place students in physical danger to themselves and one another."¹
Unintentionally programmed and poorly designed residence halls can make or break a student's experience and inhibit their success academically.

It has been posited that the immediate living environment may have a significant impact on students in areas such as intellectual productivity, satisfaction with college life, emotional development, and the development of interpersonal relationship skills.²

Here it is important to remember that a residence hall environment is meant to be integrated with a student’s academic experience as to further contribute to their development both as a person and a student. Residence halls that are not conducive to student learning and personal growth cannot contribute to a student's success in the way in which they are intended. A residence hall cannot be a social and learning environment if the architecture fails to facilitate connections among students by offering spaces for social and academic activities at a variety of scales within the hall.

**Density and Crowding: What’s the Difference?**

In order to understand the effects of crowding on a tower’s residents it is important to first understand the subtle, yet dynamic difference between density and crowding as the two have been inconsistently used within literature and may be easily complicated. Michael Batty, a professor of Planning at University College London who directs the college’s Centre for Advanced Spatial Analysis defines density as “…a point measure defined as the mass of some entity, such as a population of individuals or a collection of buildings described by their size, but normalized by some measure of the area they occupy.”³ In other words “…density [can be] defined as number of people in relation to a given amount of space…”⁴
It is argued that density is a point of reference for inhabitants. In the Southwest Residential Area at UMass Amherst students may understand that Southwest is dense, and to some crowded, however may not be attuned to living in an environment that is more populated than their previous living environment. Therefore students may expect that this environment be exciting or challenging but may not know how it might affect them until they experience its effects.

Clarifying the difference between what it means to have a dense environment and a crowded one will shed light on how the Southwest towers, as a living environment, may be crowded to some of its inhabitants. In his discussion of the community atmosphere of high density neighborhoods Michal Mitrany references Daniel Stokols, a professor of Psychology, Social Behavior, Planning at the University of North Carolina, when defining crowding in the context of high density neighborhoods “crowding… [Stokols] defined as a psychological or subjective experience derived from the recognition that one has less space than one would wish. Subsequently, crowding has been defined as a stressful situation that is sometimes apparent in objective situations of high density…” However, Stokols best illustrates the difference between the two and the dependence of crowding on density:

According to the proposed distinction, density is viewed as a necessary antecedent, rather than a sufficient condition, for the experience of crowding. Any instance of spatial limitation involves potential inconveniences—the restriction of movement or the preclusion of privacy, for example. These potential constraints, however, are not necessarily salient to the individuals occupying an area of limited space. While the amount of space in a given area may appear limited to an outside observer, it will not inevitably seem inadequate to the occupants of the area, especially if their activities do
not require a high degree of behavioral coordination, if their relationships with each other are cooperative and friendly, or if they have had much experience with living and working under conditions of limited space. Such circumstances, then, would operate to minimize the salience of spatial constraints.⁶

Given the nature of Residence Halls, a large number of students living in a communal environment with shared utilities, circulation and public spaces, activities do require a high degree of behavioral coordination. The coordination of everyday living activities among almost six hundred students living in a Southwest tower necessarily creates conflict and frustration among residents. Often floor mates conflict over complaints of noise, smell of marijuana, drinking behaviors. Additionally, within double occupancy rooms residents may conflict over similar issues. Most of the rooms in the Southwest towers, also known as “Z rooms”, are split into two sides students often conflict over sides as the “window side” is larger and has access to sunlight, whereas the “hallway side” portion of the room is the opposite. Further, students are much closer to other occupants on the floor since instead of sharing just two walls with neighbors like students in traditional double loaded corridor style halls, they share six.
Figure 9: Z Room Diagram, by author
In the corners of the towers, signified by the concrete ends tie its brick facade together and serve as an architectural representation of the community’s cohesiveness. The only student spaces enclosed in concrete are rooms known to students as "corner rooms". Corner rooms are smaller and, to students, are considered inferior to Z rooms. As a student’s view can affect their experience within a residential tower, it is essential to address the corner room spaces. These spaces not only give students less square footage within their room, but give them only a view directly into another. This contributes to students’ feelings of crowding as they live in a high-rise, but do not even have an opportunity to enjoy its beautiful views of the surrounding hills and campus.
Figure 11: Corner Room Diagram, by author
Ultimately, density is a measure of units while crowding is an effect of density causing frustration of its inhabitants within a space as they are too close or there are too many people within a given space. It is density that leads to the experience of crowding, but it is crowding that is responsible for the negative effects of density:
While the amount of space in a given area may appear limited to an outside observer, it will not inevitably seem inadequate to the occupants of the area, especially if their activities do not require a high degree of behavioral coordination, if their relationships with each other are cooperative and friendly, or if they have had much experience with living and working under conditions of limited space.  

