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Urban Regeneration of Ex-Scalo Vanchiglia:

New functions and new inhabitants for a strategic area

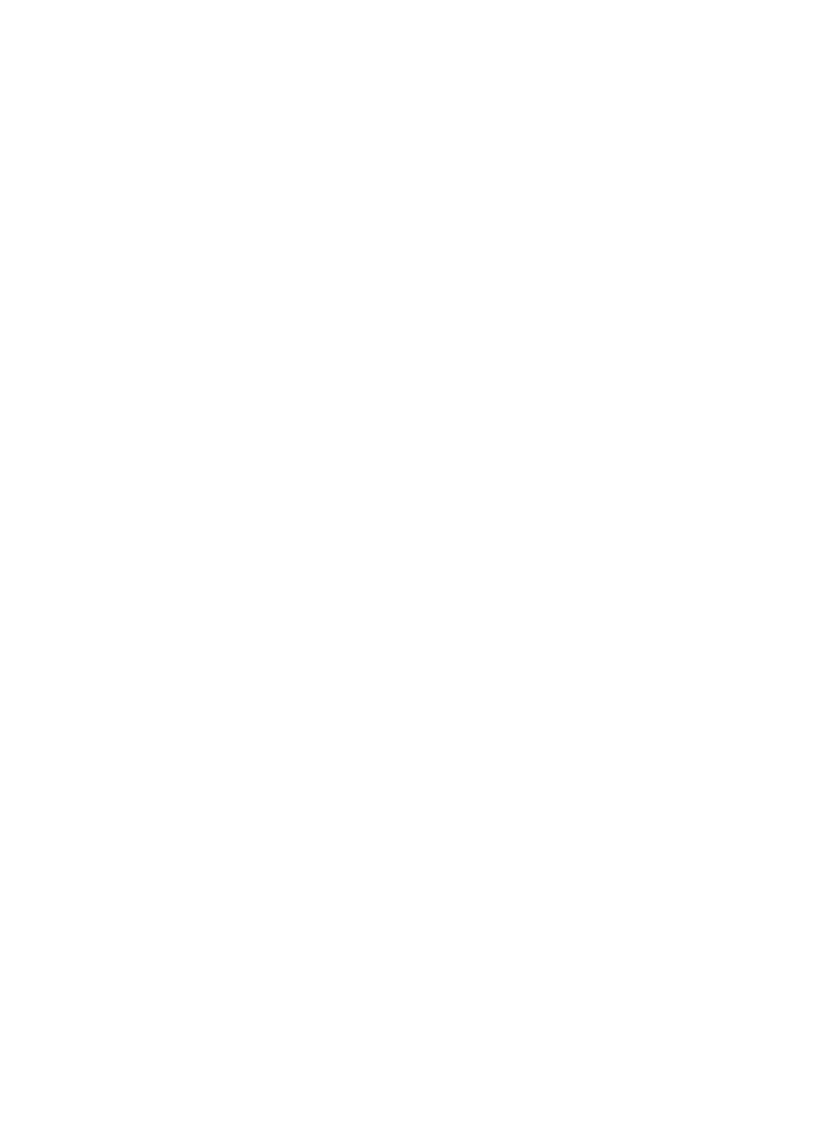
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This period towards the conclusion of my Master's in Architecture has been a demanding yet fulfilling experience. I encountered individuals along the route who made this journey worthwhile, and I want to offer them my sincere gratitude.

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Abstract

Over the last decades, Turin not only reinvented itself as a post-industrial city but also became one of the leading European universities' cities. While its tradition is manufacturing and logistics, its present identity is increasingly driven by knowledge, research, and education. The likes of Politecnico di Torino and Università degli Studi di Torino have experienced an increasing number of students from across Italy and the globe, leading to demographic rejuvenation and cultural diversity. The growth, however, has placed additional pressure on housing facilities within the area—particularly those around university campuses and buildings.

The pressure is felt most acutely in the absence of affordable and decent student accommodation. What began as a temporary inconvenience has escalated into a long-term structural issue with extensive socio-economic and spatial conseguences. Higher rents, overcrowded living spaces, into a metropolitan challenge of larger dimensions—one which threatens educational fairness, social cohesion, and green urban development. This is an intricate issue which needs comprehensive building solutions that marry urban regeneration with participatory housing strategies.

Here, the city's diverse post-industrial past offers convenient opportunities for adaptive reuse. From Turin radiated dozens of abandoned or underutilized locations, remnants of its industrial past. Among them, Ex Scalo Vanchiglia has particular strategic appeal. A former freight train yard, now the land is a disconnected void in the cityscape—yet it is replete with potential considering its nearness to infrastructure, educational facilities, and city center. Its redevelopment serves as a model for the city's redevelopment, an evolution from isolation to integration, from monofunctionality to hybridity.

This thesis argues that student accommodation should not be seen as a marginal programme but a driving force of urban revitalization. In-

terwoven within a coherent architectural vision, student accommodation can initiate the regeneration of derelict zones. Aspects such as communal public realm, pedestrian permeability, modularity of typology, and mixed living-working formats stimulate social interaction, economic diversity, and architectural continuity. This approach not only responds to existing housing needs but also fosters long-term urban resilience.

To place this proposal in context, four recent student housing case studies will be analyzed, giving insight into how innovative design solutions respond to evolving morphological, social, and contextual issues. These precedents will not be presented as icons but as analytical tools—demonstrating how spatial and programmatic decisions affect urban life.

Ex Scalo Vanchiglia will be the focal point for a design-driven inquiry, linking its industrial and long travel times have turned student housing heritage to a future academic purpose. Rather than viewing it as an emblem of deindustrialization, this thesis aims to explore it as an exemplar of reinhabiting the post-industrial city—where student housing is a primary driver of urban renaissance and space reinvention.

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1.1 Background

In recent decades, numerous European cities rutilized and mostly vacant. Despite its central have been profoundly transformed by deindustrialization, economic restructuring, and changing population balances. All these processes have produced a system of outmoded or abandoned industrial sites—urban voids which are frequently broken, separated, and physically damaged. While commonly seen as The renovation of Ex-Scalo Vanchiglia represents being adversely comprehended, they also create fascinating possibilities for spatial requalification and social integration (Bertolini, 1996).

ferred to as the industrial capital city of Italy and the headquarters of FIAT, Turin has come to become a service- and knowledge-intensive economy over the years. Institutional development of establishments such as Politecnico di played a pivotal role in changing the population makeup of the city with a consistent stream of students from throughout the nation and the globe. However, this population shift has put increasing pressure on the city's housing market, namely in terms of affordability, quantity, and typological appropriateness (Vanolo, 2008).

Although shortage of accommodation for students is not a new situation, it has become increasingly urgent. Most available potential housing stock is beyond their reach or otherwise in appropriate to meet the spatial and communal needs of students. Thus, the students are pushed towards the periphery or bad-quality neighborhoods, further burdening the private rental sector and worsening the issues of spatial inequality (Russo & Sans, 2019). On this point, student accommodation not only offers itself as a pragmatic response to demographic transformation but as a way of increasing spatial equity and activating city life.

On this broader urban context, Ex-Scalo Vanchiglia is an optimistic case. Situated near the ancient center of Turin and in close proximity to premier educational institutions, the site was once utilized as a freight railroad terminal. Abandoned in the late 20th century, it has since been undelocation in the city and infrastructural potential, the site continues to be plagued by physical isolation and non-integration. Yet, its availability, size, and location make it an important asset in contemporary agendas for urban development.

a unique opportunity to link student housing with overall urban transformation objectives. Unlike the case for most large-scale interventions, student housing is contrasted with what Turin is a good case in point. Traditionally re- is relatively non-intrusive and flexible, and is thus responsive to phased, contextual development. It can thus stimulate the reuse of underutilized infrastructure and foster resilient, equitable, and future-oriented urban spaces.

Torino and Università degli Studi di Torino has This thesis examines how student housing can be an urban driver as well as a spatial tool in re-generating Ex-Scalo Vanchiglia. By investigating the convergence of educational requirement, urban depopulation, and morphological readjustment, this thesis contributes to a broader discussion around sustainable and inclusive urban re-development in post-industrial cities such as Turin.

1.2 Aim Of The Thesis

This study aims to investigate the way the morphological reactivity of an inactive urban area— Ex-Scalo Vanchiglia in Turin—can become a strategic instrument for the repair of the territory and as a response to one of the most urgent issues in the city today: the growing request for student housing. The ultimate objective is to discover an answer to how an empty infrastructural void, for so long cut off from its city reference and rendered out of date in utilization, can be re-read and reprogrammed by a design strategy that addresses urban regeneration with social advantage.

Rather than being restricted within the conventional architectural project, this thesis locates it as a process of morphology. To achieve this, it will redefine spatial hierarchies, reconnect severed urban patterns, and introduce new functional flows into the existing city fabric. Ex-Scalo Vanchiglia, although currently inaccessible, infrastructurally rigid, and of unclear form, holds latent spatial potential. The research hence explores how such negative characteristics can be turned around as drivers of collective living, social inclusion, and sustainable urban intensification.

Student accommodation is suggested as the main functional driver in activating the site. Because of its versatility and comparatively low infrastructural demands, this typology is highly suited to medium-scale urban regeneration and can well kick-start new patterns of urban living. Yet the intervention goes beyond merely providing residential spaces. The proposed scheme brings together a system of free functions public parks, collaborative study spaces, cultural centers, and mobility centers—intended not only to enrich student life on the site but also to generate actual value for surrounding areas. This approach ensures that the transformation is socially inclusive and context-relevant.

As a result, in this thesis, an interpretative spatial model is established at the intersection of morphological reuse, housing policy, and city strategy. It argues that repurposed, underused city spaces targeting student dwelling can be a

source of a regenerated, coherent, and socially cohesive urban environment. Placing student accommodation as an initiating event and not an offspring of regeneration, the study aims to offer an imitable model for initiating dormant urban sites within post-industrial cities such as Turin.

1.3 Methodology

This thesis pursues a foundationally urban morphodology. The procedure is structured in three vention at both urban and architectural scales. interrelated phases: historical-morphological analysis, typological analysis, and design synthesis. Interestingly, the process is not linear but circular,

The morphological reading of the Ex-Scalo Vanchiglia area is addressed in the first phase. This study draws on historic mapping, planning dothe development of the site historically—from its pre-industrial origins to its development as a freight rail terminal, and finally, its closure and deactivation. This phase ascertains how physical form, circulation systems, and voids have evolved through historic strata, identifying both structural constraints and potentialities for reconnection in the modern urban context.

The second phase deals with the relationship between urban form and student residential provision. This entails an exploration of the growing need for student housing in Turin, set against demographic trends and institutional data of universities and housing reports in the local universities. At the same time, the study reviews best practice student residential interventions in European post-industrial sites. These precedents are examined in spatial configuration, integration strategy, and their capacity to activate the surrounding urban tissue. These parameters of density, accessibility, programmatic layering, and spatial flexibility are distilled to inform the proposal's strategic framework.

Phase three is design response for Ex-Scalo Vanchiglia. It culminates in the design of a site-specific masterplan, guided by morphological principles of enhancing permeability, reactivating street grids, framing open space, and inducing programmatic hybridity. Specific emphasis is put on how the primary function—student housing—interacts with complementary functions, including mobility hubs, public facilities, community services, and recreational spaces. These interactions are designed to generate urban value for both site

users and adjacent neighborhoods. The proposal hology and strategic spatial planning approach, is supported by diagrams, zoning strategies, and merging analytical research with design-led met- spatial cuts which outline the proposed inter-

allowing constant feedback between analysis and design. The circular process allows the proposal to transform and adapt in reaction, and it allows consistency between diagnosis and solution. Becuments, and spatial diagramming to rebuild sides proposing a spatial project for Ex-Scalo Vanchiglia, the thesis also positions itself in broader discussions on how urban morphology can be utilized as a critical tool for reimaging obsolete infrastructures in transforming university cities.

PART 2 EX-SCALO VANCHIGLIA

2.1 Historical Analysis of Ex-Scalo Vanchiglia

2.1.1 Rural Landscape and Early Territorial Structure (1700)

The area named Ex-Scalo Vanchiglia in the 18th century was beyond the fortified walls of the historical city, whereas inside the high walls was entirely agricultural. Maps and other documents show that the area had the character of patchworks with small cultivated fields-with-hogger or stone boundaries-that served varied, asymmetric geometries of land owners-hip and the natural landform. The specific lots were informal-not planned; all these lots came about and formed over generations because of agricultural use itself, yet this presumes an organic, bottom-up evolution of landscape.

Little semi-rural roads such as the Chemin de Milan and Chemin de Chivasso crisscrossed this rural matrix and ensured the connection from isolated farmsteads to the denser urban fabric of the city. The radial structure of these connecting roads further validates a center-periphery logic in which the city played a gravitational role for production and trade, while labor, crops, and seasonal exchanges flowed from the periphery. Dispersed settlements, as depicted on early-modern maps, suggest that the functional integration of the rural landscape existed through spatial fragmentation. The absence of any dense construction, consolidated blocks, or investments in infrastructure, as attested by Bagnasco (1986) and De Bernardi (2004), makes a strong case for such labeling of an urban-rural threshold as the agrarian zone of early-modern Turin.

