

# Master Thesis

## “The Impact of Dormitory Design on the Mental Health of International Students”

submitted by

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in the framework of the international Master program

**Architecture Construction City**

in partial fulfillment of the requirements for the academic degree

**Master of Science**

Torino, Month 2025

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# Acknowledgments

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I would like to express my deepest gratitude to my supervisor, Professor Davide Rolfo and Professor Daniela Ciaffi, for their continuous support, guidance, and constructive feedback throughout the development of this thesis. I also extend my thanks to University of Politecnico di Torino, Department of Architecture and Design for providing me with the academic environment and resources necessary to complete this work.

I am sincerely grateful to my family and my partner for their endless encouragement, patience, and love, which gave me the strength to continue during challenging moments. Special thanks also go to my friends who shared their time, ideas, and motivation with me throughout this journey.

Finally, I dedicate this thesis to all those who believe that architecture is not only about designing spaces, but about creating places of belonging.

*“The ultimate task of architecture is to give shape to the places where  
life takes place.”*

Christian Norberg-Schulz, 1948

# Abstract

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This thesis investigates how minimal, context-sensitive design interventions can significantly enhance the quality of life in student residences, focusing on the Foresteria Lingotto dormitory in Turin, Italy. The research addresses the discrepancy between the building’s historic structure and the evolving needs of its current long-term student occupants.

The study combines qualitative and quantitative methods, including a structured questionnaire distributed among residents, field observations, spatial analysis, on-site observations, and the author’s own lived experiences as a resident. The collected data revealed recurring issues: insufficient privacy in shared rooms, high levels of acoustic disturbance, a lack of natural elements in common spaces, and a shortage of essential service areas such as kitchens and laundry facilities. These findings directly shaped the design proposal.

The design interventions follow a “minimal modification, maximum impact” approach. Privacy is improved through refined spatial zoning and the addition of non-solid, multifunctional partitions. Acoustic comfort is addressed via thin, high-performance membranes and lightweight panels, minimizing noise transfer without altering the structure. Common areas are enhanced with biophilic elements—wood finishes, indoor greenery, and warmer color palettes—to soften the dormitory’s sterile character and support mental well-being. Finally, underused technical service spaces are reallocated to create additional kitchens and laundry rooms, aligning with Italian guidelines for space allocation per resident.

The outcome demonstrates that even within the constraints of a protected building, thoughtful, small-scale interventions can significantly improve livability, comfort, and social dynamics. This thesis contributes actionable, adaptable strategies for upgrading existing student housing facilities while preserving their architectural heritage, offering a model for future renovations in similar contexts.



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# 1. Introduction

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## Background and Context

In recent decades, the rapid growth of international student mobility has transformed higher education into a profoundly global phenomenon. Universities are increasingly required to provide not only academic support but also adequate living environments for a diverse student population. Student housing, in particular, has emerged as a crucial determinant of students' ability to adapt, integrate, and succeed in their studies abroad. For international students, dormitories often constitute the first and most influential point of contact with their new social and cultural context. Unlike local students, who may rely on existing family or community networks, international students are heavily dependent on dormitories to provide a sense of safety, belonging, and stability.

Despite this importance, the design of dormitories has often been driven by quantitative standards, such as room dimensions, occupancy ratios, or efficiency requirements, while overlooking the qualitative aspects of daily life. As a result, housing facilities may comply with regulations yet fail to support the emotional, cultural, and psychological needs of students. This disjunction points to a pressing gap: the need to integrate user experience and mental well-being into the architectural design of student residences.

## Research Rationale and Gap

While there is an established body of research on housing standards, sustainability, and efficiency in student accommodation, fewer studies have addressed the lived experience of international students in depth. These students often face challenges beyond those of local peers: adjusting to a foreign culture, navigating language barriers, coping with isolation, and managing the psychological pressures of transition. Dormitories, as the immediate living environment, can either mitigate or exacerbate these challenges. Yet in many cases, they are not intentionally designed with these needs in mind.

This thesis positions itself at the intersection of architecture, psychology, and cultural adaptation, arguing that the design of student housing should move beyond compliance with technical standards to embrace a human-centered approach. The research seeks to challenge the prevailing approach of "designing to standards" and instead argues for a human-centered model informed by empirical evidence and lived experience. By drawing on both personal narrative and empirical evidence, the study seeks to explore how architectural interventions can foster comfort, inclusivity, and belonging for international students.

## Aims and Objectives

The primary aim of this research is to investigate how dormitory environments can better support the mental well-being and integration of international students. To achieve this, the study pursues the following objectives:

1. To explore the lived experience of dormitory life through autobiographical reflection and resident testimony.
2. To identify key themes in the literature that connect architecture, mental health, and cultural adaptation.
3. To employ surveys, interviews, and case study analysis to establish an evidence base for design decisions.
4. To translate research findings into a set of minimal yet impactful design interventions that address identified challenges.

5. To contribute to the discourse on evidence-based, human-centered approaches in architectural design.

## **Research Questions**

The study is guided by the following overarching questions:

- How does the dormitory environment influence the well-being and cultural adaptation of international students?
- What specific spatial and psychological challenges emerge from resident experiences?
- How can design strategies, even minimal in scale, significantly improve the daily lives of students?
- What is the value of integrating autobiographical reflection with empirical research in architectural design?

## **Significance of the Study**

The significance of this thesis lies in its interdisciplinary scope. By focusing on the lived realities of international students, it bridges architecture, mental health, and cultural studies. It challenges the prevailing paradigm of designing according to standards and instead advocates for evidence-based, human-centered design. The findings will not only benefit the case study context but also provide insights applicable to a broader international landscape where student mobility continues to grow.

## **Methodological Approach**

The research methodology is multi-layered. It combines autobiographical reflection—acknowledging the researcher’s own lived experience in a dormitory—with literature review, case study analysis, and empirical data collection through surveys and interviews. The integration of qualitative and quantitative insights provides a robust foundation for identifying recurring issues. Finally, the design phase applies the principle of minimal modification with maximum impact, developing targeted interventions that respond to the needs revealed during the research process.

## 2 Autobiographical Approach

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This chapter presents an autobiographical reflection that connects parts of my personal experiences and challenges during immigration and lived experiences with the thematic focus of this thesis. The aim is to provide context for my design perspective by highlighting how my background, challenges, and motivations have shaped the way I approach architectural research and design. Including this autobiographical lens allows for a more human-centered understanding of the project, where personal insight complements analytical and technical methods.

### 2.1 My First Experience of Dormitory Life

One of the most challenging and, simultaneously, transformative experiences in my life was moving into a student dormitory.

#### 2.1.1 Expectations and Preconceptions

Until that point, I had never lived in such an environment. Growing up in Iran, I had always avoided dormitory life, living with my family, where my routines, privacy, and habits were respected. Dormitories in Iran, from what I had seen, were highly institutionalized, with strict rules, curfews, and an atmosphere that felt more like a disciplined boarding school than a home. I remember thinking: how could anyone feel truly at ease in such a setting?

During my first two years of migration to Italy, I had experienced shared apartments and even shared bedrooms. Initially, I believed this had prepared me for common living. Yet, I quickly realized that dormitory life was a fundamentally different experience. In an apartment, there is always the possibility to retreat—lock your door, escape into your private world—but in a dormitory, privacy is always negotiated, and the rhythm of your life is continuously influenced by others. I remember stepping into my first shared apartment in Turin and thinking: At least here, I can escape to my room whenever I need. In a dormitory, however, that escape is only partial; the presence of structured routines and common oversight means you are constantly attuned to the lives of others.

At first, I regarded this lack of absolute independence as a limitation, almost a constraint imposed upon me. Yet, I began to recognize its subtle advantages. In shared apartments, conflicts can erupt over trivial issues—untidy roommates, late-night visitors, or the misuse of common facilities. Dormitories, while rigid, provide a kind of structure that prevents chaos and ensures that even small shared routines function smoothly. I recall thinking: perhaps this enforced order is not entirely oppressive; perhaps it is a form of protection against daily micro-conflicts.

Despite this realization, my preconceptions were deeply rooted. I resisted the idea of applying for a dormitory during my first two years in Italy. In my mind, dormitories were spaces for compromise, spaces where personal comfort had to be negotiated constantly with strangers. I repeatedly told myself that if I ever applied, it would only be for a single room, ensuring a minimum standard of personal space and quiet. I remember pacing around my apartment, thinking: what if I end up with a roommate who snores, or someone whose habits clash completely with mine? These thoughts, while anxious, were very real reflections of my sensitivity to noise, routine, and personal boundaries.

By my third year, I decided to apply, still clinging to the expectation—almost an assumption—that I would be assigned a single room. I imagined the perfect scenario: a small, quiet room where I could sleep without interruption, study without distraction, and retreat fully at the end of the day. Yet, deep down, I knew that life rarely aligns perfectly with expectation. Even as I handed in my application, a

faint sense of apprehension lingered: what if the dormitory rules, the room assignment, or even the personality of a potential roommate challenge everything I anticipate as essential for my well-being?

This mixture of anticipation, anxiety, and cautious optimism set the tone for the entire experience. It was more than just a logistical or practical step—it was an emotional and psychological leap into an environment that would challenge not only my adaptability but also my understanding of space, privacy, and common life. In retrospect, these early expectations foreshadowed a series of encounters, frustrations, and reflections that would shape my perception of dormitory living and, ultimately, my approach to human-centered architectural design.

## 2.1.2 Initial Experiences and Room Challenges

From the very beginning, I was determined not to share a room again. My previous experience in a shared bedroom during my second year in Italy had left a lingering impression: restless nights, constant disturbances, and the persistent stress of negotiating personal boundaries. I had convinced myself that silence and personal space were not luxuries—they were necessities.

Yet, as soon as I received the room assignment, my careful plans collided with reality. Unlike my expectations, I was assigned a shared room. I remember holding the key in my hand, heart sinking slightly, thinking: so this is it... I have to navigate cohabitation once again. The thought of waking up to someone else's routines, their movements, or even their scent seemed overwhelming. I felt a momentary panic, quickly masked by a mental attempt to rationalize: well, at least it's only two of us... It could be worse.

Stepping into the room, I noticed that the room had already been claimed by my assigned roommate, who had arranged her belongings and claimed what she considered her territory. At first, I told myself this was trivial—a simple matter of adjustment—but I quickly realized that these small spatial negotiations would dominate my early days in the dormitory.

The closets and storage units were the first obstacle. Designed as a single system rather than two independent sections, they forced me into immediate compromises. The prime shelves and drawers had already been occupied, leaving me with less accessible and less convenient spaces. Something as seemingly mundane as deciding where to put my clothes became a symbol of the subtle imbalance of entering a space where my presence felt secondary. I remember standing there, staring at the crowded shelves, feeling a mixture of frustration and resignation. I remember thinking: every small detail is now a negotiation. Even this closet is a battlefield.

Soon, another challenge became apparent: a subtle but pervasive odor emanating from her clothes and belongings. At first, I tried to ignore it, telling myself: it's temporary... I can manage. But living in such close quarters magnified every nuance. My own clothes inevitably absorbed the scent, subtly affecting my mood and comfort. I found myself sniffing my sweaters, grimacing, and thinking: I didn't expect to be fighting against something so... invisible. These sensory intrusions—sound, smell, spatial constraints—became daily reminders of the fragility of personal boundaries in shared living.

Noise compounded the difficulty. Even the faintest creak of a door, the echo of footsteps in the corridor, or the sound of voices drifting from neighboring rooms felt amplified in the dormitory's thin-walled structure. I realized quickly that my sensitivity to sound, which had always been a minor inconvenience at home, would become a central aspect of my dormitory experience.

Yet, amidst the discomfort, I also noted moments of fascination. The Lingotto dormitory, unlike any other student residence I had seen in Turin, had intentional design elements: natural light streaming from large windows, common areas that invited conversation, and an unusually modern aesthetic that contrasted with the often rigid, utilitarian dormitories of my past. "Maybe this won't be so bad," I thought, allowing myself a glimmer of hope.

Still, the emotional and sensory realities of sharing a room were undeniable. My daily routines were subtly—but persistently—shaped by the presence of another person. Sleep, hygiene, and even moments of solitude required negotiation. These early experiences revealed that dormitory life is not

merely about cohabitation; it is about learning to navigate and coexist with another life in a deeply intimate way.

By the end of the first week, I had begun to accept some aspects of the situation. I experimented with minor adaptations: rearranging my belongings, establishing unspoken routines with my roommate, and finding small pockets of personal space wherever possible. Each adjustment was accompanied by reflection: How do my needs intersect with hers? What compromises are fair, and what feels like surrendering my own comfort?

Despite my efforts, I knew that this room, with its shared closets and faintly intrusive scent, was only a temporary step in my dormitory journey. A more significant change loomed—the potential move to another room—but at this stage, I was still learning the rhythm of cohabitation, acclimating to the unspoken social and architectural rules of the dormitory, and grappling with the subtle, everyday negotiations that would define my experience.

## 2.2 Adapting to Shared Spaces

A few days into my stay, it became increasingly clear that my first room, despite minor adjustments, would not allow me the sense of comfort or privacy I needed. Fortunately, the possibility of a room transfer appeared. I requested to move to a different room, one that was unoccupied and promised a fresh start. The process was straightforward, but my anticipation was tinged with both excitement and anxiety. “Will this really be better, or is it just hope masking another compromise?” I wondered as I packed my belongings and prepared to leave the first room behind.

### 2.2.1 Settling into a new room: challenges and settings

Stepping into the second room, the contrast was immediate. The space was quieter, free from the subtle odors that had permeated the first room, and the storage was more logically divided. My new roommate, I soon learned, was considerate and tidy—a stark contrast to my previous experience. Even before formal introductions, the room felt like it could become my personal haven.

The sense of relief was palpable. Yet, even in this improved environment, I remained hyper-aware of the broader dormitory context. Noise still traveled through the thin walls, and the comings and goings in the hallway demanded constant vigilance. But now, unlike before, these disturbances felt more manageable.

Settling into the new room marked a turning point in my dormitory experience. It was not merely a logistical shift; it was a psychological reset. This experience highlighted a central lesson: while architecture sets the stage, the interplay between space and its users determines the quality of daily life, and architectural design is inseparable from lived experience. The layout of storage, the orientation of the room, and the position of the windows—all these factors directly influenced my comfort, mental well-being, and ability to adapt. In a space designed for multiple users, small changes could dramatically alter the quality of life.

The move to the second room was not a dramatic transformation, but it was pivotal. It demonstrated that adaptation is an iterative process—one that involves both the physical environment and the social negotiations within it. It also marked the moment when I began to see my dormitory life as a learning laboratory, where each adjustment, compromise, and observation could inform both my personal growth and my architectural perspective.

### 2.2.2 Noise, Stress, and the Lack of Acoustic Privacy

The earliest days in the dormitory remain deeply etched in my memory. Even before I could properly settle in, I became acutely aware of how thin the boundaries were between my private life and the

lives of others around me. One of the most persistent challenges during my dormitory life was the problem of noise and insufficient acoustic insulation. The thinness of the walls and the design of the corridors allowed every movement, conversation, or door being opened to be distinctly audible. This constant auditory intrusion created an environment where boundaries between private and common space felt blurred.

I still remember lying on my bed that first night, staring at the ceiling while the hallway filled with the distant chatter of students returning from dinner. Suddenly, I heard the sharp click of a key sliding into a lock. I thought: “Is that my door? Is someone about to walk in?” It wasn’t, of course, but the uncertainty left me awake. That moment repeated itself dozens of times in the following weeks. Each time I heard a door open or a lock turn, I froze in anticipation, unsure whether the sound belonged to my own room or the one next door. This small detail—so trivial in design—created a constant undercurrent of vigilance, a state of alertness that made it almost impossible to feel at ease in my own space.

Given my pre-existing sensitivity to stress and a history of panic attacks, these conditions hit me harder than they might have for an average resident. What could have been dismissed by others as background noise became, for me, an unrelenting reminder of how little control I had over my environment. It was as if the architecture itself had stripped away a sense of safety I had always taken for granted.

As I tried to adapt, I realized that these were not occasional disturbances but rather the daily rhythm of life in this environment. My roommate, though kind and well-meaning, suffered from loud and restless sleep. The heavy, uneven rhythm of her breathing often turned into full snores that echoed in the silence of the night. For someone like me—a light sleeper who had long struggled with insomnia—this was not a minor inconvenience but a genuine disruption. I would lie awake, turning from side to side, sometimes whispering to myself, “Just breathe, just wait, you’ll sleep eventually.” Yet more often than not, the night stretched endlessly, with rest always out of reach.

The only temporary relief I occasionally found was by escaping to a close friend’s apartment, where I could finally enjoy an uninterrupted night of sleep. Those visits felt like a stolen luxury. I remember waking up one morning after such a stay and realizing how profoundly different my mood and energy felt when sleep was not compromised. The contrast only deepened my awareness of how draining the dormitory environment had become.

The experience of sharing walls, ceilings, and routines with so many others forced me into an unfamiliar state of hyper-awareness. Rest was no longer simply about closing my eyes; it became an exercise in negotiation—with the environment, with other people, and with my own limits of patience. In those first weeks, the absence of true acoustic privacy defined my sense of belonging in the dormitory more than any architectural element or social interaction.

## 2.2.3 Accessibility and Control of Entry

### **The Mall as a Gatekeeper**

One of the first aspects that significantly affected my sense of autonomy during my stay in the Lingotto dormitory was the peculiar arrangement of its main entrance. The dormitory shared its entry point with the Lingotto shopping mall, which immediately set up a situation of dependency. After midnight, or sometimes even earlier, the shopping mall doors would close, leaving students without direct access to their residence. In such cases, one had to ring the bell and wait for a receptionist to come and open the door.

At first glance, this might seem like a minor logistical issue. However, in practice, it generated a continuous, low-level stress. I recall nights when I returned from study sessions or city trips late, wearing heavy bags and feeling the anxiety grow as I waited outside. The echo of footsteps in the empty mall corridor, the flickering fluorescent lights, and the sense of being observed—however indirectly—added layers to the discomfort. Even ordinary acts like entering or leaving the dormitory,



which ideally convey comfort and personal freedom, became moments of tension and anticipation: Would the receptionist answer immediately? Would I disturb them? Would other residents notice my exact arrival time?

### **The Threshold of Privacy**

This experience profoundly affected my perception of autonomy. The dependence on an external entity to cross a threshold—a simple act that should belong solely to the resident—created a subtle but constant feeling of restriction. Privacy, in the sense of being able to manage one's daily schedule without external observation, was compromised. From a psychological perspective, the entrance, which is the transition from public to private space, ceased to feel like a personal sanctuary. The dormitory, instead of being a place of comfort and independence, became partially a monitored environment.

From an architectural viewpoint, this situation illustrates how entrance design can directly influence the mental and emotional well-being of residents. In a residence intended to host students from diverse backgrounds and cultures, a lack of autonomy at the entry point can amplify feelings of vulnerability and stress. By sharing access with a commercial facility, the dormitory inadvertently subordinated residential needs to the operational logic of a shopping mall.

### **Comparing with Other Dormitories**

Moreover, comparing this with my friends' experience in other dormitories, where entrances were entirely independent and accessible at all hours, the contrast is striking. In other dormitories, students could come and go without external interference, allowing the entrance to function as a true threshold of personal space. In Lingotto, however, the architectural decision to integrate the dormitory into a commercial building resulted in an unexpected tension between convenience and psychological comfort.

Reflecting on this, I realized that seemingly minor architectural choices—such as the location and autonomy of an entrance—can have disproportionate consequences on daily life. A student residence should ideally provide flexibility, freedom, and a sense of belonging. When entry is constrained by external schedules, the sense of home is diminished. Understanding this dynamic was essential for my thesis, as it highlights the direct link between physical architecture and the mental well-being of residents, emphasizing that even small interventions in entrance design can significantly enhance comfort, autonomy, and the overall sense of belonging.

## **2.2.4 Furnishing Systems and Temporary Living**

Another issue that shaped my perception of dormitory life was the question of furnishing—or, more precisely, the partial lack of it. This topic might sound secondary at first, but in reality, it deeply influenced not only my comfort but also my understanding of how architectural environments address (or fail to address) the daily needs of temporary residents.

### **Semi-Furnished Reality**

When I first arrived in Italy, I was struck by the fact that most rented apartments came fully furnished. For someone like me, a newcomer without a car, without an established income, and fully engaged in studies, this was a blessing. Unlike in Iran, where the majority of rented houses are unfurnished and the responsibility of providing furniture lies entirely on the tenant, here I could simply move into a space already equipped with the essentials: bed, sofa, dining table, and basic appliances. In those initial years of migration, the idea of not having to purchase and transport heavy furniture felt like a relief, a safety net that allowed me to focus on building my academic and personal life rather than worrying about logistics.

In stark contrast, the Lingotto dormitory presented itself as only semi-furnished. The room provided a bed, a desk, and a wardrobe—bare essentials that, on paper, seemed sufficient. Yet very quickly it

became clear that these items were far from enough to establish a livable and comfortable environment. The absence of bedding (pillows, blankets), of kitchen essentials (pots, pans, cutlery), and even of cleaning supplies created an unexpected burden. To inhabit the space, one had to start shopping for a variety of items that, paradoxically, were neither minimal nor temporary.

This was more than an inconvenience. It produced a cycle of consumption that felt wasteful and unsustainable. Many students, myself included, would stay in the dormitory for only a semester or a year before moving into a furnished apartment elsewhere. The items purchased specifically for dormitory survival—blankets, kitchen utensils, cleaning tools—suddenly became redundant. They either had to be thrown away, donated, or somehow transported to the next accommodation. None of these solutions was ideal. Throwing items away encouraged consumerism and raised questions of environmental sustainability. Donating required time, effort, and sometimes luck to find someone in need at exactly the right moment. Transporting the objects was impractical, especially without a car or with the constant mobility of international student life.

I recall vividly the feeling of standing in front of supermarket aisles, hesitating whether to buy a cooking pot or a vacuum cleaner, knowing that in a few months these objects would turn into burdens. This constant awareness—that the very items I bought for comfort were destined to become excess—created an emotional tension. It was as if the dormitory was silently telling me: This is not your home, do not settle in too much, do not become too attached. The incompleteness of the furnishing communicated temporality at a visceral level.

But beyond my own experience, the effect of furnishing systems revealed itself as deeply cultural. In shared conversations with other international students, I realized how differently each of us related to the absence of furniture. For some, bringing personal objects from home—blankets, cooking utensils, even small decorative items—was essential to preserve a sense of identity and continuity. For others, the impossibility of transporting these belongings due to cost or distance meant that the dormitory remained bare and impersonal. Thus, the architecture of the room, through its lack of furnishing, unintentionally reinforced a feeling of displacement: one was not encouraged to root oneself in the space, but rather to remain in a constant state of transition.

### **Architecture Beyond Objects**

From an architectural perspective, furniture is never neutral. It is not only a set of objects enabling daily functions, but also a symbolic marker of whether a place invites belonging or enforces temporality. A fully furnished room communicates readiness and hospitality; an empty room, in contrast, demands investment and implicitly states: “this is not permanent.” The Lingotto dormitory, by adopting a half-furnished model, placed its residents in an uncomfortable in-between: neither fully supported nor fully independent.

Comparing this again with my experiences in Iran deepened the reflection. There, although rented houses were unfurnished, they carried a sense of stability: families brought their own furniture, creating continuity across different homes. Furniture became a medium of identity and belonging, traveling with you and maintaining the feeling of home even in a new place. In Italy, the system of furnished apartments aimed to provide convenience, yet in the case of the dormitory, this logic collapsed. The half-furnished condition disrupted the comfort of both models: neither did it provide the security of a fully furnished space, nor the personalization of bringing one’s own.

Ultimately, the furnishing—or lack thereof—was not only about objects. It was about the deeper question of how architectural design accommodates temporary living without reducing it to mere survival. To design a dormitory responsibly means to acknowledge that even temporary residents deserve the possibility of creating a sense of home, however fleeting their stay might be. A bed and a wardrobe are not enough to foster belonging. Small design interventions—such as providing common basic kitchen sets, shared toolkits, or starter packages with linens and cleaning supplies—could transform a space from a transient shelter into a supportive environment. These are not luxuries, but minimal gestures of care that acknowledge the humanity of temporary living.

### 2.2.5 Design Reflection and Cultural Insights

Despite the difficulties, these experiences were far from meaningless. They became, in fact, the foundation for my later decision to examine dormitory life as a subject of architectural reflection. Living there, I began to see the space through dual lenses: as a resident navigating everyday discomforts, and as an architect noticing design flaws and imagining possible improvements.

It was the first time I inhabited a space that could easily have been the focus of one of my own design projects. Every frustration—whether a poorly placed outlet, a corridor that felt claustrophobic, or the persistent hum of hallway noise—offered immediate insight. I was not theorizing from afar; I was living the consequences of each design choice. I would sometimes mutter to myself, half in jest, half in reflection, “If this were my project, I’d never let this corner feel so dark and confining.” Moments like these blurred the line between personal experience and professional observation, making my reflections visceral and grounded.

At the same time, interactions with fellow residents expanded my awareness beyond mere architecture. Dormitory life required constant negotiation of proximity with people from different cultural backgrounds, daily habits, and lifestyles. Something as simple as sharing a shelf, adjusting to different meal times, or tolerating unfamiliar smells became a lesson in tolerance and cultural observation. Each challenge—noise, smell, personal boundaries—was layered with subtle cultural nuances that reshaped my understanding.

What I initially perceived as personal discomfort gradually revealed itself as a microcosm of multicultural coexistence. I remember discussing with a dormmate from a different country, while waiting for the kettle to boil, “It’s fascinating how small habits can make such a big difference in daily life.” It was in these small, unplanned exchanges that I began to appreciate how space, culture, and human behavior are intricately intertwined.

## 2.3 Shared Facilities and Community Life

Among the most significant everyday obstacles was the limited capacity and distant location of the shared kitchen.

### 2.3.1 Kitchen Dynamics

Living at the far end of the dormitory corridors, I quickly realized that even preparing a simple meal could become unexpectedly laborious. Carrying groceries, utensils, and ingredients across long stretches of corridor—sometimes multiple times a day—added not only physical strain but also a subtle psychological burden. I often found myself thinking, “All this effort just to make a simple dish ... is it worth it?”

During peak hours, the inadequacy of the kitchen’s size became glaringly obvious. One small, compact kitchen was expected to serve an entire dormitory, which inevitably led to bottlenecks and minor conflicts. Waiting for the stove to become free or negotiating space for your meal prep turned into a ritual of patience. The lack of proportionality between the scale of the facility and the number of users didn’t just create inefficiencies; it shaped the rhythm of daily life, and sometimes, the mood of residents.

Cultural differences in cooking styles added another layer of complexity. For example, Iranian cuisine often requires long, involved preparation—traditional stews like *khoresh* could take four to five hours to cook. By contrast, students from other countries might prepare simple meals in minutes. In a shared context, where one person’s cooking time directly affected another’s access to the kitchen, these variations sometimes became a source of subtle friction. I remember once glancing at a student from another culture, stirring a single-pan meal impatiently while my stew simmered, and thinking, “How do we make space for such different ways of life?”

The dormitory's room layout further influenced the kitchen experience. Rooms designed for three students included a private kitchenette that could accommodate longer cooking times, while the two-person rooms—which made up nearly half the dormitory—lacked this facility. The disparity created an inequality in living conditions, often leaving those without private kitchen access feeling constrained and stressed. I frequently wondered why something as basic as cooking facilities hadn't been more equitably distributed.

In these moments, I realized that the kitchen was more than just a functional space—it was a social and cultural arena. Each clatter of utensils, each waiting line for a stove, and each negotiation over shared space revealed the subtle ways in which architecture interacts with daily life, routines, and interpersonal dynamics.

### 2.3.2 Common Spaces and Social Interaction

Beyond the kitchen, the dormitory's common areas offered a variety of possibilities. The architects had created spaces suitable for everything from solitary study to group gatherings, seemingly balancing privacy and sociability. On many days, I found myself choosing a quiet corner for reading, yet on others, I would be drawn into a shared table where casual conversations sparked connections across cultures. These areas subtly encouraged interaction, helping to bridge gaps between residents from different backgrounds. I remember thinking, “Even in a place so structured, community finds its way.”

However, access to these public spaces was not always consistent. During my stay, some areas were periodically repurposed for the Winter University Games (FISU) hosted in Turin. Parts of the dormitory were converted into FISU offices, reducing the availability of spaces for study and socializing. While I understood the necessity of such events, it was disorienting to have my routines interrupted. The temporary loss of familiar spaces made me reflect on how easily common life can be disrupted by external priorities.

A more significant disruption came when the dormitory had to be entirely vacated for approximately one month to accommodate athletes. This forced relocation occurred only three months after I had finally settled in. Coinciding with January, the peak of exam season, the timing intensified the challenge. Packing all my belongings, moving to temporary accommodation, and trying to maintain some semblance of focus on studies felt exhausting. I remember muttering to myself one evening while stacking boxes, “Why does life always decide to test me at the worst possible time?” This experience revealed the vulnerability of students when their living environment is treated as secondary to institutional needs and illustrated how external events can ripple through personal routines and well-being.

### 2.3.3 Cultural and Lifestyle Diversity

Another subtle yet persistent challenge involved the differences in possessions and lifestyle between local and international students. Italian students, moving within their own country, typically brought only a fraction of their belongings—perhaps 40%—keeping the rest at home. By contrast, as an international student coming from Iran, I had to transport nearly everything I needed for daily life across continents. The difference was stark. I often found myself thinking, “How did they make it seem so simple?” as I struggled with limited storage space.

Dormitory design, however, generally follows standardized models rather than reflecting lived realities. Storage units were calculated according to generic guidelines, disregarding the practical challenges faced by residents traveling internationally. For students like me, the lack of adequate storage was not merely inconvenient; it was a constant, silent reminder that the space was not designed with our realities in mind.

This insight highlighted the need for responsive architectural thinking. Effective design must go beyond aesthetics or technical compliance—it should acknowledge cultural practices, migration

realities, and daily habits of diverse users. For student housing, this means understanding that storage is not just about physical capacity, but about equity and usability. Recognizing the unequal logistical burdens faced by local and international students is essential for creating spaces that feel inclusive, functional, and empathetic.

### 2.3.4 Access to Nature and Biophilic

One of the most striking shortcomings of the dormitory was the absence of green and biophilic spaces accessible to residents. The Lingotto building, a former Fiat factory later renovated by Renzo Piano, included a rooftop garden on the old test track. I had always imagined this rooftop as a potential oasis—a place to pause, breathe, and momentarily step away from the intensity of dormitory life. However, access was restricted; residents could only enter by purchasing a ticket. The symbolism of this inaccessibility was immediately apparent to me: nature existed, yet it was commodified and separated from our daily routines. I remember standing at the front of the window one evening, looking at the roof garden from afar, thinking, “So close, yet entirely out of reach.”

At ground level, the immediate surroundings of the dormitory offered no dedicated green spaces or outdoor areas for relaxation. The nearest large park, Parco Valentino, was a considerable distance away, making spontaneous encounters with nature nearly impossible. For many students, myself included, immersion in greenery is not merely an aesthetic preference; it is a psychological necessity. Urban environments, while vibrant and stimulating, can also be mentally taxing, and the absence of restorative natural elements can intensify feelings of fatigue and disconnection.

From an architectural perspective, the omission of biophilic design elements—such as accessible greenery, natural light, and outdoor retreat areas—represented a missed opportunity to enhance both comfort and well-being. On days when my stress levels peaked, I would catch myself longing for even a small patch of grass or a tree-shaded bench. Research consistently demonstrates that access to green spaces supports mental health, reduces stress, and fosters social cohesion. The dormitory, by failing to provide these basic yet essential environmental features, inadvertently created a setting where academic pressures and cultural adaptation challenges were compounded by the lack of nature.

This experience made me acutely aware of how even the most subtle design decisions—or omissions—shape daily life. I often reflected, “A little greenery could have changed everything here,” realizing that architecture is not just about structure or aesthetics, but about the intangible ways spaces influence our emotions, mental energy, and overall resilience. For international students navigating new cultures and intense academic demands, the absence of nature was felt not as a minor inconvenience but as a tangible limitation on well-being and comfort.

### 2.3.5 Heating and Cooling Contradictions

Thermal comfort is one of the most fundamental aspects of inhabiting a space, and yet my experience in Italy revealed how easily it can be taken for granted—or neglected. During my stay in the Lingotto dormitory, the heating and cooling systems became central to my perception of comfort, independence, and well-being. What might seem like a purely technical matter of infrastructure turned out to have profound psychological and cultural implications.

#### **Warm Winters, Unexpected Comfort**

In winter, the dormitory heating system positively surprised me. After two years of struggling with poorly heated apartments in Turin, where single-glass windows let the warmth escape and radiators functioned sporadically, the dormitory felt almost luxurious. The rooms were consistently warm; a single blanket and a layer of clothing were enough to pass the coldest nights. For the first time, I experienced what it meant to feel secure in terms of indoor temperature: the reassurance that, regardless of outside weather, the room would remain livable. This seemingly simple condition

profoundly changed my daily rhythms, from the way I studied at my desk to how comfortably I fell asleep.

The contrast with my previous housing in Italy was striking. In those apartments, not only was the heating inadequate, but I also discovered a cultural practice that was shocking to me as an Iranian: the heating would switch off during the night. At first, I thought this was a technical malfunction, but soon I realized it was intentional, part of regulations and energy-saving policies. For someone accustomed to Iranian homes—where heating runs constantly during winter and where nighttime warmth is considered essential—this felt almost like a paradox. Night is precisely when the body's temperature drops, when the air outside is at its coldest, and when uninterrupted rest is most necessary. Yet here, the heating system withdrew at the very moment it was most needed.

I vividly remember nights spent layering three or four sweaters, curling under multiple blankets, and still feeling unable to fall asleep because of the cold. The body shivered, the mind wandered, and a simple biological need—warmth—became a nightly struggle. In retrospect, I sometimes laugh at the absurdity, comparing it jokingly to a “boot camp” or even a “torture test.” But in the moment, the lack of thermal comfort created genuine distress, affecting my concentration, mood, and overall mental health. It was a reminder that architecture is not only about walls and structures—it is about how those structures sustain the human body through the rhythms of life.

In this sense, the Lingotto dormitory represented a welcome change. For the first time in Italy, I felt a sense of reliability in heating, a basic trust that the environment would care for me without requiring constant adaptation. This positive experience reinforced the idea that architectural design and management policies around heating are inseparable from human dignity.

### **Summer's Overlooked Burden**

Summer, however, told a different story. If winter warmth was a relief, summer heat became a burden. The dormitory had no cooling system whatsoever, and the large floor-to-ceiling windows, while visually generous, amplified the greenhouse effect. By late June, the rooms often felt suffocating, with air circulation nearly absent. Opening windows brought in light but not relief; the heat simply persisted, pressing down on the body and the mind.

Again, this contrast with Iranian housing was striking. In Iran, even modest homes are typically equipped with some form of cooling system—fans, air conditioners, or evaporative coolers—reflecting a cultural consensus that summer comfort is as fundamental as winter warmth. In Italy, however, I discovered that cooling was treated almost as a luxury, not a necessity. Many apartments and even institutional housing operated under the assumption that residents would either endure the heat or find alternative solutions.