It is crowding, not density that may cause frustrations among students and ultimately causes social disconnect, withdrawal from the community and loss of control over one’s environment. Jane Jacobs discusses the two in terms of health and social disorder. She “…carefully distinguishes between high density and overcrowding, usually expressed as the number of persons per room. She argues quite convincingly that crowding, not density per se is associated with high disease, death and social disorganization rates.” Further, Bahr, et al found that “…it was a measure of crowding, not density per se, that was related to feelings of unhappiness and worry.”
Effects of Crowding

Crowding, especially in one’s living environment can have significant negative effects on an inhabitant’s experience, mental health and well-being. Most importantly, these affects can cause a student in a residence hall environment to feel isolated and disconnected with their community, the adverse of the goals of a residence hall community and its program. Feelings of crowding can cause lower perceived control over a student’s environment. Yakov Epstein, an environmental psychologist concludes that “…crowded dormitory living, as predicted, has widely variable effects which may be understood in light of the perceived control and interpersonal orientation of residents.”  

Additionally, frustration with one’s environment and
over stimulation as result of crowding can negatively contribute to a student’s experience within their residence hall.

**Stress**

Stress, whether a result of crowding or other factors negatively affects people in significant ways. Illness in crowded environments is typical, both for physical and psychological reasons. A student in an environment that is crowded is more likely to become ill as a result of their stress. “Environments that are too challenging, however, tend to be perceived as overwhelming and may produce illness, exit from the environment, greater stress and strain, or difficulty learning.”\(^{11}\) The effects of stress caused by an environment, especially one focused on learning, can be detrimental to the success of a residence hall’s students. Stress proves to be a recurring theme connected to responses to feeling crowded including isolation, loss of environmental control due to low tolerance for frustration and ultimately interference of goals.

**Lower Tolerance for Frustration**

In a study summarized by Yakov Epstein that measured bodily contact reactions to crowding found that “...crowded subjects show lower tolerance for frustration and report more negative mood, greater discomfort, and more symptoms of physiological arousal than their noncrowded counterparts.”\(^{12}\) Students in a crowded environment feel frustrated by distractions and inconveniences around them as they are spaced closely to more students within the building. For example, one of the most frequent complaints within a residence hall setting is noise. On the University of Massachusetts campus it is the number one complaint of students living in campus residence halls. “High student density, varying class schedules, and individual
work styles, among other factors, all work to guarantee a generally high level of background noise. Noise in a residence hall setting can keep a student from studying for an exam or sleeping peacefully the night before an early class. This of course leads to further frustration in an environment where its inhabitants already have a lowered tolerance. Southwest’s increased distractions and levels of noise are a direct result of its density of students. Its residents have lower tolerance for frustration. Students are negatively affected as they are spaced closely together and, thus feel crowded.

Environmental Control & the Interference of Goals

Frustration with one’s environment leads directly to loss of environmental control. Control over one’s environment is essential to a healthy living environment. Students need to feel in control of their surroundings so they can respond appropriately to conflicts and be successful academically. Often loss of environmental control derives from a series of events that demonstrate to a student that their goals interfere with those of others in that space, ultimately this leads to stress. Yakov Epstein best explains this phenomenon:

If the potentially thwarted goals are important to the individual, if the threat is appraised as severe, if the individual cannot induce other occupants to engage in behaviors that will facilitate his or her goal attainment, and if an alternate path to the goal that does not require coordinated activities with others is unavailable, then the individual may perceive that he or she lacks control over his or her environment. If she or he cannot escape from this environment and find an alternate environment in which
her or his goals can be attained, she or he will experience stress as a concomitant of the perceived lack of control.\textsuperscript{14}

Furthermore, Epstein summarizes the effects of a crowded environment and concludes that conflicting activities create unavoidable interactions that distract individuals from attaining their personal goals in addition to spatial issues creating increased arousal and discomfort.\textsuperscript{15} Students may prepare to be challenged by their new residence hall environment and accept it as a challenge to reduce feelings of lost control over their environment, but those who may not be aware of this challenge, or able to adequately prepare for it will find their goals obstructed.\textsuperscript{16}

\section*{Over Stimulation & Isolation}

The residents of Southwest towers live in an environment where they rarely interact with other students, and when they do it is usually in passing. This is a direct result of the building’s design. When a student returns to their hall after a day of classes they enter into the main lobby area, where they often wait in line for the elevator at busy times. The student enters the elevator with a large group of students, some of which they have seen before, others they may have met for a brief time and perhaps one or two they know well who is likely to be their RA. Minimal interactions occur during the elevator ride, some students even continue to listen to their iPods, or pretend to text their friends. Coordination of pushing elevator buttons for one another is usually the only verbal interaction among a dozen residents squeezed into the small space.