The 1706 snapshot illustrated here was mapped by Nicolas Visscher. The lands above mentioned are parcelled with fragments in the farming areas and sliced with their radial roads leading outwards from the city edges. Particularly noted is the absence of any kind of defined urban grid and/or any permanent structure in the area of the site that would indeed indicate its marginality. Far from being considered part of a city in terminology of expansion, the zone generally termed Ex-Scalo acted as a buffer landscape created by rural economy, seasonal occupation, and a certain degree of spatial autonomy from the administrative center of Turin. This view coheres with broader historical narratives framing early-modern Turin as a city surrounded by an effulgent constellation of agrarian satellites (Bagnasco, 1986; De Bernardi, 2004).



Figure 1- Pianta di Torino, 1706. Topographic map of the city and its surroundings, engraved by Nicolas Visscher. (Source MuseoTorino, "La Città Pubblica", p. 144.)

2.1.2 Agricultural Grids and Military Influence (1785)

The area presently recognized as Ex-Scalo Vanchiglia initiated showing the initial features of spatial restructuring by the second half of the 18th century, due to administrative considerations and territorial governance. The alterations thereby created on the antiquated organically settled agricultural terrain initiated with some degree of formalization at the same time as developments of a more ameliorative nature within the military and urban environments located surrounding the periphery of Turin. The gradual establishment and then previously increasing presence of institutional structures such as the Regio Parco would begin an insensible distant but effective change within the surrounding agrarian fabric, particularly with its royal and military functions.

Once irregular and decentralized land plots started to convert themselves into orderly geometric arrangements—not merely to augment agricultural productivity but also to imply a deeper reorganization of control over the territory. Turf-based agricultural plots were systematically changed to hold ditches; they now began mirroring the dual imperative of building maximum productive capacity whilst possibly supporting some strategic or defensive functions. The landscape linearities—especially those of the ditches, bergs, and access tracks-were, rather than being incidental consequences, the practiced outcome of careful spatial planning.

This restructuring also began, to some extent, to exemplify the radial logic of Turin's internal urban circulation. Thus, the old pathways—legally extended from the city center into the land—now began to have mirrored continuity beyond the city limits. This introduces a systematic incursion of urban spatial order into what was previously a self-sustaining agrarian land. Now, such an invasion demonstrates that this place was not addressed merely as a productive hinterland but as one increasingly becoming an object of a regionally controlled buffer—maintained and inspired for both logis-



Pianta di Torino e dei suoi contorni, 1785. Copper engraving by Francesco De Caroly. This map clearly illustrates the regularized agricultural grid and peripheral topographies surrounding the fortified city of Turin. (Source: MuseoTorino, "La Città Pubblica", p. 220.)

tical and defensive considerations. The agricultural-livestock duality remained intact, as many farms continued their subsistence functions. Conversely, gradually, the overarching logic of territorial organization commenced to shift from functional-rural toward semi-strategic-pre-urban on its way to a full-fledged integration into the morphologic system of the city (Dalmasso, 1998; Lupano, 2011).

The most vivid account of this transitional condition surfaces from topographical engravings

by Francesco De Caroly in 1785. The engraving accounts for a newly emerging spatial logic characterized by grid-like parceling, linear irrigation works, and intertwining radial connections towards the city. De Caroly bravely departs from earlier cartographic representations, which implied organic growth, toward one exhibiting an increasing formalization of the landscape with agrarian and tactical purposes. Superimposition of the grids for reasons of agricultural efficiency also aided movement, surveillance, and possible rapid shifting of military units

where necessary. The engraving, then, becomes not simply a record of land division, but instead it visualizes a moment of transformation in which the rationalization of rural space, state intervention, and emerging logics of spatial control were fully underway. And indeed, it resonates closely with historical accounts of late 18th-century Turin as a city gradually asserting control over its surroundings countryside through layers of order and productivity strategies (Dalmasso, 1998; Lupano, 2011).

2.1.3 Formation of the Daziaria Belt and Urban Traces (1791)

The final decades of the 18th century marked the onset of clear urbanization pressures at Turin's periphery, exerted not just through demographic expansion but also through the spatial reconfiguration of infrastructure, circulation, and industrialization. Thus began the transition from a loosely organized rural periphery into a zone of strategic integration with the wider urban logic of the city. One of the clearest indicators of this transition was the establishment of the cinta daziaria, a customs barrier meant to regulate the circulation of goods and monitor taxation at the threshold of urban space. On the map of 1791, this line is shown encircling the core historical area of the city and beginning to extend toward outlying areas such as Ex-Scalo Vanchiglia.

Whether Ex-Scalo Vanchiglia directly fell within this fiscal perimeter at that time remains uncertain, but spatial and infrastructural development around it were definitely conditioned by its nearness to the urbanized core. The construction and improvement of strategic roadways—especially the axis linking the royal estate of Regio Parco to the central districts of Turin—hint at an intensifying logistical planning that foreshadowed the functional transition from rural towards urban interests. These roads came to serve not simply as conduits for agricultural produce or military deployment, but as channels for the territorial extension of urban governance and economic regulation.

With the establishment of the Manifattura Tabacchi (Tobacco Factory) along the northern contour of the city, for the very first time, a peripheral industrial node was inserted into what had hitherto been considered agrarian terrain. Such a local breakaway was not an isolated affair; it rather provided an accent to a historically wider pattern of spatial layering in which different territorial functions-productive, strategic, and regulatory—began to coexist and overlap. Ex-Scalo Vanchiglia, therefore, was increasingly becoming a typology of hybrid zone: a transitional territory where rural land-use patterns, industrial infrastructure, and strategic road planning collide. Scandurra (2012) calls it a "morphological dyad"—a state in which new urban fragments set in an 'old plane' through superimposition in various functional layers. Aymonino (2006) similarly elaborates that this would be a basis for urban palimpsest, where past usages can remain visible in the logic of living interventions.

This analysis is corroborated by a street engraving rich with detail made in 1790 by Antonio Maria Stagnon, providing essential information for the topographical panorama of the urban tissue going through transformation. Engraved with marked distinction from the fortified historical center of the city of Turin were radial roads extending outwards and embryonic traces of infrastructural organization beginning to appear just outside the city walls. The cinta daziaria, not only a line of structuring regulation, is instead being featured as a morphogenetic device around which began organizing peripheral growth. Circular in character the boundary exists as a fiscal mechanism, but yet incipiently spatially considered by a framework with its perimeter as the limit of control inviting structured development beyond.

The surrounding land as depicted in Stagnon's map already bore signs of anticipatory urbanization in linear subdivisions left for roadway circulation, the cancellation of existing patterns of use of interstitial land, and geometric alignments to set in motion later expansions. These features testify that by the late 18th century, the area lying north of Regio Parco had ceased to be a passive rural hinterland and became a liminal zone absorbing and reflecting the pressures of a burgeoning urban apparatus. Specifically, Ex-Scalo Vanchiglia marks that three coexisting territories logic coexist within one single fragment: it was agrarian in practice, infrastructurally in its connectivity, and increasingly urban in its form. The spatial complexity of this area, therefore, offers not merely a record of occupational history but layered testimony to transformation that presaged its integration into the metropolitan culture in the 19th and 20th centuries (Scandurra, 2012; Aymonino, 2006).

L'ianta della Città di Torino



Pianta della Città di Torino, 1790. Copper engraving by Antonio Maria Stagnon. The map highlights the fortified city and its emerging tax boundary (cinta daziaria) along peripheral roads. (Source: MuseoTorino, "La Città Pubblica", p. 354.)

2.1.4 Capital Expansion and Early Industrialization (1850-1875)

Urban shifts in their daunting phases actually set in after the unification of Italy. Turin not just became the capital of the nation swiftly but also witnessed rapid sociopolitical, industrial, and infrastructural expansion. The period during which this change generated development at the very core of urbanism also manifested its effects on proximity zones that were pulled into a wider metropolitan planning and modernization system. Among its major tools for transforming the case was the Enlargement Plan of 1850-1851, which suggested a systematic reorganization to rearrange the spatial logic of the city with a clear end into the marginal territories like Ex-Scalo Vanchiglia.

Its reach was introduced through a series of interventions that were traced into rational urban planning ideals: orthogonal grids replaced organic rural paths: there was the institutionalization of administrative and functional zoning in the dichotomization of residential areas from industrial and infrastructures, and there were laid out main infrastructural corridors to allow for circulation, transport, and supply provision. This change in planning is a first, whereby for once Ex-Scalo Vanchiglia was mentioned, not simply in the context of urban expansion, but actively targeted as a zone of infrastructure potential. This territory stood now marked by seemingly haphazard agricultural parcels and informal country trails, now *read* the logic of order, efficiency, and integration that shaped mid-19th-century urbanism.

The byproducts of the new realities created by laying out railway lines and constructing service depots within the northern fringes of Turin already signified a profound disconnection from agricultural land use that had remained intact for decades before 1875. Thus, industrial use, combined with that of logistics infrastructures, came to take over an area that had previously known the agricultural uses of anything between a mosaic of cultivated fields that then connected into a tissue that started



Figure 4- Nuova pianta della città di Torino, 1869. The plan illustrates the expanding urban grid and infrastructural connections during the early phase of Turin's industrial development. (Source: Biblioteca civica centrale, Cartografico 8/10.30.)

spreading within an expanding metropolitan system. This, due to the emphasis placed by Secchi (1981) and Bellini (2013), does signify a town-wide trend in most Italian cities, where peripheral lands were redefined in function and form, with the advent of geometries, building typologies, and infrastructural hierarchies, altering in both perception and use of space.

What was once a rural backland that served the city in terms of agricultural productivity was now transformed into a logistical support zone, a major hub through which materials, goods, and labor flowed. This role, as evolving for Ex-Scalo Vanchiglia, placed it firmly within the process of industrial geography which constituted Turin: rather than *a* growth recipient, it became a node allowing growth to emanate. It really articulates here the very 'morphological reprogramming' category, as the place was not merely expanded but rewritten in its spatial DNA, with overwritten past land uses by indstrial modernities.

Cartographic proof of this change is found in the 1869 map of Turin. While the past maps showed Ex-Scalo Vanchiglia as an anonymous or liminal space, this 1869 representation includes that area within the formalized grid of the northern suburbs of the city itself. Still

underdeveloped in density and urbanization, however, by itself, its inclusion on the map is a sign of growing importance. With street networks traced over its surface, it lines up with the expanding infrastructure of the city, and the surrounding extensions are suggestive of latent potential at the site. Now, it was no longer just a remnant fragment on the urban fringe, but indeed an integrated part within the logistic and industrial future that was envisioned for Turin. That, however, is only symbolic; it clearly echoes a strategic acknowledgment of its spatial significance amid a transforming urban fabric (Secchi, 1981; Bellini, 2013).

2.1.5 Birth of the Rail Terminal and **Industrial Function (1882-1930)**

By the end of the 19th century, the Ex-Scalo Vanchiglia area underwent drastic alterations in its function and morphology to keep up with the trend of industrialization in Turin. Establishment of the point: construction of a terminal by 1882 in a way that made it the main node that routed the emerging national railways network and, immediately, regional commerce. Infrastructural changes thus wrought a physical change in the area; deeper and shifting has been the socio-economic profile that the influx gave rise to. Close-in-distance from that of the historic Manifattura Tabacchi, one of the major industrial plants in the city, and critical infrastructural axes, such as the railway and arterial roads, ensure a role of a sector in particular urbanism dictated by logistics.

The erstwhile agricultural land use and a very fragmentary proto-urban condition had given way within Ex-Scalo Vanchiglia to an entirely new phase characterized by a mono-functionality of industrial use. The new spatial logic was framed around access, production, storage, and transportation: the distance between the present and what it used to be was that it had fallen from its former hybrid condition of rural-urban. Cartographic materials dating from the late 19th century, sparse in detail by today's standards, suffice to show progressive densification of service infrastructure, which included, but was not limited to, shunting yards, sidings, warehouses, and associated administrative facilities. All of these elements have left a part of its imprint in actual satellite imagery and historical aerial photography which together reveal the material density as well as large operational complexity of the site during peak industrial days.

The documentary photograph collections of the early 20th century further help to build a picture of this spatial change by creating visible testimony to the daily rhythms of labor, the transport convoys, or layering of infrastructure.



Figure 5- Tram and workers in front of the Ex-Manifattura Tabacchi, Regio Parco, in the 1920s. (Source: Chiara Devoti Collection, via MuseoTorino)

The Manifattura Tabacchi employed, among others, hundreds if not over a thousand workers during peak production periods, thus linking labor with territory and logistics in the northern periphery of the city. When in operation, it served not just as an engine of production but also as a stabilizing socio-economic core, bolstering Ex-Scalo Vanchiglia's position within the evolving industrial geography of Turin.

The area underwent a complete redefinition of the patterns of circulation and systems of land value. Roads and paths, once lines of slow mobility, became repurposed or redesigned for movement throughput, heavy goods like coal delivery, raw materials, and finished products. This reshaping internally skewed the pattern of the city form, since it imposed neat and well-framed railway corridors and service roads, which limited future flexibility spatially. Even the morphology of Ex-Scalo Vanchiglia has been imprinted with the clear logic of infrastructure, that is, linearity of tracks, fenced perimeters, and block-like storage units, which remained well into the twentieth century.