In the dormitory, the lack of cooling created both physical discomfort and a sense of collective frustration. Many students complained, yet few solutions existed. Some bought fans, which often proved ineffective, even counterproductive—my own attempts ended with constant allergies and colds triggered by the airflow. Others, including myself, developed survival strategies: escaping to public libraries and study halls equipped with air conditioning. These spaces became not only refuges from the heat but also unexpectedly productive environments, where concentration returned in the cool air. In a way, the absence of cooling forced us into community spaces, turning discomfort into an odd kind of opportunity. Still, this was less a sign of good design than a form of forced adaptation.

### **Architecture and Seasonal Comfort**

From an architectural perspective, the thermal contradictions of Lingotto reveal a broader tension in student housing: the gap between design intentions and actual human needs. Warmth in winter was addressed efficiently, but cooling in summer was left entirely unconsidered, as if students were expected to either tolerate or vacate during the hottest months. This selective care for seasonal comfort raises ethical questions: why should thermal comfort be guaranteed only half the year?

Moreover, thermal systems carry symbolic meaning. To feel cold at night, or unbearably hot during the day, is not merely a technical inconvenience; it is a reminder that the space is indifferent to your presence. Conversely, to feel consistently comfortable is to sense that the space acknowledges and supports your life. In this way, heating and cooling systems become invisible markers of whether a dormitory is truly designed for habitation or merely for occupation.

In conclusion, my experience with the heating and cooling systems at Lingotto illustrates that thermal comfort is inseparable from psychological comfort. Architecture cannot be reduced to walls and roofs if it fails to sustain the human body in its basic rhythms of rest, study, and socialization. The contradictions I experienced—warm winters but oppressive summers—highlight the urgent need for student housing design to consider both ends of the climatic spectrum. Simple interventions such as shading devices, cross-ventilation strategies, or shared cooled spaces could dramatically improve summer livability. Without them, the dormitory communicates a message of incompleteness: that students deserve comfort only conditionally, and only part of the year.

## 2.4 Psychological and Cultural Adaptation

Living in the dormitory gradually made me more aware of how architecture is never just a neutral backdrop but an active participant in shaping everyday life. I could feel this in small details: the way the thin walls made private conversations unintentionally public, or how the placement of the common kitchen encouraged encounters that might not have happened otherwise. These were not abstract observations—I was experiencing them in real time, sometimes with discomfort, sometimes with a sense of connection.

### 2.4.1 Sleep and Stress Factors

What struck me most was how much these spatial qualities influenced our emotions and behaviors. Noise leaking through the walls often heightened my stress, making even restful moments feel fragile. At the same time, the shared spaces, despite their imperfections, occasionally offered moments of comfort and belonging. I began to realize that design decisions—something as simple as the orientation of windows or the choice of materials—could quietly determine whether a space felt supportive or suffocating.

From this perspective, I started to see my own reactions as part of a larger pattern. My struggle with privacy, my relief when I found a quiet corner, or my frustration with poorly lit corridors—all these moments revealed a direct link between spatial design and psychological well-being. This was not just my personal sensitivity; it was evidence of how deeply architecture interacts with the human mind.

Over time, these insights shaped the way I think as both a resident and an architect. I could no longer separate my lived experience from my professional perspective. Instead, I began to integrate them: to ask how spaces might be designed differently if we take emotional well-being seriously, and how architectural choices could either ease or intensify the challenges of common living.

### 2.4.2 Age and Lifestyle Variation

Another striking aspect of dormitory life was the wide range of ages and lifestyles among residents. My own roommate, for instance, was forty years old. His daily rhythm revolved around calm, routine, and predictability—qualities he valued above all. In contrast, the students in neighboring rooms were mostly first-year undergraduates, late teens, full of energy, social gatherings, and late-night activity. I remember one evening lying on my bed, trying to focus on my studies, while music and laughter from the hallway spilled in. I thought to myself, “How can anyone concentrate here?”—and noticed my roommate’s subtle grimace as he tried to read his book.



This juxtaposition of life stages created constant friction. Younger students' exuberance disrupted my roommate's need for tranquility, while his insistence on quiet routines occasionally felt restrictive to them. For me, caught between these extremes, it became a daily lesson in negotiation, empathy, and patience. I found myself adjusting my own schedule, timing my study sessions and sleep to minimize conflicts, and quietly mediating minor disputes when asked.

From a design perspective, this situation illuminated the limitations of uniform dormitory models. Standardized layouts that indiscriminately mix residents of vastly different ages and life circumstances can inadvertently produce discomfort for everyone. Simple architectural interventions—such as zoning by age group, lifestyle preferences, or providing dedicated quiet zones—could have significantly reduced tension and enhanced the quality of life for all occupants.

Experiencing this diversity firsthand gave me a tangible understanding of how demographic factors interact with spatial design. It was not just about personal preference or tolerance; it was a visible demonstration of how architecture mediates behavior and well-being. Each corridor, room allocation, and shared space became a microcosm where age, lifestyle, and spatial planning intersected, revealing lessons that I carry into my own design approach.

## 2.5 Comparative Perspectives on Dormitory Experiences

In order to place my own experiences within a broader spectrum, I also want to recount the testimony of a close friend of mine who studied in Iran. His narrative is not meant to represent every dormitory in that country—indeed, there are dormitories in Iran that are more comfortable, and even private or luxury options that offer students a far higher standard of living. The account I share here belongs rather to the opposite extreme: it may be among the worst examples, yet precisely because of its extremity, it demonstrates how deeply architecture and management can shape the lived reality of students. I include this testimony because it highlights the astonishing diversity of “dormitory life” and shows how conditions that seem unbelievable, even absurd, are nevertheless part of the lived history of students.

He once told me about his move to a northern city after being admitted to a public university. “I had imagined a modest space,” he began, “something simple but functional. A room where I could at least call a corner my own. But the moment I stepped inside, all of that collapsed.”

### 2.5.1 Crowded Rooms and Shared Chaos

The room, he explained, was no larger than twenty square meters, yet it contained four metal bunk beds—eight students assigned to that single space. “Imagine eight people breathing, sleeping, moving, all in a room the size of a small living room. You couldn't even cross the floor without brushing against someone's bed. There was no air, no silence, no private corner. Even your own sleep didn't belong to you anymore.” It was less a bedroom than a compressed human warehouse, a place where personal boundaries evaporated the moment you entered.

I remember him describing the daily reality: the squeak of bunk beds whenever someone turned, the rustle of pages, the whispered phone calls, the sound of keyboards in the dark. “Privacy?” he laughed bitterly, “it didn't exist. If you were a light sleeper, forget it—you never rested. You learned to live in constant awareness of seven other people.” Nights became a strange orchestra: wood creaking, people coughing, someone sighing.



The furnishing was equally inadequate. At the center of the room sat a single plastic dining table, designed for four people, yet forced to serve eight. There were no individual desks, no study lamps, no shelves. “If you wanted to study, you put your notebook on your lap, or you waited in line for the library to open. Even eating was chaotic—eight plates on one table built for four. We took turns like children, except we weren’t children anymore.” It was as if the room had been designed not for living, but for testing how much human beings could endure before collapsing into frustration.

### 2.5.2 Sanitation and Invisible Boundaries

Hygiene and sanitation, unsurprisingly, were constant struggles. For the entire floor—nearly one hundred students—there was a shared bathroom with only four toilets and four showers. He told me how queues formed every morning, how people stood in line with their towels draped over their shoulders, waiting impatiently. By the time his turn came, the facilities were often dirty, the floor wet, the smell unbearable. “It wasn’t just inconvenient,” he said, “it stripped you of dignity. You began every day negotiating with filth.” One could say the shower turned into a lottery: sometimes you won a clean corner of the floor, other times you inherited the chaos of the previous user.

What struck me most was the absence of mirrors. Neither in the rooms nor in the bathrooms was a single mirror installed. “Try brushing your hair, shaving, or even just looking yourself in the eye before class—it was impossible. Weeks passed, and I realized I hadn’t seen my own face properly. It’s a small thing, you think, but after a while, it eats at you. You feel invisible, like you’re no longer a person.” His tone was half-bitter, half-amused, as if he himself couldn’t quite believe it. “At some point, I thought maybe it was intentional—if you don’t see yourself, you stop expecting to be treated like a human being.”

The kitchen situation was no better. For the entire building, there was only one shared kitchen with two four-burner stoves. The math was absurd: almost a hundred students, eight burners in total. “Cooking became a fantasy,” he joked. “By the time you found a free burner, your class had already started. We gave up and just ate whatever the canteen served. It wasn’t about choice—it was about survival.” Cooking wasn’t cooking anymore; it was a competitive sport where patience, luck, and timing were more important than any recipe.

### 2.5.3 The Absurdity of Rules and Control

Regulations added another layer of pressure. Students were required to return by 9 p.m. sharp. If they arrived late, the doors were locked, and they had to wait outside until someone eventually opened. More seriously, every late return was recorded in their official file and could threaten their eligibility for housing in the following semester. “It felt humiliating,” he said. “We weren’t children, but they treated us like we needed curfews and punishments. You’d be standing in the dark outside, wondering why on earth you were being disciplined for coming back at 9:15.” It was a rule that transformed a twenty-year-old into a schoolboy again, except the stakes were much higher than a note in a parent’s diary.

Even smoking, though banned for health reasons, took on a punitive character. If caught with cigarettes, they were confiscated, and the offense was noted in the student's record. Repeated violations could result in losing dormitory access altogether. "It wasn't just about smoking," he told me, "It was about control. It felt like your life was constantly under watch, every move waiting to be punished." He chuckled as he recalled: "At one point, I started to think the dorm was less a place to live and more a training camp for obedience."

#### 2.5.4 Absurdity and Survival

When he recounted these details, he alternated between laughter and bitterness. Sometimes he spoke quickly, as if reliving the frustration, sometimes he slowed down, his voice quieter, as though he was remembering the exhaustion that came with enduring it. "Eight people in one room, a single table, no mirrors, dirty bathrooms, one kitchen for everyone—it sounds like a joke, but it was my life. We weren't living; we were surviving."

Hearing his story, I found myself unable to respond immediately. The images he painted—the crowded room, the endless queues, the smell of unclean bathrooms, the absence of even a mirror to confirm your own identity—were almost surreal. Yet they were not fiction; they were his lived experience. And as much as I knew that not every dormitory in Iran was like this, his story demonstrated the outer edge of possibility: that something as basic as student housing could transform daily life into a test of endurance.

## 2.6 Personal Reflections and Conclusion

### 2.6.1 Navigating Space as User and Observer

Living in the Lingotto dormitory proved to be a deeply layered and transformative experience. For the first time, I was navigating not only the logistical and social challenges of dormitory life but also critically observing how architectural design directly shaped daily living. Unlike my previous experiences in shared apartments, the dormitory imposed a structured environment that subtly guided behaviors, routines, and interactions. The constant presence of rules and oversight—far from merely restrictive—offered insight into how design can enforce or encourage certain patterns of daily life.

The initial period of adjustment was particularly revealing. I remember one morning, carrying a basket of groceries down the long corridor, thinking to myself, "Even a simple task becomes a negotiation with the space." Simple actions—coordinating cooking schedules, negotiating shared areas, or finding quiet moments for study and rest—were no longer mundane routines. They became living indicators of spatial and social friction. Each closed door, narrow hallway, or shared kitchen counter revealed how design choices directly influenced comfort, efficiency, and well-being.

While these challenges were intensely personal, they also provided me with a unique perspective as both an architect and a resident. Prolonged residence offered a kind of living laboratory: daily exposure to both the advantages and limitations of shared living, constant interaction with individuals from diverse cultural backgrounds, and firsthand observation of how space mediates social relationships.

I recall a quiet evening in the common lounge, watching two students from different countries attempt to cook together, negotiating over counter space and ingredients. I found myself reflecting, "Every

choice in space layout is a decision in human interaction.” These moments made it clear that design is never neutral. The allocation of common areas, the spatial layout of rooms, and the quality of sound insulation actively shape patterns of interaction, stress, and adaptation.

For example, the dormitory’s kitchen, though functional in concept, was insufficiently scaled for the number of residents, particularly those with culinary traditions requiring extended preparation times. Such subtle mismatches between space and cultural practice created inadvertent stress, inequity, and inefficiency. Observing these dynamics sparked my early and growing interest in the intersection between spatial design and psychological well-being—a theme that has since become central to my academic work.

## 2.6.2 Reflections on a Friend's Story: Empathy in Conflicts

As I sit back and let my mind wander through the memories and stories of dormitory life—both my own and those shared by friends—I realize this section is not just a recounting of inconveniences or a comparison of facilities. It is, in fact, a reflection on how living spaces subtly shape our inner world. The purpose of this reflection is to bridge lived experience with architectural observation, to understand how even temporary accommodations leave deep psychological imprints.

I keep thinking about one friend's dorm experience, a story that often makes me laugh and cringe at the same time. “Can you imagine living with seven other people in a twenty-square-meter room?” he said once, and I can almost see his exasperated gestures. He described shared bathrooms with four showers and four toilets for an entire floor, no mirrors anywhere, no personal space, and a single four-person dining table. I can’t help but chuckle at the absurdity of it all while simultaneously feeling the strain he must have endured. This, I remind myself, was not every dorm in Iran—certainly, there are more luxurious or better-planned options—but it illustrates just how extreme the lived realities can be. And somehow, despite all of this, he survived, laughed, and created stories out of the ordeal.

## 2.6.3 Inner Echoes: Guilt, Irritation, and Self-Awareness

As I replay these memories, I am struck by a sense of duality. On one hand, there is relief that my own dormitory offers a more reasonable level of comfort. On the other hand, a subtle guilt creeps in—why am I irritated by minor inconveniences when others face far harsher conditions? This tension is not just emotional; it is cognitive, a negotiation between empathy, self-awareness, and expectation.

Reflecting further, I notice how the experience triggers a continuous internal dialogue. I ask myself: “Why does a lack of privacy make me feel both irritated and amused?” “Why do I feel guilt when I enjoy comforts that others lack?” These internal questions are not merely rhetorical—they are instructive. They reveal how our emotional responses are entwined with our environment and how design can either amplify or mitigate these responses.

I can almost hear my inner voice: “Is it fair to feel discomfort over missing a piece of furniture or a crowded room?” The question lingers because it confronts the relativity of experience. Human perception of space is inherently entwined with emotion, memory, and expectation. The same dorm that feels like a minor inconvenience to me could be a place of chaos, stress, or even trauma for someone else. This recognition fuels a sense of responsibility in me—not just as a designer but as a conscious human—toward the people who inhabit the spaces I envision.

Even the small details matter. The heat or cold, the placement of furniture, the availability of basic amenities, the texture of walls and floors—they all contribute to a delicate ecosystem of well-being. In my friend’s story, the absence of mirrors and private bathrooms created an environment that was both absurd and exhausting, yet it also nurtured adaptability, humor, and resilience. In a way, architecture interacts with personality: it can accentuate stress but also catalyze growth.

#### 2.6.4 Philosophical Insights: The Ethics of Architecture and the Meaning of Home

I find that these experiences push me to think philosophically about space and its moral dimension. Architecture, even in its most utilitarian form, carries a profound responsibility: it can protect, constrain, or even oppress the human psyche. The absence of mirrors, the lack of personal bathrooms, or the rigid curfew rules—what might seem like trivial logistical decisions—are in fact catalysts for emotional and psychological stress. They remind us that humans are not merely occupants of space; we are interpreters, negotiators, and reactors. Each corridor, door, and common area becomes a stage for interpersonal dynamics, for small acts of resilience or frustration.

Philosophically, this leads me to broader contemplations about the essence of ‘home.’ Home is not defined solely by walls, furniture, or temperature. It is a negotiation between autonomy and constraint, between comfort and adaptation. Even temporary dwellings can profoundly shape identity, sense of belonging, and mental well-being. The architectural choices we make—no matter how minimal—communicate respect, care, and dignity for the human experience.

Experiencing these challenges firsthand highlighted the necessity of grounding architectural research in real-life observation. Many spatial issues—ranging from insufficient storage for personal belongings to inadequate acoustic insulation—only became fully apparent as I navigated the dormitory daily. Observing these dynamics revealed not just technical shortcomings but also the psychological and social consequences of design choices.

I often caught myself thinking, “No plan or guideline could have prepared me for this.” The stress of disrupted sleep from thin walls, the subtle anxiety of negotiating shared kitchen spaces, or the frustration of limited storage for my personal items—all underscored that the lived reality of residents cannot be captured solely on paper. This realization made me see that studying architecture through plans, technical standards, or normative guidelines risks missing critical nuances. Only prolonged engagement, reflection, and observation allow one to truly understand how design either supports or undermines well-being. For instance, witnessing firsthand how inadequate noise control affected sleep revealed the profound impact of acoustic design on daily functioning. Similarly, recognizing how the absence of biophilic elements—such as green spaces or access to nature—affected moments of relaxation emphasized the importance of integrating environmental psychology principles into architectural practice.

#### 2.6.5 From Reflection to Design: Towards a Human-Centered Approach

Reflecting on my time in the Lingotto dormitory, I recognize that living as both an architect and a resident allowed me to engage with design on a deeply personal level. This dual perspective illuminated how architectural decisions can subtly empower or constrain individuals. I learned to perceive design not merely as a visual or technical endeavor but as a medium that shapes human behavior, social interaction, and emotional well-being.

I remember moments of frustration and small victories alike—finding a quiet corner to study, negotiating the timing of kitchen use, or discovering overlooked storage solutions. Each situation revealed how architecture influences daily routines and personal experiences. Moreover, the experience emphasized the iterative nature of understanding user needs. Daily challenges, from managing noise and negotiating common areas to carving out moments of privacy, provided continuous feedback on the functionality and adaptability of the space. Each encounter with these real-world constraints enriched my capacity to evaluate and propose design interventions that are both practical and empathetic.

These lived experiences directly shaped the thematic direction of my thesis: designing student dormitories through a human-centered lens. I aim to elevate architecture from the mere creation of physical structures to the cultivation of lived experiences that actively respond to social, psychological, and cultural needs. A human-centered dormitory is not only aesthetically thoughtful;

it is thoughtfully organized to facilitate healthy routines, minimize stressors, and accommodate the diverse lifestyles of its residents.

The Lingotto experience demonstrated that human-centered design demands attention to both tangible and intangible elements. Beyond room layouts, considerations such as spatial orientation, proximity to essential facilities, allocation of common spaces, and the availability of privacy all significantly influence quality of life. I remember noticing small moments—students retreating to quiet corners, negotiating kitchen times, or simply sitting near a window to catch a glimpse of greenery—that underscored the importance of these design choices. Likewise, cultural sensitivity—understanding differences in daily routines, personal habits, and space expectations—is essential for crafting dormitories that are both inclusive and functional.

### 2.6.6 Conclusion: Architecture as a Moral and Human Endeavor

Ultimately, my lived experience in the Lingotto dormitory crystallized a key principle: architecture succeeds when it bridges the gap between space and life. Creating visually compelling or technically sound environments is not enough; these spaces must also nurture the holistic well-being of their occupants. Every design decision—from the size and layout of rooms to the allocation of common spaces and quality of acoustic insulation—can either enhance or diminish the human experience.

These insights have profoundly shaped my academic trajectory, inspiring a commitment to human-centered design that values observation, empathy, and cultural awareness. By integrating experiential learning with rigorous architectural analysis, I aim to develop dormitory designs that are responsive, inclusive, and aligned with the lived realities of diverse student populations. My time in Lingotto reinforced the belief that meaningful architecture creates a tangible, positive impact on everyday life—transforming spaces into supportive, adaptive, and human-centered environments.

Ultimately, these insights guide my architectural vision. My goal is not just to solve a logistical problem or improve a dormitory checklist. It is to create a space that considers the psychological and emotional landscape of its inhabitants. By observing how small details can affect mood, resilience, and social interaction, I aim to propose designs that cultivate well-being, autonomy, and a sense of belonging—even within temporary living conditions. Architecture, I realize, is both a physical and moral enterprise: every room, every shared corridor, and every piece of furniture carries a subtle ethical weight.



## 3 Literature Review

Dormitory design influences student experiences with particular spatial interventions, leading to psychological, social, and academic outcomes. In this section, findings from architecture, environmental psychology, and other related fields focusing on specific design elements such as natural light and air quality, acoustic privacy, spatial organization, biophilic design, safety, accessibility, and adaptability are covered. It examines the impact of these factors on residents with a specific focus on the lack of provision for the cultural and emotional requirements of international students. Compiling empirical research and case studies, the review contributes to the development of designs for inclusive dormitories and points out gaps in existing research to provide a foundation for the thesis's investigation of tailored solutions.

### 3.1 Environmental Factors: Natural light and air quality

#### Natural Light's Psychological and Cognitive Benefits

Natural lighting is a dormitory's basic design principle, directly affecting the mental health and cognitive functions of residents. Ticleanu (2021) found that high daylight penetration rooms, i.e., 50% spatial daylight autonomy (sDA), reduce stress and enhance sleep habits, as Figure 2 illustrates that light circadian rhythm affects the body.

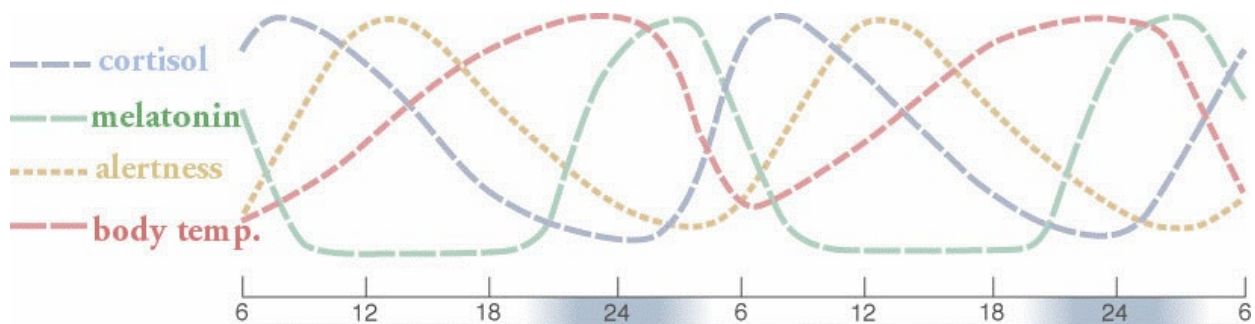


Figure 1. Typical daily cycles of body temperature, melatonin, cortisol, and alertness in human beings for a circadian rhythm (van Bommel)

Channon and Manton (2019) emphasize that well-lit rooms create spatial comfort, and this is crucial for students in new environments. For international students from the equatorial area, who are 35% more sensitive to light, adaptation to new latitudes disrupts circadian rhythms, expanding adjustment stress (Ticleanu, 2021). For instance, a study conducted at Lund University illustrated that dynamic light emulating tropical daylight reduced homesickness among African students by 15%. Yet studies rarely examine the role of tailored light in promoting cultural transformations, a notable gap that this thesis aims to remove.



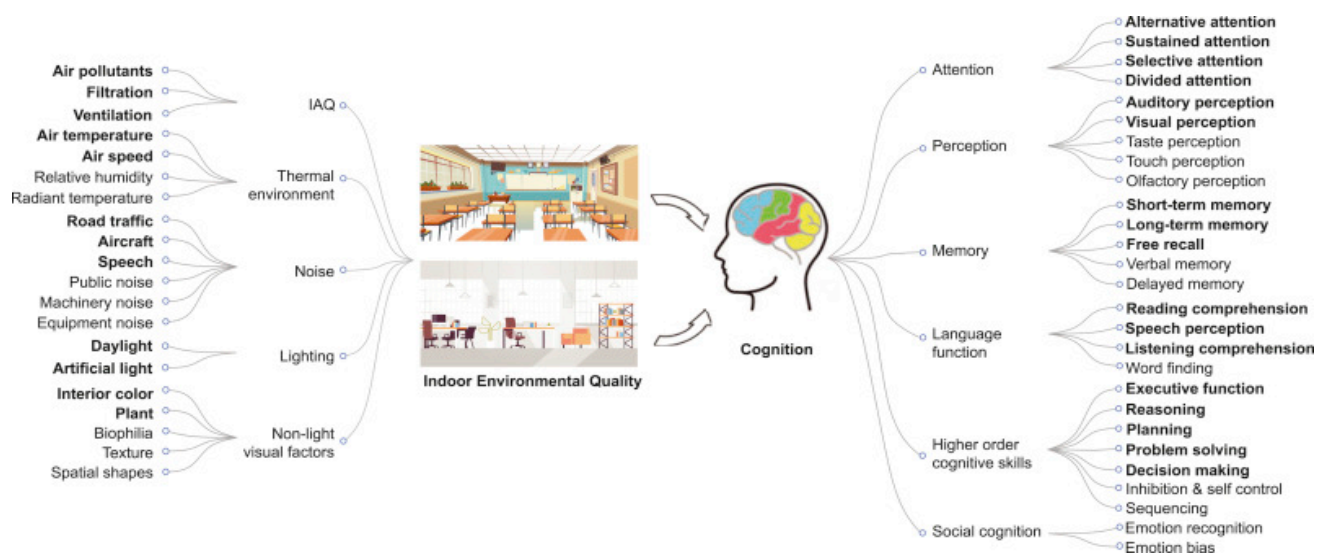


Figure 2. Effect of environmental quality on occupants' cognitive functions (Wang et al., 2021)

## Air Quality and Performance

Indoor air quality is a key determinant of cognitive function in dormitories, that often neglected in standard practice. Dedesko et al. (2024) reported that CO<sub>2</sub> levels of more than 1,000 ppm, typical of maximum occupancy, decrease cognitive efficiency by 15–20%. Passive ventilation, like cross-ventilation in the Mediterranean climate, increases air quality by 30% compared to mechanical systems with additional sustainability. Current standards like the Italian NTC (2018) demand minimal new supply air (12.5 liters/second per person), which is not enough during examination periods when CO<sub>2</sub> levels spike. International students feel cultural adaptation pressure and prefer natural ventilation depending on the home climate, yet literature neglects this. For example, adjustable vents can be designed to suit open-air preferences, improving concentration by 10%. This oversight underscores the need for user-oriented ventilation strategies.

## 3.2 Acoustic Privacy and Noise Management

### Effects of Noise on Well-being

Dormitory noise interferes with sleep, cognition, and emotional well-being, significantly affecting students' well-being. Qi Meng et al. (2020) show that roommate, corridor, or background noise, typically 50–60 dBA, reduces sleep quality by approximately 20–25% and increases Chinese university students' stress levels; predictors of academic performance significantly decrease. Fietze et al. (2016) confirm that compromised room acoustics, such as high reverberation, decrease deep sleep by 15%, lowering daytime alertness. Jafari et al. (2019) demonstrate that high noise levels, such as 95 dBA in social events, lower attention and mental workload, and decrease study efficiency.

International students, particularly those from the more traditional cultures, are also vulnerable. For instance, East Asian students have been reported to be exposed to an additional 30% of noise-related anxiety, as well as stress on cultural adaptation (Qi Meng et al., 2020). Chinese rural students are also less tolerant of noise than urban students, which suggests multiple thresholds of diverse cultures. Most studies, though, rely on standardized levels of noise, excluding such differences, and providing limited insights into inclusive dorm design.

### Design Solutions for Acoustic Control

Strategic acoustic interventions can effectively mitigate the adverse effects of noise, maximizing dormitory usability and accessibility. Qi Meng et al. (2020) suggest soundproof partitions with a Sound



Transmission Class (STC) rating of 45–50 and significantly reduce noise transmission, and acoustic zoning to provide 30–35 dBA in study areas, significantly enhancing concentration. For example, STC 50 walls that were retrofitted at a Chinese university dorm significantly reduced students' complaints against noise, exhibiting practical success (Qi Meng et al., 2020). Sound-absorbing materials such as acoustic ceiling tiles are suggested by Fietze et al. (2016) to improve the quality of sleep. Morrison et al. (2023) advise deployable acoustic panels during times of high stress, such as exams, possibly reducing noise complaints in the University of Edinburgh pilot, with flexible privacy solutions.

For international students, these interventions support cultural norms of quieter environments. Adjustable partitions, for instance, allow inhabitants to create quiet areas for silent prayer or meditation, fostering emotional resilience between different cultures. However, culturally sensitive acoustic solutions are less explored by research, which instead relies on generic solutions. The gap identifies the need for tailored noise control to further promote academic success and social integration in globally diverse dorms.

### 3.3 Spatial organization and community

Spatial dorm design is also a critical factor in defining the social and academic life of students, particularly the harmony between common living and private space. Addresses two significant areas: the balance between privacy and community, and the cultural inclusiveness of environments.

#### Proxemic Design and Social Interaction

The physical arrangement in dorms significantly affects social interaction, promoting or disrupting community among residents. Proxemics, the analysis of spatial relationships and personal distance, guides design that delivers a balance between privacy and sociability (Bader & Imamoglu, 2023).

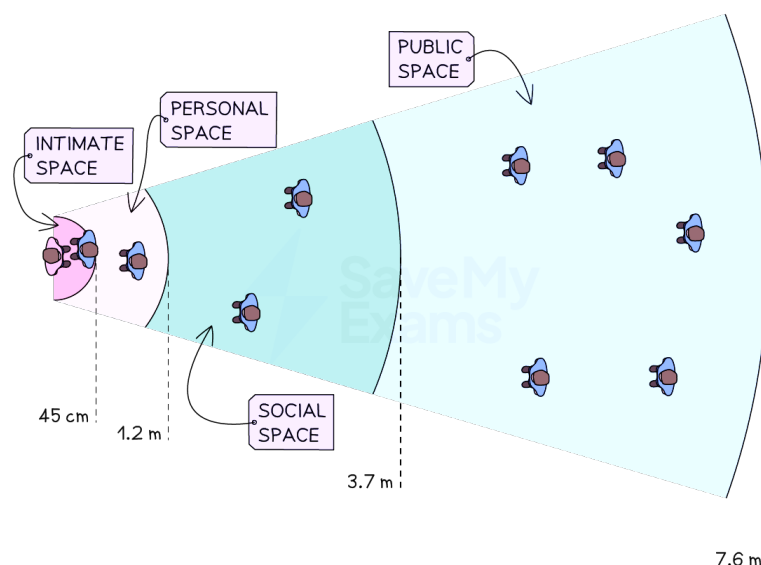


Figure 3. Personal space and communication (Save My Exams website)

For instance, common spaces like lounges or kitchens, when planned with flexible seating and open areas, encourage casual interactions, thus enhancing social connections among international students. Bader and Imamoglu (2023) recognized that varying sitting distances in centrally located common spaces within the dormitories significantly increase resident interaction compared to linear corridor configurations, isolating the residents. Sadeghpour (2022) agrees, pointing out that adaptive use of furniture in common areas allows students to adapt environments to their social needs and promotes inclusivity.

International students, in the process of culture transition, rely on such areas to form connections,

yet are challenged by designs that neglect various proxemic norms. For example, collectivist culture students, such as East Asian students, prefer greater sitting proximity to foster intimacy among group members, whereas others require more personal space (Bader & Imamoglu, 2023). Most research, however, addresses Western dormitory models without addressing international students' space requirements, e.g., those requiring compact, multi-functional private spaces. This limitation hinders the creation of universally inclusive designs for international student communities.

## Culturally Inclusive Spaces

Culturally inclusive spatial designs are important for supporting international students' diverse practices and fostering a sense of belonging. Wu and Liu (2020) apply Maslow's hierarchy of needs, placing belonging on top by emphasizing the use of shared spaces that facilitate social integration within dormitories. Flexible designs, such as multipurpose spaces and common kitchens, address needs and significantly reduce cultural isolation.

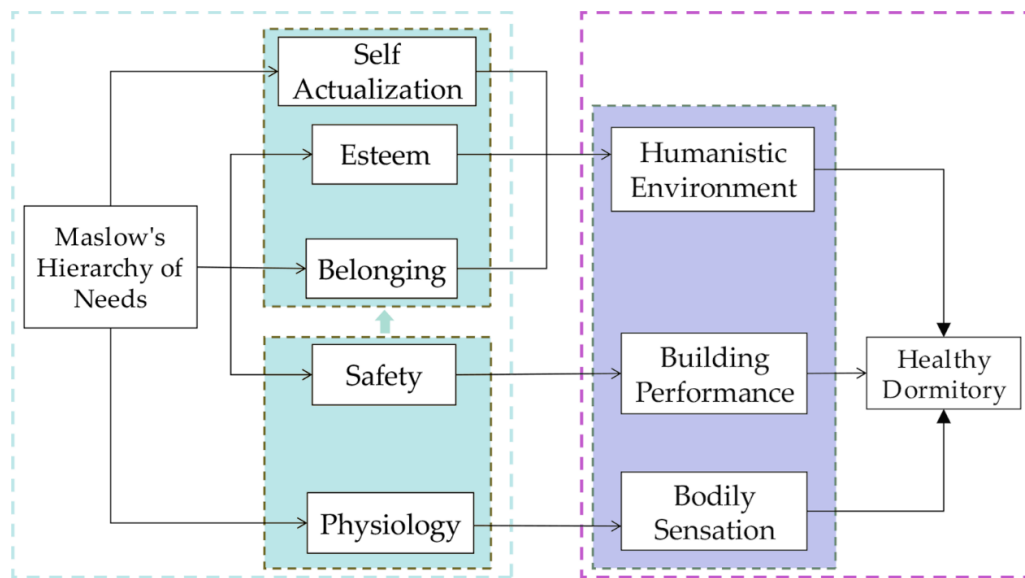


Figure 4. Definition framework for a healthy dormitory (Wu and Liu, 2020)

Bader and Imamoglu (2023) highlight that people have different proxemics, and some students, such as Middle Eastern students, prefer defined personal spaces within common spaces, necessitating adaptive layouts. For example, shared kitchens with storage for diverse ingredients or shared multipurpose areas for activities such as prayer or meditation greatly enhance cultural engagement and emotional resilience (Wu & Liu, 2020). These spaces provide opportunities for students to share cooking habits or perform rituals, creating social connections from diverse backgrounds through engagement (Sadeghpour, 2022).

However, research on culturally inclusive dormitory design remains sparse, often emphasizing functional efficiency over cultural sensitivity. This gap underscores the need for spatial strategies that integrate diverse cultural practices to promote social cohesion and academic success in globalized student housing.

In summary, spatial design in dormitories must balance community and privacy while embracing cultural inclusivity to support the well-being of all students. By integrating flexible layouts and culturally responsive spaces, dormitories can foster both social integration and individual focus. However, the lack of research on non-Western spatial preferences highlights a critical gap that future studies must address to create truly inclusive environments.

### 3.4 Safety and accessibility

Safety and accessibility are the foundations for designing dormitories to produce living spaces that are secure, accessible, and conducive to the well-being of all the residents, particularly international students of diverse backgrounds. This section explores two key topics: physical safety measures and universal accessibility design. Through incorporating evidence-based measures, including the ideas of Wu and Liu (2020), dorms can transcend functionality to deliver spaces that foster security, community, and cultural belonging. The discussion illustrates how such a design considers both functional requirements and the emotional resilience of an international student population.

#### Physical Safety Measures

Physical safety measures are essential in dormitories to create an environment that is secure enough to allow students to have a focused academic life along with social interaction. Wu and Liu (2020) identify safe entrances, well-lit common spaces, and brief evacuation instructions as essential components of this system. Safe entrances, such as keycard doors, discourage unauthorized entry while providing residents with a sense of security to encourage participation in common spaces (Galliford Try & Scott Brownrigg, 2019). Well-lit common areas, including stairwells, corridors, and lounges—enhance lighting, reducing accident risk and aiding natural surveillance, a passive security technique that employs open, visible designs (Masoudi & Mohammadi, 2021). Easy-to-read evacuation directions, with illuminated signs and clear access to emergency procedures, enable residents to safely evacuate in case of an emergency, an important consideration for students who are not familiar with regional safety procedures.