When the student finally gets to their floor, after stopping three or four times to let students on or off, they go either left of right. The plan of the tower splits the floor community
in half to accommodate for the core of the building, whereas in traditional double loaded corridor style halls residents’ rooms would have been across from one another. The double loaded corridor model leads to greater social interaction among residents as they pass by one another’s open doors on route to their own. “...Festinger and his colleagues found that apartment residents on the second floor knew first floor residents who lived on their path out of the building, and with whom they interacted frequently, but did not know other first floor residents.”¹⁷ The plan of the tower reduces the number of students one would interact with while walking to their room. If this the experience of a student living in a tower, then Robert Gifford , a professor of psychology at the University of Virginia implies that students who live in these environments know fewer people who they might turn to for support.

The gist of the evidence about social relations is that residents of high rises encounter many more other residents, know of or about more others, but have fewer friendships in the building, per capita, than residents of low rises. Social interaction is more difficult for residents to regulate. This can lead to withdrawal, which can lead to loss of community and social support.¹⁸
Figure 14: Floor Divide in Plan, by author
Over stimulation can also lead to stress, withdrawal and ultimately isolation from one’s community. According to Wendy C. Regoeczi, a professor in the Department of Sociology at Cleveland State University “adaptation to crowded environments may therefore occur through withdrawal, and individuals may ‘tune out’ social stimulation as a means of reducing social overload.” She further explains that “An alternative perspective on the consequences of crowding argues that frustration generated by high levels of population density will stimulate aggression in individuals.” Not only can crowded environments, result in students having a decreased peer support group, but cause stress, aggression and anxiety as a result of social isolation due to over exposure to people.
A study by Nadler, et al. that investigated the differences in helping behaviors between residents of high-rises and low-rises, describes how high-rises result in the scarcity of meaningful connections between students within a residence hall environment.

The frequent exposure to distant and formal interpersonal relationships that characterized social life in the high-rise building may translate itself into a general unwillingness to provide or seek others' help as well as a strong need to reciprocate and restore equality once a favor had been given.  

In contrast, students living in low-rise residence halls have shown that they have stronger and more meaningful friendships with the students in their community. "The resident of the lower [height] dormitories who is exposed to warmer interpersonal relationships may espouse the opposite behavior tendencies [than described of residents living in high-rises]." They conclude that “If the above interpretation is valid, the identity of the other should not affect helping tendencies since the above explanation suggests that density of living conditions affects general behavior tendencies." If the general experience of living conditions are altered negatively based on the density of a building its residents must feel crowded both in and as a result of their environment.

As demonstrated, students living in tower halls in Southwest interact with more people, yet create primarily distant and formal interpersonal relationships with their peers. This leads to students feeling isolated, yet overwhelmed as they interact with too many people and have fewer strong connections with fellow residents than those living in low-rises. The effect of the building’s size on the student’s experience is more likely to be negative as it has been concluded that the density of an environment directly affects not only the student, but their behaviors.
negatively. Here it is obvious that the inhabitants of a Southwest tower feel crowded as a result of their built environment.

**Building Height**

Figure 16: Coolidge Tower view from Kennedy 19th Floor, Southwest Residential Area, February 2011, by author

As discussed previously, economic challenges within institutions of higher education have caused a number of admissions and planning strategies to ensure both the success and longevity of institutions. This has created initiatives to increase student populations, which has resulted in the construction of new residence halls and complexes. For example, the University of Massachusetts is currently building a new residential honors college complex on their Amherst campus.²⁴ Campus administrators, particularly in the planning and admissions
departments, are responding to the financial need of the institution just as they did in 1968 when they built the Southwest Residential complex. “High-rise housing is increasingly considered and utilized for dormitory housing, particularly as urban universities with land-acquisition limitations consider housing their students.” The residence halls in Southwest were built on a smaller site when compared to the university’s other residential areas to ensure that students were close to campus. Whether to save money on land or ensure convenient access to campus, the condensed site of the complex in conjunction with increased population caused Hugh Stubbins to design six and build five residential towers for the Southwest Area.

The architecture of the Southwest Residential Area has diverged from the traditional form of residence halls in order to accommodate the growing needs of the university. This
resulted in a realization that the student response to high-rise halls may differ from those to low-rises:

High-rise is usually defined as being more than five stories, and as such represents a considerable departure from the usual pattern of cottage-like, clustered housing, or small hotel-like housing. As such, there might be considerable differences in the patterns of social relation in the high-risers, as compared to low-risers.\textsuperscript{26}

There is significant research connecting the height of a building to the negative responses of its inhabitants as it has affected the social dynamic of its student population. “High-rises also were rated lower on the social climate dimensions of involvement, emotional support, order and organization, and influence, but higher on independence.”\textsuperscript{27}

It has been reported that students living in high-rises found their communities to be introverted in comparison to those living in low-rises. “…students living in high-rise residence halls behaved in a less socially responsible fashion and perceived their fellow residents as being less friendly and gregarious than students living in low-rise buildings.”\textsuperscript{28} The study hypothesized that students living on different floors had contrasting experiences in a high-rise depending on the height of their community’s floor.

