

TERRITORIAL DYNAMICS AND MULTIMODAL LEARNING IN BOARDING HOUSES: AN EXPLORATION OF ARCHITECTURE STUDENTS EXPERIENCES

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ABSTRACT

Among the various types of residences, the boarding house stands out as a distinctive temporary home, acting as a surrogate environment for individuals who are far from their permanent homes. Beyond serving as a place of shelter, it supports the continuity of daily life by offering spaces for rest, study, and social interaction. This is particularly significant in architectural education, where learning involves multimodal methods: visual, aural, read/write, and kinesthetic. These learning styles are deeply embedded in studio-based practices like model-making. However, a research gap exists in understanding how architecture students' study activities influence spatial dynamics and territoriality in shared boarding house environments. To explore this, a multi-method approach was used, including traffic lane observations, interviews, and image documentation. Findings revealed two types of territorial infringement: one caused by academic activities such as design work and model-making, and another involving contamination and minor spatial violations during detailed model production. These infringements stem from shared ownership, limited space, and the nature of architectural tasks. The study suggests two architectural design strategies to mitigate these issues: incorporating fixed features to define zones clearly and providing semi-fixed features to accommodate changes in use. These solutions aim to balance communal living with individual academic needs.

Keywords: *architectural education, boarding house, multimodal learning, territoriality, spatial dynamics*

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INTRODUCTION

Homes can be viewed from various perspectives, including architecture (Saarinen et al., 2022); they have a profound connection with human life and play a pivotal role (Worsley et al., 2021). One such form of housing that reflects both functional and social dimensions is the boarding house, particularly common in urban areas. In Indonesia, a boarding house typically serves as a transient residence, featuring multiple rented rooms and, in some instances, additional facilities like communal kitchen and living area (Setijanti et al., 2023). Residents are obligated to make monthly rent payments, with the amount predetermined by the landlord (Al Hanif et al., 2023).

Due to its proximity to educational institutions, many out-of-town students choose boarding houses as their secondary residence (Ramírez-Lozano & Francel-Delgado, 2024). Boarding houses, integral to the student education experience, are closely tied to fulfilling one of the most fundamental human needs: shelter (Asikin et al., 2022). A boarding house caters to students' academic requirements, as it doubles as a study haven for completing assignments by offering comfortable conditions (Noviandri & Sudarsono, 2022). As a result, it effectively maintains the continuity of residents' daily lives by providing a space for relaxation, study, and social interaction, thus fulfilling the multifaceted requirements of its inhabitants.

Students have different learning styles related to their respective study programs. The learning style is how each learner processes, absorbs, and retains new and difficult information (Cabual, 2021; Kaba & Abdou, 2022). There are various learning styles, including visual (V), aural (A), read/write (R), and kinesthetic (K) (Fleming & Mills, 1992). Visual learners rely on sight, aural learners on hearing, reading/writing learners on text, and kinesthetic learners on hands-on experience. Students with a dominant learning style are classified as unimodal, while those who use multiple styles are considered multimodal. Studio architecture, as the core of education in architecture, is a simulation- and project-based learning process that uses multimodal learning styles (VARK) (Abd Elhamid Abd rabbah, 2020).

This study took a sample of architecture students because architecture is a combination of art and engineering with a certain style. Individual lifestyles differ; however, some variations may actually be expressions of different constants (Rapoport, 2005). Studio-based courses have the highest number of credit hours per week compared to other architecture courses and will have a deadline of up to one semester (Abd Elhamid Abd rabbah, 2020). Design studios teach critical thinking and create environments where students are taught to question everything to create better designs. Such issues raise the potential for integrative learning to be part of the design process (Cenani & Aksoy, 2020; Rombout et al., 2021). This involves many activities in the study process, such as designing activities using sketches, reading literature on precedents, and even making models to represent the design results in 3 dimensions and on a small scale. Design studios are unique educational environments that differ from any other (Park, 2020). One of these aspects is related to the influence of the physical environment and products made during and outside class time. Students can do studio assignments anywhere and at any time, such as at a

boarding house, which in this study is the most dominant place for expanding studio learning (Narida et al., 2023).