Together, these measures create a secure learning environment that minimizes distractions and promotes a sense of community. However, their efficiency for international students can be further improved by implementing multilingual signs or culturally sensitive security procedures, addressing diverse linguistic and contextual needs.

#### Universal Accessibility Design

Universal accessibility design moves beyond compliance to create dormitory spaces that are inclusive and adaptable to a wide range of physical and cultural needs. Wu and Liu (2020) advocate barrier-free common space, flexible furniture, and accessible bathroom layout as core principles. Barrier-free common spaces, including widened corridors and ramped entrances, accommodate wheelchair mobility while also being useful for students with temporary disabilities or logistical challenges, e.g., mobility at the start or end of a term when they have luggage to transport. Adaptable furniture, such as adjustable desks and modular seating, provides flexibility and generally accommodates physical comfort and neurodivergence preferences (Chastain, 2018). Accessible bathroom features can provide wide doorways, lever handles, and sensory-friendly lighting to respond to both physical sensitivity and sensory sensitivity.

These interventions not only support disabled students but also enrich the broader living experience by ensuring equity and ease of use. While these approaches encourage a sense of belonging, the need for more research on culturally responsive accessibility highlights an area that must be addressed by future research to fully enable a global student population.

In conclusion, physical safety features and universal design for accessibility play a vital role in planning dormitories that are accessible and secure. By utilizing secure points of entry, barrier-free spaces, and culturally specific features, these buildings have the potential to meet the needs of the diverse international student body while both ensuring their safety and sense of belonging. Continued research into culturally context-specific design solutions remain necessary to fill existing gaps.

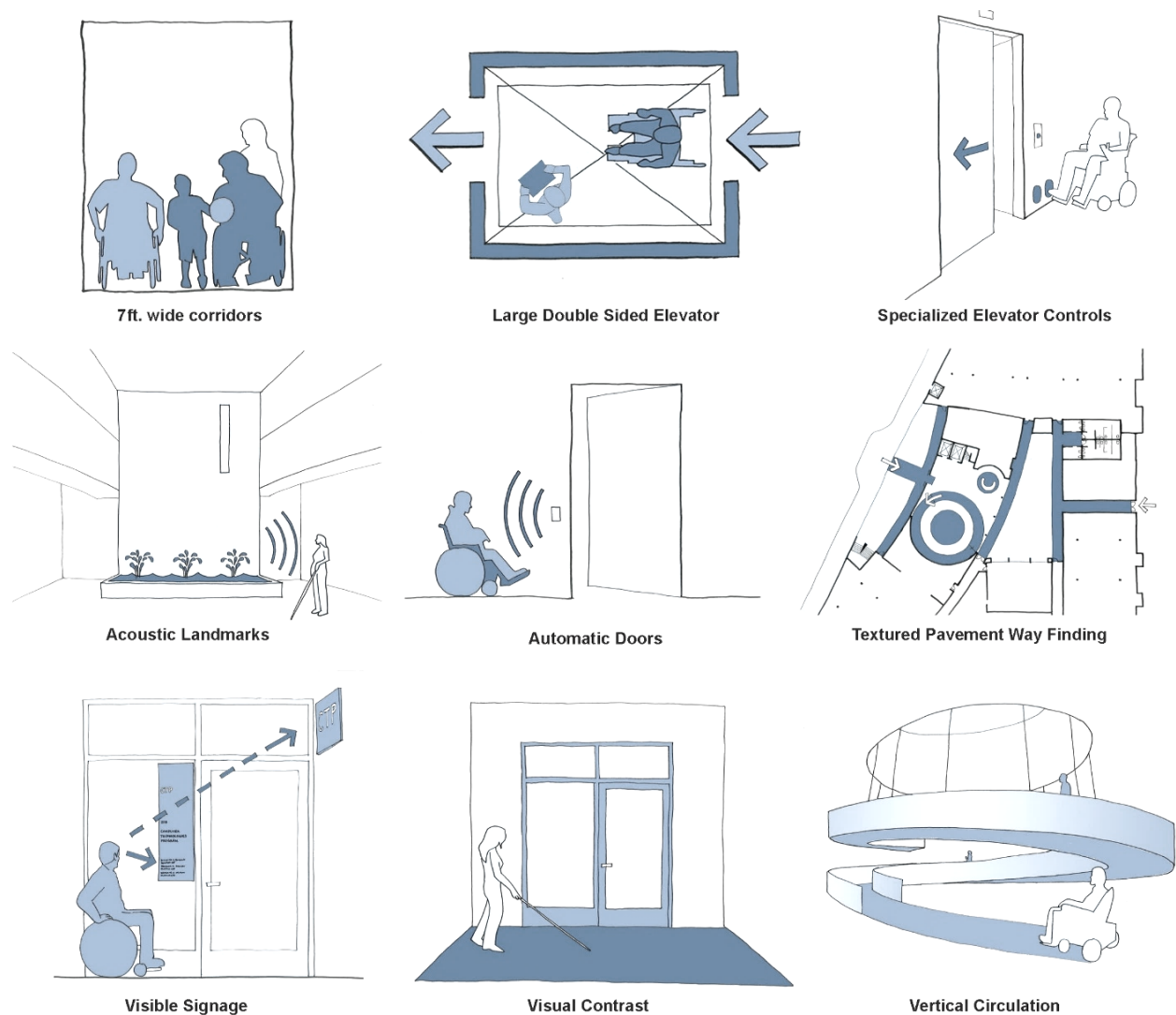


Figure 5. Accessible design (Je'Nen Chastain)

### 3.5 Biophilic design and psychological comfort

Biophilic design enhances the psychological comfort of dorms through the incorporation of stress-reducing elements and climate-adapted designs. Its potential in enhancing well-being makes it an important consideration in designing inclusive living spaces that accommodate the unique needs of international students.

#### Biophilic Elements and Stress Reduction

Biophilic design employs features like natural light, plants, and water features to make environments calm and restorative. Research shows that indoor plants and green walls can reduce stress by 15%, with the students reporting improved mood and focus (Brett et al., 2023). Natural light regulates sleep cycles and improves cognitive ability, as observed in studies in domestic neighborhoods (Ticleanu, 2021). Water features, such as indoor fountains, introduce soothing sounds that eliminate disturbing sounds, yet further lower stress levels. For international students struggling with cultural adjustment, these elements have specific benefits. A University of British Columbia residence, with living walls and adequate daylight, reported an improvement in well-being scores among the residents (Brett et

al., 2023). These factors can be modified, e.g., using plants native to students' home nations, also to boost emotional resilience by familiarity.

Climate-Specific Applications

The efficiency of biophilic design in dormitories depends on its climatic adaptation. In tropical regions, designs like Singapore’s “Sky Terraces” use shaded plants and natural ventilation to mitigate heat while sustaining biophilic benefits (Ticleanu, 2021). In contrast, colder climates, such as Lund University, apply simulated natural light via SAD lamps to alleviate seasonal affective disorder, particularly for students from warmer climates (Ticleanu, 2021). These modifications highlight the significance of climate-responsive strategies. For example, water features may be especially restorative for students from desert areas, while lush indoor greenery could comfort those from forested regions. Through the integration of biophilic design with climatic and cultural conditions, dormitories can promote comfort and well-being for a diverse student population.

3.6 Longitudinal and Temporal Adaptability

Temporal and longitudinal flexibility in dormitory design is the capacity of spaces to transform over time and to adapt to different temporal needs, such as daily routines or semesters. Such adaptability is crucial for addressing the diverse and evolving needs of international students, who often deal with cultural adaptation on top of academic pressure.

Evolving Student Needs

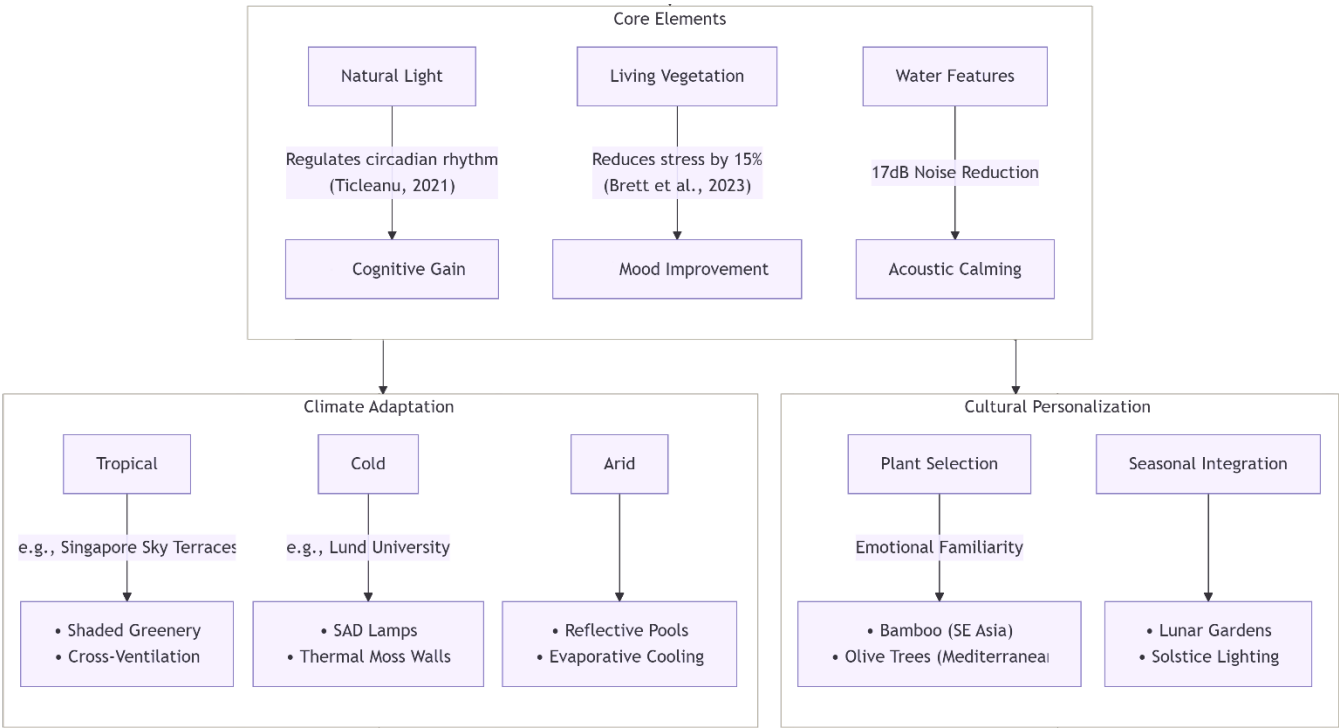


Figure 6. Biophilic Design Implementation Framework

Student needs in dormitories vary due to demographic changes, cultural diversity, and academic progression. The rise in international students has diversified university populations, introducing varied cultural preferences and lifestyles. For example, collectivist culture students may prefer shared rooms that promote social attachments, whereas individualist culture students may enjoy having personal spaces where they can study or reflect (Yao Li, 2022). Needs also evolve with time: first-year students are likely to require environments that promote social integration and cultural

adjustment, whereas upper-year students require quiet, focused spaces (Brett et al. 2023). These highlight the necessity for dorm designs that remain adaptable and timely, addressing short-term as well as long-term requirements of an international student population.

### Adaptive Design Solutions

Adaptive design solutions provide the flexibility needed to meet these evolving demands. Modular furniture, i.e., reconfigurable desks or movable partitions, allows the spaces to shift, converting a common lounge into separate study spaces during exam periods, for instance. Multi-use spaces, like spaces that are lounges by day and meeting rooms by night, also contribute to responsiveness. Technology, including smart systems that adjust lighting or temperature based on occupancy, adds another layer of adaptability, improving comfort and efficiency.

Projects like **MIT's New Vassar dormitory** (Michael Maltzan, Cambridge, 2021), with its cluster organization of rooms, reconfigurable social spaces, and student-led spatial composition, show how adaptive architecture can be rearranged over time while adapting to different daily needs. **The UK Dyson Institute Village** employs stacked, prefabricated modular pods around a central "Roundhouse" core, providing long-term flexibility in use and configuration. Those pods can be relocated or reconfigured as institutional or student needs shift, providing temporal and longitudinal adaptability.



Photo 1. MIT New Vassar Street Residence Hall

Such designs are not only efficient but also promote the well-being of students by enabling them to control their environment and foster community among international residents. However, the considerations, such as higher costs and maintenance problems, must be weighed against such benefits.

In conclusion, longitudinal and temporal flexibility enables dormitories to be long-term inclusive and supportive, addressing the changing needs of international students through innovative design. Future studies can determine the long-term impact of such solutions on students' outcomes.

#### 3.6.1 Theoretical frameworks for Design

Theoretical frameworks guide the design of dormitories to meet the functional and psychological needs of international students, addressing privacy, community, and well-being.

- **Proxemics** informs room design by respecting individual and cultural space preferences, enabling convertible boundaries of interaction and privacy.
- **Maslow's hierarchy of needs** focuses on belonging, which guides the creation of common spaces like kitchens that generate social relationships and sharing of culture.



- **Biophilic design** incorporates nature aspects into architecture to reduce stress levels and maximize well-being, as well as facilitating climatically responsive variations to address various student needs.
- **Adaptive design principles** ensure flexibility, allowing spaces to evolve with student needs, such as reconfiguring lounges into study areas.

However, these frameworks often lack diverse cultural perspectives, necessitating inclusive approaches that consider varied cultural and climatic contexts.

### 3.7 Research Gaps

Literature on dormitory design highlights some primary gaps in addressing the diverse needs of international students, including cultural identity, privacy, biophilic recovery, and temporal flexibility. These gaps reduce the efficiency of current approaches and require more inclusive, context-sensitive solutions. This section highlights the primary findings from the literature, identifies major research gaps, and proposes directions for future research.

#### Cultural Identity and Belonging

Although common spaces are recognized for fostering social interaction, the cultural diversity of international students is often neglected. Standardized dorm designs, such as common spaces lacking culturally specific collective activities such as group prayer or traditional gatherings, marginalize non-Western students (UNESCO, 2020). Although Coelho et al. (2022) suggest small-scale cultural enclaves to sustain identity, such concepts are undertheorized in dorms. This gap needs designs that reflect cultural diversity and solidify belonging.

#### Privacy and Autonomy

Dormitory living often encompasses a balance between social interaction and individual privacy, yet literature rarely considers how these needs differ internationally. Such research as Bedre and Imamoğlu (2023) suggests that higher room occupancy increases crowding perception, lowering privacy and overall satisfaction. These findings overlook variations in privacy preferences, like shared privacy in collectivist societies compared to individualistic solitary withdrawal. The lack of flexible solutions, such as movable partitions, limits students' autonomy. A study of culturally adaptable privacy systems is necessary to overcome this.

#### Biophilic Design and Restorative Environments

Biophilic design, integrating natural elements within the built environment, has been associated with reduced stress levels and improved mental health among students (DeLauer et al., 2022). Nevertheless, its application remains undermined by a lack of frameworks that consider various climatic and cultural contexts. For example, indoor gardens thrive in temperate climates, but their feasibility in the tropics or desert climates is underexplored. This gap does not allow equitable adoption of biophilic principles, making it necessary to conduct studies that render restorative environments adaptable to the geographical and emotional needs of a global student population.

#### Temporal Flexibility: Designing for Evolving Needs

Most dormitory designs are static, not considering how students' needs change over time. Longitudinal research by Brett et al. (2023) shows that satisfaction falls dramatically in the third year when students prioritize privacy and studying over early social contact. Despite this, there is little evidence of adaptive designs, e.g., modular benches or adaptable shared areas. This static mindset restricts students' agency and comfort during their studies. Future research must be directed toward phase-responsive designs that are adaptive and proactive to the temporal dynamics of students' lives, with flexibility as needs transition between exploration and concentration.

Thematic Gap	Psychological Need	Design Proposal Alignment
Cultural Identity & Belonging	Identity affirmation	Culturally nuanced common spaces
Privacy & Autonomy	Control over stimuli	Convertible spatial boundaries
Biophilic Restoration	Stress recovery	Climate-resilient green spaces
Temporal Adaptability	Agency over time	Modular, phase-responsive design

**Table 1. Key Psychological Underpinnings (Source: Author)**

## Conclusion and Future Directions

The gaps highlighted in the review, cultural incongruence, privacy limitations, environmental inconsistency, and temporal rigidity, indicate the shortcomings in current methods of dormitory design for multicultural student populations. They affect not only the well-being of international students but also the optimal potential of dormitories as inclusive and vibrant communities.

To address these issues, future studies should be centered on diverse models that incorporate non-Western concepts of community and privacy. Additionally, investigations into climate-specific biophilic strategies and adaptable, modular designs will be crucial for creating responsive environments. By filling in these gaps, architects and researchers can redefine dormitories as living ecosystems that facilitate the evolving identities, requirements, and aspirations of a global student population.



## 4 Methodology

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### 4.1 Research Design

A mixed-methods research design is used to explore the influence of dormitory design on the well-being of international students from PoliTO and UniTO who live in Edisu (Regional Agency for the Right to University Study in Piedmont) dormitories, mostly in Lingotto and Borsellino. Through the use of a combination of quantitative surveys and qualitative interviews, the method takes into account the nuanced experiences of dorm living, documenting both statistical trends and personal perceptions that can inform architectural improvements.

#### **Comprehensive Understanding**

Mixed-methods approach is a valid research design to include quantitative and qualitative analysis to account for research gaps in cultural matching, privacy, ecological sustainability, and temporal accommodation needs in dormitories. Quantitative questionnaires give insight into overall satisfaction and mental health, while qualitative interviews give a rich context of how spatial aspects of the environment promote social cohesion and well-being, and provide a deep understanding of the needs of different students.

#### **Quantitative Component**

Quantitative data will be collected using an online survey completed by more than 50 international students living in the Edisu residences. Surveys assess satisfaction with common spaces (i.e., lounges, kitchens), privacy, security, and living conditions, as well as mental health indicators (i.e., stress, loneliness). The approach disentangles trends and intercorrelations between design features and well-being, creating a strong evidence base for recommendations.

#### **Qualitative Component**

Semi-structured interviews (~25 students, 20 minutes, in English) investigate personal experience with an emphasis on living circumstances, cultural adaptation, and the impact of spatial factors on everyday life. These interviews were carried out in Lingotto and Borsellino residence halls and provided a rich description, adding cultural and contextual depth to the quantitative findings.

#### **Justification of Mixed-Methods Design**

This form of mixed methods provides reliability through triangulating quantitative patterns with qualitative data. Data on satisfaction and well-being are collected through questionnaires with a representative sample of students, and interviews and open questions allow for rich descriptions of how design features affect students, such as private and shared spaces. This strategy enables evidence-based recommendations for dormitory design, specifically addressed to meet the requirements of a culturally diverse student population dwelling in the Edisu dormitories of Turin.

### 4.2 Participants

The focus population in this study is the international students of the Polytechnic of Turin and the University of Turin, who resided in Edisu (Regional Agency for the Right to University Study in Piedmont) dorms in Turin, Italy. These students experiencing cultural assimilation and mental health struggles in dorms offer valuable insights for how design affects well-being, addressing research shortfalls in cultural congruence and privacy.

### 4.2.1 Sampling Strategy and Criteria

International students will be sampled purposefully in order to reach a representative group. This type of sampling allows for participant selection that has the necessary characteristics to answer the research questions. The inclusion criteria are stated below:

#### **Inclusion Criteria**

- They should be international students living at the moment in Edisu residences at PoliTO or UniTO. Thus, the sample will be limited to those experiencing the dormitory environment first-hand.
- Participants need to have lived in their dorm for at least three months. This is enough to get a sense of the living space, and the kind of experience one should have to say something knowledgeable about problems they might have, or benefits they might feel.

#### **Exclusion Criteria**

- Students who do not live in a dormitory currently (e.g., if they live off-campus, in a private house) will not be included to keep the research focused on the specific characteristic of living in a dormitory.
- Students with less than three months' stay in the dormitory will also not be included because their exposure may not be substantial enough to make an effective judgment regarding the effects of dormitory design on their well-being.

### 4.2.2 Sample Size Determination

The minimum number of international students required for this study is a sample of 50 international students, which provides a sufficient sample to achieve statistical significance and analyze patterns of student satisfaction with different design factors in the dormitory.

In the qualitative component, over 20 international students will be invited to participate in semi-structured interviews. Smaller sample sizes are sufficient for qualitative research, to the extent that individual experiences can be enriched and encompass a range of diverse perspectives across cultures. These cultural backgrounds are significant because they show how various design elements could be helpful for students who come from various places and traditions.

### 4.2.3 Recruitment Process

Participants are recruited through online questionnaires advertised in social media (e.g., university telegram groups, WhatsApp groups) addressing international students at PoliTO and UniTO. Survey participants are offered the opportunity to be involved in subsequent semi-structured interviews. This multimodal recruitment approach ensures the participant population is varied and reflective of the culturally diverse dormitory residents, and it provides the potential for complete data gathering.

## 4.3 Data Collection Methods

In this study, quantitative questionnaires and qualitative interviews were employed to study how the design of the dormitory impacts the well-being of international students hosted in Edisu's dormitories (Lingotto, Borsellino) at PoliTO and UniTO. This allows evaluation of statistical patterns and perceived experiences, and it fills intersecting research gaps, such as cultural alignment, privacy, eco-planning, and temporal flexibility.

### 4.3.1 Quantitative Data Collection

Web-based questionnaires will be used to collect quantitative data from a sample of at least 50 international students living in Edisu residences.

- **Demographic Information:** Age, gender, nationality, and residency duration.
- **Satisfaction Metrics:** Likert-scale items (1 = Very Dissatisfied to 5 = Very Satisfied) regarding common spaces (e.g., lounges, kitchens), privacy, safety, and living conditions.
- **Mental Health Indicators:** Self-reported perception of stress, loneliness, and well-being using standardized measures.

This structure facilitates the competent collection of data, satisfaction, and mental health outcome measurement in identifying patterns in associations with dormitory design factors.

### 4.3.2 Qualitative Interviews

Qualitative data are collected through semi-structured interviews with approximately 20 international students living in Edisu dormitories (Lingotto and Borsellino). Each interview is conducted in English for ~20 minutes, and will consider:

- Living conditions and their impact on routine behaviors.
- Cultural adjustment experienced in the dorm.
- How spatial design affects social interaction and well-being.

The semi-structured approach provides flexibility whilst ensuring important issues are addressed. Interviews are audiotaped with permission from participants and then transcribed and anonymized for analysis. The method also captures rich opinions, complementing quantitative results with cultural and contextual details about dormitory life.

## 4.4 Data Analysis Procedures

The following section introduces methods of quantitative and qualitative analysis to investigate the influence of dormitory design on international students' well-being.

### 4.4.1 Quantitative Data Analysis

Data collected from the web-based surveys will be subjected to quantitative analysis using a statistical software program (e.g., Excel) in the following steps:

1. **Data Cleaning:** Incomplete responses and outliers will be removed from the dataset to provide excellent data for analysis.
2. **Descriptive Statistics:** Frequencies, percentages, means, and standard deviations will be employed to describe demographic information and level of satisfaction to provide an overview of sample traits and trends.
3. **Correlation Analysis:** Correlations among design factors (e.g., layout of common spaces, privacy) and mental health outcomes will be investigated with visual pattern detection, prioritizing large gaps (>1-point Likert differences), and trend analysis across demographic subgroups.
4. **Regression Analysis:** Where appropriate, regression analysis can be used to predict mental well-being outcomes based on independent variables of dormitory design, i.e., privacy and

satisfaction with common spaces. This will determine the individual factors that are most predictive of students' general well-being and aid in providing recommendations for future consideration in design.



**Figure 7. Design-oriented analytical workflow**

#### 4.4.2 Qualitative Data Analysis

Thematic analysis allows the identification, analysis, and reporting of patterns (themes) within the qualitative data obtained from the semi-structured interviews, following these steps:

1. **Transcription:** Verbatim transcription of interviews into text will be prepared to represent all the voiced content. Accuracy in this regard ensures that participants' voices will be represented accurately in the analysis.
2. **Data Familiarization:** Transcripts are read several times to become familiar with the data, forming impressions and potential themes emerging from respondents' descriptions.
3. **Coding:** Systematic coding will emphasize text sections related to research questions.
4. **Theme Development:** Codes will be sorted under broader themes for representing participants' experiences of dormitory design (e.g., social interaction, cultural adjustment).
5. **Theme Refinement:** Themes will be refined to make them distinctive and evidence-based.
6. **Theme Consolidation:** A narrative description of each theme will be provided, supported by participant quotes.

In conclusion, the integration of quantitative and qualitative data with thematic exploration through triangulation enhances the reliability and depth of insights into how dormitory design affects student well-being.

## 4.5 Considerations

This section outlines the ethical demands and limitations of the research examining the dormitory design effect on international students' well-being in PoliTO and UniTO's Edisu dormitories (Lingotto, Borsellino) regarding cultural, privacy, ecological, and temporal design gaps.

### 4.5.1 Ethical Consideration

The research adheres to the guidelines established by the Ethics Committees of PoliTO and UniTO, with the participants' interests and rights prioritized first. Key principles include:

- **Informed Consent:** Participants receive detailed information about the study's objectives, procedures, risks, and benefits via consent forms. The involvement is voluntary, with unrestricted right to withdraw at any time without consequences.
- **Confidentiality:** Data are anonymized, with personal identifiers removed during analysis and stored securely to protect sensitive information, such as cultural or mental health disclosures.

- **Cultural and Mental Health Sensitivity:** Since the participants represent different backgrounds, cultural adaptability and mental health issues are addressed sensitively. Participants can decline uncomfortable questions and are provided with access to UniTO and PoliTO mental health services.

Interviewers handle sensitive topics respectfully, and a comfortable environment is ensured. The participants are debriefed after an interview to describe the aims of the study and address any questions. The research procedure is also reviewed by supervisors for approval to ensure all ethical considerations are being adhered to before data collection begins. These measures uphold integrity, facilitate trust, and enhance the credibility of the study.

#### 4.5.2 Limitations of the Study

The findings of the study are guided by a series of limitations, which impact their interpretation and generalizability:

- **Sample Size:** The sample (~20 interviews, ~50 surveys) provides rich data but is not representative of the diverse population in Edisu dormitory residents, limiting generalizability to other contexts or larger samples.
- **Self-Reporting Bias:** Mental health responses, particularly on stress or loneliness, may be influenced by cultural stigma or social desirability, though confidentiality assurances encourage honesty. For example, some students may underreport issues due to privacy concerns.
- **Cross-Sectional Design:** Data collected at one point cannot establish causality between dormitory design and well-being. Longitudinal studies tracking changes over semesters could better assess design impacts.
- **Non-Response Bias:** More dissatisfied students may not respond at all, skewing outcomes in the direction of positive perceptions of dorm layout, affecting improvement recommendations.
- **Design Focus:** The study centers on design space (e.g., room setup, social areas), not including social relations or institutional support, which also affect well-being and may provide a better overall picture.

These limitations require careful interpretation. Future research could employ larger and more diverse samples, a longitudinal mixed methods approach, and wider factors (e.g., social programs) to improve generalizability and adequately address these limitations.



## 5 Findings

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The chapter discusses the results of the “Dormitory Design and Student Well-being Survey”: it explores the influence of spatial design on the satisfaction and well-being of international students at PoliTO and UniTO residences in Edisu (Lingotto, Borsellino). Given the increasing global student population, the timing is right to understand and influence the living environment as it relates to academic performance and social integration, addressing cultural, privacy, ecological, and temporal design deficits.

The survey was distributed electronically to ~50 students through surveys that included demographics, dorm facility design, satisfaction with the facility, mental health measures, and comments on living conditions. Based on these results, the focus of the present work is to draw the strengths and weaknesses of the spatial design as well as to propose practical optimization guidelines. It is about giving priority to design interventions based on the needs users expressed and creating a rationale for making architectural decisions that is evidence-based.

### Objectives of the Survey

1. Demographical information: The demographic profile of individuals will help in understanding their background and how satisfied they are with the services
2. The effect of design on student satisfaction: In this part, an attempt has been made to determine design factors in students’ satisfaction.
3. The well-being and Sense of Community among students: The well-being and sense of community of the students in the dormitory environment can be a measurement of their integration in society.
4. Mental Health Markers: Knowing a person’s perceptions of stress and mental well-being can deepen insight into the relationship between the surrounding conditions and psychological health.
5. Collect Qualitative Feedback: Open-ended questions were included for individuals to describe specifics about living in the dorms that may not be fully encompassed by quantitative scales.

### Significance of the Research

The study could influence future dorm construction and housing policy by highlighting factors that contribute to well-being, particularly for an increasingly varied student population. It provides a model of an accommodating, sustainable built environment that responds to the diverse needs of residents through showing the design effect on satisfaction and mental health.

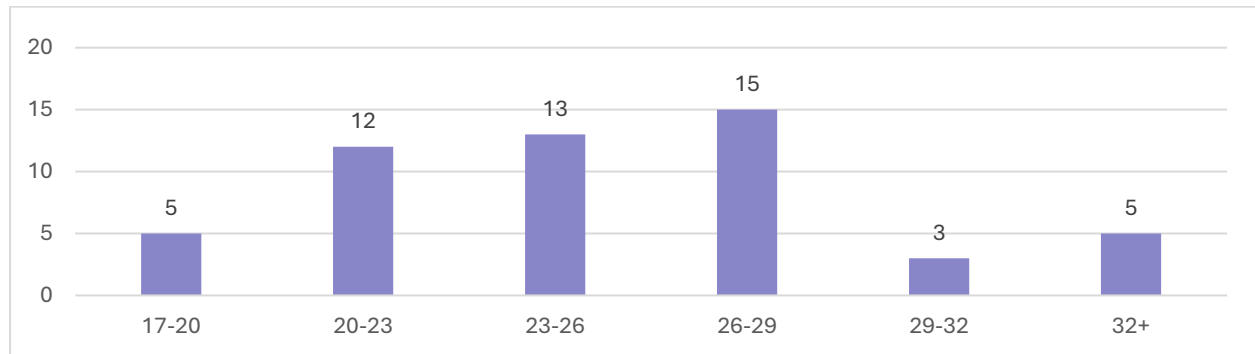
## 5.1 Demographic Overview

The demographic framework is the background against which the outcomes of the dormitory design and well-being in Edisu dorms (Lingotto, Borsellino) should be read. The following highlights age, gender, nationality, and length of stay in approximately 50 survey participants, as well as trends in satisfaction and quality of life within varying population groups. Distributions are shown using figures created in Excel from the survey.

### 5.1.1 Age Distribution

The respondents range from 19 to 40 years of age, with the majority falling between 22–29 years, as commonly seen among university students, including international students. Given this age

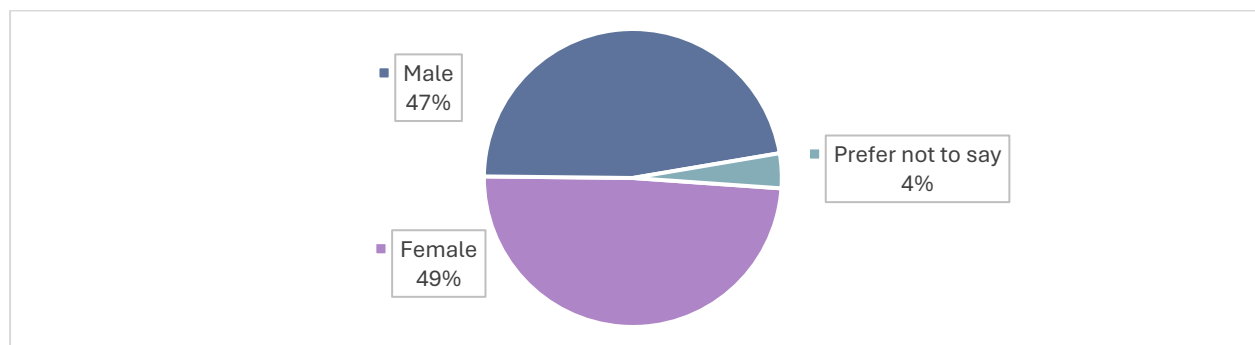
distribution, I know that the survey is based on young adult experiences and attitudes. This is an important finding in terms of designing dormitories according to their needs and lifestyles, such as study space, social space, and recreational facilities.



**Figure 8. Age distribution of the respondents**

### 5.1.2 Gender Distribution

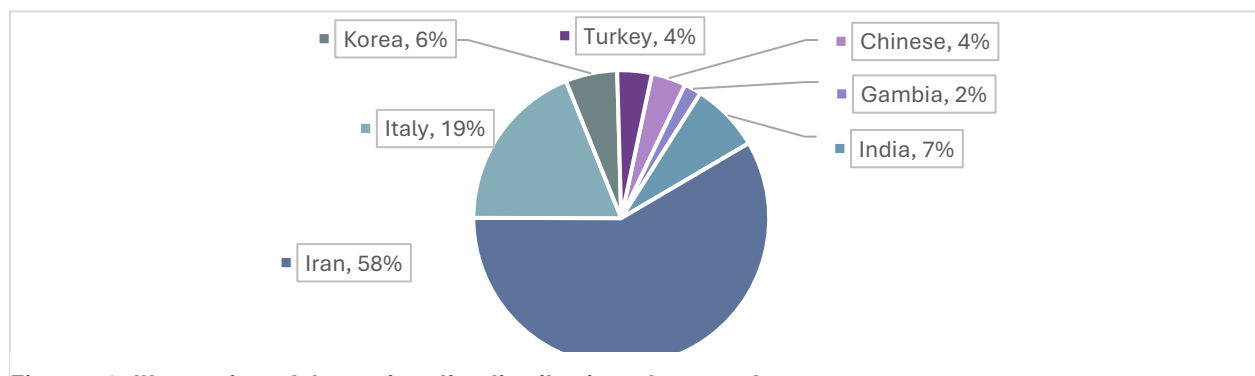
The respondents are gender diverse; however, the number of male (47%) and female (49%) respondents is quite balanced (Figure 10). Equitable contribution will inform experiences of dormitory living that are attuned to the gendered needs for privacy, security, and socialization space. Balance provides for the identification of design requirements, such as layout and privacy of the space, but these polemics can be applied to all students.



**Figure 9. The distribution of the gender of the subjects**

### 5.1.3 Nationality and Cultural Background

This survey consists of information available from a few countries, predominantly in Asia, Europe, and Africa. The leading country of nationality was Iran, followed by Asia.