Students living on the upper floors of high-rise residence halls are likely to express less concern and support for fellow residents and view the structure of organization within their living unit as less flexible, less innovative, and less open to student input than students living on the lower floors.\textsuperscript{29}

A student’s experience is affected by more than the residential programs implemented within their residence hall. While efforts among administrators are consistent among all the residential
areas on the University of Massachusetts Amherst campus, it is imperative to acknowledge that a student’s experience is affected by their observations and experience within their built environment, or in this case, residence hall. “The results of this study [cited previously] support the position that architectural variables exert significant influences on the social climate of university residence environments.”\textsuperscript{30} The height of the Southwest towers are directly linked with the effects of crowding and have demonstrated that the height of a building is a factor in students feeling isolated and disconnected from their community. “More specifically, the megadorm environment relative to the low-rise dormitories demonstrated markedly lower ratings on relationship and system maintenance and change dimensions.”\textsuperscript{31}

While high-rises offer opportunity for more people to interact with each other and increase diversity among the building's population, again, the environments of high-rises are not ideal for students. High-rises increase the likeliness of their inhabitants experiencing or anticipating fear, and they do this in a couple of ways. High-rises have evoked fear of crime, falling out of a window and being trapped during a fire, among other issues that relate to the building’s height.

Anonymity can cause inhabitants to fear strangers which can lead to the perception of crime, less perceived social control and ultimately less sense of community. “This fear of strangers leads to fear of crime, a felt lack of social support and the absence of community in the midst of many.”\textsuperscript{32} The design of the Southwest residential towers not only enable this phenomenon, but increase the feasibility of crime occurring. Decreased sense of community in conjunction with residents having distant and formal interpersonal relationships can lead to a student’s inability to recognize an outsider within their community. Recognition of one’s neighbors is important to monitoring potential instances of crime, however in this environment
it may be challenging to do so. In a comparison of “...crime rates in two student dormitories in California...the high-rise dormitory was the site of more crime than a nearby low-rise dormitory.” The public nature of the interior of the Southwest towers creates a space for potential and actual crime, whether perceived or committed. It is easy to gain access to the building when others do not notice that someone is out of place as they often do not recognize their own neighbors. Items such as laptops, phones and ipods are accessible, yet belong to almost every student in a residence hall. Once taken, the person committing the crime can step out into the hallway, or into the elevator, and is just another person with a laptop or ipod. They blend into the population of the building and inhabitants are not likely to notice the intruder. Skip-stop elevators further contribute to anonymity and the perception of crime within the building:

“It's true that elevators were undersized and stopped only on the 4th, 7th and 10th floors requiring tenants to walk up or down flights of stairs through a labyrinth of corridors that made recognition of neighbors difficult-to-impossible, provided endless opportunities for intruders and convenient settings for crime.”

Fear of crime is one of many ways students may feel angst in their high-rise residence hall. Further, as explained by Gifford there is evidence that a tower’s height affects its students by evoking fear that “...the residents themselves, a loved one, or a neighbour will fall or jump from a high window...some residents fear that they may be trapped inside during a fire; it usually takes longer to reach the street from a high-rise dwelling than from dwellings of a few storeys.” Finally, students may fear that they will get sick because of their environment. Illness is more likely in high-dense environments as there are more people touching the same elevator buttons and door handles. “Air- and touch-borne flus and colds, for example, spread more easily
when many people share hallway air, door handles and elevator buttons." Not only are residents more likely to get sick, but if students are stressed, feel crowded and isolated as a result they may be ill for a longer period of time as a result of the building’s scale and design: "...early indications show [in a study on rats to see if they heal from physical illness if they live alone or with other rats] the lonely people don’t recover as quickly from illness, don’t sleep as well and have higher systolic blood pressure. The early trial conclusions state that social interaction helps people be healthier and live longer." 

Floor Level within the Building

The experience of a tower residence hall can vary depending on the level in the building in which a student lives. Residents of higher floors may experience their rooms, which are the same size, as larger, especially, women: “Very few studies have examined high-rise residents' experience of their dwellings. Some evidence suggests higher interiors seem larger, but perhaps this is only true for women." It has been argued that the height of the building contributes to this phenomenon as the view, a result of the building’s height, is suspected to be the reason for this perception. However, “...high floors within the megadorm environment were rated significantly lower on [the subscales of Involvement, Support, Student Influence and Innovation] than were low floors.” These students are “...likely to express less concern and support for fellow residents and view the structure of organization within their living unit as less flexible, less innovative, and less open to student input than students living on the lower floors.”
Figure 18: Southwest View out of 19th Floor Kennedy Tower, Southwest Residential Area, June 2011, by author
Research has indicated that residents who live above the sixth floor of a tower are prone to emotional stress because are less likely to take the stairs to go outside to get away from conflicts within their room or apartment. “Persons living on the sixth floor and above in households containing two or more unrelated families showed the greatest degree of emotional illness and the highest levels of hostility.”