Humans need physical space to perform various activities, each of which has a different ownership status. The ownership of this space is known as "territoriality". Although crucial to architecture, territoriality violations can occur due to specific activities. In the case of a boarding house, it is necessary to understand that it is inhabited by many people of different backgrounds. Students who live in boarding houses must adapt themselves to the culture of the boarding house environment (Asikin et al., 2022). Residents tend to prioritize personal interests and sometimes cause disturbances among various parties (Noviandri & Sudarsono, 2022). For example, a common room in a boarding house that should be included in the secondary territory may be occupied by a person for a certain period and may cause inconvenience to other residents. Despite the importance of territoriality in maintaining harmony within shared living environments, limited research exists on how architecture students' specific study activities contribute to territorial violations in boarding houses. Additionally, the impact of these territorial infringements on the comfort and well-being of diverse boarding house residents remains underexplored, making this a highlighted research gap. When on campus, students in choosing communal spaces that can be used for completing assignments may base their decisions on psychological atmosphere comfort, as well as thermal, auditory, and visual comfort factors. Additionally, they also consider the availability of electronic and electrical facilities that support academic activities (Avenzoar et al., 2024).

This paper aims to examine the spatial dynamics and forms of territorial violations that occur as a result of architecture students' learning activities within boarding houses. It contributes to architectural and environmental psychology discourse by identifying behavioral patterns that trigger spatial conflict in shared living arrangements, and by highlighting the spatial implications of learning styles in domestic settings. What might happen in the context of this study is territorial infringement, which hereafter will be referred to as territorial violations. There are 3 forms of territorial violations: invasion, violation (violence), and contamination (Altman, 1975). Territorial violations can be in the form of invasions, such as entering someone else's territory with the aim of taking control, violence, such as vandalism, or even contamination, such as someone disturbing someone else's territory by leaving something unpleasant. Architecture students might inadvertently contaminate a boarding house with traces of glue, markers, or spray paint during the design or model-making process. Conflict and discomfort are inevitable for both residents and landlord/boarding owners in this situation.

METHODS

This study uses a naturalistic or social constructivism paradigm (Creswell, 2013), in which the method of observation and data collection is carried out in natural settings without any particular manipulation. This paradigm emphasizes understanding human experiences and meaning-making within their real-life contexts, which directly aligns with the use of qualitative methods such as observation, interviews, and documentation. These methods allow researchers to interpret how architecture students subjectively experience

and use their boarding house spaces, based on their interactions, perceptions, and everyday practices. The method used in this research is qualitative because this research determines how architecture students use their boarding houses. The data required are in the form of narratives, images, and other audio-visual materials that can represent residents' experiences. The sample comprised non-local architecture students who had lived in boarding houses for at least 6 months. This is because, within 3 to 6 months, nomads have gone through a period of clinical disturbance caused by homesickness (Fisher, 2017).

In the early stages of the research, boarding house mapping questionnaires were distributed as an initial survey to architecture students to obtain a representative sample. In this study, 82 respondents were identified and then grouped according to boarding house categories and management. From this pool, 10 participants were selected using purposive sampling techniques, based on specific criteria related to the variety of boarding house categories (e.g., type of management, spatial layout, and occupancy patterns). Dukes (1984) in Creswell (2013) stated that the recommended number of phenomenological qualitative research participants is 3 to 10.

Data collection was carried out through observation, semi-structured interviews, and documenting iteratively (Creswell, 2013). Semi-structured interviews were conducted by focusing on the problem under study and asking additional questions in response to the participants' statements to gain a deeper understanding of the topic (Niezabitowska, 2018). To determine the forms of territorial violations, traffic lanes were used as the main observation. Traffic lanes can be visualized on a floor plan by visualizing the steps of occupants in a particular space (Newmark & Thompson, 1977). In the interview session, the participants described their boarding house in a logbook provided by the researcher. Subsequently, the floor plan was redrawn using software with a measured scale. The floor plan represents the spatial position because the main goal of the drawing is to show the movement of architecture students in a boarding house. Based on traffic lanes, the occupied space in terms of territorial violations is color-coded, namely green to indicate no territorial violations, orange to indicate permitted territorial violations, and red to indicate territorial violations that cause conflict. On this basis, a further analysis of territorial violations in space was conducted. To ensure the credibility of findings within the constructivist paradigm, validation was conducted through legitimacy testing by assessing data quality, identifying inconsistent patterns, and incorporating participant feedback.