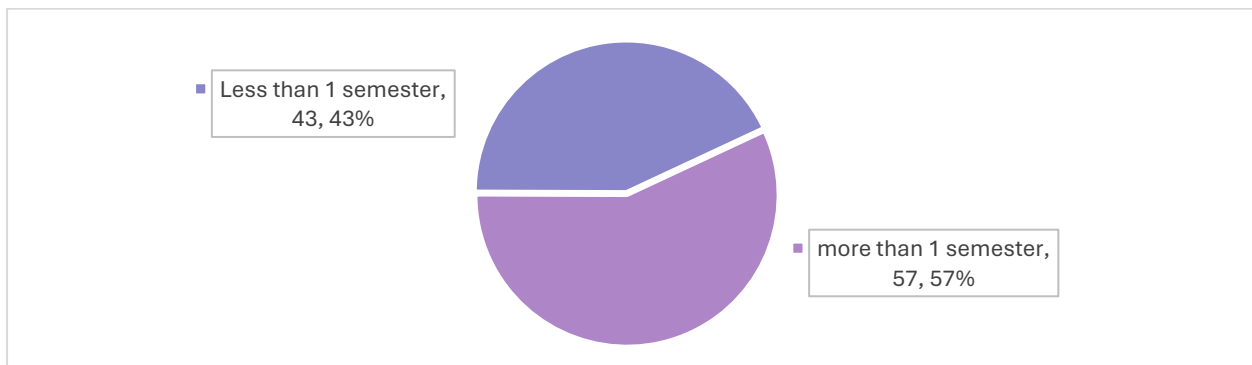
**Figure 10. Illustration of the nationality distribution of respondents**



A sense of diversity of culture requires a culture-sensitive dormitory design. Based on Caligiuri et al.'s (2022) research, creating a culturally responsive environment allows international students to have a sense of belonging and well-being. This will require spaces that respect and value other forms of cultural living, such as common kitchens where they can prepare their traditional food, and space for their cultural activities. This type of inclusion may help lead to a better sense of identity and well-being. It will be crucial in providing an environment that is comfortable and equitable for all students to incorporate features representing diversity in the design package.

#### 5.1.4 Length of Residency in the Dormitory

Residency duration itself indicates that 57% of respondents lived at the dorm for more than one semester (see Figure 12). Long-term residents have observed their daily life changed, adjusted, and transformed over time, and they may prove to be quite valuable sources of information on both housing conditions and necessary interventions compared to those short-term residents, such as first-semester students, who have recently arrived. Their input is vital to determine long-term problems and potential solutions and to suggest sustainable and practical design solutions.



**Figure 11. Chart showing the duration of Residency of the respondents**

Finally, the demographic profile identifies significant participant characteristics and provides a point of reference for comparing the dormitory experience. Data relating to age, gender, cultural background, and duration of residency allow nuanced conclusions to be drawn about satisfaction and well-being, with respect to inclusive dormitory design for the multiple student groups.

## 5.2 Satisfaction with Dormitory Design Features

This section refers to respondent satisfaction regarding different dormitory design features. The section seeks to elucidate what factors are most related in terms of what affects satisfaction and well-being. The most important focus will be placed on common areas, privacy, security, cleanliness, and convenience.

### 5.2.1 Overall Satisfaction with Dormitory Features

The following questions measured respondents' general satisfaction with various aspects of the dorm on a 5-point scale, where (1 = Very Dissatisfied, 5 = Very Satisfied). The chart below shows the mean scores of each factor.

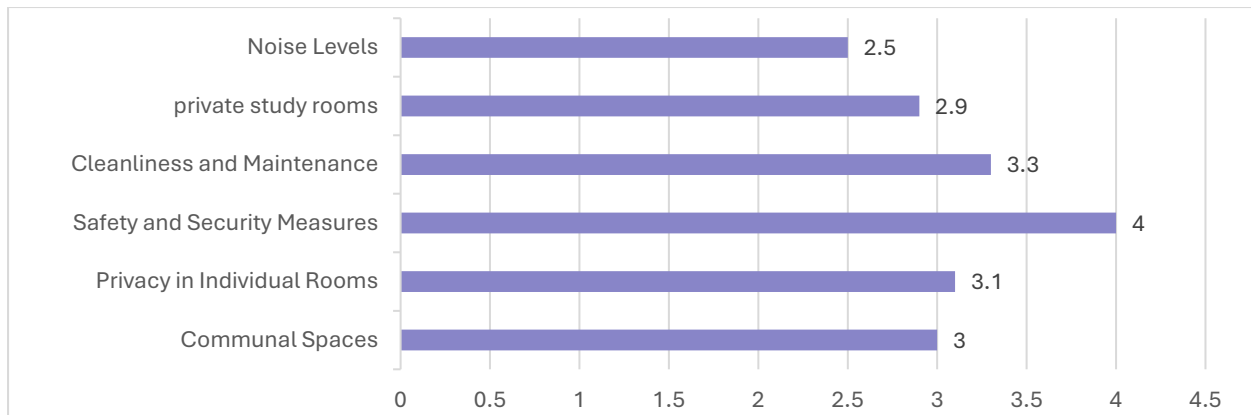


Figure 12. Average Satisfaction of Dorm Design Attributes (© [EDISU Piemonte](#), 2025)

- **Safety and Security (4.0)**

The measures scored the maximum at 4.0 in students' satisfaction with safety and living environment. This resonates in the very high score for 'living', students feel very safe where they are, and this control and security help to create good conditions where student life can be truly excellent. Safety is not only a worry, but it's hard to get students to want to attend dorm events or be more socially active if they don't feel safe.

- **Privacy of the Room (3.1)**

This is a signal that the necessity for personal space in their living spaces is vital to their health and academic achievement. The students require a personal place of their own where they can sit back, study, and stay with no hassles. Facilities such as private study areas and individual spaces will make the entire place more habitable. Such needs can be addressed through design elements, including partition walls, soundproofing, and the presence of single-occupant rooms. This is in part due to the existence of calm, private spaces on our campus that promote students' positive frame of mind and academic achievement.



Photo 2. Double room in Lingotto Residence (© [EDISU Piemonte](#), 2025)

- **Common Spaces (3)**

Students generally were happy with the common areas and appreciated the social aspects. Yet problems such as overcrowding were raised time and again as factors that have eroded their

effectiveness. Changes to enhance the usability may involve new furniture to be more comfortable and more inviting, extra lighting, or the occasional party or study group in the room to encourage use by increasing the appeal of the space.



Photo 3. Dining area of Lingotto Residence (© [EDISU Piemonte](#), 2025)

- **Noise Levels (2.5)**

This facility has received a very low satisfaction level; in other words, noise is a serious problem for these neighbors. Noise nuisances have a negative influence on concentration, sleep, and overall mental health. Provision of soundproof materials, noise abatement zones, and sound pollution regulations could help significantly improve the environment for students.

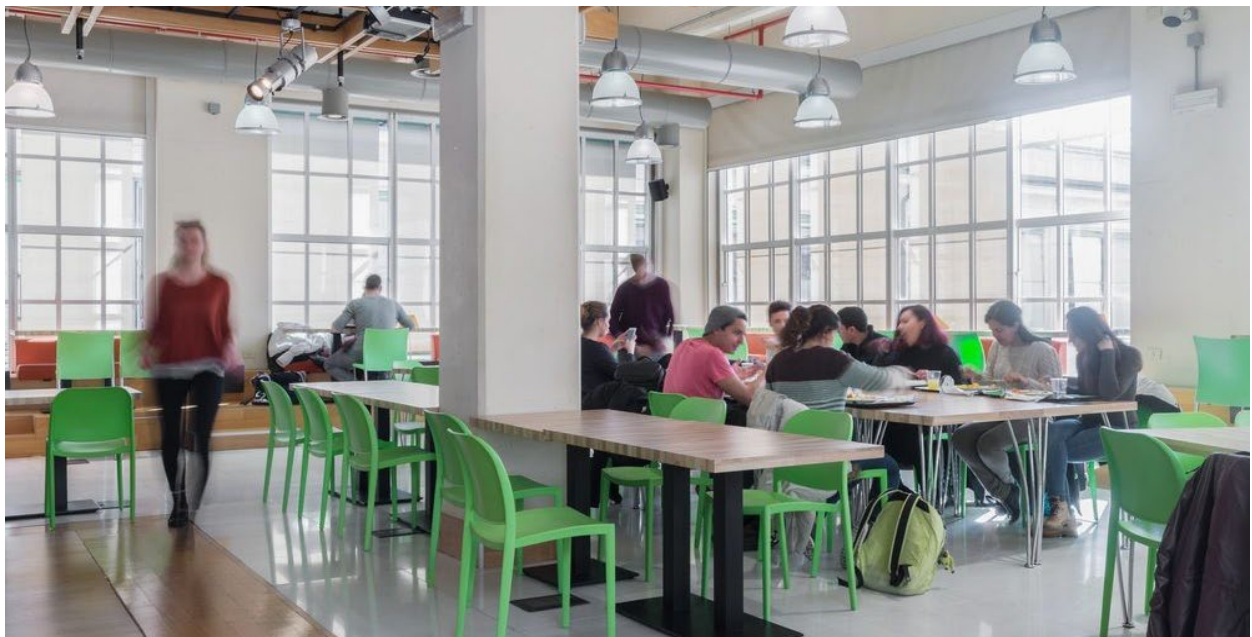


Photo 4. Dining area of Lingotto Residence (© [EDISU Piemonte](#), 2025)

- **Open-ended answers** suggest that while many students value shared spaces, there is some discontent about how they are used. “I do really enjoy the shared kitchen, but it gets a bit too



crowded at peak times,” wrote another respondent, adding, “Perhaps it would help to be managed better or to open up more kitchens.”

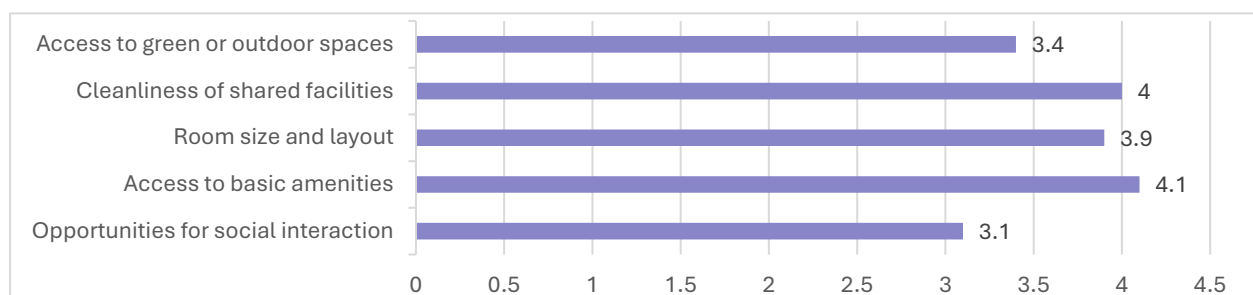


**Photo 5. Common kitchen in Borsellino Residence (Photo by Author)**

Following these insights, I propose the dormitory design that focuses on the expansion of privacy and the level of noise control, and on the increase of efficiency of collective space so that the living environment of the students becomes more supportive and comfortable.

### 5.2.2 Importance of Specific Features

In addition to the satisfaction ratings, the importance of dormitory feature response was measured on a 1-5 scale (1 = Not at all Important, 5 = Very Important), was asked. The following graph illustrates the average importance of selected features in the dorm.



**Figure 13: Mean Importance of Dormitory Design Features**

- **Basic Amenities (4.1)**

This dimension has the highest importance rating, which is indicative of the importance of domestic facilities (e.g., laundry rooms, kitchens, and toilets) in day-to-day comfort and individual convenience. Accessibility and usability of these spaces must be maintained in order to ensure that the students remain satisfied.

- **Sanitation for common services (4.0)**

The cleanliness of public spaces came up as an important factor for health and well-being. The importance of regular cleaning and discipline for residents to achieve hygiene standards is mentioned many times by respondents and may help to reduce stress and improve the student experience in dormitories.



Photo 6. Common kitchen in Borsellino Residence (Photo by Author)

- **Opportunities for Social Interaction (3.1)**

Although the item was rated lower than basic needs for a dormitory, well-designed social spaces were considered to be beneficial for community development and the mental well-being of residents. On the other hand, it enhances the experience at university and offers the kinds of living spaces that would help forge friendships between students.

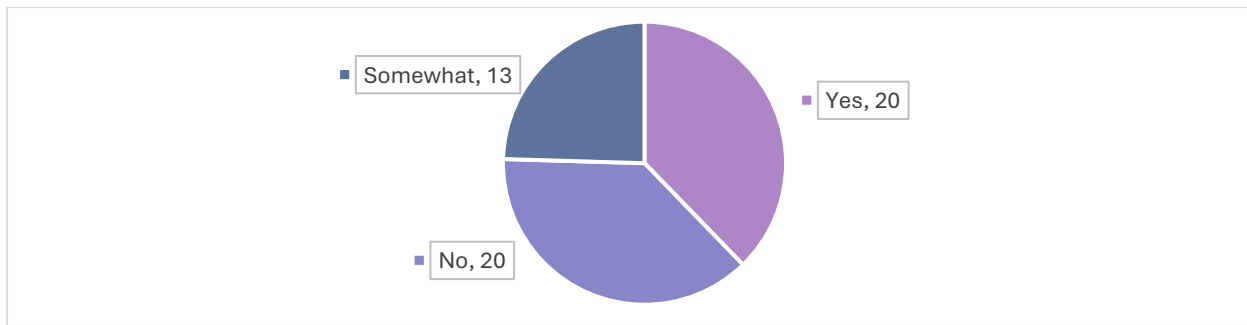


Photo 7. Common areas in Lingotto residence (© [EDISU Piemonte](#), 2025)

- This result is also supported by **qualitative comments**; for instance, one participant commented, “There must be a laundry facility around here somewhere. It does have a big effect on my day-to-day life,” illustrating how close and accessible facilities are to the individual student’s quality of life.

### 5.2.3 Cultural Diversity in Dormitory Design

Participants were also asked whether they believe the design of dorms meets the needs of students of diverse cultures.



**Figure 14: Accommodation of Cultural Diversity**

The following responses offer a sense of the mixed view in which dorm design is offering a more inclusive place for cultural diversity:

More than 37% of the participants considered that the current designs were inclusive of their cultural requirements. Several students stated: “A kitchen where we can cook traditional dishes makes me feel at home,” showing how culturally sensitive design can improve students’ feelings of belonging and foster mutual respect. But more than half of the respondents were unhappy or not sure about this aspect of life, complaining about not enough places and activities. Proposed architectural solutions include:

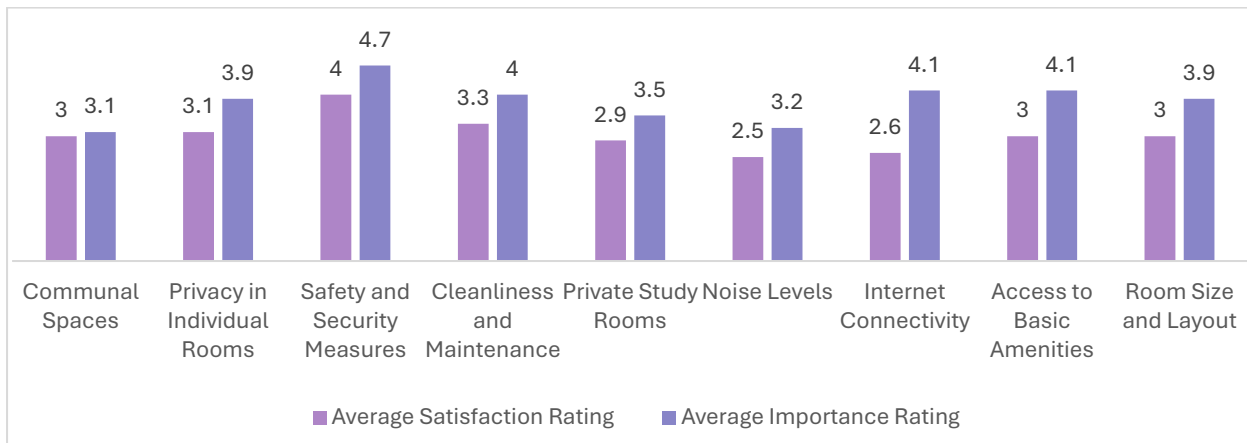
- **Common Kitchens:** Larger kitchens with equipment for diverse cuisines, so students can prepare traditional meals from their cultural heritage.
- **Cultural Event Spaces:** Flexible spaces for culture with reconfigurable furniture for cultural activities and events to generate inclusivity and intercultural exchange.

One respondent mentioned, “A kitchen for traditional cooking makes me feel at home,” highlighting the importance of culturally sensitive design features for fostering students’ sense of belonging and mutual respect in the dormitory community.

These spatial design interventions address the cultural misalignment gap, fostering belonging by way of inclusivity for varied inhabitants.

#### 5.2.4 Correlation Between Satisfaction and Importance

The gaps between satisfaction and importance ratings indicate where the department needs to improve, and what it is already doing right. The results will also identify general priorities and priority conflicts by indicating that priorities, as reflected in perception and importance, respectively, coincide or differ.



**Figure 15. Correlation between satisfaction and importance ratings of each feature**



- **Cleanliness and Maintenance (Importance: 4.0, Satisfaction: 3.3):**

The divide represents community area cleanliness that is falling short of expectations. One student wrote, “The common areas could be better maintained.” Unlike policy-based schedules, design fixes, such as easily cleaned surfaces or more cleaning stations, can help with that.

- **Safety and Security Measures (Importance: 4.7, Satisfaction: 4.0):**

- The safety and security measures (Importance: 4.7, Satisfaction: 4.0): This close alignment indicates that the level of safety is, in general, considered good enough, namely, the residents almost find them to be in accordance with their expectations. Satisfaction could be further increased by strengthening security and by ensuring better visibility of security staff. One respondent said: "I would feel even safer if there were some more visible security, though."



Photo 8. Reception of Lingotto Residence (© [EDISU Piemonte](#), 2025)

- **Room layout and Privacy (Importance: 3.9, Satisfaction: 3.0/3.1):**

The gap associated with privacy is indicative of poor spatial performance. Another important consideration is the room layout, innovation in room design, such as modular partitions or single-occupant rooms, and providing privacy has been shown to significantly increase resident satisfaction.

- **Internet accessibility and basic facilities (Importance: 4.1, Satisfaction: 2.6/3):**

It is the biggest discrepancy underscoring an inadequate infrastructure, which is mainly under the control of dorm policies. As a basic service, internet connectivity urgently needs attention in trying to bridge the dissatisfaction gap and meet its critical importance. Just as importantly in elevating the experience of the typical resident is the availability of basic services.

### **Conclusion and General Correlation Analysis**

The summary of the general satisfaction ratings is somewhat consistent with the ratings of the importance, except for the clear gaps like theme issues (room design and privacy), cleanliness, and basic amenities (importance higher than satisfaction). These are the distinctions that have distinguished which priority points are additionally in need of critical enhancements. The results suggest that design strategies are almost entirely based on what residents need, as design strategies meet their expectations. But there are certain characteristics which are set by general policy or even higher-level management decisions that are slightly more difficult to address through architectural design.

## 5.3 Overall Well-Being and Community Sense

This aspect addresses the students' impression of their overall quality of life and residence hall community experience, which in turn focuses on satisfaction, community involvement, and social interaction. The emphasis of the analysis has been on architectural design issues (spatial arrangement, soundproofing, etc.) that are relevant to the thesis's design proposition rather than policy-related matters (event organization) that are beyond the thesis's remit.

### 5.3.1 General Satisfaction with Dormitory Life

The majority of respondents are satisfied or very satisfied with the overall accommodation (17), and thus, dormitory equipment meets or even exceeds the standard of the accommodation, providing a friendly environment. But some were neutral or negative, especially on issues of noise and privacy. In open-ended responses, noise from public spaces was identified as a barrier to focus; one student noted, "Lounge noise disrupts the time I study." Design interventions, including soundproof walls (e.g., acoustic panels with an STC of 40–50) and private study rooms, might mitigate these issues, improve overall satisfaction, and improve academic focus.

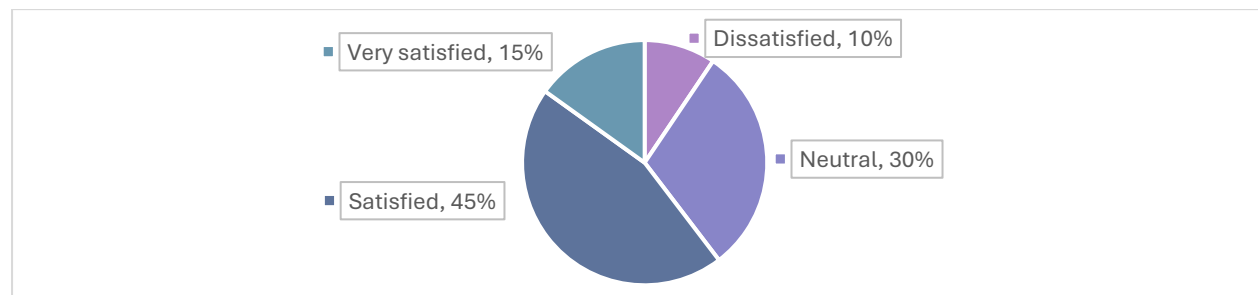


Figure 16. Overall Satisfaction with Dormitory Life

### 5.3.2 Sense of Community and Social Interaction

Surveys concerning sense of community (Figure 18) reflect somewhat ambivalent perceptions, as while countless students feel connected to their peers, a significant number report that they seldom or never feel connected, suggesting spatial impediments to social integration. The low attendance at collective events implies an obstacle, such as a restricted event range or access. One student recommended, "More events showing diversity in culture would help." This indicated a desire for programming that is inclusive. Event programming is a question of policy, and buildings can help the community by offering flexible and inclusive spaces (modular lounges with portable furniture, for example).

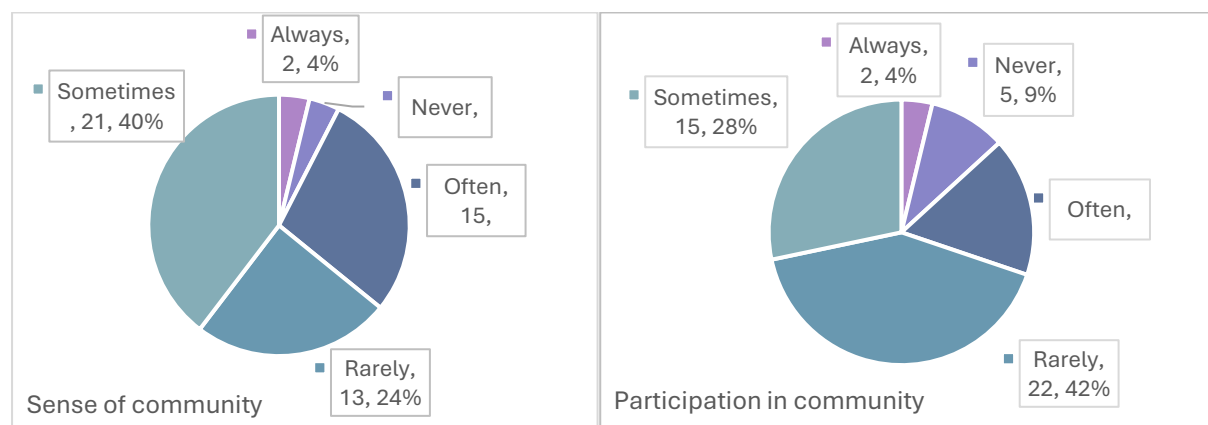
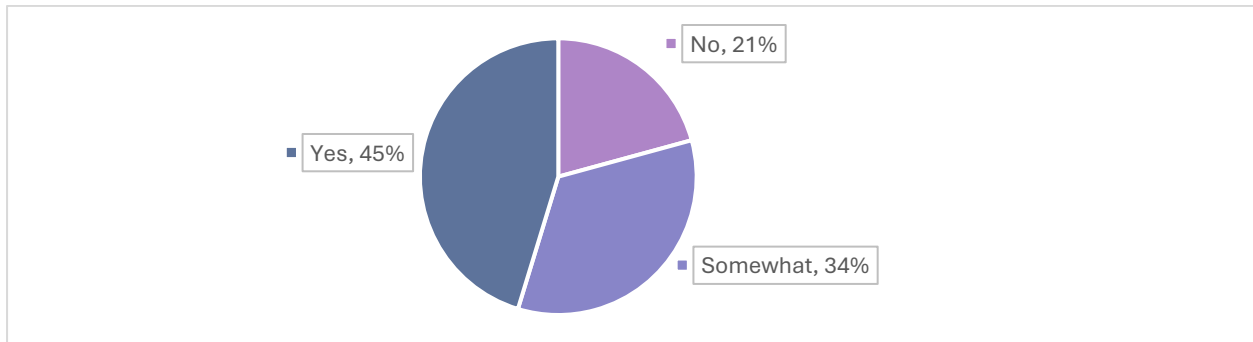


Figure 17. Sense of Community Among Residents and Participation in Community Activities



### 5.3.3 Opportunities for Social Activities

Most of the informants agreed that they had been offered sufficient social opportunities (Figure 19), many claimed, however, to have not benefited from this due to the weak promotion of these events. Open-ended questions indicate that the students, in general, wanted more structured and communicated social experiences, provided them with a better sense of communication about what was occurring, and when things were going to happen. "I miss a lot of events because I find out about them too late," said one student. Enhancement of event publicity (which may include digital signs) is a policy issue beyond the scope of this proposed policy. But architectural interventions connecting youth to place in culturally appropriate and accommodating ways (e.g., spaces for traditional hanging out) could augment participation in and support from the community.



**Figure 18. Opportunities for Social Interaction**

### 5.3.4 Correlation Between Community Sense and Well-Being

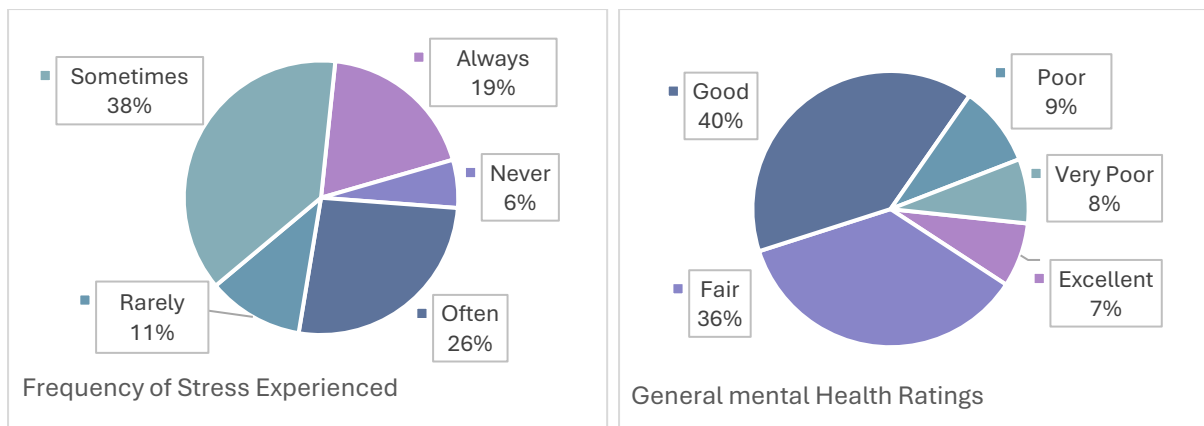
Students who felt the most connected to others reported greater levels of satisfaction, whereas those who experienced the most loneliness reported lower levels of well-being. "Dorm life is much better with friends in the dorm," wrote one respondent, emphasizing the impact of social connections on quality of life. Architectural elements such as open-plan living areas, common kitchens with plenty of space, and quiet zones provide places where these social bonds may be nurtured and are conducive to the student lifestyle. Policy measures such as selective event planning are beyond the scope of the design proposal. Findings underscore the importance of the relationship between dormitory design and well-being and community feeling. Soundproofing and private spaces to solve noise and privacy issues, a Love spot in the public area to solve inclusive atmosphere problems, and design intervention to improve accessibility to events will altogether foster a welcoming and fun place for international students.

## 5.4 Mental Health Indicators

It is important to understand the mental health status of the general public to grasp what aspects of living conditions affect students' mental health. Thus, this section describes overall stress and general mental health ratings and the sources of stress in the dorm environment.

### 5.4.1 Stress Levels of Residents and Overall Mental Health Ratings

Frequency of feeling stressed in the past month and general mental health since living in the dormitory were recorded (Figure 20). The survey found high levels of stress among respondents:



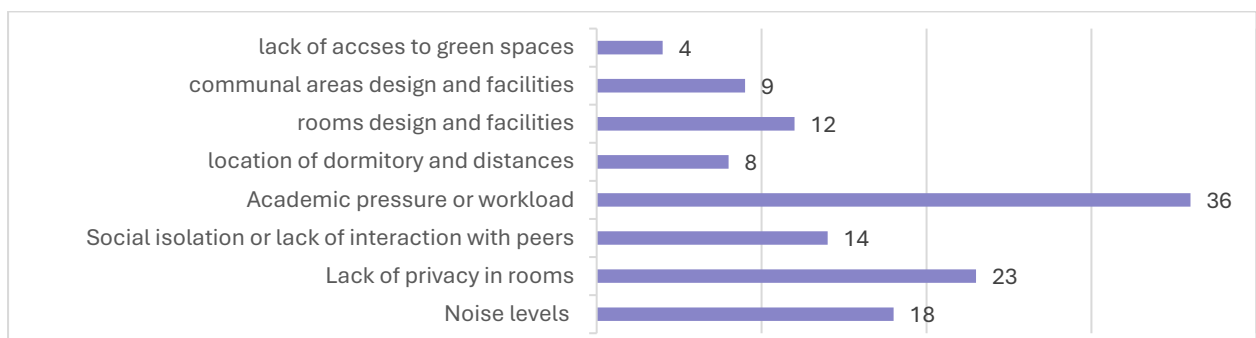
**Figure 19. Overall Mental Health Ratings and Frequency of Stress Experienced**

- **Frequency of Stress:** Almost half of the respondents (24 out of 53) indicated that they felt stress always, pointing to the existence of certain environmental stress effects due to the design-related factors of the student dormitory.
- **General Mental Health Ratings:** Most students rated their mental health as being “good,” but a substantial number felt it was “fair” or worse, which may be indicative of a need for improved living conditions to facilitate overall mental health.

Feelings about the designed environment, including noise from a common area and lack of privacy in shared rooms, were often mentioned. Yet loneliness and poor facilities are other reasons that amplify this burden. They need a place to chill and privacy.” One student said, “I’m overwhelmed, and there’s no one I can talk to about how stressed I am.” Architectural interventions like soundproofing and better design to enhance individual privacy can address stressors for which policy-level interventions (e.g., availability of counseling services) fall outside the scope of the proposal.

#### 5.4.2 Contributing Factors to Stress

The respondents highlighted various stressors that had been present throughout their dorm stay:



**Figure 20. Factors Contributing to Stress**

- **Academic pressure** was the most common stressor cited (36 respondents). But architectural design can support academic success indirectly by sustaining a healthy residential environment.
- **Lack of Privacy:** Selected by 23 respondents, a low opportunity to have personal space in a joint room to unwind, which added to stress. “There aren’t enough quiet places to study,” one student said, suggesting that there be more private places or better room configurations.

- **Noise Levels:** Noise was a significant stress for many of the respondents, including from common areas such as dining halls; this was referenced by 18 respondents. This problem could be mitigated by architectural solutions such as soundproof materials or quiet zones.
- **Social isolation:** Students struggle with finding friends and the ability to connect with others. Answers like “I’m lonely even when I’m around people” illustrate the difficulty some respondents have in relating to other people socially. Innovative venues earmarked for social activities can be designed to encourage interaction to mitigate loneliness.

Open-ended responses also suggest the need for study spaces to be more effectively designed and for accessible support services. “I don’t have enough quiet space to study,” one participant said; another responded, “I feel overwhelmed and have no one to talk to about my stress.”

The findings underscore how dorm design plays a vital role in student mental health. Architectural solutions, such as acoustic isolation, individual dwellings, and extended common spaces, may contribute to reducing stress and improving well-being, thus addressing privacy and temporal rigidity deficits. Policy-related issues, including academic and counseling support, are acknowledged yet omitted from the design proposal to concentrate on spatial solutions to facilitate international students’ emotional well-being.

## 5.5 Qualitative Insights on Dormitory Design Features

This section investigates qualitative feedback from international students residing in Edisu dormitories (Lingotto, Borsellino) about the role of spatial design in enhancing well-being, mental health, and sense of community. It promotes what is positive or challenging, and what the design could respond to on the architectural level, across all substrates, except for the policy-based substrates (e.g., events management), which are outside of the scope for the thesis’s design proposal. The results deal with the privacy gaps, the discrepancy of culture and ecology, the inconsistency with each other, and the temporal rigidity, and offer guidance to a user-oriented dormitory space.

### 5.5.1 Strengths and Limitations of Dormitory Design

A number of design features were singled out by students for having good effects on well-being. Rooms with natural light and good ventilation also helped for comfort, leading to the sensation of relaxation and less discomfort in warm months (photo 13 Lingotto residence).



Photo 9. Exterior view from a room in Lingotto Residence (© [EDISU Piemonte](#), 2025)

Green spaces (campus gardens) provide tranquility, allowing students to detach from the stresses of academia. Students suggested shared kitchens and lounges for socializing, and one said, “The kitchen is where I connect with others.” These spaces also promoted cultural expression, where inhabitants would cook and share traditional meals, bringing them closer together through common understanding. Still, challenges remained, such as the distractions of loud common spaces. Another student said: “It’s impossible to concentrate with so much noise, particularly coming from other rooms.”



Photo 10. Triple room in Lingotto Residence (© [EDISU Piemonte](#), 2025)

The residents had very limited privacy in common rooms, as one person remarked, “The smallness of the rooms makes it hard to feel comfortable and organized”. Poorly designed furniture, insufficient storage, and old windows detracted from function, while crowded kitchens during mealtime blocked access, in one’s words, “The kitchen is too small for all residents at peak time.”



Photo 11. Triple room in Lingotto Residence (© [EDISU Piemonte](#), 2025)

### 5.5.2 Architectural Solutions for Enhanced Living Conditions

To solve these problems, the students have also proposed modifications. Larger rooms with more storage, better ventilation, and optimized natural light would make it easier and more pleasurable to



be in there. One comment was, “The furniture should be designed to fit the space and the occupants”. Study areas with soundproofing, as shown in existing spaces (Photo 13, Lingotto study spaces), would reduce the distractions.



**Photo 12. Study areas in Lingotto Residence** (© [EDISU Piemonte](#), 2025)

More green spaces, from rooftop terraces to indoor plants, could facilitate relaxation and fill in ecological gaps. Culturally inclusive facilities, like kitchens with a greater variety of equipment or multi-purpose rooms for festivals, would support interaction between and among people with different traditions and experiences. New modern furnishings for shared spaces with larger capacity also helped, reducing congestion and increasing comfort at times of peak use. These architectural measures foster a supportive and inclusive environment that contributes to the well-being and success of students without relying on policy interventions such as scheduling or common agreements.

### 5.5.3 Conclusion

Feedback from international students residing at Edisu dormitories (Lingotto, Borsellino) shows that space configuration is fundamental for both well-being and community. Brightly lit and air-conditioned rooms and open spaces for relaxation and socialization, common rooms (living, dining, playing, etc.) promote mutual cultural exchange and social cohesion. But noise, lack of privacy, and overcrowded common facilities detract from comfort, speaking to a need for better spatial performance. These understandings inform architectural improvements that foster welcoming, supportive environments to live in, addressing the needs of privacy, culture, and ecology without relying on policy-based solutions. Future designs will be informed by these findings to improve student mental health and academic performance.

Furthermore, in the following chapter, the author's personal experience of living in the dormitory as a user and observer makes the insights gained from the observations more tangible.



## 6 Case Studies Analysis

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### Introduction

This chapter examines selected case studies that provide insights into designing student housing responsive to human experience. Building on personal experiences in the Lingotto dormitory, as well as observations, surveys, and interviews with residents, the analysis seeks to bridge lived experience with architectural strategies. The goal is not to catalogue all dormitories but to identify projects that address challenges similar to those in Lingotto, including privacy, social interaction, adaptability, and user well-being.