Towers are 22 floors high. This means that $\frac{5}{7}$ of residents (582) would show the greatest degree of emotional illness and the highest levels of hostility, which is approximately 400 residents per tower, and 71% of the building. Conversely, residents living below the sixth floor have the ease of access to the stairs and are less likely to feel crowded because of their location within the tower, however do not get the widespread view that makes some residents feel as though their room is larger.

Figure 19: West View out of 19th Floor Kennedy Tower, Southwest Residential Area, June 2011, by author
Figure 20: Floor Level Diagram, by author

Conclusion

Acknowledgment that the built environment has effects on its inhabitants is essential to any professional working in higher education, especially those working in housing and
residential life. As demonstrated, the built environment has serious effects on students in high-rise residence hall environments. Craig Zimring, a professor of architecture and an environmental psychologist at Georgia Tech University stresses the importance of the built environment in an inhabitant’s experience within that space:

...the design of the physical environment affects person-environment fit both directly and indirectly. The design of an environment may directly support or thwart a user's goal. For example, light levels, acoustic qualities, and temperature may be appropriate or inappropriate for a given task; the arrangement, separation, and size of spaces may support or frustrate a user's goals... The design of the environment also may indirectly influence person-environment fit by making desired social interactions easier or more difficult to achieve.42

The interactions between one’s experience and their environment are not limited to a residence hall environment. However, “architectural variables exert significant influences on the social climate of university residence environments.”43 Zimring particularly criticizes large residence halls, which he refers to as megadorms. “More specifically, the megadorm environment relative to the low-rise dormitories demonstrated markedly lower ratings on relationship and system maintenance and change dimensions.”44

Second to an understanding of the effects of the built environment upon its inhabitants, it is fundamental that these effects be considered in discussions that affect students living in residence halls. At the University of Massachusetts Amherst housing for students has been increasingly in demand at least in the past five years. In 2008 Emily Grund, student writer for the Massachusetts Daily Collegian, the campus’ independent newspaper, wrote an article that made the issue of housing on campus apparent. “Currently, 300 students like [Brittany] Dufault are
temporarily housed in residence halls’ converted rooms…she learned this summer that she would be placed in temporary housing – in her case a converted lounge in Webster Hall with three other students.”

The university has been utilizing temporary housing since circa 2008, but starting in the 2011-2012 academic year the university created triple Z rooms in two of the five Southwest towers. “Due to a high demand for on-campus housing and large freshmen and transfer classes, University of Massachusetts Residential Life has been forced to create 200 economy triple dorm rooms…according to UMass spokesman Daniel Fitzgibbons” Economy triples house only first-year students, the only students who are required to live on campus. Additionally, “about 600 [first-year students] are currently housed in economy triples – rooms built for two students that instead house three. Of those 600, about 150 students requested it.” Students living in economy triple rooms pay a decreased housing fee and are given priority to move over others.

Kennedy and John Adams towers, which both currently house first-year students, have housed an additional four students per floor by adding four economy triple rooms per floor. Each floor of these towers now houses 35 students when previously they housed 31. This has increased the total capacity of the towers from 558 to 630 students. While it is understood that the university has a shortage of housing in anticipation of its new Residential Honors College Complex’s opening in the Fall of 2013, the effects of crowding are even more evident when the capacities of Southwest towers are increased. Research has shown that triple rooms amplify the effects of crowding upon a residence hall’s inhabitants that are already apparent in towers prior to the addition of economy triple rooms:

In a program of research conducted at Rutgers University, students living two to a room were compared with students who were tripled in traditional double loaded corridor
dormitory rooms intended for two person occupancy. Tripled students were more
disappointed and stressed than doubled students. These results were especially severe
for tripled women who, in an attempt to make a home-like environment, spent
significantly more time and invested more in their rooms than did men. Crowded men
escaped to alternate locations (Karlin, Epstein & Aiello, 1978). Both tripled men and
tripled women, however, showed equivalent reductions in grade point averages when
crowded. This effect disappeared in subsequent years, however, when they no longer
lived in high density environments (Karlin, Rosen & Epstein, 1979) Clearly these tripled
students all experienced goal blockage as a result of resource scarcity.48

It is therefore essential that the built environment offers spaces that facilitate positive
social interactions among its inhabitants, especially if the inhabitants are likely to feel crowded
within their own rooms. As a student’s experience is dependent on socializing and learning it is a
requirement of a residence hall’s architecture to mediate issues of crowding by offering its
students small, intimate spaces in which to socialize and learn with one another. The effects of
crowding as demonstrated above can leave a student feeling powerless, stressed and
disconnected, therefore less able to succeed both socially and academically in an environment
whose primary responsibilities, second to safety, are social and academic well-being.
Figure 21: Economy Triple Rooms in Plan, by author
Figure 22: Small Space in Butterfield Lobby, Central Residential Area, March 2012, by author
Notes


5 Ibid.


7 Ibid.


16 Ibid.


20 Ibid, p. 506


22 Ibid.

23 Ibid.


26 Ibid, p. 390


28 Ibid, p. 454.

29 Ibid.

30 Ibid. p. 456.

31 Ibid.


33 Ibid, p. 9.


36 Ibid., p. 3.


40 Ibid, p. 454.


44 Ibid.


47 Ibid.

CHAPTER 7

RENOVATION

Introduction

In order to offset the effects of crowding and create connections among residents in a Southwest residential tower a renovation is necessary. Hugh Stubbins intended to create three smaller communities within each tower to reduce the scale of a student’s environment; he did this by designing three identical vertically stacked houses.