RESULT AND DISCUSSION

Architecture students engage in studio-based learning, a core activity of lectures. Architectural studio-based learning, hereafter studio learning, has the longest duration and highest load among architecture courses, often comprising 6–8 credits per semester. The study process is conducted from the beginning to the end of the semester, and the final output is a product whose design process is initiated from the start. Studio learning is the most basic activity in architectural education because it emphasizes the design process and conceptual development. This course requires students to immerse themselves in iterative design practices, critical thinking, and problem solving. This environment fosters creativity, collaboration, and innovation, essential skills for future architects. The intense

nature of studio learning demands substantial time and effort, often extending beyond regular classroom hours; hence, a dedicated and adaptable space is necessary for students to work efficiently and effectively.

Participant K admitted that, honestly, among all the subjects, the studio was the most exciting because of its focus on architecture and design, which they truly enjoyed.

Studio learning is generally very flexible. Studio assignments can be completed at any time and place. Due to the uncomfortable conditions in the studio at certain times, students sometimes choose to work on their studio assignments elsewhere. There are 2 categories of places that are usually the destination for students when working on studio assignments: campus facilities and off-campus locations. Campus facilities that are often a place for students to work on studio assignments other than the studio include the library. In addition, off-campus facilities include cafes and boarding houses. Boarding houses are the preferred choice for several reasons. A boarding house offers students a sense of familiarity and security, allowing them to engage in their activities uninterrupted. Boarding houses contrast with libraries and cafes, as they provide residents 24/7 access to work. Additionally, the personalized environment of a boarding house can be tailored to the student's specific needs, creating an ideal setting for focused work. The convenience of having all the necessary tools and materials at hand, coupled with the absence of commuting, makes boarding houses a practical and efficient choice for architecture students.

In the design process, students divide it into 2 main phases: brainstorming and execution. When conducting conceptual brainstorming, the participants in the interviews preferred studio discussions with friends. This collaborative environment allows for the exchange of ideas, feedback, and creative inspiration, which are crucial for developing the initial design concepts. The studio setting fosters a dynamic atmosphere in which students can engage in dialog, critique each other's works, and refine their ideas collectively.

However, regarding the execution phase, particularly 2D/3D or primary/secondary model-making, students often seek solitude in their own boarding houses. This preference for working in their boarding houses during execution sessions stems from their need for a quiet, controlled environment in which they can concentrate without interruptions. The boarding house provides a private space where students can focus on intricate details and precision, which are essential for creating accurate and high-quality models.

During the extended sessions, students also completed studio assignments at their boarding houses, enabling them to pay greater attention to details and finishing processes. This extended time spent working at home ensures that students can perfect their designs and achieve satisfactory final products. The combination of collaborative brainstorming in the studio and focused execution at the students' boarding houses creates a balanced approach to the design process, allowing students to maximize their creative potential and produce exceptional work.

Participant F reflected that at the beginning of the semester, when observing both the other students and themselves in the studio during the analysis stage, they also explored similar forms because it allowed for discussion and further exploration. They added that expanding to a boarding house might be more suitable toward the end of the process, ideally for detailing and finishing.

Based on the explanation above, the various activities that students engage in during the brainstorming and design execution phase are: researching (design study), primary mode-making, and secondary model-making. Given the intense nature of studio-based learning and the above-mentioned activities, architecture students often invade common spaces within boarding houses to undertake their design activities. This invasion includes transforming living rooms into temporary studios or using dining areas for model assembly. Therefore, the following section will delve into the various types of territorial invasions based on architecture students' activities, examining how each phase and activity of their studio learning impacts shared living spaces in boarding houses.