This development has nurtured what promises to be a challenge in today's context. As cities swerve into post-industrial functions, much of the infrastructural component becomes obsolete but continues being an impediment to redevelopment efforts; understanding industrial layering is crucial to any transformation envisioned for the future, especially if reintegration into modern urban fabric of Turin is expected to occur.

2.1.6 20th Century Consolidation and Urban Integration (1900-1960)

Around the cities near the freight terminal of Ex-Scalo Vanchiglia, the 20th century observed rapid urban progress, indicating the transformation of Turin from an industrial logistics hub into a novel metropolis defined by residential and service employment. Barriera di Milano and Regio Parco, formerly on the margin with low-density structures, became residential, especially throughout the post-war period. This northward advancement changed the city's northern edges into reasonably dense urban settings, thus, consolidating the Ex-Scalo Vanchiglia zone. As the districts swelled in population, greater pressure was exerted on unutilized or mono-functional sites like the freight terminal, which, in turn, started to contrast sharply with surrounding dynamics.

By the 1930s, with mechanized industry burgeoning and rail supply chains developing on a larger scale, the freight terminal had already peaked in its operational logistics. With these events came the origination of mass production in the northern portion of Italy's economy. This was a high mark in the industrial logistics infrastructure of Turin, and Ex-Scalo Vanchiglia was a crucial node in this delivery framework. However, by 1956 the Piano Regolatore Generale (Master Plan) had already pinpointed tensions and restraining aspects that marred the ongoing operation of the terminal. Urban planners were starting to perceive that the scale, typology, and spatial arrangement of the terminal were becoming increasingly incompatible with the evolving needs of the city. The area was still legally known as a terminal, but the spatial logic of a 19th-century industrial environment was expiring. Development was , therefore, not being enabled by the terminal but was rather emerging as a physical and functional barrier disrupting urban continuity and impeding integration between districts (Gregotti, 1996; Marini, 2004).

This alteration, established in the city plan of 1930, clearly reveals Ex-Scalo Vanchiglia no lon-

ger as a peripheral facility but as an inner-city void, in fact, surrounded by active and structured neighborhoods. Conceived on the outer edges of the city, the terminal had by now become spatially invested within the urban core via decades of peripheral expansion. But spatial embeddedness did not denote integration. The terminal, instead, retained the designation of "Scalo Merci" and this designation implied an unrestricted freight function. This further solidified the separation from the urban and residential agenda that slowly began to enshroud it.

The grid of streets supporting the Ex-Scalo became more and more aware of the contradictory situation it was in: central in a physical sense but marginal as to social function. Close on the one hand to residential streets, schools, and services but simultaneously antithetical to urban life by which it positioned itself as a fenced-off and introverted industrial enclave. Permeability—viz., visual or functional—perhaps was absent; hence Ex-Scalo Vanchiglia vanished within the urban fabric of the city: a strategic site central in location yet marginal in usage, whereby the hindrances imposed to movement across it worked against any hopes for adaptive reuse.

In this context, the site increasingly came to represent the conflicts that formed Turin's industrial legacy and post-war urban aims. As Turin moved into fresh directions of urbanism in the second half of the 20th century, defined by service economies and social housing programs, sites such as Ex-Scalo Vanchiglia came to embody the spatial conflict between antiquated infrastructures and emerging metropolitan requirements. For decades, the situation of being a spatial leftover—visible yet cut off—would remain far from settled, therefore influencing the discussions surrounding its eventual reuse and reintegration into the city's fabric.

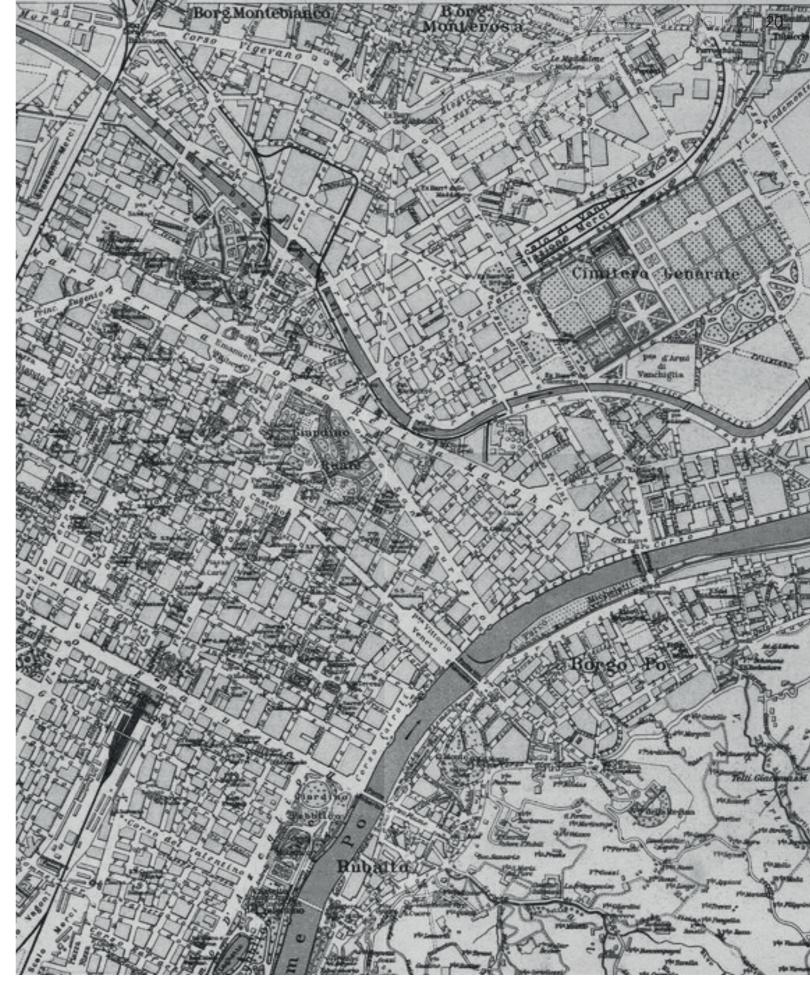


Figure 6- Plan of Turin, ca. 1930. The map highlights the Scalo Merci Vanchiglia (freight terminal) amidst an increasingly dense residential and infrastructural fabric. (Source: Biblioteca civica centrale, Cartografico 3/4.4.01.)

2.1.7 Decline, Abandonment and **Contemporary State (1980-Today)**

The discontinuance of freight services on the Ex-Scalo Vanchiglia site in the 1980s was not a abrupt abandonment, but rather occurred slowly and gradually over time. The site lost its core function at the center of the infrastructure network of Turin through a gradual process of shifting logistics to larger and more suitable facilities located in metropolitan periphery. This progressive loss became a symptom of much larger urban processes- declension of the industrial city, decentralization of the urban space, and increasingly reconfigured paradigms of spatial planning-that together destabilized states of functionality and morphology on site.

Once a hub in the city transport system, Ex-Scalo Vanchiglia became increasingly outmoded, unable to meet the operational scale and spatial needs of freight logistics of today. The rail-based layout, heavily service tracks and embedded technical zones made the infrastructural rigidity of the site a big problem. Such physical residues not only prevented simple reuse, but also inhibited any possible new urban functions being reprogrammed to repurpose the area. Thus, there emerged a sort of spatial and conceptual void: a huge, centrally located piece of real estate severed from its immediacy of urban context. Out-side residential areas, schools, and other functional city fabrics, the ex-freight yard stood curious in its dissociation, more an internal frontier than a part of the city proper.

The site has been essentially impervious to the several proposals that have inundated it from the latter part of the 20th century to the early years of the present one. What has kept this space in limbo-between decay and possibility-has been the combination of its superimposed history of infrastructures and the lack of a less problematic orientation towards future development. Such sites, as Secchi & Viganò (2009) argued, demand not only technical solutions but also reinterpretations of spatial legacies-inclusions of how the previously constructed identities may be



Figure 7- Former cargo terminal entrance of Ex-Scalo Vanchiglia, with disused tracks and rolling stock, reflecting its abandonment and infrastructure degradation since the late 1980s. (Al Upscaled Photo) (Source: AtlasFor, https://atlasfor.sistemainformativourbanistico.it)

referenced and transformed in new and future uses. Boeri (2012), as referenced above, proposes that such urban voids are not failures of planning but chiefly opportunities to rediscovery, assuming that theist of development design understands their stratified histories and stiffness in infrastructure too.

These days, Ex-Scalo Vanchiglia stands at a conceptual crossroad. In the center of the city, it is almost unused; it is a prime candidate for rejuvenation, in the eyes of many people, but there will be a great deal of negotiation to be done around its intrinsic inheritance. The question is by no means just how to fill the site but rather how to read it-foar how to read its past functional logic; its moments of relevance and disconnection; and the spatial identity that has emerged from years of underutilization. The future of the site resides in the power of planners, architects, and citizens to reinterpret, not overwrite—to develop this dream in dialogue with its infrastructural memory rather than despite it.

This situation is very visibly demonstrated in the 2007 satellite image as per figure 7 above. Exposed overhead, the site appears central geographically as it is surrounded by acti-

ve-functioning parts, neighborhoods, schools, and streets. More often than not, however, this deceptive centrality is dependent; the space also remains physically, functionally, and symbolically isolated. The image sums an important thematic area in contemporary urbanism: inasmuch as it approximates something, it may not be integrated yet. In the case of Ex-Scalo Vanchiglia, distance is not measured in meters, but in relational disconnection-human beings in relationship with history and function, form and meaning, presence and participation. (Secchi & Viganò, 2009; Boeri, 2012).

2.2: The Transformation of Industrial Urban **Morphology: Turin**

2.2.1 From Industrial Growth to Spatial Fragmentation

Throughout the 20th century, Turin went through significant urban changes and became one of the main industrial hubs of Southern Europe. The enterprise Fiat, established in 1899, was possibly the greatest driver for this transformation. The company's fast expansion functioned as a spur to the city's economy, its labor systems, and especially, to the spatial arrangements of the whole city. The industrial boom involved not only the manufacturing plants of the firm but a whole ecosystem of logistics, transport, storage, and other industries, which completely reshaped the outer zones of the city.

The industrial morphology that appeared during this period was rather different from the older urban patterns. It favored extensive, mono-functional areas at the expense of mixed-use intricacy while prioritizing accessibility for goods over that for people. Railway corridors were broadened; freight terminals were developed, and neighborhoods were often cut off by their restricting infrastructure. Such spaces weren't responding to civic or social needs but embodying the logic of production with speed and scale. An increasing fragmentation of the urban layout was assessed, with production dictating form over function.

In the late 20th century, the global economic shifts gradually introduced a de-industrialization process, rendering these core industrial spaces irrelevant. Factories were closed; logistic networks favored to operate from larger, peripheral zones; and hence the dissolution of production clusters that once thrived. This left behind vast tracts of land: physically present but functionally outdated. These became known as post-industrial voids: spaces that have lost their function but not their presence. Their daunting magnitude and infrastructural rigidity provided

considerable hurdles to be overcome by dedicated urban planners interested in reintegration.

As stated by Boeri (2011), these sites are paradoxical: They are too extensive to ignore, but they are also too inflexible to facilitate easy repurposing. Their edges refuse permeability and their internal arrangement is homogenous to the point of lacking the diversity of scale and type necessary to sustain urban life. Hence, while the industrial heritage has always been central to Turin's identity, it has also created some of its most problematic spatial dilemmas. This move from industrial vigor to fragmented obsolescence marks the post-Fiat organism that these cities, including Turin, now de facto contend with.



Figure 8- Plan of Turin's tramway network in 1928, illustrating the infrastructural framework that supported the city's industrial expansion. The convergence of transport lines reveals the spatial centrality of logistics in early 20th-century

(Source: Pianta tranviaria di Torino, 1928. Biblioteca civica centrale, Cartografico 3/4.35.02 © Biblioteche civiche tori-

2.2.2 Ex-Scalo Vanchiglia as a Post-Industrial Territory

Of all the worthless post-industrial locales in Turin, this one above all seems noteworthy because of its setting and the almost constant inaccessibility that it provides. This site which occupies one of the most splendidly promising places between established neighborhoods near the city center and the Dora River remains stubbornly secluded. Emerging from a railway freight terminal, it inherited a good infrastructural arrangement: thick tracks, fenced boundaries, and deep service corridors. These are now obstructions in the same urban landscape where they used to perform function.

Over the years, when logistically operations had to shift to another location and the area became deserted, Ex-Scalo Vanchiglia transformed into an urban void-not only in terms of function, but also in identity. Its abstract shape, non-permeable nature, and spatial disconnection from the grid of surrounding streets produced isolation both physically and symbolically. Although encircled by active residential zones, schools, and services, one fails to see proof of interaction within its context. It has almost become what Viganò might define as a residual

fragment: above activity but not integration.