By reviewing these precedents, the aim is to understand how design interventions—whether spatial, material, or organizational—can shape behavior, foster community, and enhance comfort. The selected examples showcase diverse approaches, including the integration of natural elements in communal spaces, human-centered layouts, minimal yet effective interventions, and the adaptive reuse of existing structures. Each case provides lessons that can inform the subsequent design phase.

### Evaluation Criteria

To evaluate these cases, the following evaluation criteria guide the analysis:

- **Privacy and Acoustic Control:** How individual rooms and shared areas balance personal space and social life, ensure visual and auditory privacy, and organize rooms to minimize disturbances.
- **Social Interaction and Community Engagement:** Strategies for fostering social connections, shared experiences, and community engagement through spatial arrangements, such as the use of flexible furniture, greenery, or informal settings.
- **Human-Centered and User-Oriented Design:** The degree to which the design responds to psychological, behavioral, and accessibility needs of users, including flexibility and comfort.
- **Adaptive Reuse and Spatial Efficiency:** Approaches to reconfiguring existing structures, optimizing space, and applying minimal interventions while respecting the original architecture.
- **Aesthetic Quality and Experiential Impact** – The influence of design on visual perception, emotional response, and overall user experience.
- **Integration of Biophilic Elements:** Incorporation of natural elements, daylight, ventilation, and greenery to improve well-being and foster a connection with nature.

By systematically reviewing these case studies under the above criteria, this chapter lays the foundation for a design approach that balances functional, psychological, and aesthetic considerations, ultimately guiding a dormitory design that is both adaptive and human-centered.

### 6.1 Hatch Marsh's Yard – Cork, Ireland

Hatch Marsh's Yard, located on Copley Street in Cork, Ireland, represents a fresh approach to student living, emphasizing human-centered design, social interaction, and psychological well-being. Completed circa 2019 and designed by Kingston Lafferty Design, this facility accommodates approximately 265 students across mixed room types in 5 floor and demonstrates how thoughtful interior design can elevate the quality of student experiences beyond mere functionality. While student housing is often utilitarian and minimal, Hatch Marsh's Yard consciously integrates elements that foster engagement, privacy, and comfort.

## Human-Centered and Aesthetic Interventions

Upon entering the building, the first impression is of a carefully orchestrated environment where color, materiality, and spatial organization work together to create a stimulating yet comfortable atmosphere. The interior palette, juxtaposing bold black-and-white stripes with dusty greens, blues, and warm wood accents, creates a visually stimulating environment that avoids the generic aesthetics often associated with student housing. These aesthetic interventions contribute to psychological well-being by balancing vibrancy with sophistication. Custom lighting fixtures and tactile finishes further enhance comfort and sensory engagement.



photo 13. The entrance and reception of Hatch (© [Yellow Trace](#), 2025)

## Spatial Organization and Social Interaction

One of the most remarkable aspects of Marsh's Yard is the attention to human-centered spatial organization. The designers incorporated tiered, built-in seating as a central social core, inspired by the geometric patterns of a cracking eggshell—reflecting the brand name "Hatch." These multilevel seating areas not only encourage casual social interaction but also create intimate niches where students can relax alone or with friends. The partially enclosed overhead bulkheads provide a cocooning effect, allowing occupants to feel a sense of privacy even within open communal spaces.



photo 14. Central lounge with tiered seating of Hatch (© [Yellow Trace](#), 2025)



Strategically carved-out nooks further enhance privacy, offering students intimate corners for phone calls, study, or one-on-one conversations. The thoughtful arrangement of these areas ensures that communal zones are dynamic yet retain pockets of solitude, a balance often overlooked in student housing.



photo 15. private nooks of Hatch (© Yellow Trace, 2025)

### Biophilic Elements

Beyond social spaces, the project carefully addresses the psychological benefits of biophilic elements and integrates greenery into its communal spaces, including artificial olive trees and striped “lollipop” installations, integrating the sense of nature into daily life, enhancing mood, and cognitive well-being. These biophilic interventions transform otherwise standard corridors and dining areas into spaces that foster mental restoration.



photo 16. Indoor plants and greenery of Hatch (© YayCork, 2025)

## Spatial Efficiency and Minimal Interventions

The design employs an efficient layout that accommodates multiple functions—socializing, studying, relaxation—without overcomplicating circulation. The use of built-in furniture maximizes utility while maintaining clear pathways and visual openness. Each spatial intervention is deliberate, contributing both functionally and experientially, demonstrating a minimal yet impactful approach to interior interventions.

## Analysis and Reflection

From the perspective of privacy, Hatch Marsh's Yard strikes a balance between communal engagement and individual retreat. The tiered seating and carved-out nooks exemplify user-oriented design, allowing occupants to navigate between social and private modes. Biophilic elements and aesthetic interventions enhance comfort, mental well-being, and the overall quality of the student experience. Spatial organization and minimal, functional interventions reflect an understanding of human behavior, fostering a sense of autonomy and control within the environment.

Overall, Hatch Marsh's Yard provides a compelling example of how human-centered interior design can elevate student housing. By prioritizing privacy, social engagement, and environmental quality, the project demonstrates that even temporary living environments can offer enriching, psychologically supportive experiences.

## 6.2 Adaptive Reuse meets Student Living – Milan, Italy

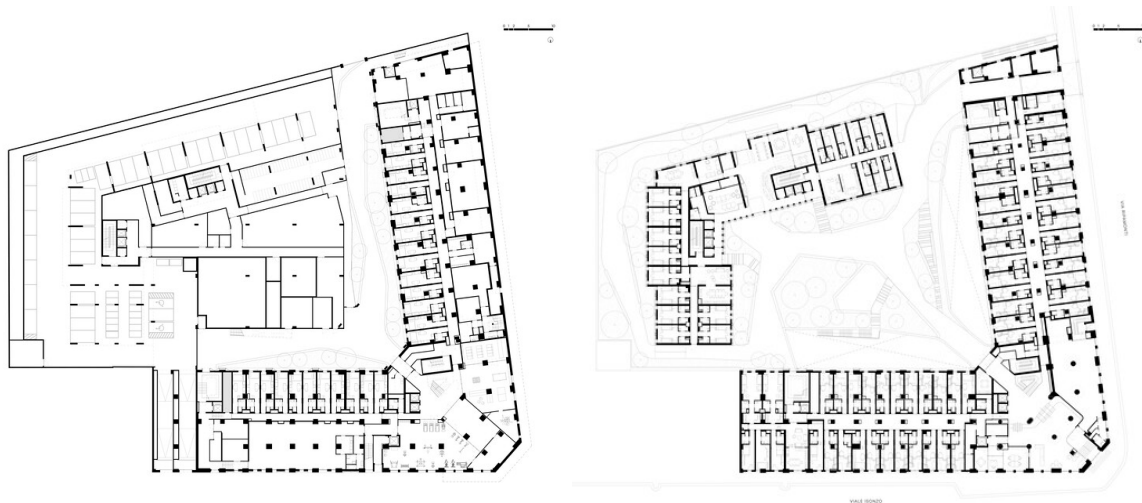
The adaptive reuse of Milan's former Agricultural Consortium (Via Ripamonti 35/37) into a student housing complex by Park Associati exemplifies how historical preservation can coexist with contemporary, human-oriented design (Park Associati, n.d.). Completed in 2024, this 32,000 sqm project transforms a 1940s industrial landmark into a vibrant residence for over 700 students, maintaining the architectural memory of the site while introducing new volumes that address the functional and social requirements of student life.



photo 17. The former Agricultural Consortium from the past ©Nicola Colella

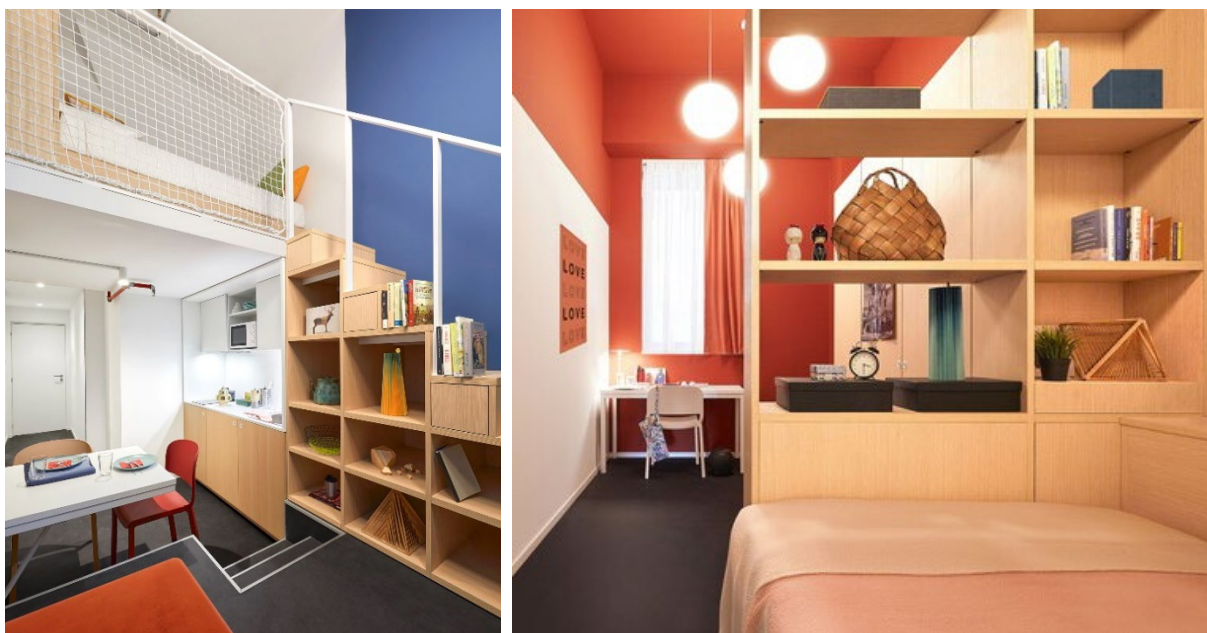


The design strategically balances privacy and social interaction, notably through the arrangement of cluster apartments housing 8–12 students. These configurations provide micro-communities, enabling social interaction while maintaining private quarters.



**Drawing 1. The plans of the Consorzio Agrario dormitory © Park Associati**

Duplex and single rooms offer individual retreat, ensuring that residents can navigate between personal and shared spaces with autonomy. These configurations mediate between individual retreat and communal engagement, highlighting the potential of spatial organization to influence behavioral patterns in dense residential environments. The layout subtly structures daily routines, allowing students to navigate between private and shared life seamlessly.



**photo 18. Duplex and single rooms of the Consorzio Agrario dormitory © Nicola Colella**

The project foregrounds communal life through the design of its courtyard, conceived as an outdoor “living room” for students. This space encourages fluid movement between study and leisure, offering areas for socializing, relaxation, and sports activities. The incorporation of terraces and the fourth-floor basketball court further extends communal engagement vertically, activating physical activity and group interaction within the residential program. The interplay between open areas and secluded corners illustrates how subtle architectural interventions can shape social dynamics without overwhelming the original industrial character of the building. The dialogue between preserved

industrial elements and contemporary additions creates a temporal continuity, merging historical authenticity with present-day functionality.



**photo 19. The courtyard and the fourth-floor basketball © Nicola Colella**

Material and aesthetic choices reinforce spatial hierarchy and identity. The contrast between the preserved industrial façade and contemporary volumes emphasizes the dialogue between past and present, while custom furnishings and bold colors introduce warmth into the industrial shell. The careful layering of materials, surfaces, and colors supports the experiential quality of spaces without introducing unnecessary interventions, allowing both individual and communal areas to maintain distinct identities.



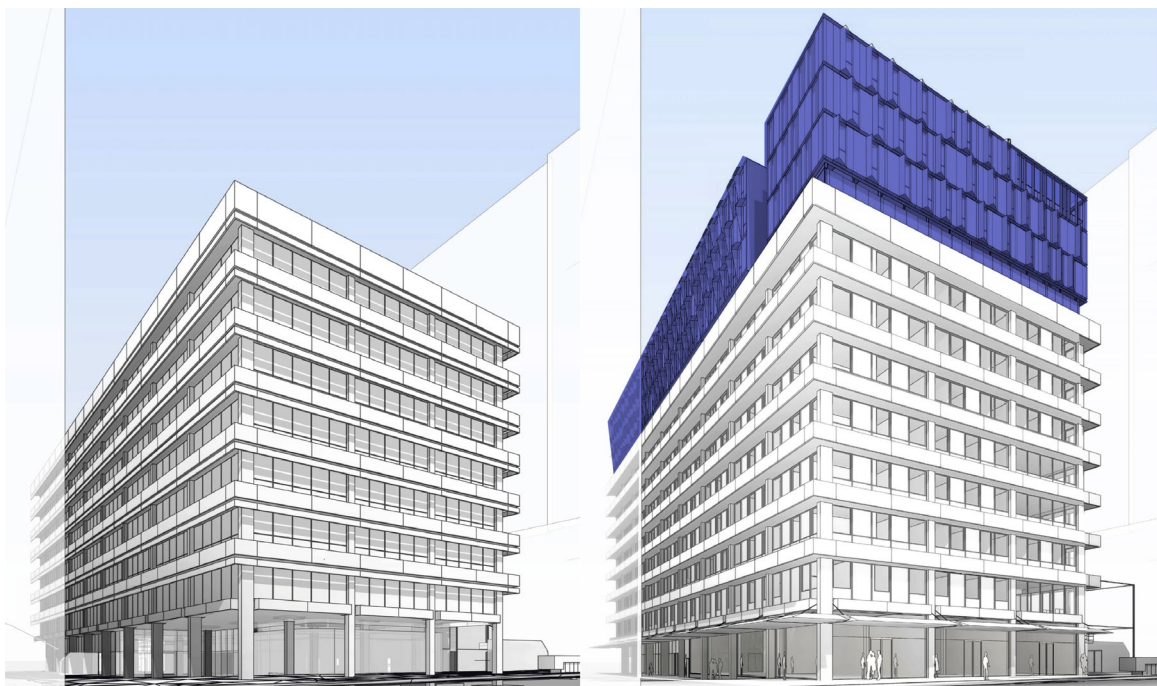
**photo 20. Common spaces of the Consorzio Agrario dormitory © Nicola Colella**



Overall, the Via Ripamonti project presents a clear example of adaptive reuse that strategically addresses privacy, collective interaction, and user-centered spatial design. Its design decisions—spanning residential layout, communal courtyard, terraces, and activity-oriented facilities—illustrate how historic buildings can be reinterpreted to support contemporary student life, enhancing both functional performance and experiential quality (Park Associati, n.d.).

### 6.3 Campus Perth: Adaptive Reuse of a 1970s Commercial Building

Campus Perth demonstrates the strategic potential of adaptive reuse, converting a 1970s commercial office building into a 726-bed student residence (completed in 2018). Rather than opting for demolition, the design leverages the building's original deep floorplates, turning structural constraints into opportunities. The 10,500 sqm building spreads across seven floors, preserving key elements of its industrial character while introducing contemporary interventions. Spaces requiring daylight, such as living areas and social lounges, are placed along the perimeter, while internal zones host gyms, screening rooms, and service areas. This spatial strategy illustrates a nuanced understanding of user behaviour, highlighting how architecture can mediate between privacy and social engagement.



**Figure 21. Existing building condition vs extra floors © Woods Bagot**

Originally a standard commercial building, the project preserves key elements of its industrial character while introducing contemporary interventions. Modular prefabricated room units and adaptable joinery enabled rapid construction within 12 months, minimized material waste, and allowed flexible adaptation to evolving demands, including varying student group sizes and pandemic-related occupancy changes.



**photo 21. Past situation of Campus Perth © Woods Bagot**



**photo 22. Game area of Campus Perth © Casita**

At the heart of the design is a double-height “social heart,” serving as the primary communal hub. This space encourages informal interaction, collaborative study, and a sense of community, reflecting the human-centered approach central to the project. By transforming a conventional office block into a multi-functional, socially dynamic environment, Campus Perth exemplifies how adaptive reuse can simultaneously respect the building’s original narrative and create innovative living solutions.





photo 23. Cinema room of Campus Perth © Casita

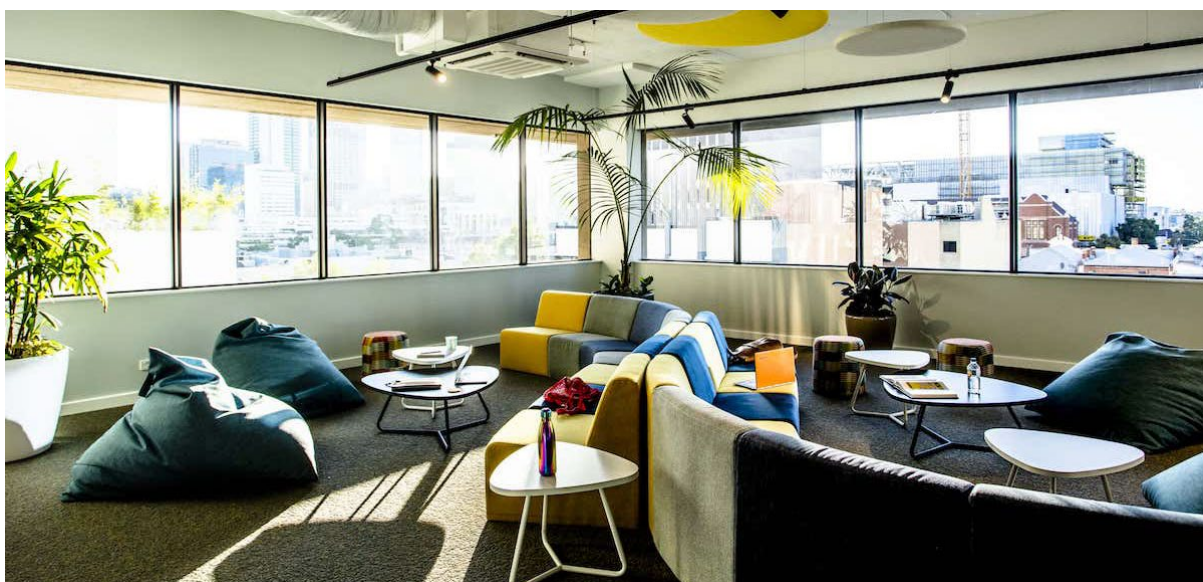


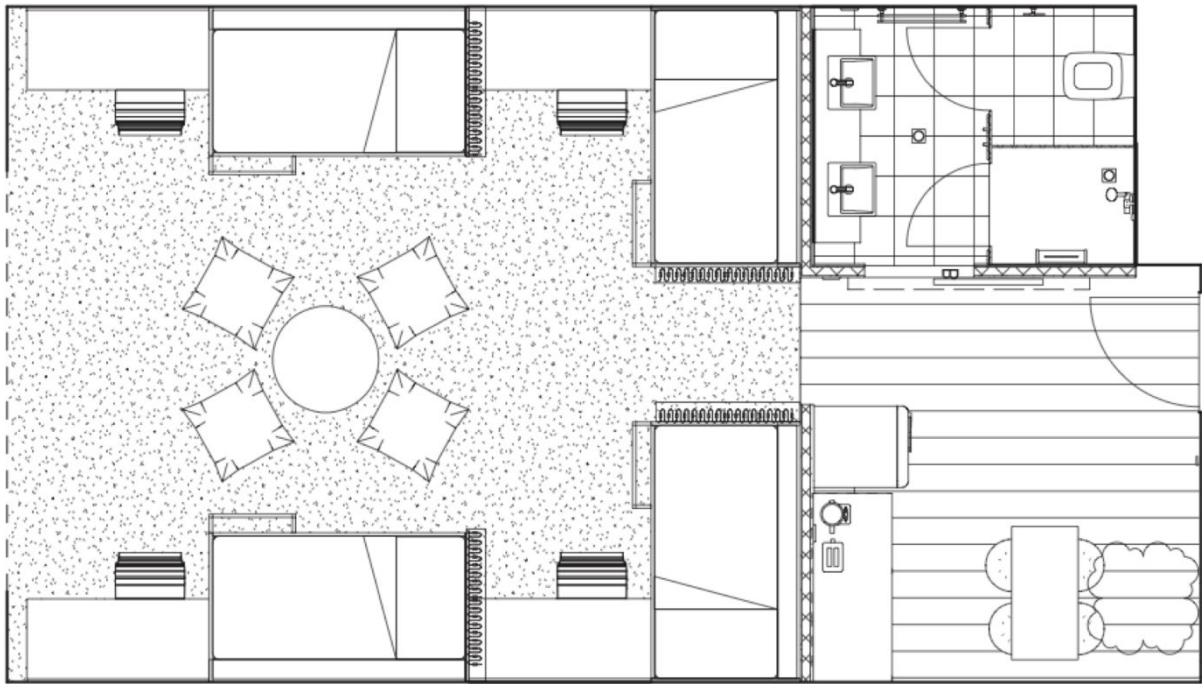
photo 24. Social area of Campus Perth © Casita



photo 25. Rooftop courtyard of Campus Perth © uhomes







Drawing 3. 4 bed unit of Campus Perth © Campus Perth



photo 26. A shared room of Campus Perth © Casita

The project underscores a broader principle: existing structures are not limitations but resources for sustainable, user-focused architecture. For student housing, it provides a clear model of balancing efficiency, flexibility, and social experience while maintaining the integrity of the original building.

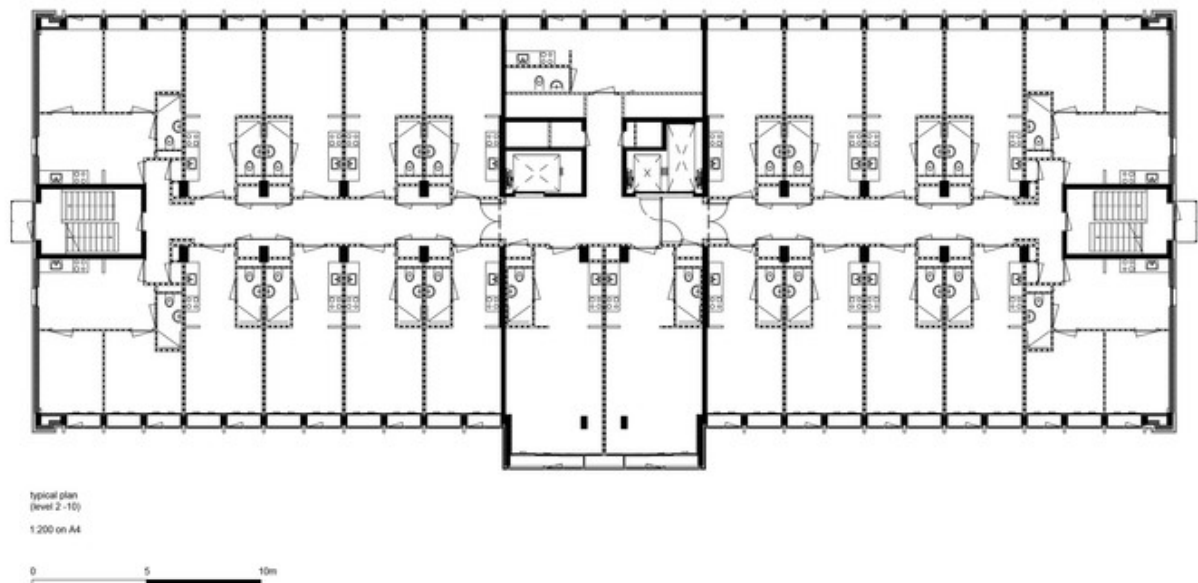
## 6.4 Student Housing in Elsevier Office Building

Elsevier Office Building, originally designed by W.M. Dudok in 1964 as an 11-story office tower overing a plot size of 3,600 m<sup>2</sup> and with a total floor area of 11,750 m<sup>2</sup>, was vacant for several years before being transformed into a student housing by Knevel Architecten in 2015. This adaptive reuse exemplifies how a mid-20th century commercial structure can be thoughtfully repurposed to meet contemporary student needs while respecting its architectural heritage.

Rather than imposing radical structural changes, the design carefully negotiates the building's existing grid of columns and concrete floors, introducing interventions only where necessary to enhance daylight, acoustic comfort, and social engagement. The result is housing for 285 students, including private studios, two-bedroom apartments, and penthouse units, configured to balance individual retreat and communal interaction.



photo 27. Elsevier Building © Leonard Faustle



Drawing 4. Typical plans of Elsevier dormitory

### Spatial Strategy and Human-Centered Design

The preserved structural framework allowed apartments and studios to fit seamlessly into the existing footprint, with new windows added to the north and south façades to improve daylight in deeper units.

Privacy and autonomy are central to the spatial organization: each unit provides a personal retreat, while shared circulation and common areas encourage spontaneous social interaction.





photo 28. A penthouse unit of Elsevier dormitory © Leonard Faustle

The ground floor, now facing the neighborhood rather than the former park lane, includes a raised public square with benches and letterboxes, reinforcing the connection between students and the surrounding urban fabric.



photo 29. Public square of Elsevier dormitory © Leonard Faustle

## Architectural Identity and Environmental Quality

The west façade, facing a busy highway, employs a double-skin loggia with a yellow frame that mitigates noise while introducing a visual identity element. On the quieter east façade, the yellow frame becomes an internal windowsill, demonstrating a subtle, context-driven design response. The characteristic eleventh-floor canopy is highlighted with a graphic yellow print, visually anchoring the building within the cityscape. These measured interventions illustrate how minimal architectural gestures can simultaneously enhance environmental performance, identity, and social experience.



photo 30. An east unit of Elsevier dormitory © Leonard Faustle

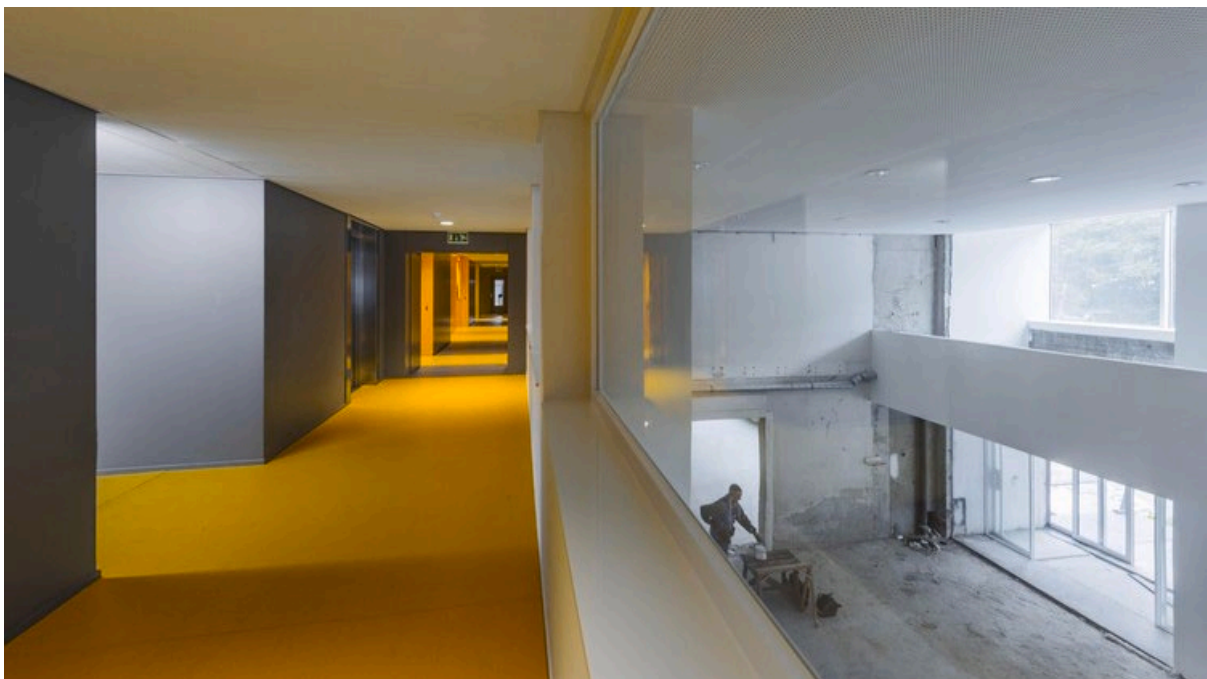


photo 31. The interior corridor of Elsevier dormitory © Leonard Faustle



## Analysis and Reflection

Elsevier Office Building illustrates the potential of adaptive reuse to create human-centered, socially dynamic student housing without extensive demolition or alteration. The project demonstrates that careful attention to daylight, acoustic conditions, privacy, and circulation can transform a standard office building into a psychologically supportive living environment. It also emphasizes the importance of integrating the building into its urban context, highlighting how architecture mediates between private experience and public engagement. By balancing preservation with functional adaptation, this project offers a model for resilient, context-sensitive student housing.

## 6.5 G27 CIEE Global Institute

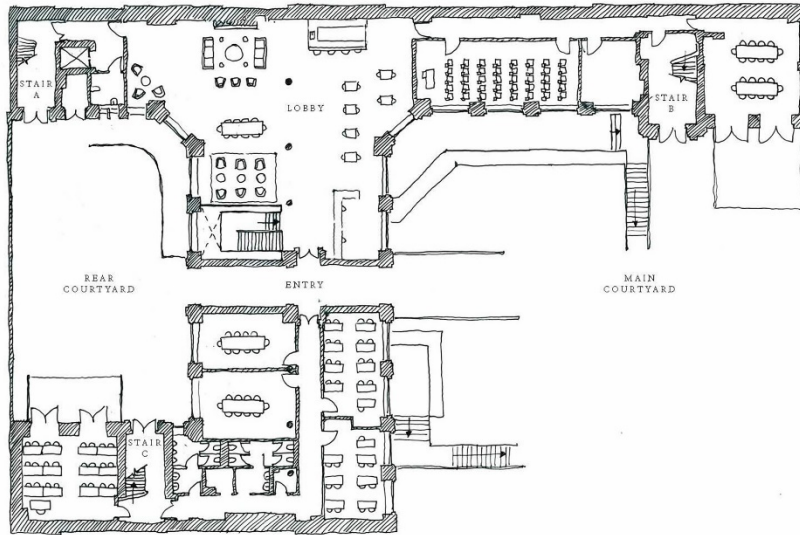
G27, located at 27 Gneisenaustrasse in Berlin's Kreuzberg district, is a transformative adaptive reuse project that repurposes the former Roka manufacturing complex into a dynamic student residence. Designed by Macro Sea in collaboration with DBI Projects, the 85,000 sq. ft. facility houses 200 students and serves as the CIEE Global Institute. The design philosophy centers on creating a **"vertical campus,"** integrating living, academic, dining, and social spaces within a single building to foster a cohesive community experience.



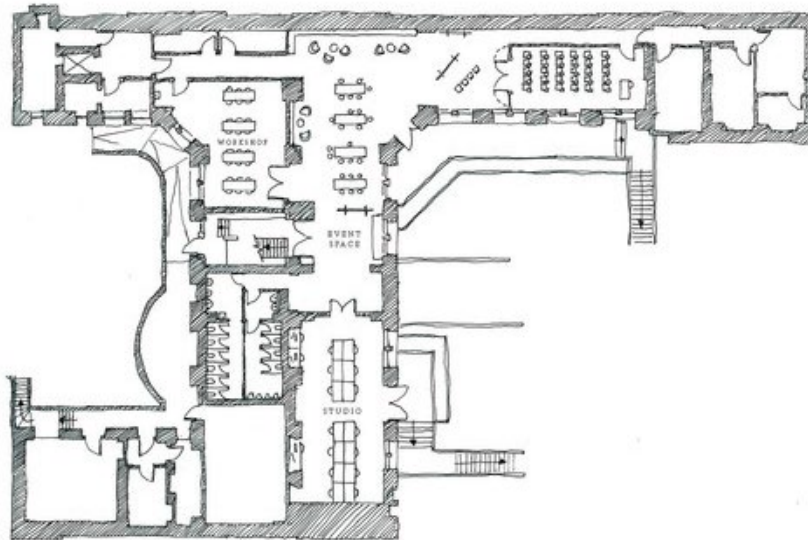
photo 32. G27 CIEE Global Institute © Chris Mosier

### Spatial Configuration and Social Interaction

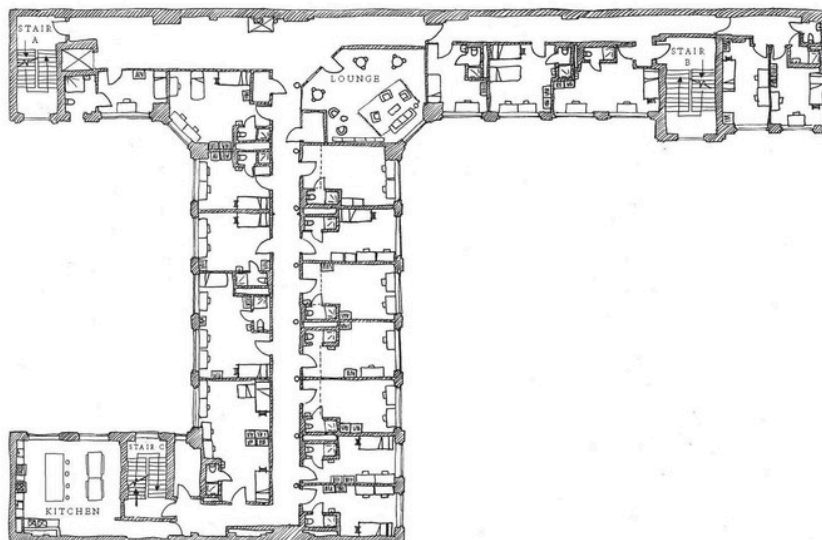
The architectural layout of G27 emphasizes interaction and community building. The central open common room, featuring a large fireplace and marble bar, serves as the heart of the residence, encouraging spontaneous gatherings and socialization. Surrounding this communal space are various programmatic zones, including customizable student rooms and shared amenities. This configuration not only facilitates social engagement but also allows for personal autonomy within the shared environment.