Territorial Invasion during the Design Study

Architecture students predominantly use laptops to complete their assignments, particularly studio projects. Students may seek inspiration during their projects to enhance their design work. By using the internet, one can easily access other studies and precedents. There are times when the Wi-Fi signal does not reach the student's room, so it is necessary to make efforts to maximize internet connection needs, such as opening the bedroom door or moving to another room, such as the communal/living room, to get a stable internet connection.

Participant M mentioned another issue regarding the Wi-Fi, explaining that the signal often only reached the lower floor and was weak on the second floor. They added that they usually had to open the door to reconnect to the network and often worked in the communal living room simply because the Wi-Fi was stronger there.

By participant M, the 2nd floor hallway mentioned in Figure 1, which was a secondary territory, was converted into a primary territory. This occurred because the participants occupied the space by providing a non-fixed boundary in the form of a laptop and working tool lying on the floor. Although all the residents in this boarding house were friends of the participants, the invasion caused discomfort among other residents, necessitating frequent apologies and



Figure 1. Territorial invasion of M's boarding house
Source: Author, (2025)

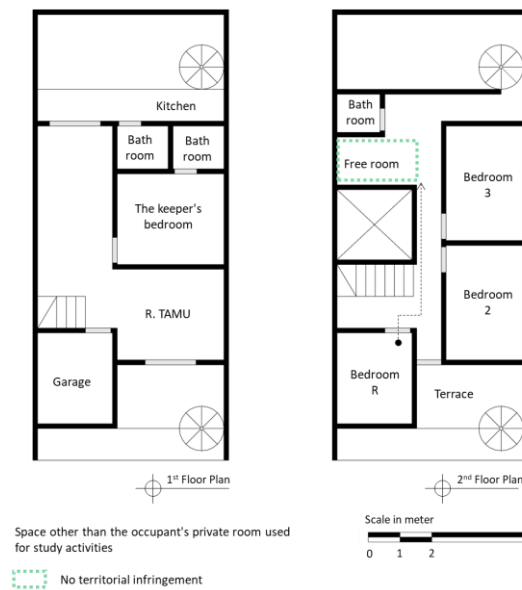


Figure 2. Shared room occupancy in R's boarding house
Source: Author, (2025)

requests to access their temporarily inaccessible door rooms. Participant M suggested that the behavior might depend on familiarity, noting that while friends might not mind, other people would typically say "excuse me" when passing through since the walkway was only one meter wide.

In contrast to participant M, who invaded the hallway, participant R occupied the free space as illustrated in Figure 2. He did this with his fellow boarding houses so that it could not be called an invasion because the territory was still classified as a secondary territory. It's just that, on one side of space, there is a certain point that belongs to itself. Participant R explained that the area was called "free space" because it served dual purposes as both a study room and a cooking area, noting that they sometimes used it in both ways.

From the 2 examples above, the invasion of territory due to design study activities occurs because of 2 main factors: the occupied spatial position and the number of occupants. Participant M's case exemplifies a territorial invasion caused by the necessity to access a stable Wi-Fi connection, resulting in the hallway being obstructed and converted into a primary territory. Conversely, participant R's use of free space for collective activities with friends maintains the secondary status of the territory, thus avoiding conflict. These examples illustrate how the occupied spatial position and the number of occupants are crucial factors in determining whether an activity constitutes a territorial invasion in a boarding house setting.

Territorial Invasion during Primary Model-Making

Occasionally, architecture students use models to create objects despite the prevalence of software-based design activities. Models are a tool for innovation as an integral part of the design process. It can produce information equivalent to images and is considered to be among the best exploration methods. All types of models discussed,



Figure 3. (a) Primary models; (b) secondary models from M
Source: Author, (2025)

especially in the studio learning process, can be considered as study models. The models used in this study are categorized as primary or secondary models as shown in Figure 3. The primary models focus on design development, while secondary models highlight specific project components.

Although current models are developed using technology through RP (Rapid Prototyping) modeling, cost constraints remain the main reason for their use. In particular, for students, making models using materials on the market is far more affordable; thus, models are made independently. The activities involved in model creation are diverse, from cutting materials to gluing components to finishing. Given the large number of tools and materials used, the complexity of the processes involved, and the tendency to perform hands-on work, sufficient space is needed to support model-making. This is also supported by participant H who said that model making needs a large enough space.