As houses become high-rise, with one elevator serving all floors and all residents on each floor, the separation based on walls or separate entrances becomes unviable, and a new approach to the house plan must be developed. Some dormitories cluster students in two or three adjacent floors into a single administrative house.¹

Public space floors at the center of each 7-floor house were intended to connect the two 3-floor sub-communities both above and below them. The accessibility of the public space floors is essential to the success of each individual house as their intentions are to connect students, create a smaller community and offer a space to study. Currently public space floors in the towers have a variety of functions; however these floors are only accessible by reservation through the Residential Life staff who oversee the building.

The original plan of a public space floor offered students a large central lounge space, private study alcoves, a large recreation room, 3 multi-purpose rooms and access to three of the floor’s four balconies. As the towers exist currently the central lounge spaces have remained
only one floor in each tower and are locked, others have been converted to classrooms or small fitness centers, although the university recently closed the fitness centers when the new Recreation Center built close to the Southwest Residential Area opened in 2010. Two of the three balconies on these floors have been locked; the third on each floor have become part of the Residential Life staff members’ apartments in addition to one of the multi-purpose spaces. The two remaining multi-purpose spaces have become storage rooms. Finally, the study alcoves have been removed and are now part of the larger spaces on these floors such as the fitness centers or closed fitness centers. In addition to these spaces requiring a reservation they need to be accessible to students as Hugh Stubbins originally intended.

Figure 23: Original Public Space Floor Plan as Designed by Hugh Stubbins in 1968, by author
Figure 24: Original Open Public Space Floor Diagram, by author

Figure 25: Current Public Space Floor Program Diagram, by author
As the vertically stacked house was a primary design feature and tool of community development within the towers, the proposed renovated focuses on connecting students within these 7-floor communities. Students in the Southwest towers need to feel a stronger sense of community, which can be achieved by a smaller scaled environment as the towers originally intended. The proposed renovation with offer students spaces in which to socialize and study, but are intended to encourage students to study and socialize concurrently.

Vertically Stacked Houses

As stated previously, the renovation proposed focuses on the vertically stacked house model that Hugh Stubbins designed for the Southwest towers. The vertically stacked house model has unfortunately disintegrated as a result of a change in program and spaces on the public space floors. These floors are intended to facilitate informal and social interaction between residents who live in the house, as seen in figure 28. Each house needs its own identity in order to be identified as a community within a tower by its inhabitants. This is achieved in many ways. The first and most prevalent is the circulation through the public spaces from one floor to another. Each house’s sub-communities that consist of three floors with student rooms will be connected by a staircase that is integrated with the sub-community’s intimate study and social spaces. Further developing a house identity each house will have its own color scheme that will be reflected in its furnishings. Finally, the top two houses will be renovated to accommodate their own elevator that specifically services each house. This is achieved by the removal of the skip-stop elevator system that has been proven ineffective in creating connections among each house’s students.
Figure 26: Sub-Community Concept Model, by author

Figure 27: House Concept Model 1, by author
Figure 28: House Concept Model 2, Image 1, by author

Figure 29: House Concept Model 2, Image 2, by author
Figure 30: House Concept Model 2, Image 3, by author

**Public Space Floors**

Connecting the sub-communities with one another the extension of the public space floor provides fireproofing between atria above and below while offering students a variety of spaces and incentives to visit the floor. Students can access the public space floor in two ways. The existing stairs and elevators will bring them there, but it is the path through the atrium spaces that is most enticing and interactive. The top floor of the bottom house, floor level 3 within each house, and the bottom floor of the top house, floor level 6, each feature a glass enclosed stair that bring students to the main public space floor. The student’s curiosity will guide them to these floors as the program in the interior of each floor changes, which they will discover as they navigate the atrium stair.
Figure 31: Renovated Public Space Floor Plan, by author