G.27 GROUND FLOOR PLAN



G.27 LOWER LEVEL PLAN



G.27 TYPICAL RESIDENTIAL LEVEL PLAN



Drawing 5. plans of G27 CIEE Global Institute





photo 33. The central open common room at G27 © Chris Mosier

### Architectural Identity and Materiality

The design of G27 reflects a commitment to authenticity and sustainability. The interior spaces are furnished with a blend of contemporary, custom-made, and vintage pieces sourced from Bavarian and Danish origins, as well as repurposed local items and salvaged objects from the original facility. This eclectic mix of materials and furnishings contributes to a unique and inviting atmosphere, distinguishing G27 from traditional institutional student housing.



photo 34. The interior spaces at G27 © Chris Mosier



## Integration with Urban Context

Situated in the historic Kreuzberg neighborhood, G27 benefits from its vibrant cultural context. The adaptive reuse of the Roka complex not only preserves the architectural heritage of the site but also contributes to the revitalization of the surrounding area. The project's integration into the urban fabric underscores the potential of adaptive reuse to enhance both the built environment and the community.



photo 35. Exterior space of G27 CIEE Global Institute © Chris Mosier

G27 exemplifies a paradigm shift in student housing design, moving away from sterile, institutional models towards more engaging and human-centered environments. The project's emphasis on flexibility, community, and sustainability offers valuable insights for future developments in student accommodation. By reimagining an industrial building as a dynamic living and learning space, G27 demonstrates the transformative potential of adaptive reuse in contemporary architecture.



photo 36. Exterior space of G27 CIEE Global Institute © Chris Mosier





photo 37. A double unit of G27 CIEE Global Institute © Chris Mosier

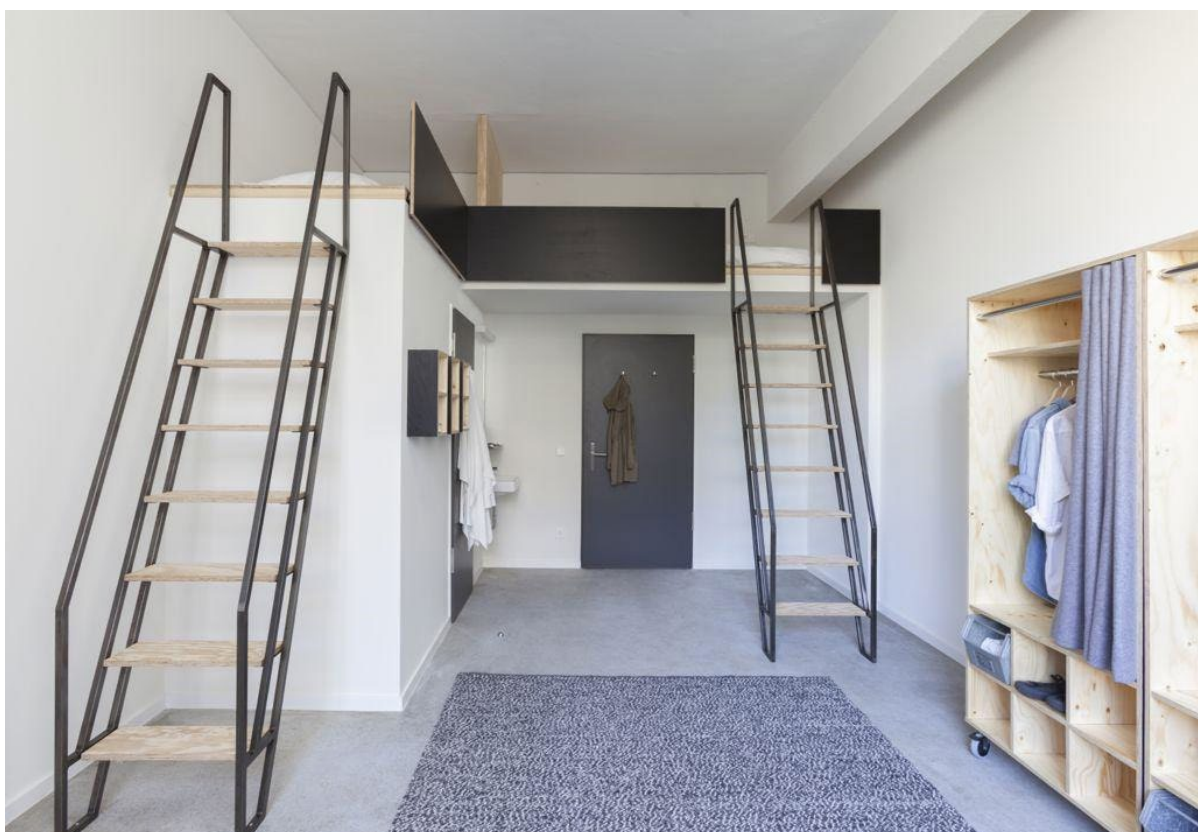


photo 38. A double unit of G27 CIEE Global Institute © Chris Mosier

## Conclusion

The analysis of the selected case studies demonstrates how contemporary student housing projects increasingly leverage adaptive reuse, human-centered design, and site-specific architectural strategies to address both functional and experiential needs. Each project faced distinct constraints—ranging from the industrial remnants of a 1940s consortium in Milan, the rigid typologies of a 1970s commercial building in Perth, to the architectural and contextual challenges of a mid-20th century office building in Amsterdam (Elsevier), and the high-density, social-oriented requirements of a former office conversion in G27, The Netherlands. In each case, designers reframed these limitations as opportunities to generate innovative spatial, social, and aesthetic solutions.

A recurring theme across all cases is the articulation of a “social heart”—central communal spaces that function as anchors of interaction and belonging. Whether through courtyards, double-height lounges, tiered seating, or multi-purpose hubs, these spaces demonstrate how architecture can encourage spontaneous encounters while supporting structured activities. At the same time, each project carefully addressed the opposing need for privacy and retreat, employing strategies such as cluster apartments, duplex studios, secluded nooks, or strategically reconfigured floorplates. This balance reflects a nuanced understanding of student life, where the negotiation between individual autonomy and collective living is crucial.

Another consistent insight lies in the integration of biophilic, material, and aesthetic interventions. Thoughtful use of natural light, greenery, textural finishes, and color palettes contributes not only to comfort and identity but also to psychological well-being. For example, Elsevier’s double-skin façade with loggia frames mitigates noise while enhancing daylighting; G27 emphasizes visual connection and material layering to enrich student experiences; and Hatch Marsh’s Yard and Milan’s adaptive reuse projects use greenery and tactile elements to transform previously sterile industrial or office interiors into socially and psychologically supportive environments.

Collectively, the case studies reveal that student housing can extend well beyond basic accommodation: it can operate as a medium of urban regeneration, a space of cultural continuity, and a catalyst for community building. By observing how designers negotiate between structural constraints, user needs, and contextual opportunities, these projects provide a conceptual groundwork for the forthcoming design phase, offering a clearer lens through which to navigate adaptability, identity, privacy, and human-centered living in student residences.

## 7 Design Proposal

The design process of this project builds on both collective and personal insights. Alongside questionnaires and field analyses conducted with students living in the Edisu dormitories in Turin (Lingotto and Borsellino), my own lived experiences as a resident highlighted critical challenges. The findings revealed that the quality of student housing life is deeply affected by insufficient privacy in shared rooms, the absence of indoor green areas for relaxation and contact with nature, inadequate service spaces such as kitchens and laundries, and persistent acoustic issues caused by environmental noise. These observations, combining data-driven evidence with personal experience, established the foundation for the proposed design strategies.

### 7.1 Background and Case Study Selection

#### 7.1.1 The Lingotto: History and Building Transformation

To address these issues, the Foresteria Lingotto dormitory, located on the fourth floor of the historic Lingotto building, was selected as the case study. The Lingotto building, originally designed as a Fiat factory by engineer Matté Trucco, was completed in 1923 and stands as one of Europe's most iconic examples of modern industrial architecture, renowned for its scale, modular reinforced concrete structure, and the distinctive rooftop test track (Renzo Piano Building Workshop, n.d.).

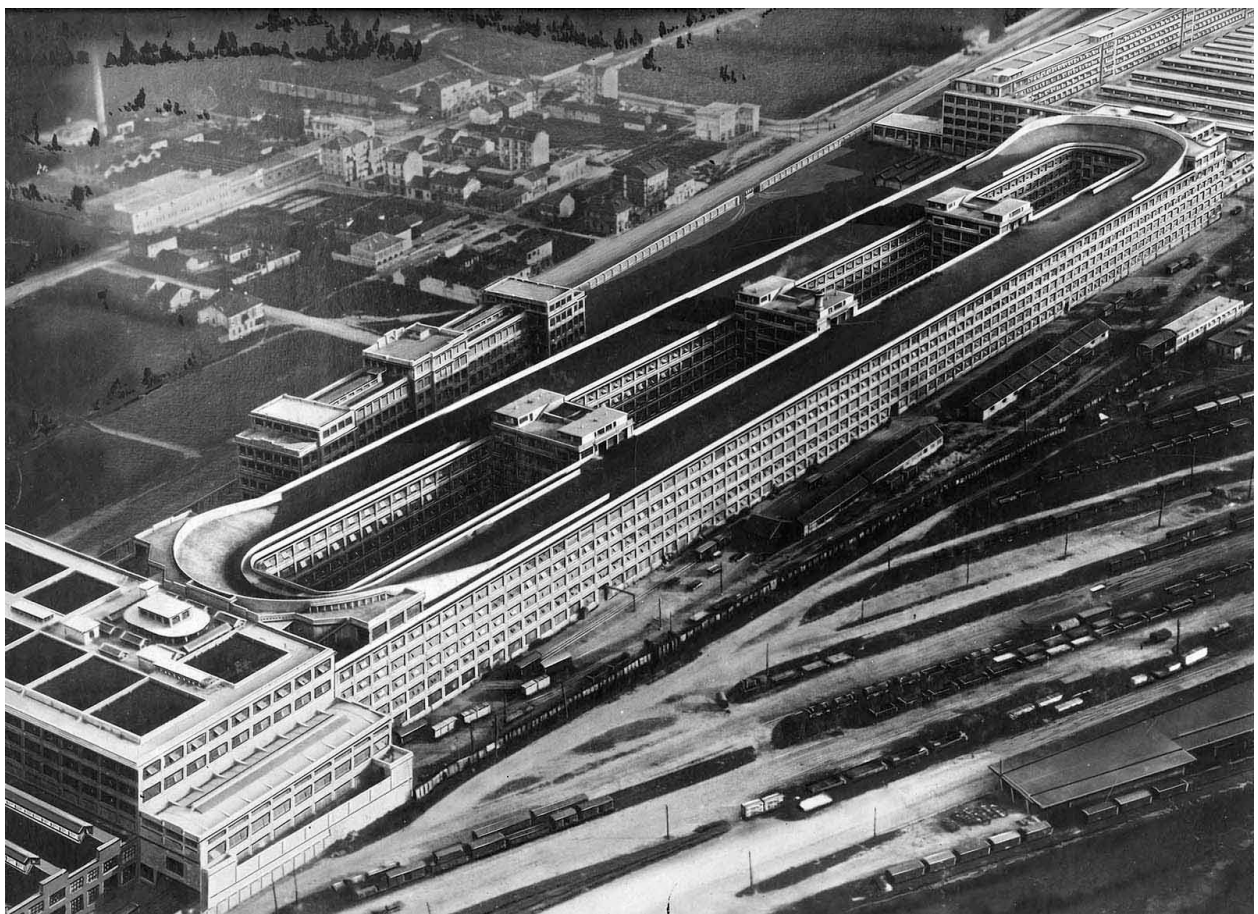


photo 39. Historical view of the Lingotto building with the test track on the roof. ([Rare Historical Photos](#), 2025)





photo 40. Racecars race atop the Lingotto factory. ([Rare Historical Photos](#), 2025)

Following its closure in the 1980s, Fiat organized a design competition and entrusted the building's renovation to the Renzo Piano Building Workshop. The conversion aimed to revive the site as a multifunctional cultural, commercial, and service hub while preserving its architectural identity. The restoration, carried out in three phases between 1991 and 2003, added exhibition halls, conference centers, hotels, offices, and retail spaces, successfully adapting the industrial site for contemporary urban use.



photo 41. Lingotto in the current situation ([Guida Torino](#), 2025)

In 2006, the fourth floor was adapted to temporarily host athletes during the Winter Olympic Games and subsequently served as a guest residence for short-term visitors (Torino Corriere, 2023). In 2022, the space was transferred to EDISU Piemonte under a 30-year agreement and converted into a student dormitory with approximately 182 beds (in multiple rooms (double and triple) (EDISU Piemonte, 2024). Despite renovations that included private bathrooms, study areas, and shared facilities, many qualitative needs of long-term student residents remain unmet.

### 7.1.2 Case Study Selection: Foresteria Lingotto

The Foresteria Lingotto dormitory was chosen as the case study for this project due to its unique history of adaptive reuse and its current challenges in meeting the needs of long-term student residents. Initially designed for short-term stays, the spatial configuration does not fully support the requirements of a student lifestyle involving prolonged occupancy. Moreover, my personal experience living in this dormitory as an international student provided first-hand insight into its limitations and potential, which has strongly influenced the direction of this design proposal.

#### Design Approach and Objectives

The proposed design for the Foresteria Lingotto dormitory is based on a context-sensitive approach that respects the historical value and architectural identity of the existing building, while aiming to enhance the quality of life for its student residents. This approach seeks to maximize positive impacts on the daily experience of the occupants with minimal physical interventions. The main focus is on balancing private and common spaces, strengthening the connection with nature, and improving the functionality of service areas to meet the needs of long-term students. The primary design objectives are as follows:

- **Increasing privacy and flexibility** of rooms to accommodate the diverse needs of residents.
- **Integrating natural elements and green spaces** to improve environmental quality and psychological well-being.
- **Optimizing common and service areas** to enhance functionality and support long-term occupancy.
- **Managing acoustics and controlling noise** to increase comfort and concentration in both private and shared environments.

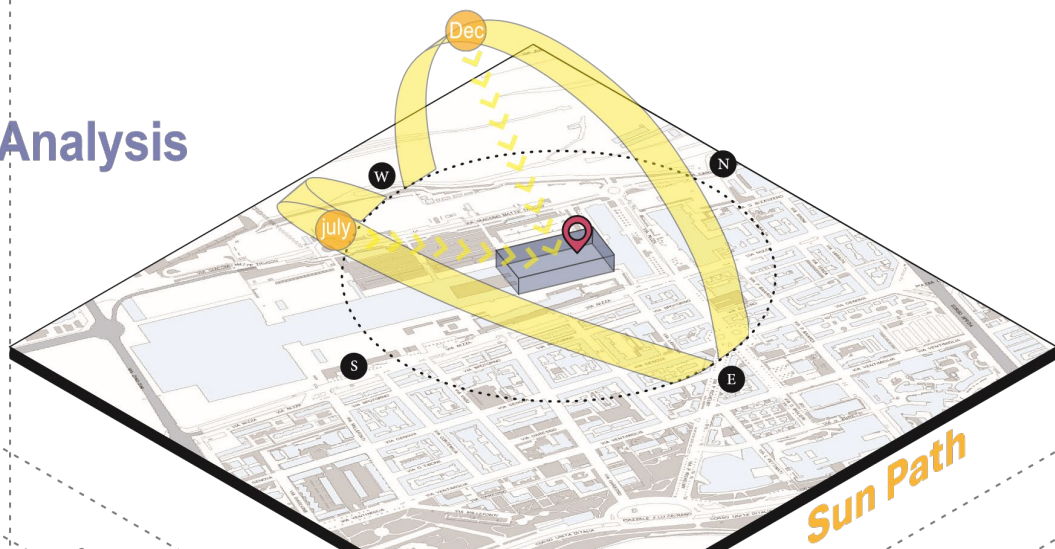
These objectives form the overall framework of the proposed design and will be elaborated in greater detail in the following sections.

## 7.2 Current Situation and Analysis of Foresteria Lingotto

The Foresteria Lingotto is located on the fourth floor of the multi-purpose Lingotto complex, one of the most iconic urban regeneration projects in Turin. Originally built as a Fiat factory, the building has been transformed into a vibrant hub hosting a variety of functions, including a conference center, retail areas, food courts, hotels, and educational spaces.



# Site Analysis



- Green spaces
- Buildings
- Tree-lined
- Empty plant spaces



- Bus station
- Subway station
- Train station
- Bicycle path



- Intense human activity
- Mixed type
- Predominantly residential
- Particularly protected





### 7.2.1 Site Analysis

Foresteria Lingotto, located on the fourth floor of the former FIAT Lingotto complex in Turin, benefits from strong urban connectivity. The site is well-served by metro, tram, and bus, providing residents with multiple sustainable mobility options and easy access to the city center and university facilities. But bicycle paths are limited.

The surrounding area offers a mix of commercial, educational, and service amenities, meeting many daily needs of students within walking distance. Green areas are limited nearby, and their limited size and dispersion highlight the importance of creating additional natural environments within the building itself.

An acoustic zoning analysis revealed varying noise levels due to proximity to traffic routes and public transport lines, with higher exposure on certain façades. This factor, along with the circulation patterns and solar path analysis, informed design decisions related to privacy, comfort, and natural lighting, ultimately shaping the interventions proposed for the dormitory's shared and private spaces.

### 7.2.2 Internal Spatial Organization and Access

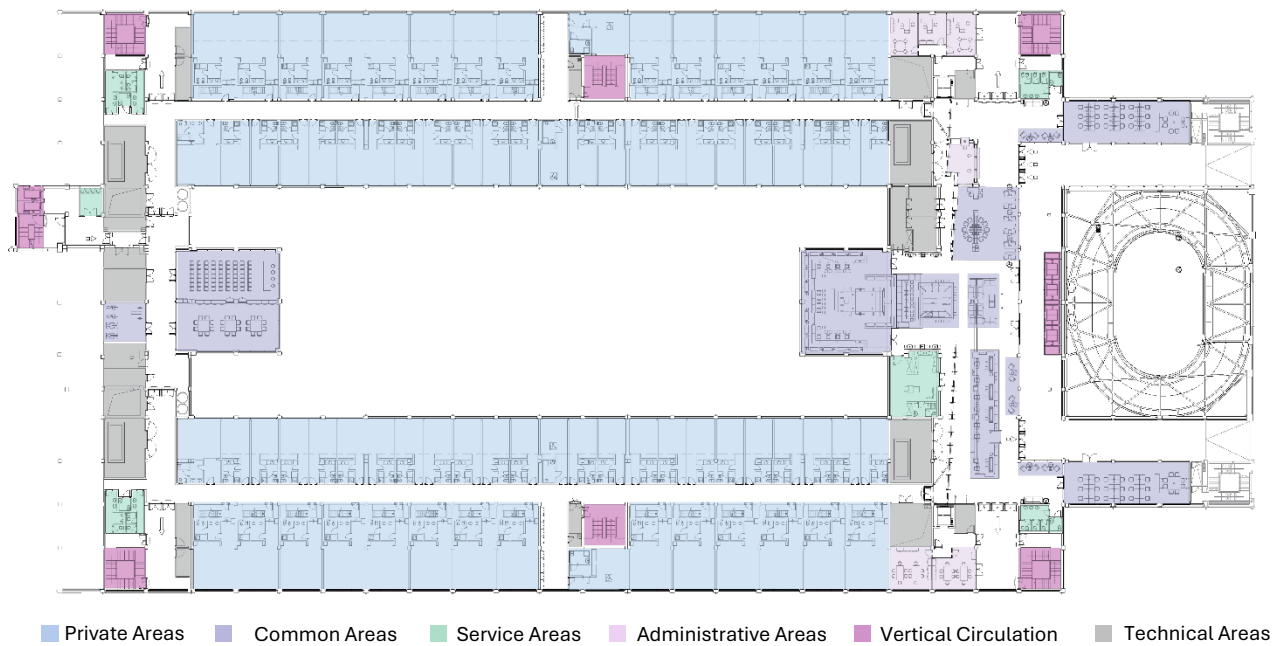
The main access to the dormitory is situated near the northern ramp of the Lingotto and is served by four elevators connecting the different levels of the complex. Additionally, a secondary staircase and two elevators are positioned at the far end of the dormitory, primarily used during special circumstances, such as after the commercial center's closing hours. Six emergency staircases are distributed throughout the dormitory, ensuring safe evacuation routes in compliance with safety regulations. However, there is no direct external access from the dormitory; residents must rely on the main entrance of the Lingotto for entering and exiting the building.



photo 42. The main entrance of the Lingotto dorm (© [EDISU Piemonte](#), 2025)

### 7.2.3 Room Typologies and Facilities

The dormitory interior comprises double and triple rooms. Double rooms mostly face the building's interior atrium, whereas triple rooms—with a mezzanine level—overlook the external facade, leading to varying daylight conditions and outdoor views. Additionally, the functional zoning plan (Figure 22) illustrates the distribution of private, common, and service spaces within the dormitory, providing a clear overview of the existing spatial organization.



**Figure 23. Functional Zoning Plan**



**photo 43. Layout of a triple room in Lingotto dorm (© EDISU Piemonte, 2025)**

The triple room offers a relatively larger space compared to the double room and includes a small kitchenette and sitting area, which can be considered a positive feature for shared living. However, the spatial arrangement still fails to ensure adequate privacy for three residents. The overall interior design, particularly the color scheme, creates a heavy and uninviting ambiance, which could benefit from a brighter and more natural palette to enhance the sense of openness and comfort.



photo 44. Photo 18. Layout of a double room in Lingotto dorm (© [EDISU Piemonte](#), 2025)

This two-bedroom unit is designed primarily for sleeping and studying, with no dedicated sitting or relaxation area. The compact layout results in limited personal space and insufficient privacy for two individuals sharing the room. Furthermore, despite the sufficient natural light thanks to large windows, the current color palette, dominated by muted and unsuitable tones, contributes to a rather gloomy and confined atmosphere. The wardrobe is another notable weakness; its configuration does not effectively separate storage areas for two occupants, making it difficult for students to organize their belongings independently.

**Shared facilities** include a common kitchen, laundry area, a small gym, study rooms, a lobby, and several multi-purpose spaces that can serve both social gatherings and dining purposes. The centralized heating system provides adequate comfort during colder months. However, the absence of air conditioning in summer has been reported as a major source of dissatisfaction among residents.

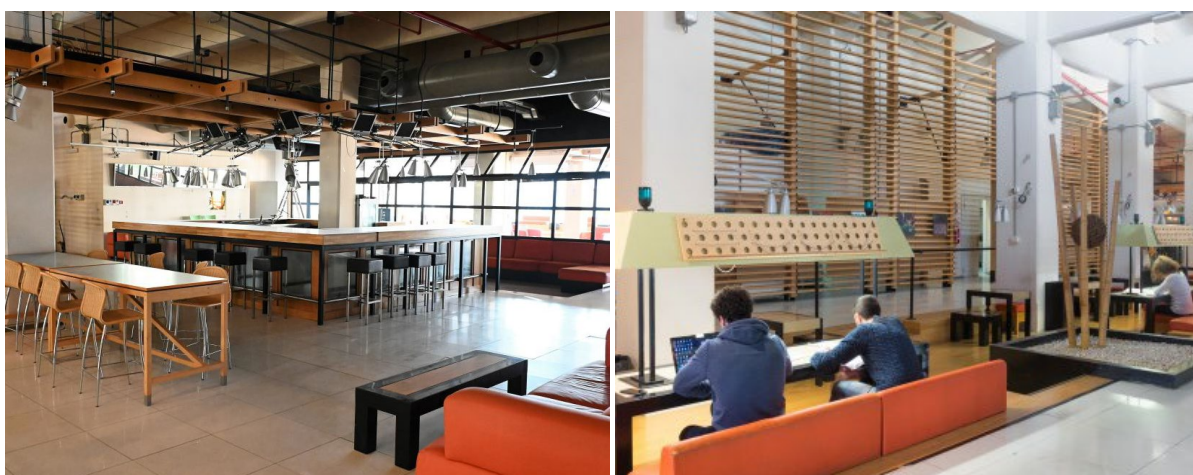


photo 45. Shared spaces of Lingotto dorm (© [EDISU Piemonte](#), 2025)

The multipurpose common areas are furnished with modular, flexible furniture that can accommodate a variety of activities and user needs. These spaces already support social interactions and collaborative activities effectively. Nevertheless, the absence of green elements limits their potential to promote psychological well-being. Introducing biophilic design interventions such as indoor planting, living walls, or even small-scale atria could significantly enhance the ambiance and provide students with a more restorative environment.



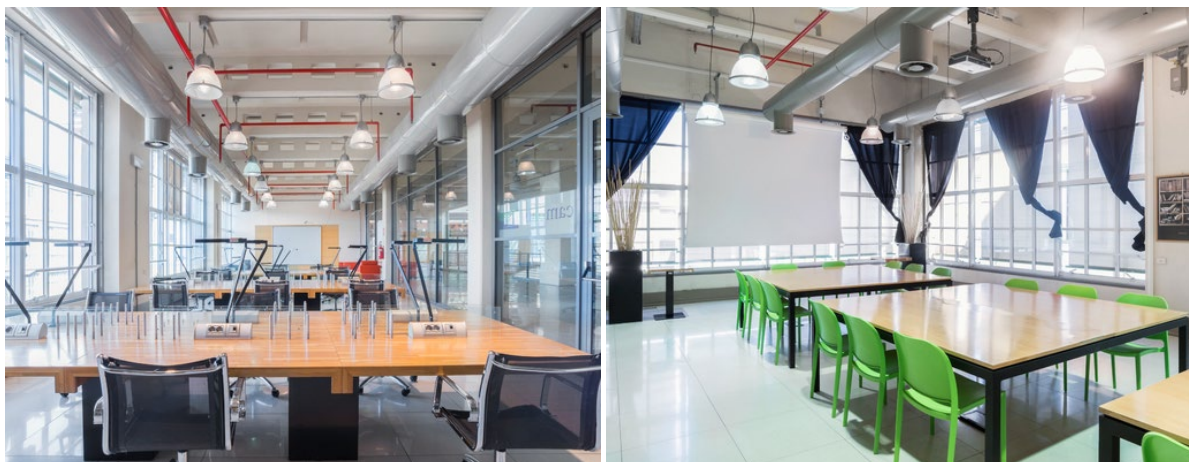


photo 46. Study areas of the Lingotto dorm (© [EDISU Piemonte](#), 2025)

**The study room** stands out as one of the strongest design features within the dormitory. It is appropriately separated from noisy common zones and benefits from generous natural light. Ergonomic furniture further supports comfort and functionality, making this space highly conducive to focused academic work.

## 7.2.4 SWOT Analysis: Strengths and Weaknesses

A spatial SWOT analysis diagram (Figure 23) highlights the key strengths, weaknesses, and potential areas for intervention across the dormitory.

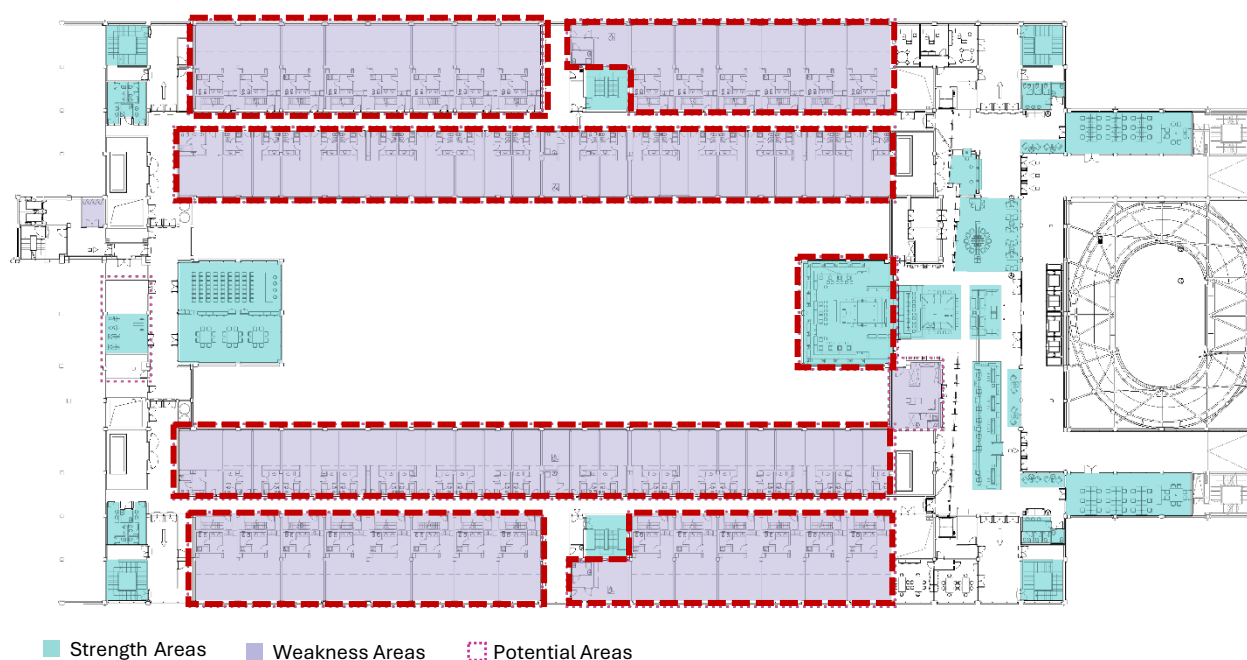


Figure 24. SWOT Analysis Plan

### Strengths

- Availability of flexible multi-purpose spaces equipped with modular furniture, supporting adaptive use for different social and educational activities. This flexibility reflects the potential for reconfiguring these areas to better suit long-term residential needs

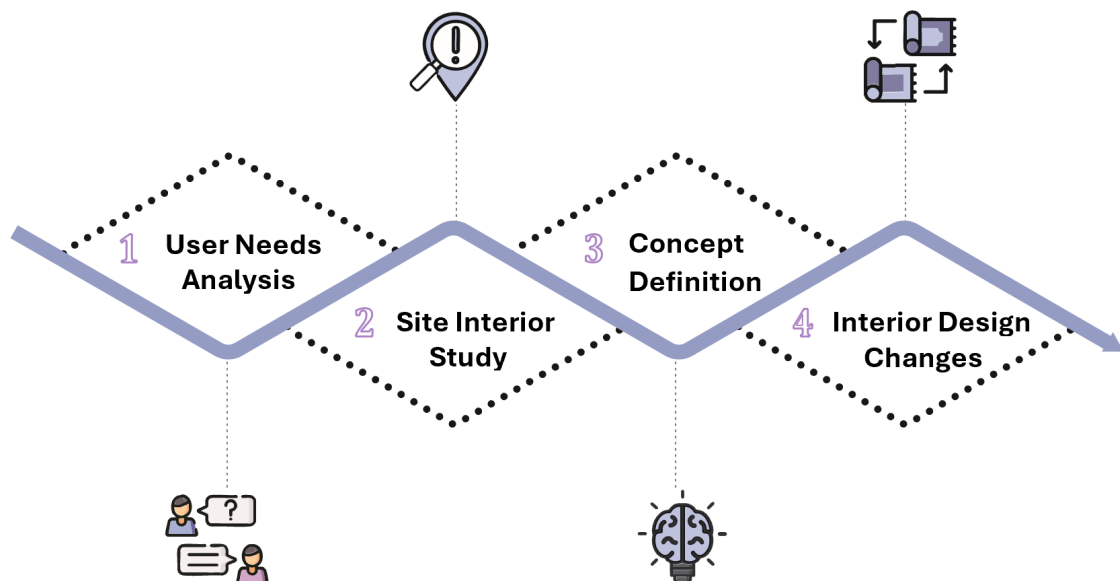
- Well-defined study areas that are spatially separated from high-traffic zones, ensuring acoustic comfort and supporting focused academic work. The orientation and natural lighting of these spaces further strengthen their role as productive environments.
- Adequate fire safety provisions, with six well-distributed emergency staircases complying with regulations.
- Proximity to educational institutions, public transport, retail, and urban amenities provides convenience and integration into the city fabric. Such urban connectivity is critical for student life and offers opportunities for activating outdoor spaces in future design interventions.

### Weaknesses

- Absence of any dedicated open or green spaces (e.g., terraces, courtyards, balconies), which limits opportunities for outdoor relaxation and biophilic experiences. This issue is particularly significant in the context of long-term student accommodation, where access to nature contributes to well-being.
- Room layouts fail to provide sufficient privacy, especially in double rooms where spatial separation for residents is minimal
- Limited capacity of shared kitchen and laundry areas relative to the population, leading to functional congestion during peak times.
- Weak acoustic insulation in both private rooms and common zones, resulting in noise transfer and reduced comfort for focused activities or rest.
- No air-conditioning system for warmer months, a frequent complaint among current residents.
- Reliance on the main entrance of the Lingotto complex for access; the dormitory lacks an independent external entry point.

## 7.3 Design Strategy and Objectives

The design strategy for Foresteria Lingotto focuses on enhancing the liveability and functionality of the dormitory through minimal yet impactful interventions. Instead of altering the building's historic character, the approach seeks to adapt the existing spaces to better support long-term student life. Priority is given to improving privacy, comfort, and social interaction, while introducing natural elements to create a more restorative environment.



## User Needs Analysis

Resident feedback revealed two main issues:

- **Private rooms:** lack of visual privacy, insufficient personal storage, and a disorganized layout of shared amenities such as the refrigerator and pantry.
- **Common areas:** absence of greenery and relaxing shared spaces, making the environment feel impersonal and less comfortable for social interaction.

## Site Interior Study

The spatial configuration of both private rooms and the collective hall was analysed.

- In the rooms, overlapping functions and direct sightlines compromised privacy and comfort.
- In the shared area, a lack of natural elements and poorly defined zones reduced its use and attractiveness for residents.

## Concept Definition

The design concept focused on **“privacy and well-being through spatial separation, functional clarity, and integration of nature”**.

The goal was to create semi-private personal spaces inside the rooms and transform the common area into a green, calming environment that supports relaxation and social interaction.

## Interior Design Changes

Several layout alternatives were explored to reorganize private rooms and enhance the common area. The final design focused on **clear functional zoning, improved privacy, and the introduction of greenery**.

Material and furniture choices were guided by the need for **flexibility, durability, and comfort**, creating a cohesive and user-oriented living environment.

## 7.4 Design Interventions

Building upon the spatial analysis, SWOT evaluation, and user feedback collected through surveys and observations, and my own lived experiences as a resident, the proposed design interventions aim to address the most significant functional, environmental, and psychological challenges currently experienced by residents of the Foresteria Lingotto dormitory. The intention is not to redesign the building's structure but rather to adapt and enrich its interior spaces to better accommodate long-term student living. The interventions are conceived to:

- **Improve spatial quality and comfort** by rethinking room layouts and furniture arrangements, creating a more balanced relationship between private and shared areas.
- **Introduce natural and biophilic elements** to enhance the mental well-being of residents and counteract the lack of dedicated outdoor spaces within the dormitory.
- **Strengthen the flexibility and usability** of common areas to support diverse social and academic activities.

This section presents the main areas of intervention through concept diagrams, functional analyses, and preliminary visualizations, providing a clear understanding of the design logic and its expected impact on residents' daily experience. The following sub-sections detail the proposed solutions for private living spaces (rooms) and green elements in common areas, which form the core of this design proposal.