In boarding rooms, it is sometimes difficult for architecture students to work on models. Poor spatial planning and an insufficient area of the room result in inefficient model-making. Sometimes, residents have to temporarily remove items from the boarding room to provide free space for model work. This even happened to participants with the most expensive boarding house rents and the largest rooms among the other participants.

“I made the models here (points to his room). I put the item outside first because it was full in my room. Like the chair, I put it outside first. Maybe the ones that look bigger like cardboard, which I haven't used yet. I put them outside first.” (Figure 4) – Participant M



Figure 4. (a) Moving chairs outside the room; (b) providing a space to make models
Source: Author, (2025)

In some cases, the rooms failed to accommodate model-making activities. As experienced by participant L. Because his room was too cramped, he occupied another room in his boarding house for making models. In addition, participant M occupied other rooms when painting models. In these 2 cases, territorial violations occurred in the form of invasion and contamination.

Even in shared rooms, residents are sometimes free to make models in their rooms. This relates to the lifestyles of architecture students who tend to require more focus. Because boarding houses are not entirely filled with architecture students, choosing a room as a place to make models is the first alternative to protect each other's privacy. For the primary models-making, such as mass models, the inadequate room area can be overcome by temporarily moving goods from inside to outside the room for those whose room area is still sufficient. However, for those whose room area is too small to make mass models, mass models are usually made in a room other than the bedroom. This happened to participant L. Participant L lived in a standard boarding house with a room area that was too small compared to the other participants: 2.5 m x 2.8 m. Because the room was also filled with furniture and space to make the models smaller, he expanded the living room to become a private space for working on the models (Figure 5).

“The room is small; if I make models, it will become messy. So, I made the models in the living room.” – Participant L



Figure 5. Territory invasion to make models at L's boarding house
Source: Author, (2025)

The shared space in the boarding house is a secondary territory, which means it is owned by the occupants of the boarding house. It is the primary territory for architecture students when models are in progress. In this process, architecture students have indirectly invaded. The invasion of this territory does not always end in conflict. In fact, for some boarding houses specifically for students with occupants who know each other, there is a sense of mutual tolerance in the event of a territorial invasion like this so that conflicts do not occur.

“They understand it because it is a college assignment. If the material is brought to the studio, it is limited until 5 o'clock.” – Participant L

Thus, territory invasion during primary model-making occurs because of 2 main factors: Spatial constraints and the nature of activities, which in this section refer to primary model-making activities. Participants M and L’s cases exemplify territorial invasion driven by the need for additional space to perform model-making activities. M’s must temporarily remove items from his room and use common areas highlights spatial constraints, even in larger rooms. L’s use of the living room because of the small size of his personal space demonstrates how spatial inadequacy leads to the occupation of shared spaces. These examples illustrate how spatial constraints, and the spatially invasive nature of model-making activities are crucial factors in the territorial invasion of boarding houses. Despite these invasions, mutual understanding among residents can mitigate conflicts, reflecting a shared tolerance of each other’s academic workloads.

Territorial Contamination and Violation during Secondary Model-Making

When making secondary models, such as detailed models with certain specifications, rooms are usually inadequate. Working on detailed models requires more enthusiasm than mass models. This is due to the use of various materials and manufacturing demands that sometimes come close to the original. Students can even paint the material so that it has the same color. Painting model materials can be done in a room if the paint used is safe. However, spray paint poses a risk to breathing and should be avoided in enclosed spaces. Because it was not possible to do so in the room, the students then moved to another place. Participant M, for example, cut models in the room, but when painting, he moved to the front porch. Expansion is carried out over time until the work is complete. Both primary and secondary models, work done in places other than rooms, of course, present various problems. The problem that has arisen is contamination. Contamination is a form of territorial violation committed by leaving unpleasant something. Sometimes, in painting models, architecture students accidentally dirty the floor even though they had previously anticipated it by covering it with paper. Sometimes, even in the process, territorial violations involve not only physical but also body territory, such as spilling glue while trying to stick PVC. Contamination, in any way, certainly creates an uncomfortable feeling for those involved.