Re-use propositions have been proposed over the years, ranging from those concerning green corridors to those talking about cultural hubs, and some even proposing speculative apartments. However, none of these managed to surpass the layered complexity of the site. The very deep historical footprint of industrial infrastructure still affected its form, defining its resistance to an intervention that might need to consider flexibility or adaptability. Contaminations of the soil by buried rail infrastructure combined with the fragmentation of the property ownership chain raise the level of contestation associated with such redevelopment. The truth, however, is that this very in-between-neither really deserted nor very highly utilized-offers a special chance to rethink the role of such spaces. Post-industrial periphery, argues Bellini (2013), should not be approached only in

terms of erasure or displacement but rather as a strategic reinterpretation. The power of Ex-Scalo Vanchiglia might lie just in this unresolved quality: a site that is not waiting for monumental reinventing, but for small, flexible interventions coherent with what already exists in itself.



Figure 9- Satellite image of Ex-Scalo Vanchiglia and its surroundings, 2007. The site—once a thriving freight terminal—appears as a spatial void within the dense urban fabric of Turin. Despite its central location, the area remains fenced off and functionally disconnected, a remnant of its industrial past. (Source: Google Earth, 2007.)

2.2.3 The Role of Student Housing as an Urban Strategy

Turin has observed a noticeable increase in student populations recently due to the increasingly large-scale academic networks formed at institutions like the Politecnico di Torino and the Universitá degli Studi di Torino. This shift also translated into increased demand for student accommodation, which the current accommodations have found difficult to accommodate. According to Kenna et al. (2016), numerous other cities in Europe face similar pressures wherein housing systems are unable to easily adapt to the number of students embarking on those ever-rising influxes, resulting in chaotic rental markets and spatial inequities.

The remainder of this development for Turin has, therefore, resulted in saturation of the private rental sector, making informal and often sub-standard aspects of housing options within the scope of heavy reliance, especially in areas close to major campuses (Aymonino, 2006). Furthermore, the general absence of institutional accommodation provisioning has put some unnecessary gentrification pressures onto students competing with long-term residents for the very same scarcities of affordable housing. Within this context, therefore, the question of how one could negotiate student accommodation within cities is of great importance as such a task is now a social necessity and spatial opportunity.

Post-industrial void but referential to Ex-Scalo Vanchiglia creates a suitable framework for such an integration. According to Boeri (2012), underused infrastructurally rigid areas expose novelty in experimental forms of urban inhabitation if approached with a sensitive small-scale method. Student housing is ideal within that hole, as its needs are small-scale, spatial logic favors adaptability, and often student residents are very good for the social fabric of transitioning neighborhoods.

Ex-Scalo Vanchiglia, being a moderately central area disconnected from surrounding urban tissues, is one of the strategic sites for this sort of reactivation. According to Secchi and Viganò (2009), such areas should not be treated as simple voids to be filled but rather as possible spaces that could house alternative urban programs. By putting student housing here, we can alleviate the increasing accommodation deficit of Turin and use it more as a catalyst for gradual spatial integration. Besides, the shared, permeable, and temporally flexible nature of student residences resonates with what they call "porous urbanism"—paradigm that rethinks the city through low-impact interventions embedded in social context.

In this way, student housing is conceptualized as something beyond just a functionalist response to changing demographics; it is configured as an urban strategy. By embedding student life into disused infrastructural landscapes, cities are able to work these post-industrial remnants into livable nodes of activity, interaction, and innovation. The Ex-Scalo Vanchiglia, therefore, carries a double prospect: an immediate answer addressing the housing crisis and a long-term program toward the re-stitching of Turin's fragmented urban morphology.

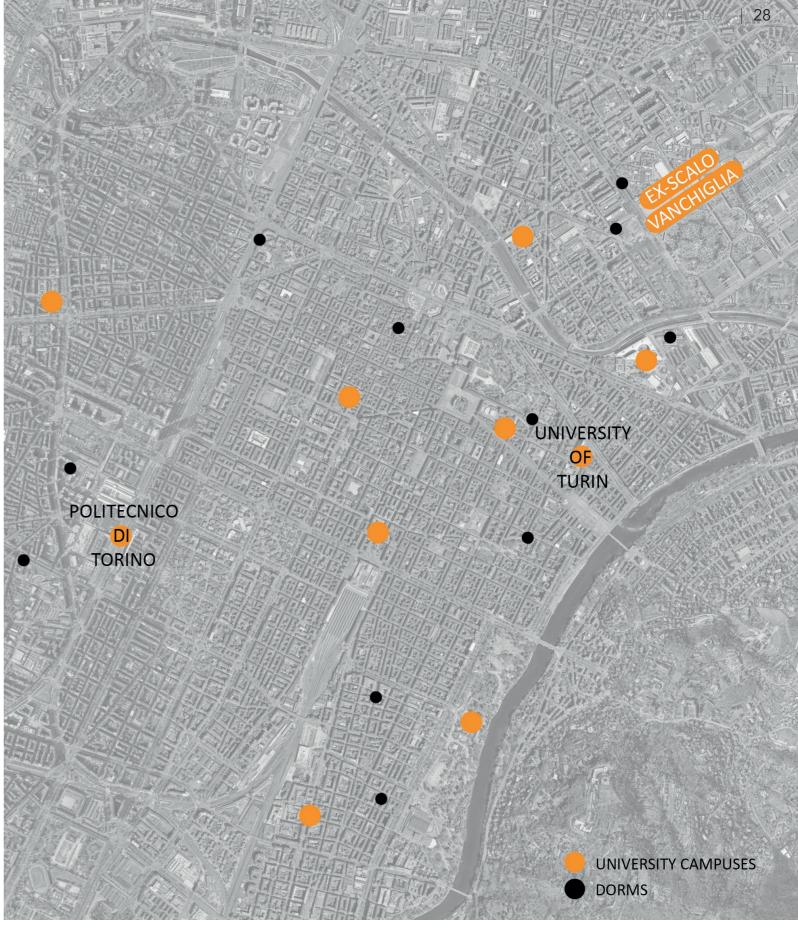


Figure 10- Map showing the spatial distribution of university campuses (orange) and existing student dormitories (black) across the city of Turin. The Ex-Scalo Vanchiglia site appears significantly disconnected from the existing student housing network despite its proximity to major institutions such as the University of Turin and Politecnico di Torino. This spatial gap highlights the site's potential for introducing new student accommodations that can bridge infrastructural voids and support an equitable urban strategy. (Base map source: Google Earth. Author's elaboration, 2025.)

2.3 Geographical **Context and Strategic Position of Ex-Scalo Vanchiglia**

Previously the Scalo Vanchiglia station, the area in question is located at the northeastern border of Turin where the settlements, three in number yet distinct by the city's history and form, meet at: Vanchiglia, Barriera di Milano, and Regio Parco. The area is characterized by significant roadways such as Corso Novara, Corso Regio Parco, and Via Regaldi that cross the zone, which itself is transitional between the fully consolidated historic center and the infrastructural landscape of the 20th century.

Though separated from it by some obsolete infrastructure, the site remains quite close to crucial urban landmarks; it is still 1.3 km from Piazza Castello (i.e. the city center), adjoins to the north the Manifattura Tabacchi industrial complex connecting directly with Parco Colletta, a rather expansive green area in Turin. The area also corresponds with Via Bologna, a future mobility axis.

Due to its history of rail connection, the site has a long rectangular configuration and is essentially separate from its residential fabrics with a still considerable potential for some morphological independence. The surrounding urban environment is very diverse: from the west, very dense housing from the turn of the century; to the east, large industrial warehouses and empty lots; south, monumental sites such as the Cimitero Monumentale di Torino.

The ex-Scalo Vanchiglia covers roughly 110,000 square meters, rendering it a strategic void inside the city. Its transformation, via planning instruments such as PRG Variant 200 and ZUT 9.200, is underway in order to redefine the area as one of the most important junctions in the near future for new public and residential functions, specifically innovative housing models, sustainable mobility, and integration of Metro Line 2.





Figure 12- Disused railway infrastructure and overgrown vegetation at the Ex-Scalo Vanchiglia site. Photograph by the author, May 2025.



Figure 14- Disused railway infrastructure and overgrown vegetation at the Ex-Scalo Vanchiglia site. Photograph by the author, May 2025.

2.3.1 Main Streets Analysis

Regarded as one of the important infrastructural grids of Turin, the location of the former Scalo Vanchiglia is interspersed with major avenues such as Corso Regio Parco, Corso Novara, and Corso Tortona, giving the zone good access at both the metropolitan and neighborhood scale. Not only do these roads offer direct vehicular access, but also public transport and pedestrian mobility which ultimately links them with the strategic location of the site within the bigger urban setting.

Towards the south, one discovers Corso Regina Margherita, a significant east-west axis that carries the traffic of the area into the core of Turin and further around it. The cutting of Corso Giulio Cesare and Corso Palermo through the northwest provides strong connectivity to historical neighborhoods and areas of high-density housing. Their regular geometry also contributes to the clarity and legibility of the city's urban fabric, which contrasts with the large-scale void represented by the Ex-Scalo Vanchiglia area.

The infrastructure is a potential space for reintegration into the urban context by it being viewed as an industrial landscape from which it has emerged. The coming together of diverse street types - arterial roads, secondary connections, and transversal paths - makes it not only accessible but also highly visible and well-positioned for future change. Its location at the intersection of strong mobility corridors suggests opportunities both for local integration and significance at the metropolitan level.



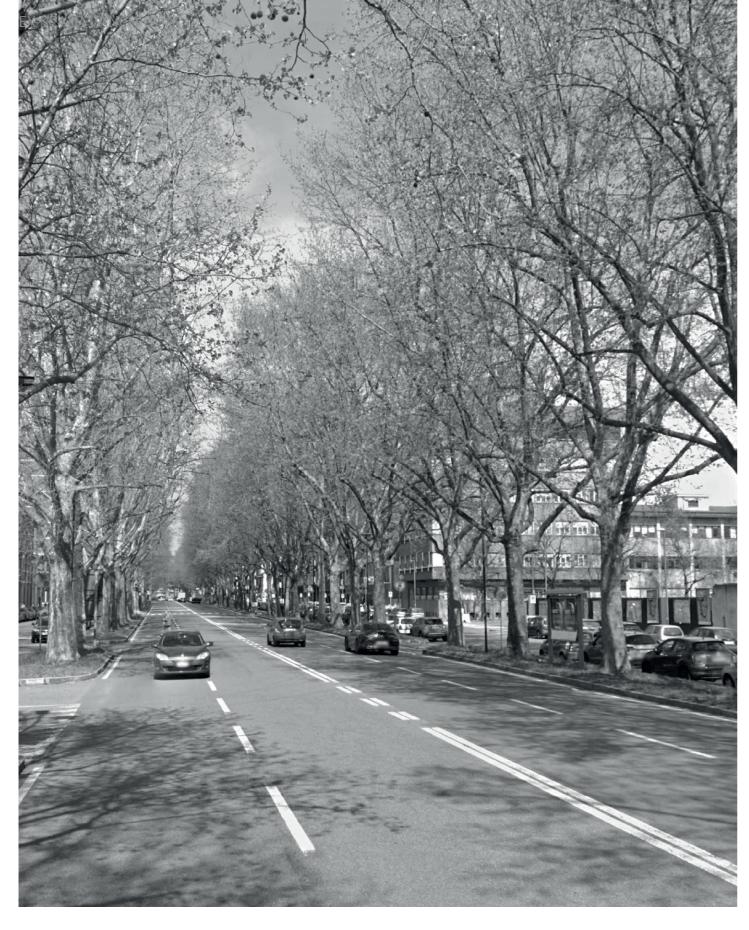


Figure 16- View of Corso Novara, a major urban boulevard adjacent to the Ex-Scalo Vanchiglia area. (Source: Google Street View, accessed June 24, 2025.)

Figure 17- View of Corso Regio Parco, showing the dense tree alignment and green buffer along the roadway. This linear vegetation belt defines the northern edge of the Ex-Scalo Vanchiglia area and contributes to the ecological and visual continuity between the site and Parco Colletta. (Source: Photograph by the author, 2025.)



In this locale, one encounters the Ex-Scalo Vanchiglia positioned near the green spaces network that exists in the immediate urban surroundings, though they stay comparatively fragmented. Parco Colletta, a vast natural area, constitutes the eastern side of the area and presents substantial ecological and recreational possibilities. To the southwest is Giardini di Reali, a historical urban green space closely connected to the city center and cultural establishments.

Scattered amongst these two most significant parks are green areas in disarray and without continuity. The urban fabric surrounding this is compact block structures with limited internal courtyards or public green nodes. Although small gardens as well as planted plazas can be located, they are scarcely sufficient to constitute a coherent ecological corridor or walkable green loop.