#### 7.4.1

## Interior Room Layout

### Circulation & Zoning Privacy

Before

After

### Visual & Emotional Privacy

Before

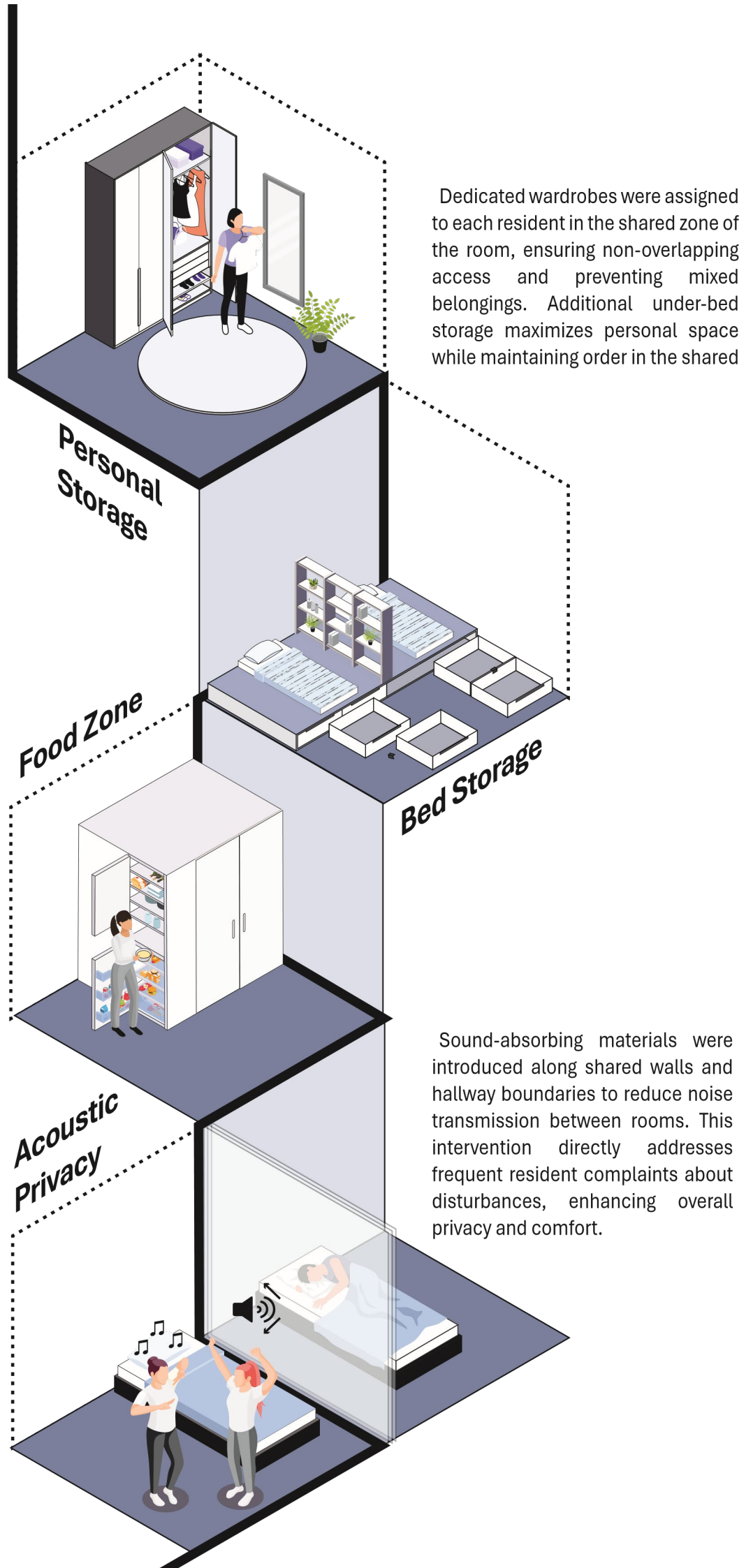
After

In the original layout, circulation paths within the shared rooms lacked clear separation, causing residents to frequently cross into each other's private zones. This overlapping movement compromised privacy, resulting in discomfort and a diminished sense of personal space.

The redesigned plan introduces a deliberate hierarchy of access, effectively segregating circulation routes to minimize intrusion. By clearly delineating pathways to different areas, the new layout protects individual privacy while maintaining functional flow.

The previous layout lacked visual separation, creating constant exposure and a lack of personal boundaries. The redesign adds non-solid, multifunctional dividers between beds, functioning as both storage and partial visual barriers.

Light curtains at the bed foot allow adjustable visibility, giving residents control over their personal space. These soft combination elements create a symbolic sense of safety and ownership, improving both visual and emotional privacy without isolating users from the shared environment.



### 7.4.1 Interior Room Layout

The Lingotto dormitory consists of double and triple occupancy rooms. The proposed design aims to introduce impactful improvements with minimal structural changes, focusing mainly on interior layout optimization and furniture solutions. According to Italian student housing guidelines (Decreto Ministeriale 30 novembre 2021, n.1256), the recommended net area for each student is approximately 8 m<sup>2</sup> in double rooms (minimum 16 m<sup>2</sup> total) and 7–8 m<sup>2</sup> in triple rooms (minimum 21–24 m<sup>2</sup> total), ensuring adequate space for sleeping, studying, and storage. Since the existing rooms roughly comply with these dimensional standards, there was no need for a major reconfiguration of the architectural plan.

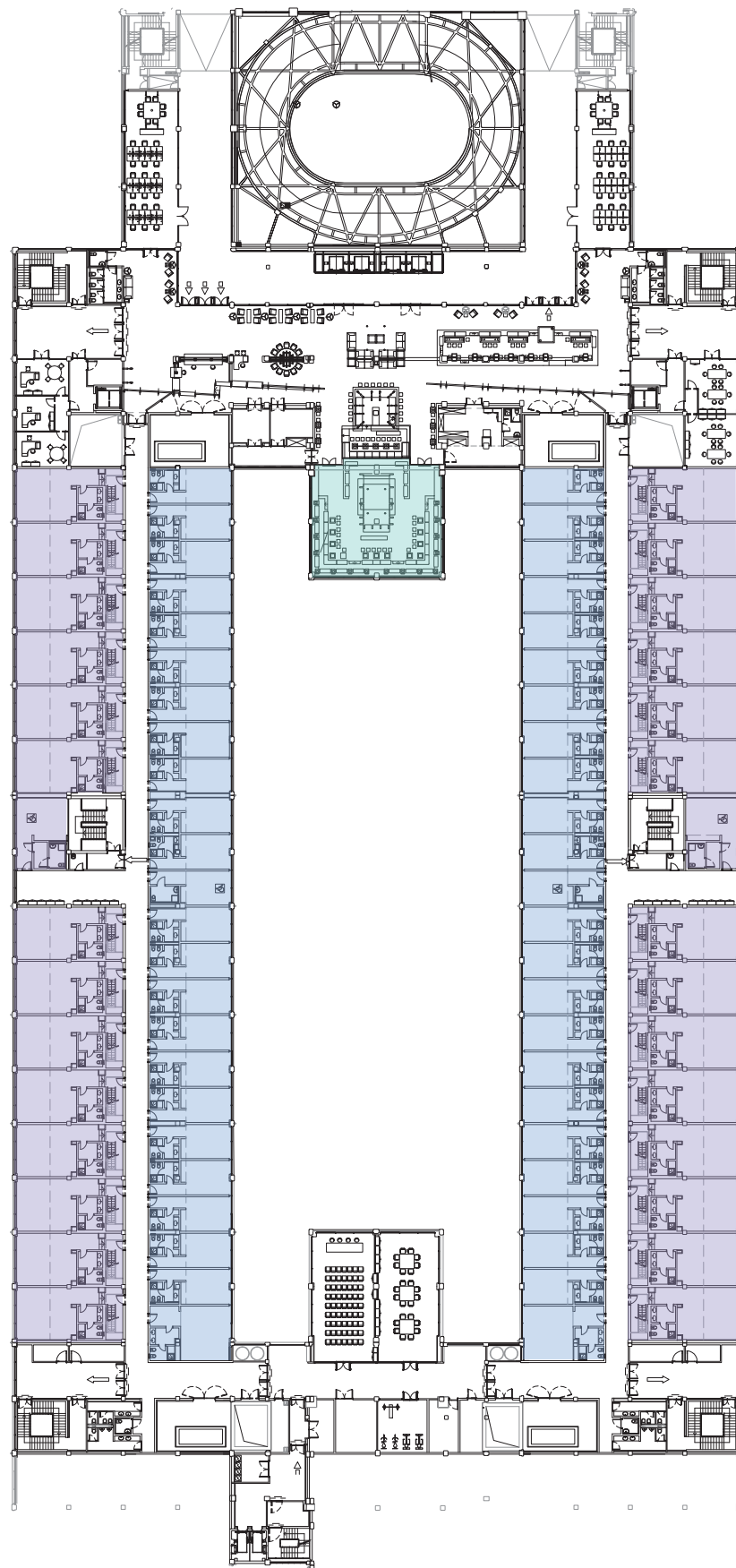
Instead, the proposal emphasizes rearranging furniture, optimizing underutilized areas, and improving spatial quality. Semi-transparent, multifunctional dividers are introduced to provide symbolic boundaries between beds, enhancing a sense of privacy while maintaining opportunities for social interaction. Natural materials, such as wood, combined with a warmer, nature-inspired color palette, are applied to counteract the current heavy and dull atmosphere, promoting comfort, a sense of home, and belonging.




Unused niches and the space beneath beds are transformed into efficient storage solutions, helping residents maintain personal organization. In double rooms, small recessed areas are adapted to create a mini food station equipped with a compact cabinet and fridge, responding to students' everyday needs. Triple rooms already meet most spatial standards; therefore, the intervention focuses primarily on the mezzanine sleeping and study areas, introducing improved furniture layouts and softer color tones to enhance livability and privacy.



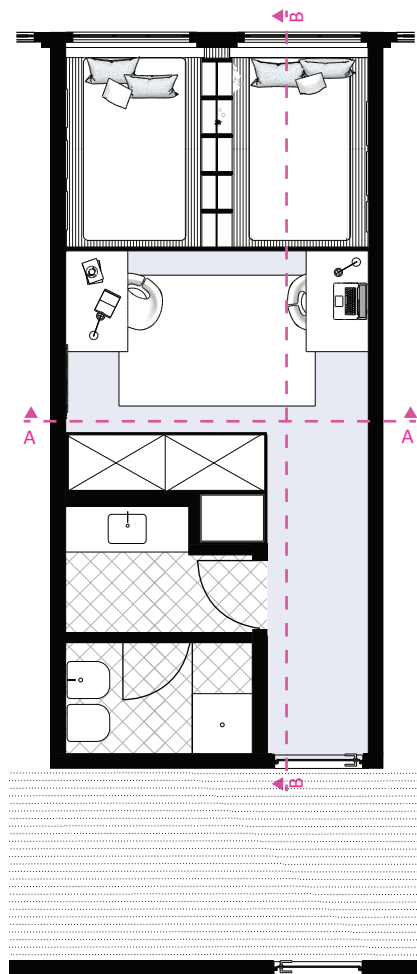
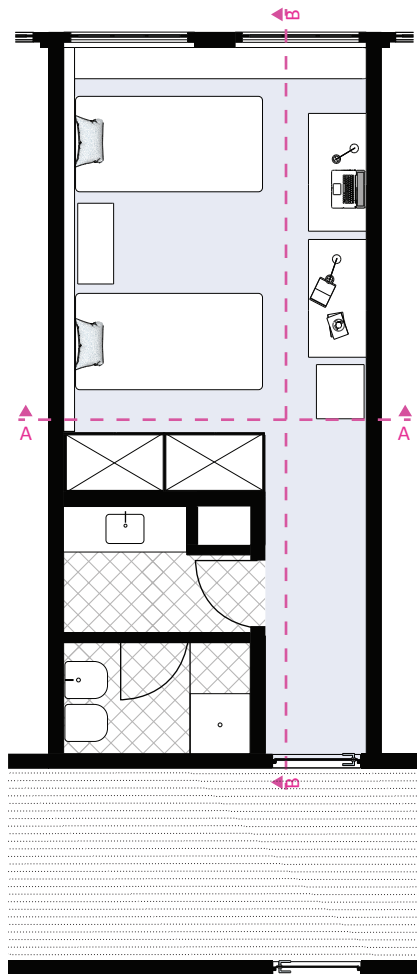
photo 47. Visualization of the redesigned double room with improved privacy





Triple units  Double units  Common Area 

**Drawing 6. Master plan of Lingotto dormitory**



Drawing 7. Double unit- floor Plan (Before/After) Scale: 1/75





**Drawing 8. Double unit- section A-A of (Before/After) Scale: 1/75**



**Drawing 9. Double unit- Section B-B of (Before/After) Scale: 1/75**



photo 48. Visualization of redesigned double room with improved privacy

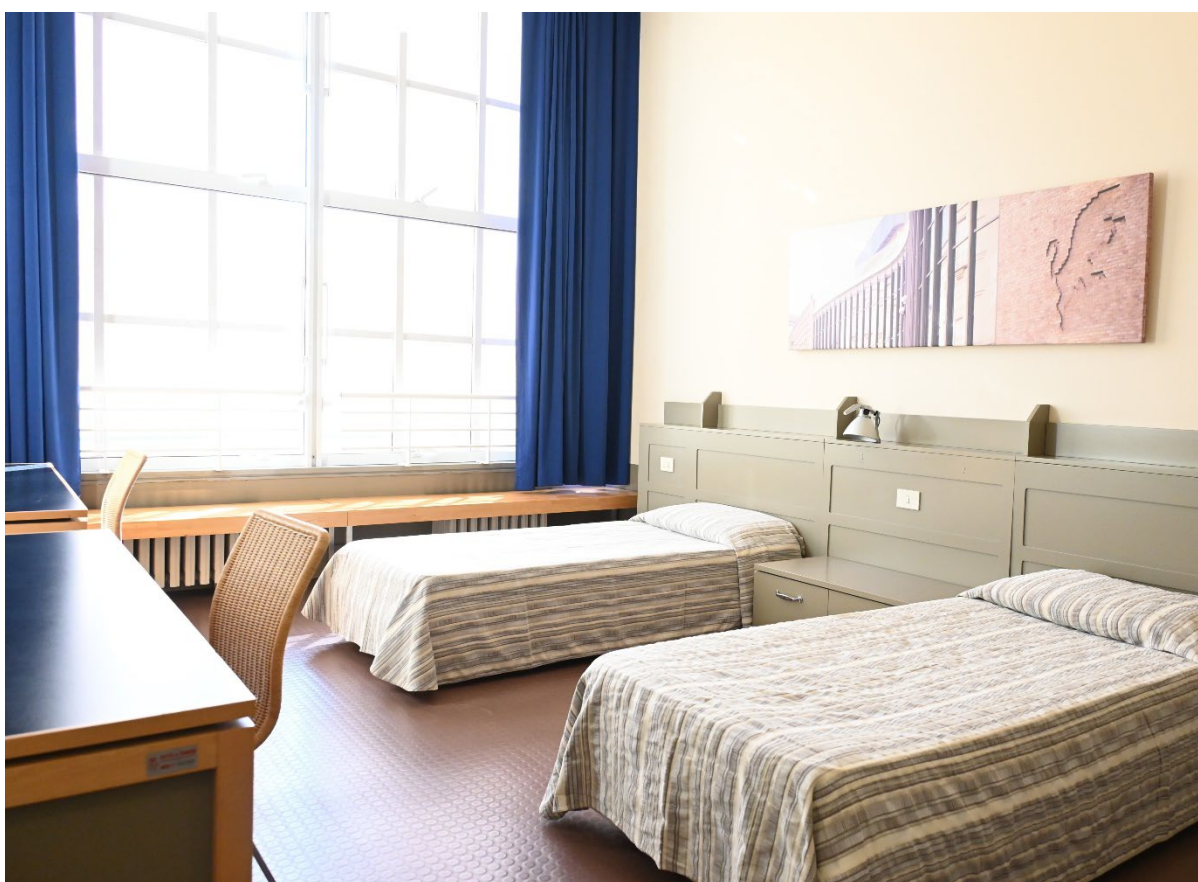
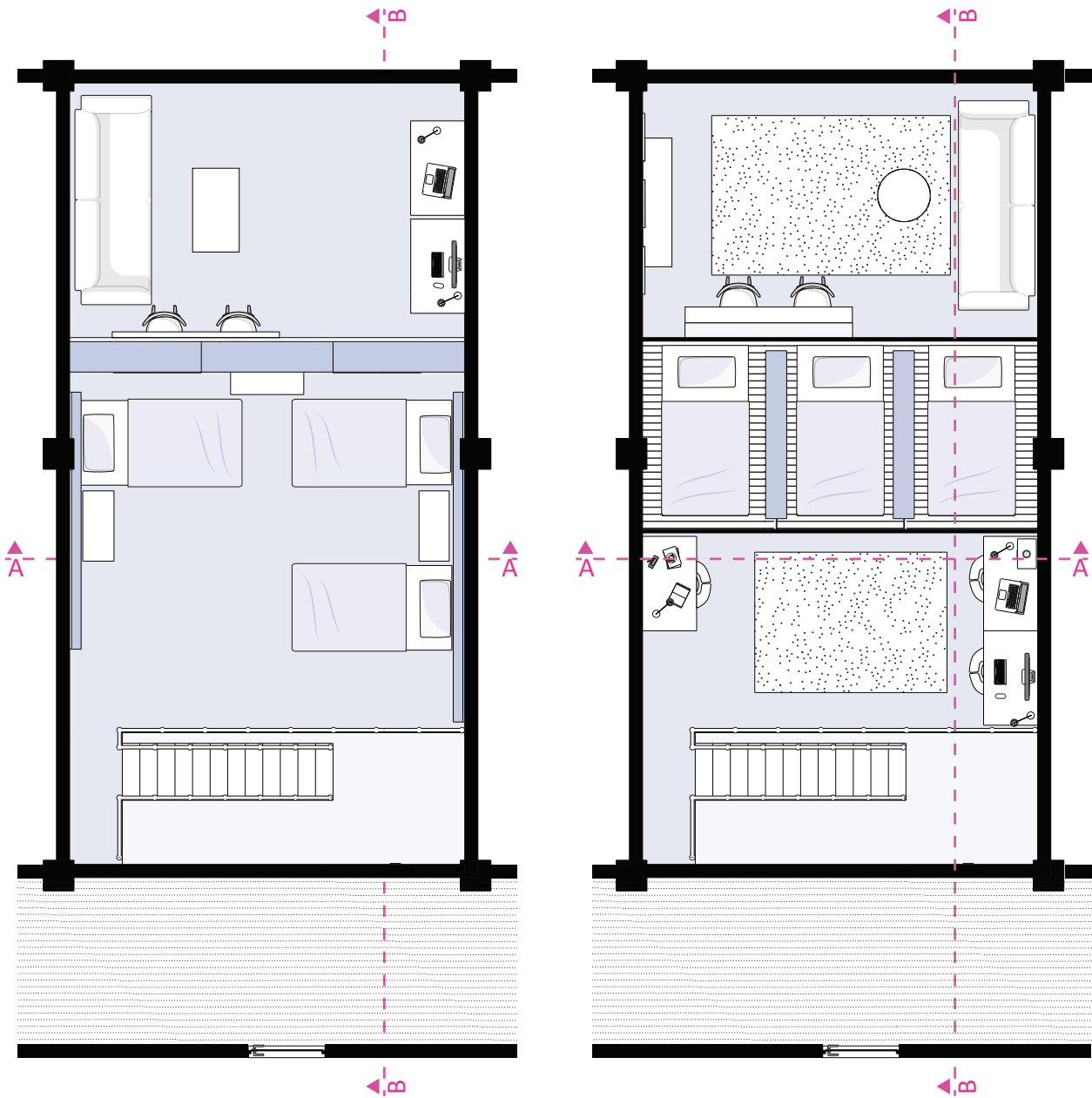


photo 49. Visualization of the current situation of the double room (© [EDISU Piemonte](#), 2025)



**Drawing 10. Triple unit- mezzanine floor plan (Before/After) Scale: 1/75**

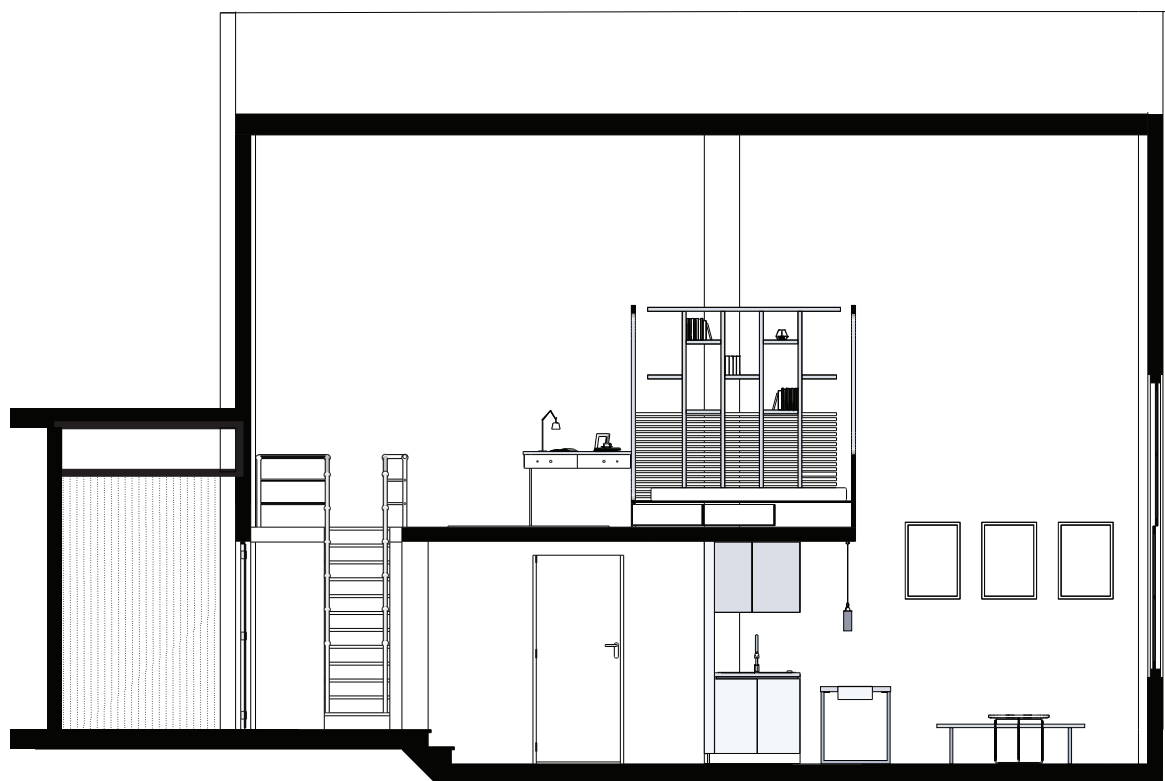
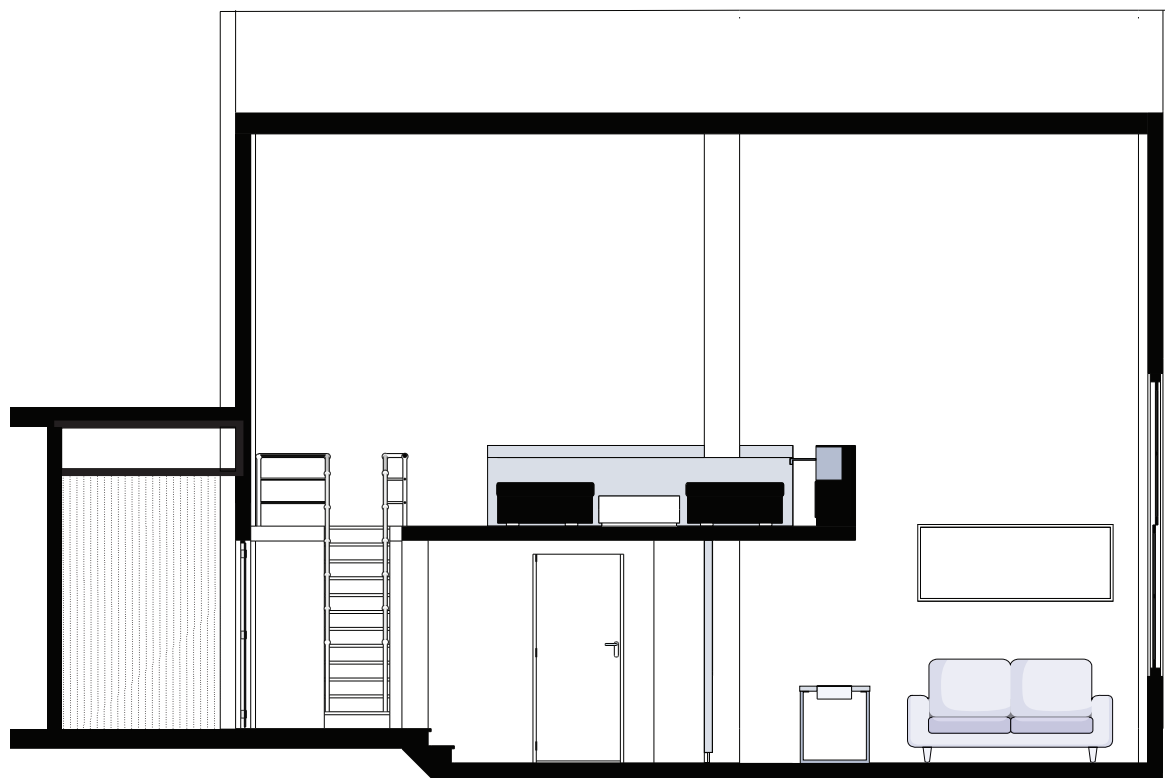


Drawing 11. Triple unit- main floor plan (Before/After) Scale: 1/75





Drawing 12. Triple unit- Section A-A (Before/After) Scale: 1/75



**Drawing 13. Triple unit- Section B-B (Before/After) Scale: 1/75**



photo 50. Visualization of the redesigned sleep and study space of the triple room with improved privacy



photo 51. Visualization of the current situation of the triple room (© [EDISU Piemonte](#), 2025)



photo 52. Visualization of the redesigned triple room with an improved color palette and furniture

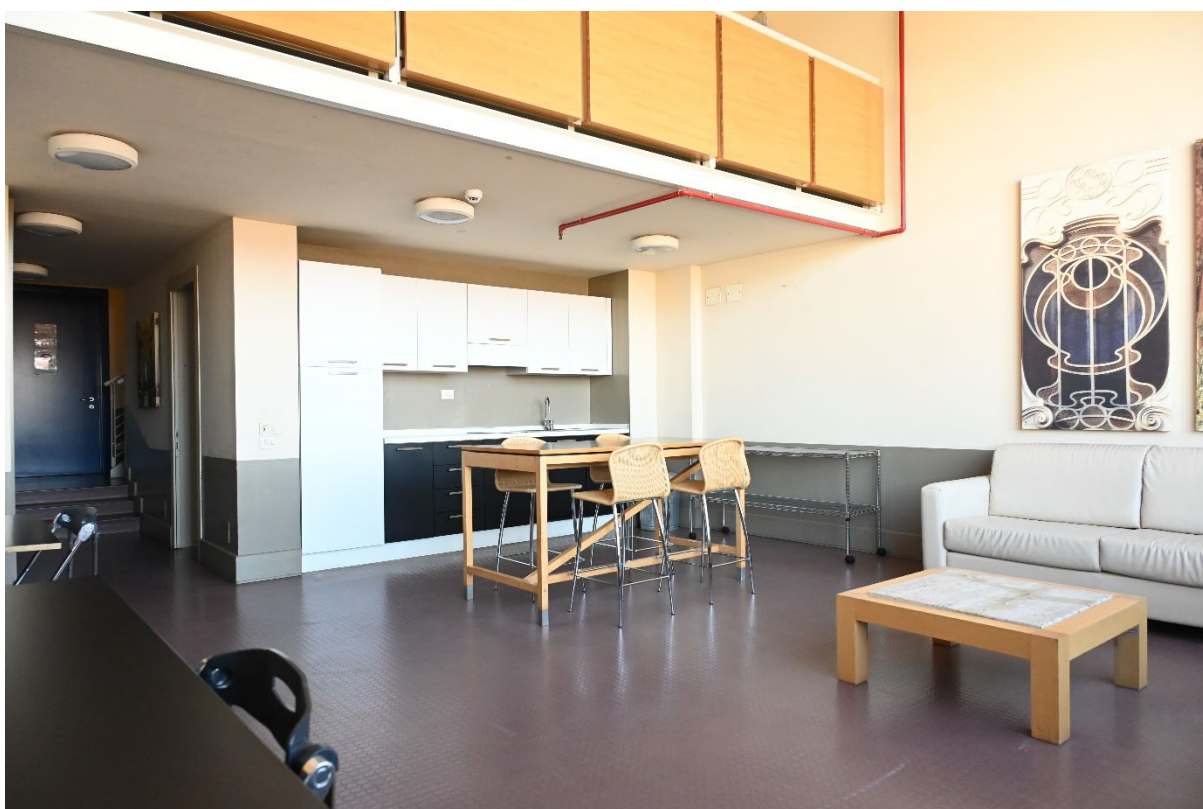


photo 53. Visualization of the current situation of the triple room (© [EDISU Piemonte](#), 2025)





photo 54. Visualization of the redesigned kitchen in the triple room

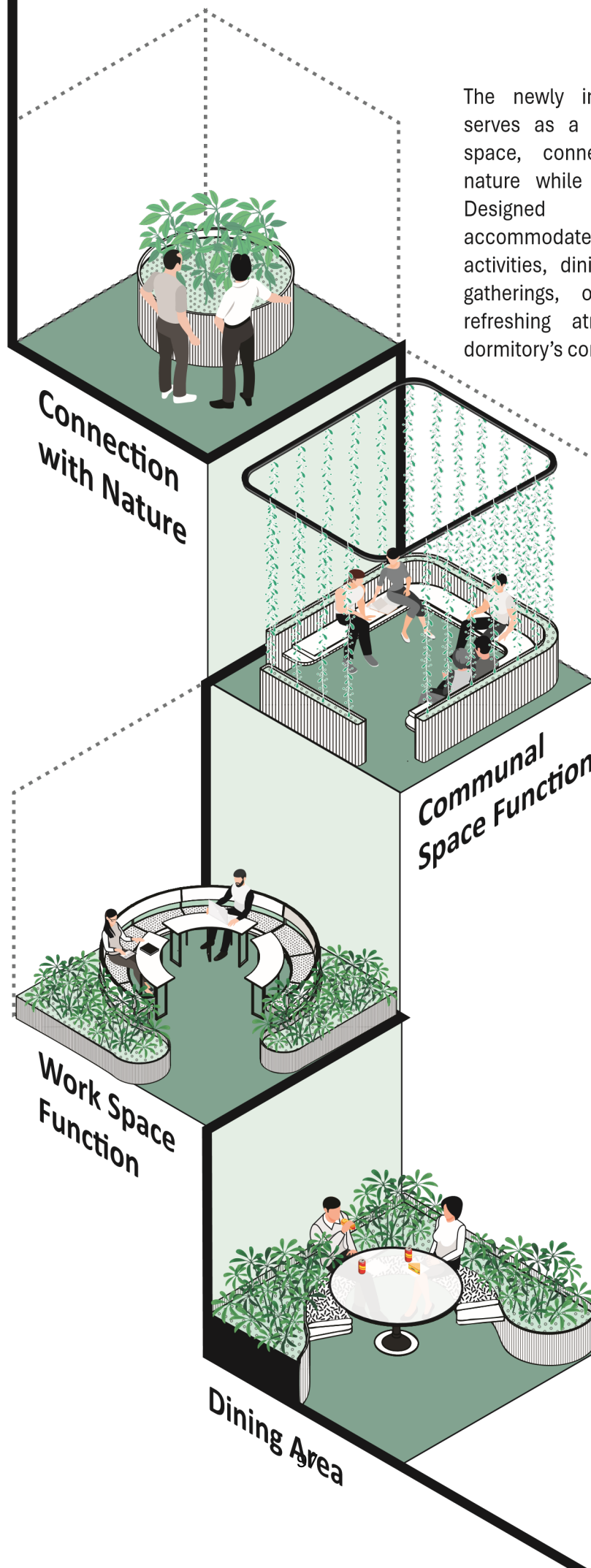


photo 55. Visualization of the redesigned living area of the triple room

### 7.4.2

## Indoor Green Space

The newly introduced green area serves as a multifunctional shared space, connecting residents with nature while enhancing well-being. Designed for flexibility, it accommodates study and work activities, dining, and casual social gatherings, offering a calm and refreshing atmosphere within the dormitory's communal zone.





### 7.4.2 Green and Indoor Elements in Common Areas

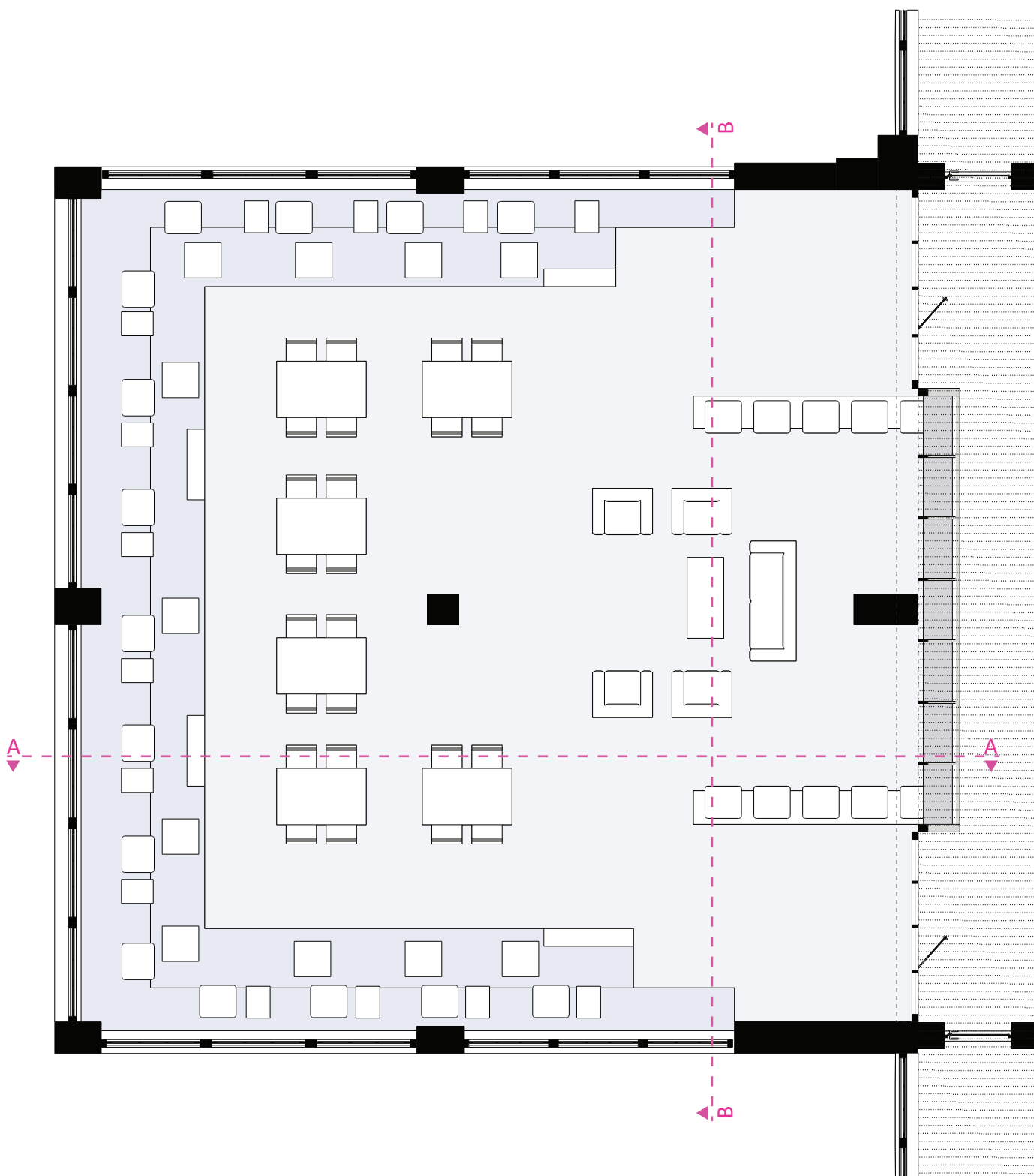
The common areas in Foresteria Lingotto currently offer flexible spaces for social interaction and group activities; however, they lack a sense of comfort and connection to nature, which are essential for students' psychological well-being. Research on student housing environments highlights the positive impact of biophilic design strategies, such as the presence of natural elements, greenery, and daylight, on reducing stress levels, improving concentration, and fostering a sense of belonging within shared spaces.