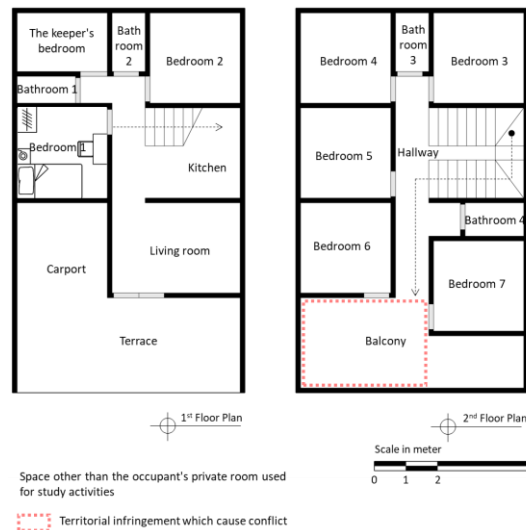


Figure 6. Territorial contamination at M's boarding house
Source: Author, (2025)

"I was reprimanded by the boarding housekeeper because the floor was splashed with paint. Luckily, it was only a little bit; I had already covered it with paper, but it still hit the floor." – Participant M

Participant M's case exemplifies how the detailed work involved in creating secondary models can lead to territorial contamination (Figure 6) and violation in a boarding house setting. The need to use hazardous materials like spray paint in open areas, coupled with the challenges of containing spills and messes, results in the unintentional contamination of shared spaces. This not only disrupts the intended use of these areas but also causes conflicts with other residents and housekeepers. The analysis highlights that the nature of activities and spatial constraints due to inadequate spatial accommodations are crucial factors in territorial contamination and violations of boarding houses.

Establishing Territorial Boundaries to Prevent Conflicts

In a boarding house, 2 types of territorial violations occur: invasion and contamination. The invasion occurs when an architecture student occupies a space that should be a secondary territory to become a primary territory for himself. For example, when participant L felt that the boarding room was cramped, he occupied the common room for a certain period of time to work on the models. Even though it was stated that the invasion did not cause conflict because all the occupants of the boarding house were students who understood each other, defending the territory was still important. The first defense strategy is to use social boundaries in the form of agreements between owners and tenants or agreements between occupants and to determine which spaces can be expanded. The application of social boundaries in a boarding house can be carried out in various ways, for example, through periodic schedules that residents can fill in to use the common room as a private study space. In this way, at least the other occupants will understand that within that time, the common room will be occupied, so they can avoid moving around the room

that is being used to perform the task. If a territorial invasion can be defended through social boundaries, this does not apply to territorial contamination.

Deterrence can be deployed during a contamination breach. For example, when participant M painted secondary models around the terrace, he contaminated the public area with paint that hit the floor. The participant even admitted that it was an accident because he himself had tried using paper mats to protect the floor while painting. In this case, contamination created conflict between the residents and owners of the boarding house. The participant was reprimanded for this incident, but he stated that the reprimand did not result in fines. Therefore, prevention is important in various ways.

Altman's theory of territory provides a framework for understanding how individuals and groups use space to achieve a sense of control and security. This theory is particularly relevant when considering the design of living and learning spaces, such as boarding houses for architecture students. Based on the examples and types of invasion, contamination, and violation mentioned above, two architectural intervention strategies can be applied to prevent conflicts: designing fixed features and providing semi-fixed features that facilitate changes in activities.

Fixed features in architectural design refer to permanent elements of the built environment that shape how space is used and experienced. These features play a critical role in establishing territorial boundaries, which are essential for students who require a structured environment to support their academic activities. Fixed feature interventions can be carried out in three ways: by providing protective layers on building materials, changing to sliding windows and doors, and adding special rooms for model works. Providing a protective layer on building materials, such as floor protectors, can also support activities like painting models. This not only preserves the physical elements of the space but also reinforces students' perceptions of ownership and control, which are key components of territorial behaviour. Another approach is to use elements like windows and doors that can be slid so that they do not take up much space. This flexibility addresses the need for both primary and secondary territories because the ability to reconfigure space as needed can foster collaboration while allowing for personal space as required. Additionally, the landlord should provide a special room for architecture students to work on models so that the modeling process can be carried out without causing territorial contamination. This separation minimizes conflicts over space use and ensures that hazardous activities are confined to a controlled environment, thus reducing territorial contamination.