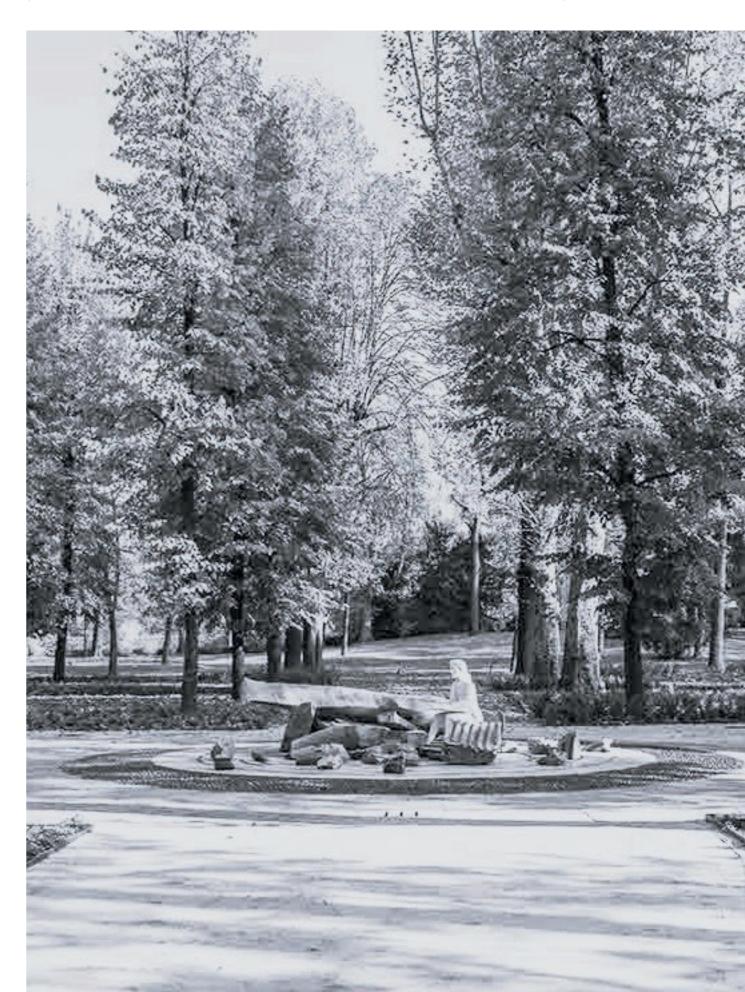
Accordingly, Ex-Scalo Vanchiglia constitutes an opportunity to act as a linking void—the connector between isolated green fragments—as it exists presently in an underused condition, prepared to absorb soft landscapes, active public spaces, and ecological systems. This potential can readily be utilized to not only develop microclimatic circumstances and enhance biodiversity, but also to reinstate a spatial relationship between built and open environments in this portion of Turin.





recreational potential along the Dora River corridor. (Source: Pmk58 – Own work, CC BY-SA 3.0, via Wikimedia Commons)

Figure 20- View of the renewed "Boschetto" area with the "Pietre Preziose" installation in the Giardini Reali of Turin, reflecting contemporary landscape restoration strategies within historical urban parks. (Source: Consulta Torino, "Boschetto e Pietre Preziose, così rinascono i Giardini Reali", consulta.to.it)



2.3.3 Transportation Analysis

The Ex-Scalo Vanchiglia area is a dense locale within an effective network of public transit operating on a local and metropolitan level. Several linear axes, defined by diverse transit nodes, go along and across the site, emphasizing its potential as an accessible and integrated urban center.

Roads adjacent to the site, such as Corso Regio Parco, Corso Novara, and Corso Tortona are major vehicular routes, in addition to running tram and bus lines directly towards the city center, university districts and to outer neighborhoods. Transit nodes strategically positioned a distance around the site improve permeability and pedestrian access, thus improving the property's role within the overall sustainable mobility strategy for Turin.

This central site of Ex-Scalo Vanchiglia lacks internal public transport resources, creating an opportunity to redefine and connect the area as a multi-modal transporter, integrating public transit with pedestrian paths and cycling networks under one design scheme. Its proposed alteration could become a pivot that endeavors to enhance east-west transit flow while establishing finer grain mobility layers to favor both local users and citywide dynamics.

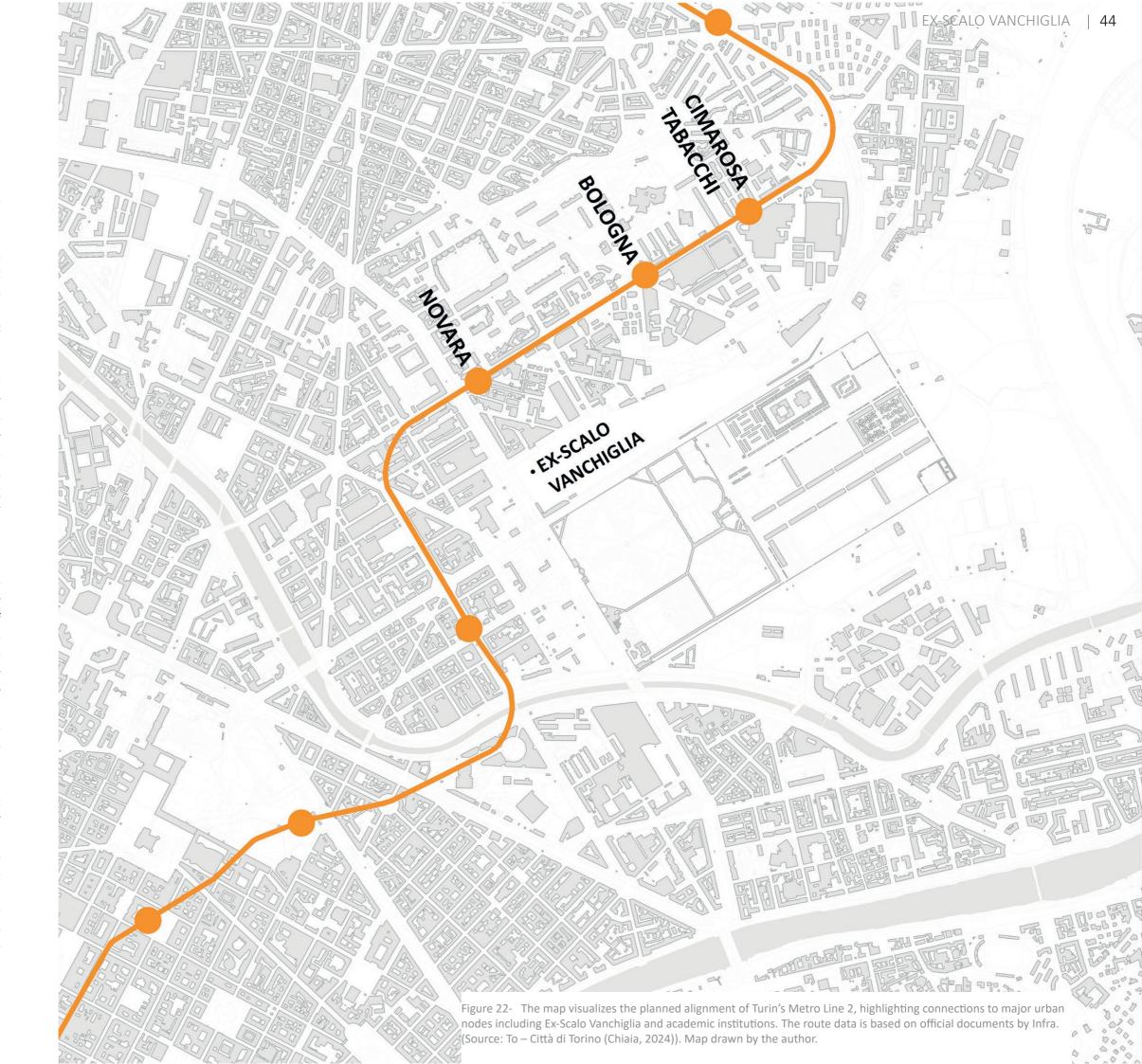


Metro Line 2 is a significant turning point concerning the mobility infrastructure in Turin, where novel urban accessibility possibilities emerge—like the case of underused spaces such as Ex-Scalo Vanchiglia. Unlike the current transit service modes, which cover surface bus and tram networks, with this underground line the movement to civic and academic nodes grows substantially more efficient.

Along its span from the Politecnico di Torino campus to the central campus of the University of Turin, Linea 2, a pivotal component of the infrastructure, offers a direct educational corridor for students. It not only serves busy inter-institutional commuting but also improves the city's image as an active university city. Connecting Ex-Scalo Vanchiglia to this system lends it a new meaning, in an urban context node related to an entire area of accessibility and redevelopment.

This places student residences and academic infrastructure along that transit corridor and integrates them spatially with areas of the city that have remained otherwise marginal. Stops such as Bologna, Novara, and Cimarosa/Tabacchi act as pedestrians' friendly intermediates and stimulate opportunities for new developments. Such improvements are consistent with wider strategies toward sustainable mobility, offering flexible alternatives to users in the area and visitors to the metropole.

Urbanistically, the project exemplifies what transportation investment can do as a tool for regeneration. In the future, Ex-Scalo Vanchiglia will accommodate a metro node which enables this locality to transform from an isolated industrial remnant to an accessible urban connector—encouraging mixed-use development and student-related activities. Metro Line 2, therefore, is more than simply a mode of transport; it embodies the structure for spatial and social renewal in the evolving urban landscape of Turin itself.



2.4 Ex Scalo Vanchiglia within the PRG Framework

Turin's General Regulatory Plan (Piano Regolatore Generale, PRG) saw heavy restructuring after the approval of Variant n. 200, in 2010, as a part of the long-term plan for the regeneration of underutilized industrial and infrastructural lands (Comune di Torino, 2010). The variant, within the context of a fundamental update of the historical masterplan by Gregotti & Cagnardi from 1995, promotes the redevelopment of post-industrial areas in a coordinated fashion, based on the changing social, environmental, and infrastructural demands (Gregotti & Cagnardi, 1995).

It is essentially about presenting a tightly-knit vision for the whole territory that can restore spatial cohesion, especially by activating fragmented urban areas through integrated transport systems, public investment, and mixed-uses (Ragonesi, 2016). The proposal is mainly focused on improving permeability between different sites and fortifying ecological continuity across neighborhoods previously divided by infrastructure.

The site will truly become the Ex-Scalo Vanchiglia, which has been transformed from freight rail yard. Under the classification of large areas for transformation, this land is to be situated at the northeastern quadrant of the City, thus acting like an island with no connection to the urban fabric. A physical and functional void has been created. The PRG does not dream about this area as a leftover space but rather as one that will potentially regenerate, framed by key axes, such as Corso Regio Parco, Corso Novara, and Corso Palermo.

A very important aspect of the plan is the integration of Metro Line 2, which will act as a connective corridor linking the Ex-Scalo area with other nearby transformation sites such as Spina 4 and Corso Sempione (Comune di Torino, 2022). Through this move, the city seeks to conceive such remaining pieces of infrastructure into strategic urban nodes mirroring broader metropolitan targets of accessibility, environmental resilience, and social inclusion (Regione Piemonte & Comune di Torino, 2021).

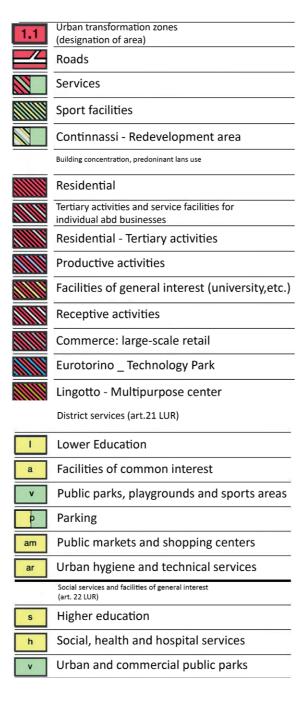


Figure 23- Legend of the zoning plan for the Scalo Vanchiglia and former Railway Trench area. This legend illustrates the designated land use categories defined in the updated urban redevelopment plan ,including functional zones such as transformation areas, residential and tertiary uses, productive activities, educational and health services, and green and commercial public spaces. (Source: P.R.G. Tavola N. 1 – Azzonamento Variante, Comune di Torino (Accessed June 2025)

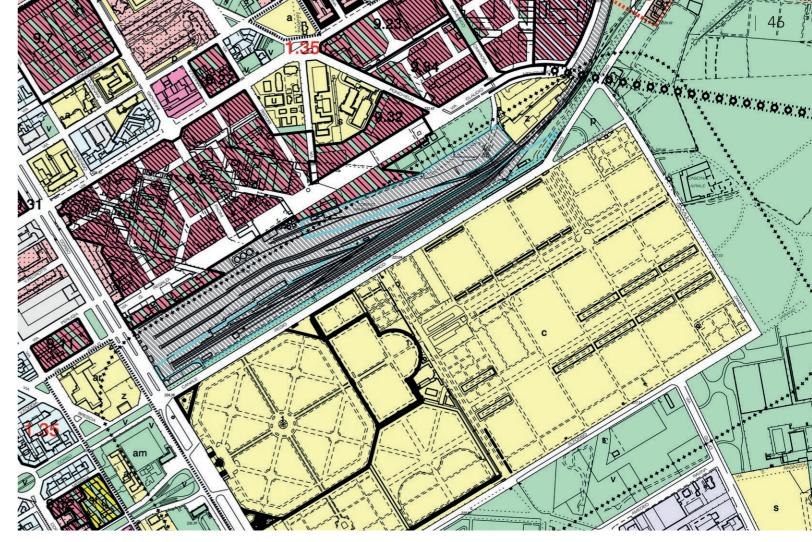


Figure 24- Area di Scalo Vanchiglia ed ex Trincea Ferroviaria. P.R.G. TAVOLA N. 1. AZZONAMENTO – STATO ATTUALE