**Study and Social Spaces**

Integrated alongside the circulation throughout the 3-story high atria students will be able to find a space to study, relax and socialize with their housemates. These spaces are designed to facilitate a variety of interactions among students. A student entering their floor’s lounge will be immediately drawn to the west-facing view that looks out to the Pioneer Valley’s beautiful hills. The view invites the student to experience the atrium space, encouraging them to walk down the central stair that abuts the small intimate study and social spaces. Along their path, they notice students studying at the small high top desks that are enclosed by glass railings which lead them along the stairs. The student appreciates the view and turns back into the
space to continue their way through the atrium. The view reminds them of the collective, the
community of Southwest and their tower, but it is also the individual who is important as it is he
who sits reading a book or talking with a friend in the space below. The experience of walking
through the 3-floor atrium space is intended to connect them with the campus, yet remind them
of the importance of personal, intimate social interaction and dedicated study.
Figure 32: Views out Public Spaces on Resident Room Floors in Kennedy Tower, June 2012, by author
A careful balance of study and social spaces was integrated into the program of the renovation, most especially along the main circulation path, the stairs. This program was designed to ensure the success of the students within the spaces, and to include a variety of personality types:

Room conditions are not the only parameters of student satisfaction in rating study-bedrooms for adequacy in studying...personality factors of students are involved. One hundred thirty subjects were given the Maudsley scale of introversion/extroversion, with upper and lower thirds separately considered. There was no difference in the effective study time for each group. Introverts preferred desks, and hard chairs, while
extroverts preferred soft chairs and couches. Introverts took their study breaks alone, while extroverts snacked more.²

The success of the atrium public spaces, the small study and social spaces that are interspersed along its circulation is dependent on its ability to invite and attract all students that live within the house. Both introverts and extroverts will find spaces in which they will feel comfortable studying and socializing. Finally, students will be able to monitor their environment and contribute to its security. “Defensible space' may be created by...providing natural surveillance through physical designs in which users overlook common space and hence are aware of intruders.”³ Students in the small study and social spaces will be able to see and interact with inhabitants in the atrium space, detect intruders and make new friends.

**Interior Program of Atrium Spaces**

The interiors of the atria that connect students and offer them the small intimate study spaces that will create the meaningful community they seek in a residence hall environment will offer students three types of spaces. On the top and bottom floors of the house, levels 1 and 7, feature large white boards for students to share ideas, art and advertise community gatherings and events. The whiteboard spaces were put on the top and bottom floors of each house to encourage students to venture through the entire atrium and its spaces. Tucked behind the whiteboards, or community announcement spaces, vending machines will not only give students access to a snack while studying, but act as incentive for students to travel through the atria. Students will seek out a snack and in turn will interact with the community white boards. The whiteboards will be made of colored glass that would be arranged in a configuration that points
the students either up or down as a subtle hint to navigate their atria. Both have been vital to the success of the Van Meter basement renovation. On levels 2 and 6 the interior spaces offer students booth seating that will give students flexibility. Students may use these spaces to work on a group project, catch up with a friend or even share a pizza while watching a movie on a laptop.
34. Whiteboard Space in Plan, Floors 22 & 8, by author

Figure 35: Whiteboard Space in Plan, Floors 16 & 2, by author
Figure 36: Whiteboard Pointing Students into Atrium at Top Floor of House, Final Model, by author
Figure 37: Van Meter Basement view through open Kitchen at Whiteboard and Central Mailbox Space, Central Residential Area, November 2011, by author
Figure 38: Van Meter White Board Space, Central Residential Area, September 2011, by author

Figure 39: Booth Seating in Plan, Floors 21 & 7, by author
Figure 40: Booth Seating in Plan, Floors 17 & 3, by author

Figure 41: Booth Seating on Floors 21 & 7, Final Model, by author
Mezzanine Spaces

Each house has a mezzanine level between levels 5 and 6. The mezzanines are a space where students can relax and enjoy the view from the tower. These spaces are small extensions of the stair landing between the two floors. The Mezzanines define the spaces on level 6 as they provide walls for a small storage space for the Resident Assistants within that house, and most importantly a projection wall where students can hook up a laptop or Xbox to watch a movie, or compete in a videogame tournament. This space derives from a successful space in Van Meter hall with the same program. Finally, the mezzanine level allows for the main lounge space on the public space floors to offer students a double height view. The mezzanine level attracts students by creating a unique space that is only offered on the public space floor.

Figure 42: Projector Space in Plan, Floors 20 & 6, by author
Lockers

Integrated into the intimate study spaces on levels 3 and 7 of each house students will find backpack sized lockers for storage of their laptops and other belongings. Alongside the house’s mailboxes on the public space floor there are additional lockers to encourage students to take advantage of these spaces while feeling that their belongings are secure.

Theft is a reality in a residence hall environment. The lockers are intended to give students a secure place to keep their belongings should they want to walk up to the next level to get a soda, or stop by their friend’s room to borrow notes from a class. Most importantly, the lockers will enable students to inhabit the atria spaces as if they were in a public space. Students...
will be able to enjoy the study and social spaces for longer periods of time without returning to their rooms to store belongings before attending a community event two floors below.