Semi-fixed features refer to less permanent elements that can be adjusted or moved to satisfy changing requirements. These features are crucial for creating adaptable spaces that can respond to the dynamic nature of student activities and interactions. Several semi-fixed intervention strategies that can be implemented in boarding house are: Adding flexible and adaptive furniture. The boarding house owner can provide flexible and adaptive furniture to address spatial constraints in the boarding house. This strategy ensures that the living space can be easily reconfigured to meet the various needs of students. By incorporating furniture that can be adjusted or moved, the boarding house can accommodate different activities, such as group study sessions, individual work sessions and social gatherings, thus reducing the conflicts arising from limited space.

By integrating these strategies with Altman's theory of territory, a boarding house can become a well-structured and adaptable environment that supports the academic and personal needs of architecture students. Addressing territorial needs through thoughtful design helps create a sense of control and security, reduces stress, and fosters a supportive community, ultimately enhancing residents' well-being and academic success. Moreover, these design strategies promote a sense of ownership and respect for shared spaces, encouraging positive interactions and collaboration among students, which are essential for a harmonious living and learning experience.

CONCLUSION

The analysis of territorial invasion, contamination, and violation in boarding houses, as illustrated through the cases of architecture students, provides a clear application of Altman's territoriality theory. According to Altman, territoriality is a concept that defines how space is owned, used, and controlled by individuals or groups. The 3 forms of territorial violations identified by Altman—invasion, violation, and contamination—are evident in the daily experiences of architecture students living in boarding houses that engage in architectural studios.

Territorial invasion occurs when students transform a space that was originally intended as a secondary territory into their primary territory through activities such as design study and model-making. The invasion of territory through design study activities is influenced by 2 main factors: spatial constraints and the number of occupants. Individual use of shared spaces leads to perceived invasion, whereas collective use maintains the secondary nature of the space. This aligns with Altman's concept of territoriality, in which the boundaries of personal and shared spaces are challenged, leading to conflicts and discomfort among residents.

The invasion of territory from model-making activities, primary and secondary models, arises from spatial constraints and the nature of the model-making activities, compelling architecture students to use areas beyond their designated rooms during the modeling phase. On the other hand, contamination and violation of territory also occur when architecture students engage in secondary model-making that involves spray painting. This type of territorial contamination also includes low-tendency violations, thus disrupting the shared environment and leading to conflicts, echoing Altman's descriptions of territorial violations.

The case studies of architecture students in boarding houses illustrate the practical application of Altman's territoriality theory. Territorial invasions, violations, and contaminations occur due to the number of occupants, spatial constraints, and nature of the design activities. Despite frequent territorial violations, mutual tolerance and adaptive strategies among residents play a crucial role in mitigating conflicts. For example, one participant demonstrated that shared understanding among students allows for temporary territorial invasion without leading to major disputes. Therefore, it results in the dynamic interplay of space usage, personal needs, and communal living. This underscores the complexity of territoriality in shared living environments, thus validating Altman's insights into human spatial behavior. In this case, two alternative solutions are presented for

designing a boarding house: designing architectural elements and providing room furniture that can facilitate changes in activities during the learning phase. For example, creating a shared space that is not just a social engagement area but a flexible and adaptive shared space that allows architecture students to work comfortably.

This research opens expansive possibilities for exploring other phenomena or similar situations, such as territorial infringement between study programs sharing the same learning style in boarding houses. Although the study primarily focused on architecture students, its findings offer valuable insights into understanding broader patterns of territorial expansion in boarding houses. This understanding can help architects design spaces that mitigate territorial infringement and, consequently, alleviate residents' discomfort in boarding houses and similar typologies.

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