The proposed interventions focus on enhancing the quality of indoor environments rather than altering their structural layout. Natural and plant-based elements are introduced to soften the atmosphere. Indoor planters, vertical green walls, and small atrium-like pockets are strategically placed in high-traffic and social areas, offering visual relief and opportunities for work, study, dining, and gathering with friends throughout the day.

Additionally, the proposal suggests improving artificial lighting quality with warmer tones and layered lighting schemes, complementing the greenery to create a more balanced and welcoming environment.

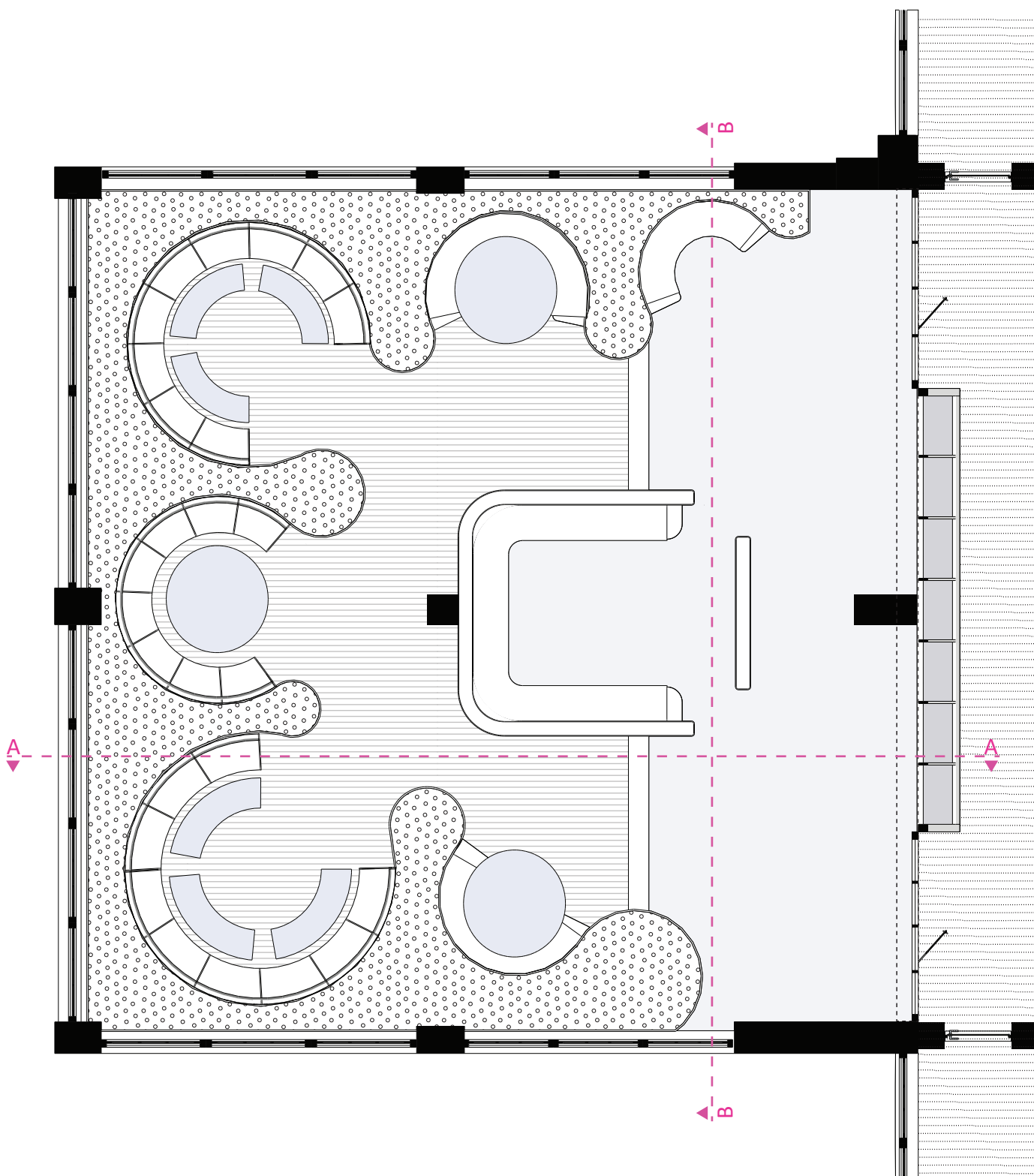


photo 56. Visualization of the redesigned common area integrated with green elements

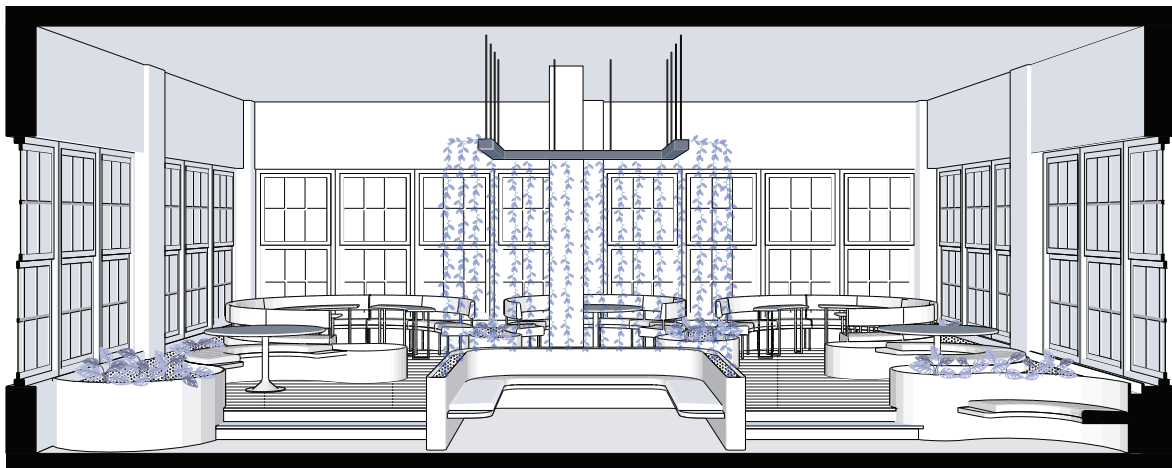
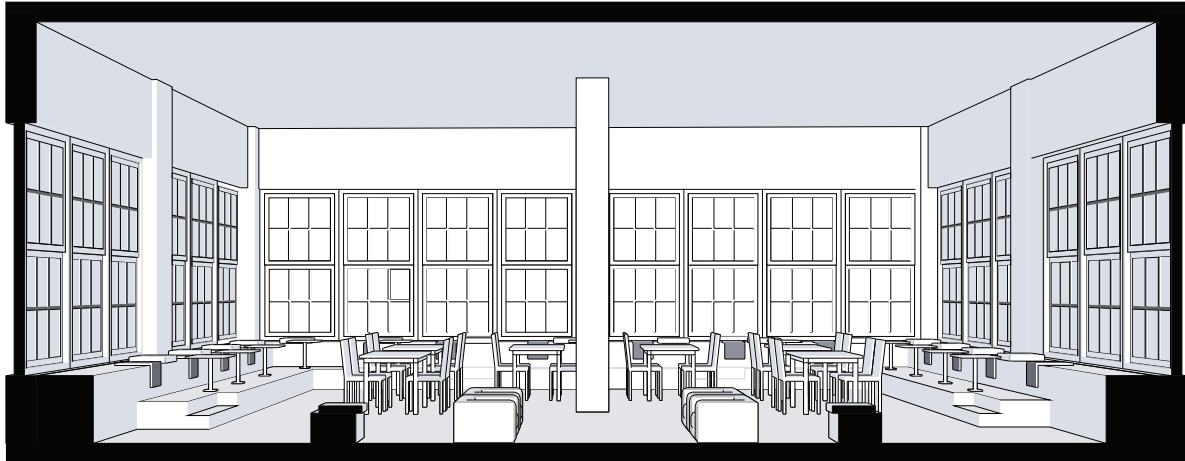


**Drawing 14. Common space- floor plan (Before intervention) Scale: 1/75**





Drawing 15. Common space- floor plan (After intervention) Scale: 1/75



Drawing 16. Common space- section A-A (Before / After) Scale 1/75



**Drawing 17. Common space- section B-B (Before / After) Scale 1/75**



photo 57. Visualization of the redesigned common area integrated with green elements



photo 58. Visualization of the existing situation of the common area (© [EDISU Piemonte](#), 2025)





photo 59. Visualization of redesigned common area integrated with green elements

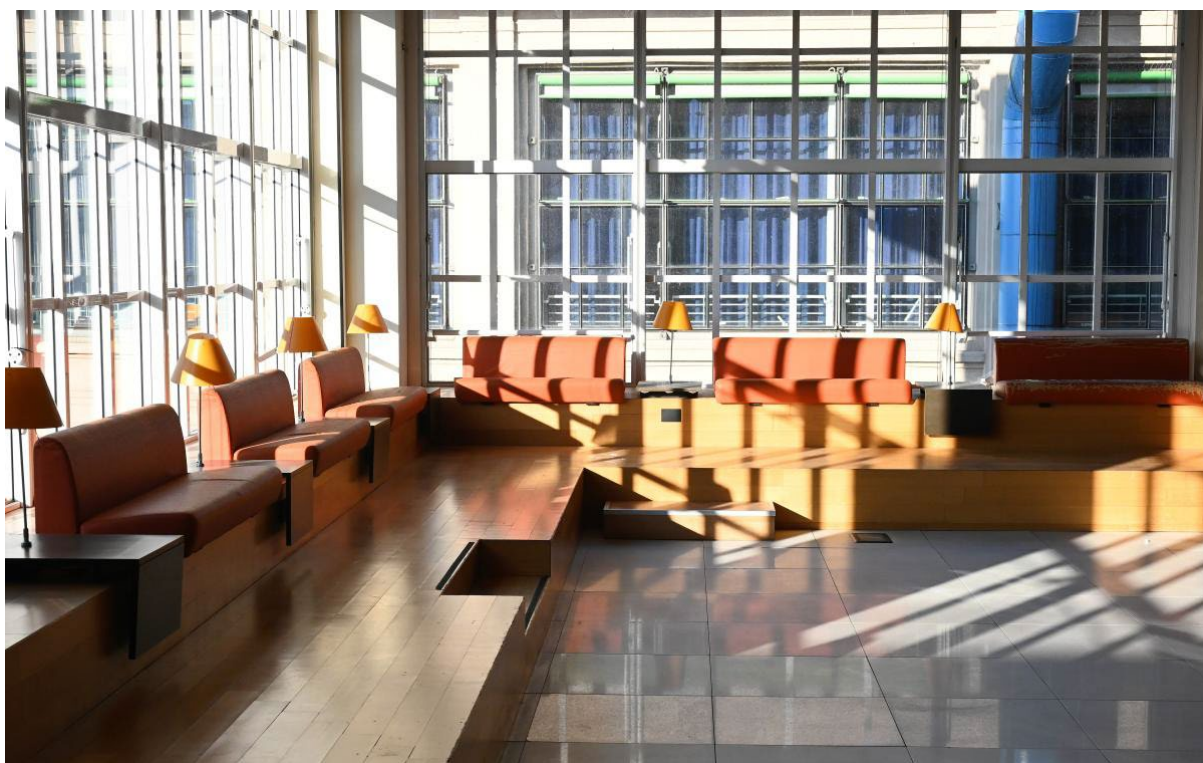


photo 60. Visualization of the existing situation of the common area (© [EDISU Piemonte](#), 2025)





photo 61. Visualization of the redesigned common area integrated with green elements

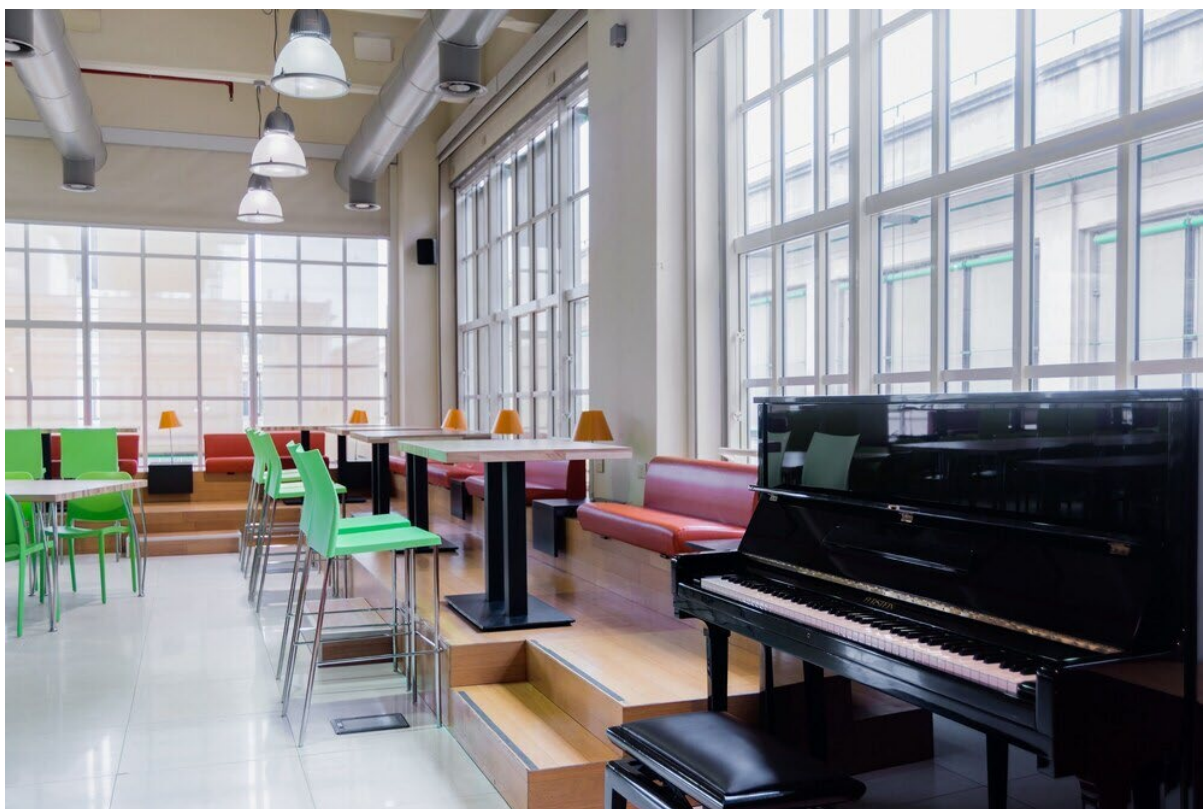



photo 62. Visualization of the existing situation of the common area (© [EDISU Piemonte](#), 2025)

### 7.4.3 Acoustic Comfort and Minimal-Intervention Solutions

Sound insulation plays a crucial role in ensuring the psychological and physical well-being of students living in high-density dormitory environments. Poor acoustic performance is one of the most frequent sources of dissatisfaction in Foresteria Lingotto, particularly due to noise transfer between adjacent rooms and from the corridor.

According to Italian and European acoustic regulations, including DPCM 5 dicembre 1997 and UNI 11367:2010, separating walls between sleeping units should achieve a sound reduction index of  $R_w \geq 50$  dB, while internal doors should reach at least  $R_w \geq 30$  dB. However, the current 15 cm brick partitions typically provide only 40–43 dB, failing to meet the required standard.

	STC ( $R_w$ )	
	25	Normal speech can be heard easily.
	30	Loud speech can be heard easily.
	35	Loud speech can be heard, but not understood.
	45	Must strain to hear loud speech
	48	Only some loud speech can be barely heard.
	50	Loud speech cannot be heard.

**Table 2. STC (or  $R_w$ ) ratings explained**

Given the spatial and architectural constraints of the dormitory, a minimal-intervention approach is proposed. This strategy avoids major demolitions and focuses on low-thickness, cost-effective solutions:

- A. **High-density acoustic membrane** (e.g., Tecsound SY70) mounted directly on the existing wall and finished with a 12.5 mm lightweight gypsum panel.

Total added thickness: ~2 cm; Improvement: +8 dB.

- B. **Prefabricated acoustic panels** (MDF + mineral wool + fabric finish) for decorative and functional enhancement of shared walls.

Total added thickness: 2.5–4 cm; Improvement: +5 dB.

**Door acoustic upgrades**, including elastic perimeter seals, drop seals under the leaf, and a lightweight membrane lining on the inner surface, are used to reduce noise transmission from hallways; Improvement: +5–8 dB.

Solution	Added Thickness	$R_w$ Improvement	Pros
<b>Acoustic membrane + gypsum board</b>	1.6–2 cm	+8 dB	High performance, low thickness, cost-effective
<b>Prefabricated decorative panels</b>	2.5–4 cm	+5–6 dB	Aesthetic upgrade, quick installation
<b>Door acoustic sealing (Drop Seal)</b>	0.3–0.5 cm	+5–8 dB	Significant reduction of corridor noise, low-cost option

**Table 3. Comparison of Minimal-Thickness Acoustic Solutions**

While both wall solutions increase acoustic comfort, Option A provides a higher sound reduction level with minimal added thickness, making it the preferred strategy in this project. Combining this approach with targeted improvements on door elements ensures a cost-efficient upgrade that meets the 50 dB target, enhancing privacy and comfort for residents without reducing usable room space.

#### 7.4.4 Optimizing Service Spaces: Kitchen and Laundry Areas

A significant portion of the dormitory's floor area is currently occupied by technical service rooms—such as electrical panels, compressors, and data rooms—distributed across the building's four sides. While these spaces are essential for building operations and safety, their spatial allocation appears disproportionate relative to the residents' daily living needs. Optimizing these areas can free up valuable floor space for common functions that directly enhance student well-being.

Presently, the dormitory's common kitchen is located on the northern side of the building. However, this single kitchen facility is insufficient to adequately serve all residents, especially considering that nearly half of the rooms are double-occupancy, thus increasing the demand for kitchen access and usability. According to Italian guidelines for student housing, shared kitchens should provide approximately 20 to 25 square meters per 20 residents to ensure functional comfort and avoid congestion (Decreto Ministeriale 2021). The existing kitchen's size falls short of these recommendations, which impacts both convenience and user satisfaction.

To address these shortcomings, this design proposal suggests reallocating underused technical service rooms, particularly in the southern wings, to create an additional common kitchen on the southern side of the dormitory and also a laundry. This second kitchen would distribute the culinary load more evenly across the building, improve accessibility for residents in all rooms, and reduce peak-time overcrowding.

### 7.5 Final Design Proposal Summary

This design proposal stems from a careful and empathetic investigation into the everyday experiences of students residing in Foresteria Lingotto. Rather than pursuing radical architectural interventions, the focus has been on achieving meaningful improvements through minimal yet thoughtful modifications. The goal has always been to enhance the quality of life while respecting the existing structure and its historical significance.

A key priority has been redefining the balance between private and common spaces. By introducing flexible interior layouts and subtle visual barriers, the design fosters both individual privacy and social connectivity—two aspects that often feel at odds in shared living environments. These interventions aim to create a sense of personal sanctuary without isolating residents from their community.

In the common zones, incorporating natural elements and biophilic design principles helps to revitalize spaces that previously felt sterile or disconnected. The presence of greenery not only improves aesthetics but also supports psychological well-being and encourages positive social interactions.

Additionally, addressing the shortage of common kitchens and laundry spaces was essential. By reallocating some underused technical rooms, the design proposes adding a second kitchen on the southern side to better serve residents, reduce overcrowding, and meet Italian standards for shared facilities. This practical change supports a more balanced and comfortable living environment.

Acoustic improvements have been carefully integrated into the design to address one of the most common discomforts reported by residents. By using efficient soundproofing techniques that require minimal structural changes, the proposal enhances privacy and concentration without compromising space or budget.

Overall, this project respects Lingotto's unique architectural heritage while providing practical, cost-effective solutions that directly respond to the needs of its inhabitants. The design intends to make daily life in the dormitory more comfortable, functional, and enjoyable, with the hope that it will inspire future efforts to elevate student housing standards both here and beyond.





## 8 Conclusion

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The proposed design for Foresteria Lingotto aimed to address the complex and interconnected needs of international students by prioritizing mental well-being through minimal yet impactful interventions.

### 8.1 Reflections on the Research Process and Proposed Design

This thesis at first originated from an autobiographical impulse: living as a resident in the Foresteria Lingotto dormitory and directly experiencing its shortcomings shaped the initial motivation for the study. The personal challenges of navigating privacy, cultural adaptation, and psychological well-being as an international student formed the foundation of the research and later became a key methodological approach. The autobiographical reflections, presented in detail earlier, illustrate how lived experience can become a valid source of knowledge that complements more conventional empirical methods. In parallel, the project was situated within a broader academic framework through a literature review that mapped existing debates on student housing, mental well-being, cultural inclusivity, and biophilic design. The inclusion of case studies offered comparative insights and demonstrated that design shortcomings in student housing are neither isolated nor unique, but part of a recurring global challenge.

Building upon this combined perspective of lived experience, literature, and comparative examples, the research adopted mixed methods: a survey distributed among dormitory residents, qualitative interviews, and analysis of the results. These methods uncovered the most pressing issues reported by residents: lack of privacy in both rooms and communal areas, high noise levels with inadequate acoustic insulation, sterile and unwelcoming communal environments, and insufficient service areas such as kitchens and laundry facilities. The convergence of autobiographical observation with empirical data reinforced the validity of these findings and provided a robust evidence base for the subsequent design phase.

The proposed interventions were consciously minimal in form yet ambitious in intent, guided by the principle of “minimal modification, maximum impact.” The design strategies included:

- **introducing biophilic elements** into common spaces to enhance psychological comfort and transform sterile environments into restorative ones,
- **redefining personal zones** in bedrooms to increase privacy and autonomy,
- applying **lightweight acoustic membranes** in corridors and shared areas to mitigate disruptive noise,
- and **increasing the number of kitchens** and service facilities by repurposing underutilized spaces.

The aim of these interventions was not only to address the functional shortcomings of the dormitory but also to foster a sense of belonging and emotional attachment, so that the building is perceived not as a temporary lodging but as a supportive home. The specific focus on international students sharpened the project’s relevance: this group often faces compounded challenges of language barriers, social isolation, cultural adjustment, and academic stress. Addressing their needs through design highlights the essential role of architecture in shaping adaptation, well-being, and social integration.

## 8.2 Challenges and Constraints

Despite the value of these proposals, several limitations contextualize the outcomes. The heritage status of the Lingotto building imposed significant restrictions on structural alterations, thereby excluding more radical spatial redesign. Budgetary and managerial constraints typical of student housing further limited the scope of feasible interventions. While new furniture or acoustic panels are relatively affordable in comparison with new construction, their effective implementation depends on institutional commitment and maintenance, which are not guaranteed.

Beyond financial and structural factors, cultural and behavioral dynamics also shaped the limits of design. For instance, while the addition of kitchens improves functionality and potential for interaction, cultural inclusivity cannot be guaranteed by spatial provision alone. The actual realization of intercultural exchange depends on residents' behaviors and university programs. Likewise, soundproofing interventions can mitigate environmental noise but cannot eliminate behavioral disturbances caused by community practices. These issues highlight that design should be seen as complementary to, rather than a substitute for, broader policy and community management measures.

From a methodological perspective, the relatively small survey and interview sample limits the generalizability of the findings. The study's cross-sectional nature further restricts insight into long-term impacts of design on student well-being. A longitudinal approach, following students over time, would be more conclusive in measuring the efficacy of interventions. Finally, the autobiographical component, while offering depth and authenticity, inevitably reflects the positionality of one researcher and should be read as illustrative rather than universally representative.

## 8.3 Conclusion and Future Directions

This thesis set out to investigate how architectural design can enhance the mental well-being and sense of belonging of international students. The problem identified was clear: dormitories are often designed according to quantitative standards—room sizes, occupancy rates, and efficiency metrics—while neglecting the lived realities of their users. The consequence is housing that may satisfy regulations and appear adequate on paper, and even aesthetically beautiful, but that fails to support the emotional, cultural, and psychological needs of its residents. This disconnect between theoretical standards and lived experience provided the primary research gap.

The research process followed a trajectory from personal observation, through literature and case study review, to empirical data collection and design synthesis. Each stage reinforced the findings of the other: autobiographical experience highlighted problems of privacy, noise, and alienation; the literature confirmed that such challenges recur globally; surveys and interviews demonstrated that these issues were widely shared among residents; and the design phase translated these insights into tangible proposals. The design outcomes—biophilic communal areas, acoustically improved corridors, redefined personal zones, and expanded service facilities—were deliberately modest in form but targeted in effect. They illustrate how minimal interventions, when carefully informed by evidence and experience, can yield meaningful improvements.

The results contribute to the growing discourse on human-centered and evidence-based design. They demonstrate that dormitory architecture should move beyond regulatory compliance and aspire to create environments where students can thrive academically, socially, and psychologically. Specifically for international students, supportive housing is not a luxury but a necessity: without environments that mitigate isolation and stress, the academic and social integration of this rapidly growing population will remain compromised.

## **Future Prospects for Student Housing Design**

Future directions for research and practice are multiple. First, more extensive studies are needed to evaluate how culturally responsive design can better accommodate diverse traditions, dietary practices, and social norms. Second, biophilic and climate-responsive strategies should be tested in varied contexts to assess their adaptability and long-term benefits. Third, longitudinal research should track students over extended periods to determine how design interventions shape their well-being and performance. Finally, the methodological innovation of integrating autobiographical narrative into design research deserves further exploration as a way to anchor architectural solutions in lived realities.

In summary, this thesis demonstrates that even under constraints of heritage, resources, and institutional inertia, dormitory design can be a powerful tool to support the mental health, belonging, and success of international students. By synthesizing autobiographical reflection, empirical data, and design experimentation, it provides a model for approaching student housing not as a standardized container but as a dynamic, human-centered environment. Ultimately, the findings argue for a paradigm shift: from designing dormitories as mere places of residence to reimagining them as spaces of support, adaptation, and flourishing.





# References

1. **Smith, R. A., & Khawaja, N. G.** (2011). A review of the acculturation experiences of international students. *International Journal of Intercultural Relations*, 35(6), 699–713. <https://doi.org/10.1016/j.ijintrel.2011.08.004>
2. **UNESCO Institute for Statistics** (n.d). Number and rates of international mobile students (inbound and outbound) (Retrieved January 17, 2025). [Link of Access](#)
3. **Channon, B., Manton, R.** (2019). Student mental health: Designing accommodation to foster wellbeing. *Work in Mind*. Retrieved from <https://workinmind.org/2019/10/31/student-mental-health/>
4. **Ticleanu C.** Impacts of home lighting on human health. *Lighting Research & Technology*. 2021;53(5):453-475. doi:10.1177/14771535211021064
5. **Ministero delle Infrastrutture e dei Trasporti.** (2018). *Norme Tecniche per le Costruzioni (NTC)*. Retrieved from <https://www.studiopetrillo.com/ntc2018.html>
6. **van Bommel, Wout.** LIGHTING FOR WORK: VISUAL AND BIOLOGICAL EFFECTS. [Link of Access](#)
7. **Chao Wang, Fan Zhang, Julian Wang, James K. Doyle, Peter A. Hancock, Cheuk Ming Mak, Shichao Liu.** (2021). How indoor environmental quality affects occupants' cognitive functions: A systematic review. *Building and Environment*, 193. [Link of Access](#)
8. **Dedesko, Sandra Joanne.** (2024). The Link between Buildings and Cognitive Performance. Doctoral dissertation, Harvard University Graduate School of Arts and Sciences. [Link of Access](#)
9. **Meng, Q., Zhang, J., Kang, J., & Wu, Y.** (2020). Effects of sound environment on the sleep of college students in China. *The Science of the total environment*, 705, 135794. <https://doi.org/10.1016/j.scitotenv.2019.135794>
10. **Fietze, I., Barthe, C., Hölzl, M., Glos, M., Zimmermann, S., Bauer-Diefenbach, R., & Penzel, T.** (2016). The effect of room acoustics on the sleep quality of healthy sleepers. *Noise & health*, 18(84), 240–246. <https://doi.org/10.4103/1463-1741.192480>
11. **Jafari, M. J., Khosrowabadi, R., Khodakarim, S., & Mohammadian, F.** (2019). The Effect of Noise Exposure on Cognitive Performance and Brain Activity Patterns. *Open access Macedonian journal of medical sciences*, 7(17), 2924–2931. <https://doi.org/10.3889/oamjms.2019.742>
12. **Morrison, Philip & Liu, Ivy & Zeng, Dylon.** (2023). Well-being and ill-being on campus. *International Journal of Wellbeing*. 13. 64-93. <https://doi.org/10.5502/ijw.v13i3.2785>
13. **Beder, D., & Imamoğlu, Ç.** (2023). Correlates of dormitory satisfaction and differences involving social density and room locations. *Journal of housing and the built environment: HBE*, 1–17. Advanced online publication. [Link of Access](#)
14. **Faraj, S. S., & Kim, W.** (2022). Effects of Physical Environmental Design Attributes on Psychological Well-being of College Students in University Dormitory During the COVID-19 Pandemic Period. *Architectural Research*, 24(4), 105–111. <https://doi.org/10.5659/AIKAR.2022.24.4.105>
15. **Wu, Z., & Liu, L.** (2020). Investigating the Crucial Aspects of Developing a Healthy Dormitory Based on Maslow's Hierarchy of Needs—A Case Study of Shenzhen. *International Journal of Environmental Research and Public Health*, 17(5), 1565. [Link of Access](#)
16. **Masoudi, M., & Mohammadi, S.** (2021). Students' Residential Preferences: A Case Study of Dormitories. *Journal of Asian Architecture and Building Engineering*, 45(3), 1-12. [Link of Access](#)
17. **Galliford Try & Scott Brownrigg** (2019). Impact of Accommodation Environments on Student Mental Health and Well-being. [Link of Access](#)

18. **Je'Nen Chastain.** (2018) Ed Roberts Campus [Link of Access](#)
19. **Brett, C.E., Mathieson, M.L. & Rowley, A.M.** (2023). Determinants of well-being in university students: The role of residential status, stress, loneliness, resilience, and sense of coherence. *Curr Psychol* 42, 19699–19708 <https://doi.org/10.1007/s12144-022-03125-8>
20. **Li, Y. (2022).** Cross-Cultural Privacy Differences. In B. P. Knijnenburg, X. Page, P. J. Wisniewski, H. R. Lipford, N. Proferes, & J. Romano (Eds.), *Modern Socio-Technical Perspectives on Privacy* (pp. 267–292). Springer, Cham. [https://doi.org/10.1007/978-3-030-82786-1\\_12](https://doi.org/10.1007/978-3-030-82786-1_12)
21. **MIT News Office.** (2021, March 11). *MIT opens the New Vassar residence hall for first-year students*. MIT News. <https://news.mit.edu/2021/two-new-student-residences-open-their-doors-0216>
22. **WilkinsonEyre.** (2019). *Dyson Institute of Engineering and Technology – Student Village*. WilkinsonEyre Architects <https://www.archdaily.com/919886/dyson-institute-of-engineering-and-technology-wilkinsoneyre>
23. **Coelho, C., Cordeiro, A., Alcoforado, L., & Moniz, G. C.** (2022). Survey on Student School Spaces: An Inclusive Design Tool for a Better School. *Buildings*, 12(4), 392. <https://doi.org/10.3390/buildings12040392>
24. **DeLauer, V., McGill-O'Rourke, A., Hayes, T., Haluch, A., Gordon, C., Crane, J., ... Schofield, D.** (2022). The impact of natural environments and biophilic design as supportive and nurturing spaces on a residential college campus. *Cogent Social Sciences*, 8(1). <https://doi.org/10.1080/23311886.2021.2000570>
25. **Caligiuri, P., DuBois, C. L. Z., Lundby, K., & Sinclair, E. A.** (2020). Fostering international students' sense of belonging and perceived social support through a semester-long experiential activity. *Research in Comparative and International Education*, 15(4), 357-370. <https://doi.org/10.1177/1745499920954311> (Original work published 2020)
26. **Renzo Piano Building Workshop.** (n.d.). *Lingotto factory conversion*. Retrieved July 9, 2025, from <https://www.rpbw.com/project/lingotto-factory-conversion>
27. **Torino Corriere.** (2023, February 8). *Torino, le nuove residenze Edisu: ecco il villaggio diffuso per le Olimpiadi invernali*. Retrieved July 9, 2025, from [https://torino.corriere.it/notizie/scuola/23\\_febbraio\\_08/torino-le-nuove-residenze-edisu-ecco-il-villaggio-diffuso-per-le-olimpiadi-invernali-132145c5-9a98-4df1-9f15-983b6a7daxlk.shtml](https://torino.corriere.it/notizie/scuola/23_febbraio_08/torino-le-nuove-residenze-edisu-ecco-il-villaggio-diffuso-per-le-olimpiadi-invernali-132145c5-9a98-4df1-9f15-983b6a7daxlk.shtml)
28. **Rare Historical Photos.** *When Cars Raced on the Roof: Fiat's Incredible Lingotto*. Retrieved July 11, 2025, from <https://rarehistoricalphotos.com/racetrack-rooftop-factory-italy/>
29. **Guida Torino.** *Pista 500: un giardino d'arte sul tetto del Lingotto*. Retrieved July 11, 2025, from <https://www.guidatorino.com/pista-500-torino/>
30. **Ministero dell'Università e della Ricerca.** (2021). *Decreto Ministeriale 30 novembre 2021, n. 1256 – Linee guida per le residenze universitarie*. Gazzetta Ufficiale della Repubblica Italiana, Serie Generale n. 309, 30/12/2021. [https://www.mur.gov.it/it/atti-e-normativa/decreto-ministeriale-n-1256-del-30-11-2021?utm\\_source=chatgpt.com](https://www.mur.gov.it/it/atti-e-normativa/decreto-ministeriale-n-1256-del-30-11-2021?utm_source=chatgpt.com)
31. **DPCM 5 dicembre 1997.** (1997). *Determinazione dei requisiti acustici passivi degli edifici*. Gazzetta Ufficiale della Repubblica Italiana, Serie Generale n. 297, 22/12/1997.
32. **UNI 11367:2010.** (2010). *Acustica in edilizia - Classificazione acustica delle unità immobiliari - Procedura di valutazione e verifica in opera*. Ente Nazionale Italiano di Unificazione (UNI).
33. **Lafferty, R.** (2019, October 10). *5 ideas we can't wait to steal from these wacky student living quarters*. *Architectural Digest*. <https://www.architecturaldigest.com/story/5-ideas-we-cant-wait-to-steal-from-these-wacky-student-living-quarters>

34. **Kingston Lafferty Design.** (2019). *Hatch Student Accommodation in Cork, Ireland*. Yellowtrace.  
<https://www.yellowtrace.com.au/hatch-student-accommodation-cork-ireland-kingston-lafferty-design/>
35. **Park Associati.** (2024). *Adaptive reuse meets student living in Milan*.  
<https://parkassociati.com/en/projects/consorzio-agrario>
36. **Woods Bagot.** (n.d.). *Campus Perth: Adaptive reuse of a 1970s commercial building*.  
<https://www.woodsbagot.com/journal/adaptive-reuse-campus-perth/>
37. **Casita, your student home,** *Perth Student Accommodation*, <https://www.casita.com/student-accommodation/796-campus-perth-perth-australia>
38. **Knevel Architecten.** (2015). *Student housing in Elsevier office building*. ArchDaily.  
<https://www.archdaily.com/777123/student-housing-in-elsevier-office-building-knevel-architecten>
39. **DBI Projects.** (2023). *G27 Berlin campus & dormitory* <https://dbiprojects.com/projects/g27-berlin-campus-dormitory/>



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