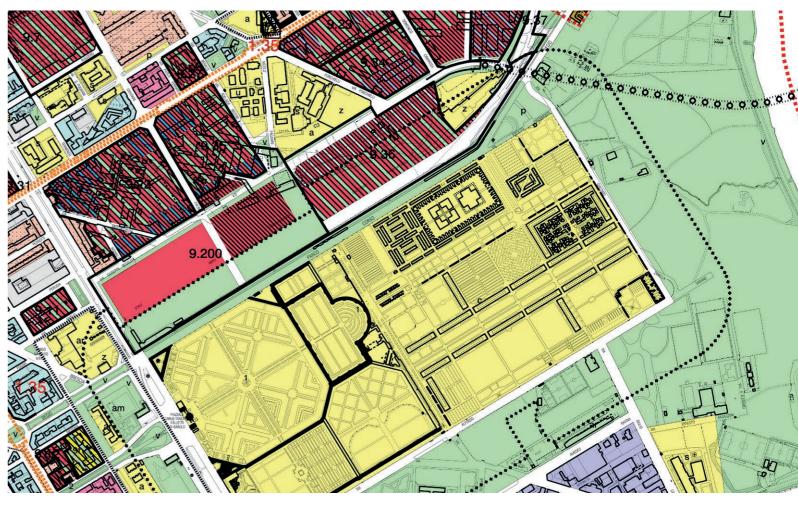


Figure 25- Area di Scalo Vanchiglia ed ex Trincea Ferroviaria. P.R.G. TAVOLA N. 1. AZZONAMENTO – VARIANTE

ZUT 9.200 - Regaldi

The ZUT 9.200 Regaldi zone acts as the primary regulatory mechanism governing the transformation of the Ex-Scalo Vanchiglia area. As a Zone Urbane di Trasformation as per the PRG Variant 200, it is intended to define fresh planning principles about land usage and density, and about the functional combinations of space within the very highly strategic location between Corso Novara, Corso Regio Parco, and Via Regaldi (Comune di Torino, 2010).

Such maximum permitted SFA/SLP area shall be for a gross SFA/SLP result equal to a maximum value of 81,026 m² and may attain 88,860 m² through volumetric transfers to adjacent parcels not included as part of the original green zone (principal ones are P.1, P.23, and P.30) (Regione Piemonte & Comune di Torino, 2021). This last caveat indicates a very intelligently planned densification strategy but offers the ecological discipline to fulfill urban growth requirements.

Thus, according to this urban planning legislation ZUT 9.200, this would result in a minimum 40% category (ASU) of tertiary (non-residential) use and would advance up to 60% residential, hence ensuring a lively mix of living, working, and civic activities (Comune di Torino, 2010). This spatial distribution should be feasible for inclusive housing models such as the presence of student residences, and it should also incorporate cultural and economic spaces that can serve the needs of both local and citywide communities (NUEA, 2023).

It will be required to follow the ITACA protocol with a minimum score of 2.5 for sustainability objectives with regards to high standards of energy efficiency, environmental performance, and long-term resilience (NUEA, 2023). Two new civic squares are included in the program: Piazza Novara and Piazza Ristori, which will act as public anchor points and nodes for the integration of transit systems particularly concerning the future Metro Line 2 (Comune di Torino, 2022).

Ultimately, ZUT 9.200 considers site Ex-Scalo Vanchiglia as a forming model of sustainable and inclusive urban transformation: a void once infrastructural redefined as an intelligent, interconnected future-focused urban district (Ragonesi, 2016).

SLP Max

81.026 sqm

Residenza

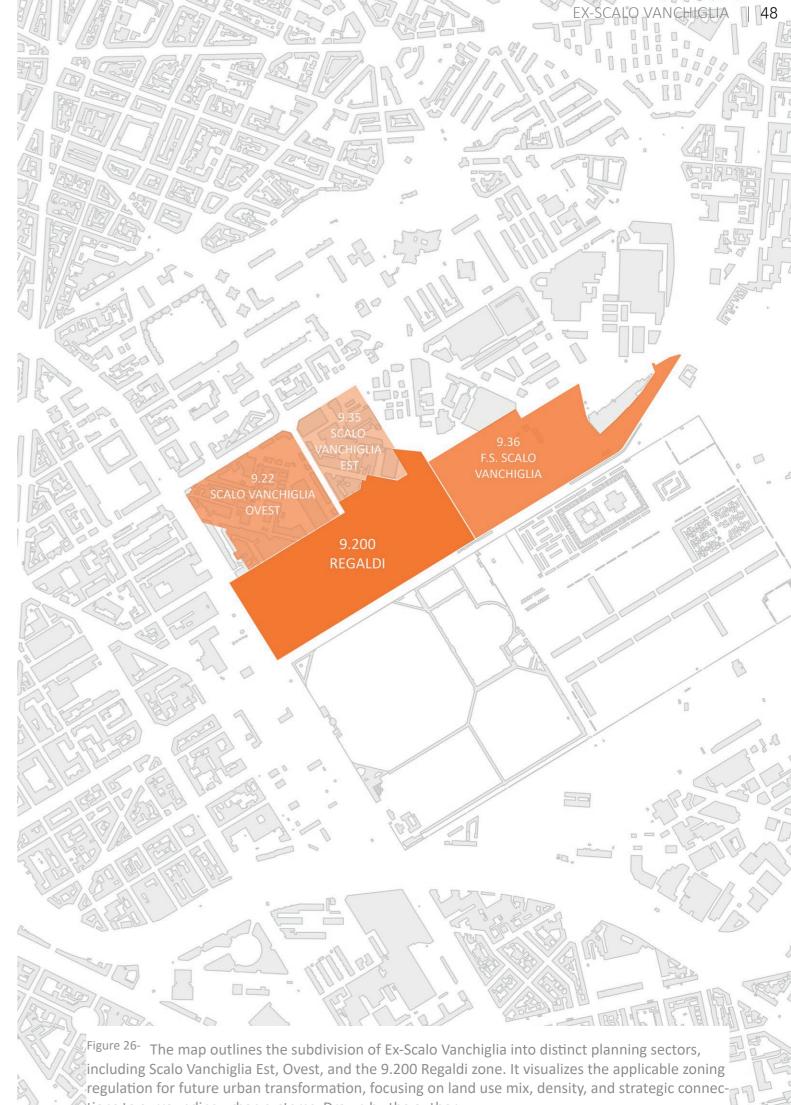
Max 60 % 25 sqm / ab

Indice Territoriale

0,68 sqm SLP

ASPI

Min 40 %



tions to surrounding urban systems. Drawn by the author.

|

STUDENT HOUSING

3.1 Historical Background of Student Housing

3.1.1 Medieval Student Housing

The whole student accommodation concept can be traced back to the origin of medieval European universities, much like the other institutional necessities of food, clothing, or avenues for personal entertainment. Accommodation of students, in those days, was not a system with rules and theory; informal or ad hoc boarding arrangements arose in response to the needs of a new and mobile intellectual class. The informal boarding arrangements were, for the most part, made around some existing religious and urban establishments where, for quite some time, the ecclesiastical institutions had begun to influence not only education but all basic provisions, including accommodation. The 11th and 12th centuries witnessed the birth of general education towns irrespective of the more illustrious names; Bologna and Paris are to be remembered as the earliest models of higher education centers in Europe. Within these urban settings, students would typically rent rooms from landlords. Monasteries, abbeys, or within the facilities of religious orders, otherwise called some were accommodated(Kerr, 2001). These living quarters would not only have been spatially scattered across the city but also characterized by architectural modesty and functional simplicity of barely single-room quarters or shared dormitory-like cells with few amenities. They must have visually reflected the modesty and vagueness of medieval scholarship, often characterized by the dominance of text and spiritual life over material comfort and design.

Most of the time, student residences were less likely to be found in or near the academic core but, rather, were intermingled with the wider religious setting within the city. They were more commonly next to churches or cathedrals of the city than to such a focused campus idea that would be built later centuries. Because of this relative lack of formal planning or architectural coordination, residential conditions varied enormously both regarding their

spatial distribution and in their quality. Hence, it was the social life of students that was formed by external factors such as socio-economic status, geographical origin, and availability of religious patronage to a greater extent than by the university community itself. While some wealthy students could afford private rooms or even servants, local benefactors would support the poorer scholars or share the accommodation. With time, the clergy gradually assumed an active role in arranging for student supervision and accommodation; hence early forms of organized residential colleges were born, particularly in England and France, which sought to house students and keep them in check with regard to moral behavior and religious obligation (Turner, 1984).

The early stages set down the conceptual foundations for a great deal more formalized student residences. Even if there was no standardized model or architectural prototype for construction to draw from, a critical triad started to form-domesticity, community, and intellectual life. These three, although only loosely integrated initially, became a social infrastructure that provided for collective learning, shared worship, and the day-to-day functioning of discussion and debate. This very structure enabled the setting up of transnational scholarly networks crucial in keeping the knowledge flowing through the mechanism of medieval Europe. This period's influence would resound in later developments of student housing, especially in the college systems of Oxford and Cambridge, where the principles of collective living, academic mentorship, and behavioral oversight were formalized and spatially materialized in cloistered quadrangles, dining halls, and shared study spaces. The medieval conception of student housing, therefore, was not only shelter; it was in fact an early experiment on nurturing intellectual communities through spatial organization and shared values.

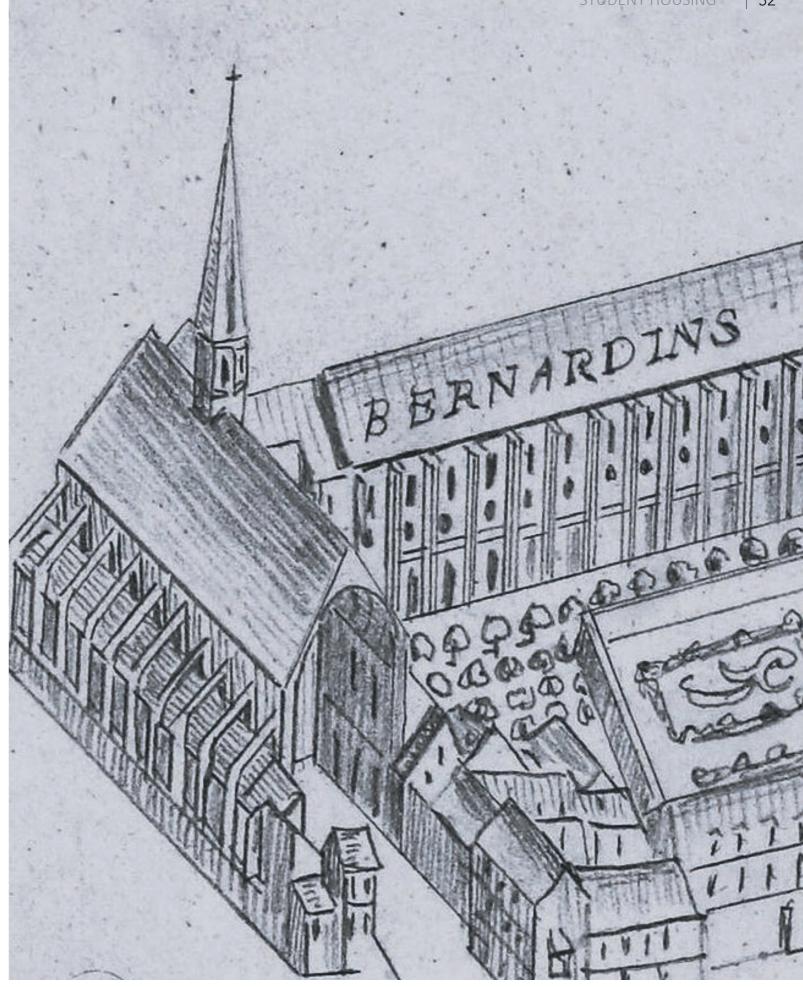


Figure 27- Vue cavalière du couvent des Bernardins (Source: Bibliothèque nationale de France, via Wikimedia Commons, Public Domain)

3.1.2 The Emergence of Collegiate Systems (15th–18th century)

The collegiate system was one of the ways in which student housing was formalized between the thirteenth and seventeenth centuries, indicating a shift in structure between a medieval type that was dispersed and informal to spaces organized towards ideology framed for learning and living. The adoption of closed quadrangle campuses with extensive interrelated student life combined academic supervision and architectural enclosure was a unique experience to the early universities in England such as Oxford and Cambridge. These spaces did not simply aim to provide shelter or instructional space; rather, they constituted an immersive environment where the physical arrangement of buildings was essential in conveying educational, religious, and social values. These frameworks, beyond housing purpose, further articulated ideas of control, order, discipline, and moral community.

The quadrangular configuration usually framed with homogenous facades and centered by an inner courtyard was nothing but arbitrary. It was the architectural type that sought to withdraw the academic world from distractions outside and to create a cloistered climate for intellectual rigors and ethical formation. The college systems did not combine separate structures but tended to integrate important facets of life at university-dining halls, chapels, libraries, dormitories, and administrative offices-into a single space. In addition, the structures had functional and symbolic undertones: the dining hall emphasized communal life and routine; the chapel, spiritual discipline; and dormitories, shared responsibility and regulated behavior. Importantly, kitchens and services were centralized rather than attached to individual rooms, reinforcing the collective over the individual (Silver, 2004).