Figure 44: Lockers in Study Space, by author
Figure 45: Locker Space in Plan, Floors 22 & 8, by author

Figure 46: Locker Space in Plan, Floors 19 & 5, by author
In order to understand the façade of the building it is important to understand the circulation of the three vertically stacked houses. The circulation of the top sub-community is directed in the opposing direction than the one below its public space. The top and bottom house within the tower share identical configurations. The middle house’s circulation and so plan are mirrored. This results in the top house’s lower circulation being oriented in the same direction as the top circulation of the middle house.
The configuration of the circulation affects the configurations of the houses small intimate study and social spaces. In order to highlight these spaces and provide shading to the atria as they are west facing, the façade features a continuous screen stretched over the glass façade that shades these intimate spaces. Further, the continuous screen ties the three vertically stacked house communities together, stressing the community among residents throughout the three houses within the tower. The glass that is not shaded by the continuous screen has screens that are perpendicular to the glass façade. These fins rotate based on the orientation of the sun, providing the same shading as the continuous screen but allowing the
façade to be an indicator of differences in types of spaces. Both the continuous screen and fins would allow for shading while not obstructing the view.
Figure 49: West Facing Façade, by author
Figure 50: West Facing Façade, Final Model, by author
Figure 51: Facade Detail, by author

Student Rooms

The Z rooms originally designed by Hugh Stubbins in the Southwest towers were intended to give students their own personal space. However, this configuration has caused roommate conflicts among students and further isolation within the towers. The Z rooms have been removed and replaced with rectangular rooms similar to those typical in any double loaded corridor style residence hall. The intention here is to fix the issues caused by the Z configuration. The new rooms were created based on the tower’s structural system. Previously,
the Z rooms used the structure to define their configurations, now the structure flanks each wall of the rectangular rooms as the walls provide enclosure from the exterior to interior wall.

To give students a sense of place, or home, the renovation offers students a small welcoming space that is intermediary between their room and the hallway. A student will be able to recognize their room as they proceed down the hallway because their whiteboard, which is fixed to a cork board that runs the height of the space, is personalized. They may find a message from a friend about getting together to study for an exam, or going to the dining commons together. Their RA may use this space to tack up a flyer for an event they’re hosting next week. Today’s students socialize in ways that are unique to their generation. Students’ dependence on social media will translate well into this space as students will be able to update
their friends on how a test went, what their plans are for the evening or ask for help studying for an exam. This feature derives from whiteboards that were installed as part of a renovation to Gorman residence hall at the University of Massachusetts Amherst where it is apparent that the addition of whiteboards within the building have created community and contributed to students’ self-expression.

Figure 53: Student Room Detail, by author
Figure 54: Hallway Section and Whiteboard Spaces in House, by author
Figure 55: Gorman Whiteboards 1, Gorman Residence Hall, Central Residential Area, April 2012, by author
The decision to remove a small amount of square footage from the students’ rooms to create this small welcoming space derived from the initial architectural concept of the collective and the individual. The spaces created will not only identify the individuals, but act as intermediary for the individual and the collective. They are individual spaces within the collective spaces of the building. Finally, the angled wall that defines the edges of these spaces not only continues with the language of the atrium spaces, but point students toward them. Students will be guided by the individual’s collective space within the hallway towards the collective spaces where they will learn and grow together with their peers.
Conclusion

The renovation will give students a sense of place. Architecturally students will be directed towards the public spaces within their sub-community, and ultimately their house. Once students discover the atrium spaces, their diverse program and the beautiful view, they will be inclined to spend time in the space. Whether working on homework or catching up with a floor mate, students will be attracted to the spaces offered and as a result will connect with students in their residence hall community. They will be intrigued and guided by the juxtaposition of the angular lines within the grid structure of the tower and will bring them through the atrium of their sub-community to the public space floor. On the public space floor students will be able to realize their sense of community where they can work on a group project, cook a meal with friends or relax in the double height lounge space and enjoy the view.

The building’s façade will help students realize their community on the whole as the continuous screen ties the community together and represents the backbone to the building. The connections built between students that result from their interactions within the spaces will create community among students and offset the feelings of crowding, isolation and disconnect from their residential community. It is here where students will study, learn, socialize and grow. Students will be successful both socially and academically as a result of their need to see, be seen and interact with one another.
Notes


APPENDIX A

FINAL PRESENTATION BOARD 1

SOUTHWEST RESIDENTIAL TOWERS
A Renovation to Develop Community, Build Connections & Support Student Needs

- 32 Students per floor
- 96 Students per 3-floor-community
- 192 Students per vertically stacked house
- 576 Students per tower

Site Plan

Residential Floors
Public Space Floors
Social Interaction
Social Divide
Public Space Views
APPENDIX C

FINAL PRESENTATION BOARD 3
APPENDIX D

FINAL PRESENTATION BOARD 4
APPENDIX E

INITIAL SKETCH MODEL 1
APPENDIX F

SKETCH MODEL 2