Such architectural and institutional options reflected the general cultural and ideological changes in the period of the Renaissance and



Figure 28- Courtyard of Trinity College, Cambridge (Source: Photo attributed to William Winfield, via Wikimedia Commons, Public Domain)

Reformation. The educational philosophies of the age were humanistic, theological, and rational. The college came to be understood not only as a teaching institution but also as a moral and social microcosm embodying all students preparing not just to become learned persons but as such citizens of a disciplined Christian society. The physical space of the college mirrored this ambition: symmetry, order, and seclusion were all deployed to shape both behavior and thought. The very hierarchical structure of collegiate life or the spaces within which faculty and students lived, ate in community form, and ritually-oriented schedules persisted in sustaining the idea that the college was a total environment for education, contemplation, and moral self-discipline.

This type of student housing had an expansive reach of influence beyond England. In Jesuit and Protestant environments throughout continental Europe, Western Europe, and even other non-Protestant Europe, such building configurations were utilized to create environments for academic cultivation and religious development. This model, which would later be transferred across the Atlantic, became very entrenched in building American colleges'

campuses during the 18th and 19th centuries. The of the geometrically controlled quadrangle, its potential to channel institutional power and a united community, became a monument of the university, recording its uniqueness as a space occupied by tradition, intellectual community, and personal transformation. Thus, the campus itself turned into a pedagogic tool. The principle of studying through living ceased to be a casual or add-on to education-it became now central, formally incorporated, and materially enshrined in the college's built form.

3.1.3 The Rise of Collegiate Systems (19th century)

The expansion of European university systems was very rapid during this period, from the late 19th century and early decades of the 20th, specifically from 1900 to the 1930s, in terms of student enrollments. Increased enrollments brought demands for pedagogical and physical infrastructure expansion. One of the most visible expressions of this change was the emergence of organized and state-funded student housing schemes. An increasing number of European Governments now regard student accommodation as more than a logistical necessity: as an active instrument for nation-building or social engineering. Housing was conceived more as a medium through which national identity constructs relationship-producing state ideologies and moral discipline among young intellectuals. Student life was regulated to a degree by the authoritarian and semi-democratic regimes extending from the classroom into the very structures of the domestic environment where they lived.

Italians, French, and Germans - in general trend - were the primary countries in commissioning and constructing large-scale dormitory complexes next to or even inside the major universities, particularly those situated in the cities. National symbols have been framed in educational debate as applicable to civic responsibility, patriotism, and modernization. The Collegio delle Province is a key example of this strategy, under which the national symbol is that of housing students from all over Italy under one roof. It was a dormitory built during the interwar period, which accommodated students from all regions of Italy. Housing students from different regional backgrounds under one roof was a deliberate exercise in unification, linguistic standardization, and ideological conformity in a very politically volatile period. The institution was not just an intellectual assistance site but a microcosm in itself of the centralized state project.

Such buildings are typically planned to traverse the thin line between grandiosity and restraint. Drawing from modernist precepts, these constructs usually carry clean lines, axial organization, and forms that repeat, especially internally. Most models are founded on the standardized corridor-room, which is the most adapted to functionality, hygiene, and economy of efficiency, rather than community-orientation. Such an arrangement was geared to spying and order but left little space for the sprouting of spontaneity or social interaction. Where such common areas existed, it would be minimal and subjugated to such utilitarian needs as dining halls or rooms for study. This signified a major break from prior collegiate models integrating domestic, spiritual, and intellectual life into clearly unified and symbolic spatial compositions (Dober, 1996).

The population increase during that period - differently from most major changes in accommodation types from and for students - displayed the overall population increase. Being in the upper classes, alone, and urban, university students gradually ceased to exist. The university began to welcome rural students, women increasingly benefiting from educational opportunities, and international students into a more cosmopolitan political alliance. Reconstruction endeavors in the aftermath of the war, as well as the ideals of meritocracy, allowed working-class young women into universities in larger numbers than ever before. However, very little attention was given to flexibility within architectural responses of the period, which mostly reinforced conformity and institutional hierarchy, although, even with this subtle emerging pattern of more inclusive residential populations, the forms of this kind of residence during the early decades of the twentieth century were the reason for reframing students' accommodation in the postwar period, at a time that represented a significant transitional moment within the evolution of academic life and space.



Figure 29- Exterior view of Collegio delle Province, Turin, 1926. Photo by Mario Gabinio. (Source: Fondazione Torino Musei, Archivio Fotografico, Fondo Mario Gabinio.)

3.1.4 Modernist Paradigm in **Post-War Student Housing**

In post-World War II Europe, student housing policies underwent considerable change in view of increased university enrollment and postwar construction demands. The war had destroyed the physical and social fabric of many cities, casting a fresh light on the question of how society should invest in education and youth development. The increasing diversity in university enrollments led governments across Western Europe and North America to take the extraordinary measure of funding the construction of large-scale dormitory systems. Some of these complexes, in construction since the early 1950s, had been built on the fringes of emerging campuses, following an international trend of urban planning which sought to decentralize institutions and informally take up land.

The designs of these projects were based primarily on modernist ideologies. The architectural doctrines of functionalism, repetition, and cost-effectiveness became binding. Buildings were erected rapidly and economically, with priority given to sheltering maximum numbers of students with as little cost as possible. The dormitory units were usually set out as a linear block of repetitive room arrangements, bare of ornamentation or even some adequate standardized infrequent furnishings. This mechanized approach encompassed broader thinking about the capacity of architecture to fulfill social goals through rational design. Parallely, it perfectly resonated with the new ethos of equitable education: modest yet accessible accommodation for all students, no matter the background (Dober, 1996).

But this rational efficiency came at a social and psychological cost. Critics contended that the environments were alienating and isolating to the residents, however economically practical. Homogenization in standards began to produce apple-pie living conditions which were increasingly perceived as impersonal, drab, and insipid. Instead of a common area or informal in-



Figure 30- Maison du Brésil student residence, Paris, designed by Le Corbusier and Lucio Costa (1959) (Source: Maison du Brésil, Cité Internationale Universitaire, Paris. Photo: G.E. Kidder Smith. © FLC/ADAGP)

teraction space, students constantly expressed feelings of detachment from their peers and institution. Such critiques echoed wider cultural reactions against modernist architecture during the 1960s and 70s when urban housing blocks came under increasing blame for disintegration of social fabric (Edwards & Smith, 2001).

An important counterpoint to this trend came in 1959 with the completion of Maison du

Brésil owned by Le Corbusier and Lucio Costa for Brazilian students at the Cité Internationale Universitaire. The building used modernist principles of mass construction—pilotis, ribbon windows, and raw concrete-combined with strong consideration for shared amenities: library, common rooms, and open terraces. Those decisions were a tacit but significant attempt to restore community and human interaction into a typology that was turned too

functional. So, the Maison du Brésil became a hybrid between modernism and a new pedagogical understanding that student housing should not only be efficient but meaningful as social, spatial, and temporal support.

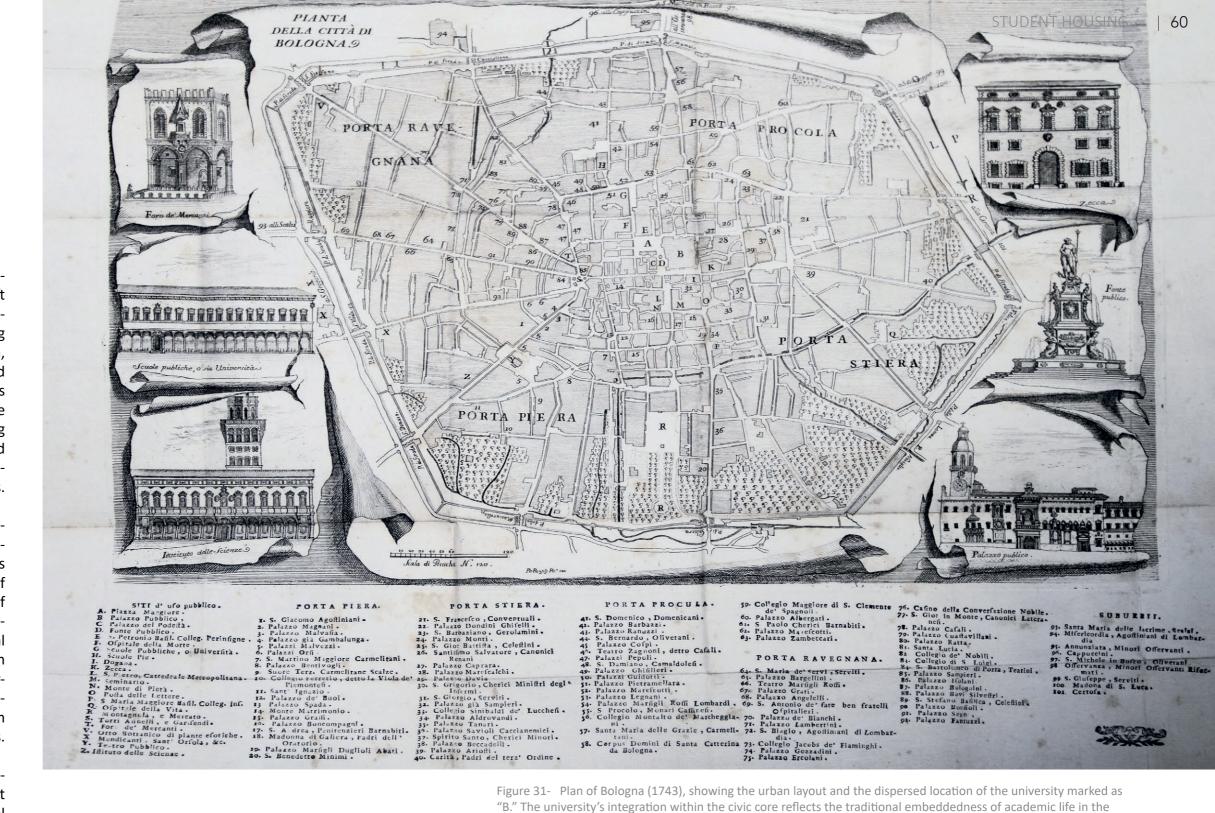
3.2 Urban Context of **Student Housing**

3.2.1 Integration into the **Urban Fabric**

Postwar alterations of student housing across Europe were greatly shaped by the swift postwar growth of higher education and changes in urban design approach. Taking increasing enrollments as indicators of democratization, governments, especially in western Europe and North America, provided huge student dorms via state backing. Usually built at the very edge of the evolving and uncontrollably sprawling campus, these immense tenements embraced the modernist principle of "repetition, decency, and economic resolve" from the 1950s.

The said residential types aimed to achieve a situation where they represent politically and economically sensitive solutions as they will provide the greatest number of students to reside and shine in the facade of low construction and maintenance expenses. However, they were more operational than spatially conveying quality and even human-centeredness. Critics increasingly argue that, while foregrounding logistical needs, they are isolated, placeless shelters from identity in architecture or social interrelations.

Thus, as a matter of fact, the student hostels, in their purest form, were copying what postwar planners nicely ordered: functional zoning, automobile dependence, and separation from the urban core. Although plainly very well designed with functions in the esthetics, these suburban student estates left so many students dislocated from the civic, cultural, and civic life that should accompany the city in any just way. These instances were just symbolic of the wider critique of modernism in city planning for sacrificing complexity and diversity of space for order and uniformity.



Punjab Kolleg indeed spread out inside single or group house form, without much communal facility available in a venue inviting interaction.

urban fabric. (Source: "Pianta della città di Bologna," Stampato da Ferdinando Pisarri, Bologna.)

The exploration of this elite dwelling almost indicates that confrontation stands at the crossroads to other unseen tenants—although a few others on the horizon could benefit similarly in an immediate future—as traditionally private quarters that now are open to common

and social quarters, suggesting a first step into the domestic domain. In this uncertain process of seemingly democratizing resources, ownership and protocols, some more assertive action will need to be taken in the future.

It is interesting to compare the working solution provided by Maisson du Brésil to the dormitory architecture of the remaining Dutch student homes. The Raphael Smeets Kolleg in defenseless contrast stands out in judgment, where the various community spaces are more than funding proportionally preserved within the architectural iconography. Most of the rest

3.2.2 Suburban Displacement and Isolation

Following the post-war period, higher education has expanded at a rate that is perhaps the most swift since the origin of civilization. Acquiring further development through the rise in government funds, shifts in demographics, and a growing commitment of society towards the democratization of knowledge, the most threatening states of the rush in enrollments so immediacy together with authorities and educationists devising unsteady means of housing for this sudden surge require more urgent attention on housing. There was then a concomitance where numerous countries started constructing what commenced to be considerable amounts of student housing in all different parts of their new suburban campuses. All these residences were considered to serve the urgent needs of the growing student population and be functional, economical, and scalable.

Most often, such housing had a dormitory-type model, alike repeated architecture, functional zoning, and also economies of scale. They typically chose a design effort that resulted in uniform blocks with little variation: little social interaction space or opportunity to interact with the workings of the city. Though conforming to baseline requirements for shelter and managerial efficiency, it did not add nuanced consideration to the lived experience of students. Poorly organized spaces and few public facilities conspired to discourage casual social interactions and further worsened otherwise collective student living.

The justification for planning underdeveloped areas of a design was founded strongly on postwar urban planning philosophy. That philosophy was based on function separation, reliance on the automobile, and purposely alienating new development from established city centers. In this respect, choosing to site the housing at the fringe of the campus was an organizational inefficacy wearing a veil of planning principles that would push rational order and infrastructural clarity above integration into the urban setting and human-scaled

interactions (Dober, 1996; Edwards & Smith, 2001). These suburbs, albeit administratively efficient, became socially, culturally, and economically ever more divorced from city fabric.

Thus, throughout most of the year, students trapped in these sorts of suburban environments found themselves disembedded from the civic life of the city-physically and symbolically. Access to neighborhood shopping, cultural venues, and public events were highly diverse and often offered everyday interactions with the urban community almost nonexistent. By this, while talking about institutional handling for mass accommodation, the environment opened up in the projects was, in fact, that void of social life and was perceived as being mostly an atmosphere of institutions without any possibility of spontaneity and variance of urban life.

Ironic; despite all the disadvantages mentioned, the period in question saw a birth of a generation made up of academic and architectural concepts which would forever imprint in the fabric and spirit of university life between the mid-and-late twentieth centuries. These have succeeded in canonizing the idea of student housing as institutionalized—managed, introverted, oblivious to spontaneity and variety in urban life. Such spatial and organizational strategies that prevailed then and were espoused by their then doctrinal discourses are now being challenged in the name of campus planning consciousness and student welfare (Dober, 1996; Edwards & Smith, 2001).



Figure 32- Residential blocks in Berlin-Marzahn, illustrating suburban mass housing typologies similar to post-war student dormitory design (Source: Bundesarchiv, Bild 183-1987-0312-319 / CC-BY-SA 3.0)

By the late twentieth century, Western cities had faced major economic and structural transformation. The city voids—cities are filled with heaps of abandoned warehouses, obsolete infrastructure, and underutilized plots of land—as a consequence of weakening industrial activities and obscuring manufacturing sectors. Hence, this modern era has witnessed some revamping of cities—the efforts to revamp central areas, sites which may not be included or forgotten during the past days of city action. What reappears here marks a new face of architecture: student housing, reasserting itself in the middle of urban renewal, not as some peripheral necessity, but very much at the heart of urban regeneration policy. Gradually pushing aside their former status as isolated dormitories on suburban campuses, student residences began to demonstrate new combined, catalytic components of civic life, apparently producing their allocation in reshaping the urban fabric (Tallon, 2013).

Repositioning academic institutions increasingly reflects a growing understanding on the part of planners and policymakers as regarding student populations' potential for socio-economics. Generally, universities have been inward-looking and spatially separated. Such institutions came to be considered engines for innovation, vibrancy in culture, and renewal in demographics. Young, mobile, and globally connected, students came to symbolize unavoidable new meanings of post-industrial cities. Thus, incorporating student housing into city cores was adopted as a strategy through which such districts under transformation can acquire vitality, richness in composition, and, mainly, kick start local economies in such districts (Zukin, 1995).

An example of this approach is the Casa dello Studente di Torino, which is a student hostel that was erected between 1935 and 1937 when Italy was going through the rationalist archite-



Figure 33- Casa dello Studente, Torino – Facade of the Casa dello Studente, located between via Bogino and via Principe Amedeo. Designed by Ferruccio Grassi, Paolo Perona, and Luigi Ferroglio between 1935 and 1937 (Source: Photo by Bruna Biamino, 2010. © MuseoTorino)

ctural period. The building was not destroyed during World War II, but in the postwar period, it was maintained and rededicated to the educational infrastructure of the city. This building is constructed within the historical core of Turin, owing to its vast architectural and urban gesture—an uncoupling of academic life from the preexisting social and spatial dynamics of the city. The rationalist style—the building is brick-clad, austere, and formally disciplined—contain states sponsored-modernity ideals, yet belong to the surrounding urban context.

It has become a true place of representation over time—that and not only a functional ac-

commodation. It is a spatial and cultural mediator through which one lives between the past and the present, education and urbanity, and between the state and civic life. It also becomes part of a more extensive tendency towards embedding student housing in the cultural and architectural memory of the city. It does not erase history; it contributes to it—providing a framework within which one can understand how academic programs and heritage buildings can co-exist and mutually reinforce each other.

The renewal of student housing in city centers indicates a new understanding of architecture as a potential agent in the sense of continuity

and inclusivity in urban settings. These buildings have awakened places from dormancy, injected pedestrian activity in dying neighborhoods, and brought new cadences to old communities. Most importantly, they tell stories of resilience and rescripting that speak to how student housing can straddle generations, architecture, and society. Thereby establishing the premise that carefully integrated academic infrastructure can bear not only educational advantages but also sustain urban environmental advantages over the longer term with the resonance expected from culture.

3.2.4 Co-living and Hybrid Urban Living

In the last few decades, student housing has gone through an evolution, commanding the trends of the internationalization of higher education, global mobility, and demand for more integrated urban experiences. Unlike past generations of student accommodation, often found in isolation to campus settings and national systems, today's students are part of a largely mobile and culturally diverse demographic. Many academic pursuits in cities far from home countries are objectively done for mostly academic reasons, but with consideration of opportunities for cultural exchange, professional networking, and personal development. Contemporary student residences are thus expected to go far beyond the provision of shelter into a fund of flexibility, inclusivity, digital connectivity, and neighborhood interaction (Kenyon, 2017).

Changes in this landscape have resulted in a new paradigm of housing: the globally minded co-living student residence. These spaces combine domestic life with social and professional amenities, creating hybrid environments where students live, work, and network. Shared spaces of coworking, kitchens, wellness amenities, and cafés will promote informal exchange and intercultural dialogue. These residences are far from being academic satellites; they are imbedded in urban fabric, allowing students to engage fully in the cultural dynamics and spatiality of the city.

A prominent example of this model would be WeLive Wall Street in New York City. Initially intended for young professionals, adjustable floor plans with shared amenities and lease structures have attracted many international students. Industrial materials and modular furniture have animated the space, allowing flexibility to live independently or communally. This kind of environment allows for diverse lifestyles, engages students in collective identity formation, and promotes the feeling of belonging.



Figure 34- Communal kitchen and lounge area at WeLive Wall Street, New York City. The image illustrates the co-living model's emphasis on shared amenities, flexibility, and cultural diversity—features increasingly integrated into global student housing typologies. (Source: WeLive Official Website, June 2025).

This shift also reflects deeper institutional-level changes in the structure of higher education. Universities are becoming more like markets, where the experience of the student is foundational in recruitment strategy and institution branding. Thus, student housing became no longer a secondary service but considered a strategic asset influencing international attractiveness, academic integration, and long-term urban development goals (Foote & Bosak, 2021).

Today, hybrid forms of student living demonstrate how interstate educational infrastructure, urban planning, and global cultural flows have come to the same melting pot. They step away from rigid and utilitarian dormitories and lean towards dynamic, socially responsive environments that embrace the needs and identities of an entire generation of the mobile learner.

3.3 Typologies of Student Housing

3.3.1 Linear Corridor Dormitories

The linear corridor dormitory is the most lasting and extensively used building type in student housing architecture. Founded on spatial repetition and financial rationality, corridors generally arrange the rooms either on one side or both sides of a central corridor. This kind of architecture gained prominence amid the extensive expansion of higher education in the latter half of the 20th century when institutions needed affordable, readily replicated accommodation for growing student populations. The benefits of the typology resided in its planning; the units were standardized, movements were simplified, and construction was cost-effective-making it thus a preferred example for mass accommodation among the campuses (Dober, 1996).

However, the same efficient features contributed to a monotonous spatial experience. The configuration of a rigid corridor gave little variation, with rooms opening straight onto long, sterile halls. Bathrooms and lounges were typically shared and offered a minimum of articulation, generating repetitive and anonymous environments. Critics have spoken out against this sort of layout, which undermines the well-being of students by creating informal interactions that do not support community activity. Rather than developing a sense of place or identity for students, many linear dormitories labeled their inhabitants as clients to be controlled instead of comfortable (Kenna et al., 2016).

Regardless of these drawbacks, the architects have been seeking ways to enhance the experience of this building type. One considerable rethinking is Alvar Aalto's design for the Baker House Dormitory, finalized in 1946, at MIT. He maintained a corridor arrangement but transformed it into a sinuous form so as to channel circulation into an active wavy sequence. Such curved geometry not only generated spatial variety but also assisted the building in providing views and light. The angle each room made with

the exterior was different, breaking the monotony often inherent in residence hall design.

Aalto's design proves that architectural strategy can turn a simply functional model into a fairly humane and interesting living environment. The project did not abandon the corridor logic but refined it, showing that linear dormitories can achieve a balance between the efficiency of functions and richness of space and emotion, when designed with care. Nowadays, a number of projects embrace similar ideas that introduce glazing, communal alcoves, and material variation, therefore transforming the corridor from a simple circulation space into a meaningful social area.

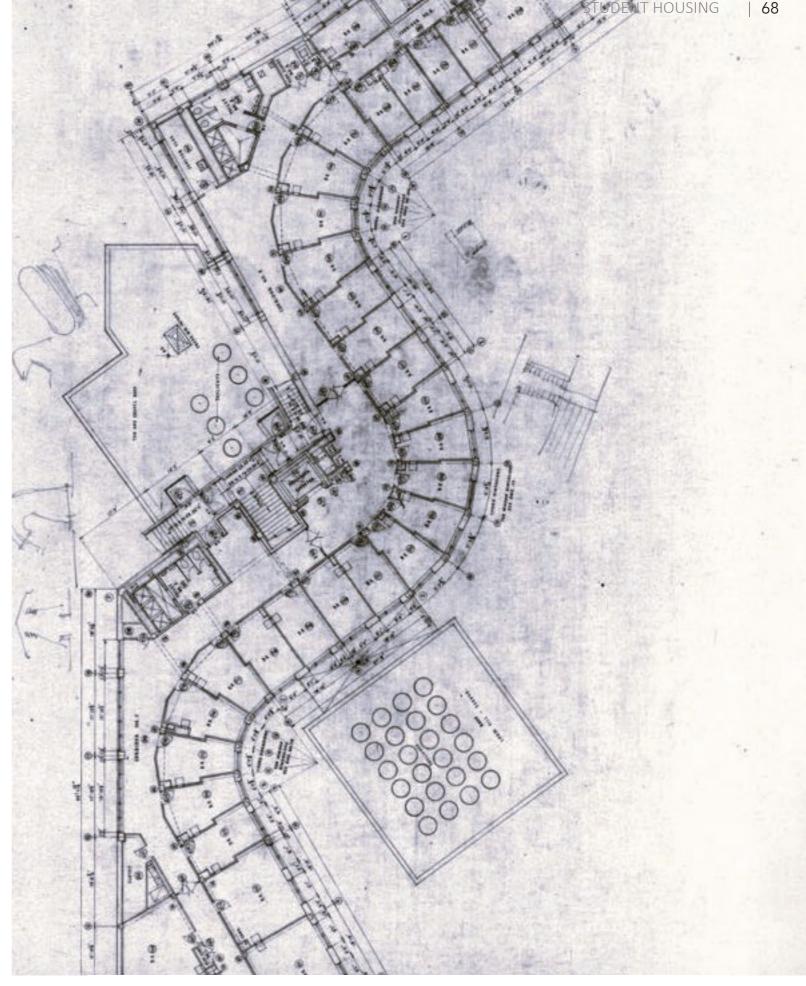


Figure 35- Floor plan of Baker House Dormitory at MIT, designed by Alvar Aalto (1946–1949). The plan illustrates the undulating linear corridor system aimed at enhancing spatial variety and natural lighting. (Source: Alvar Aalto Foundation, "Alvar Aalto's Life)

3.3.2 Courtyard Dormitories

One staple among all potential collective housing typologies is the courtyard dormitory design. The courtyard becomes the organizing center around which symmetrically or asymmetrically organized living units find their drawing lines. However, the interior thus formed is neither purely negative nor a leftover void. The classically known type emerged from a wonderful childhood, cloistered monastic settlements, and its performances were seasoned in Mediterranean-style lives, which invested all the heat itself during periods of harsh summers in the Ishiyah, which stands in true testament of the heat herself helping persons to conserve within themselves. Likewise, back in the day, the logic of the courtyard with basic university housing completely intertwined with its protective shield to bring passive control of ventilation, solar shading, and light diffusion.

Courtyards alternate between the privacy of individual dormitory rooms and the common space shared by students. Their inward configuration secures a psychological point of reference and orientation for residents, while having a bold spatial identity for the context it seems to form. In climates where temperatures can vary enormously, these landscapes would act as thermal buffers—cold in summer and wind-protected in winter. From a socio-spatial viewpoint, courtyards provoke casual interaction through the combination of planned and spontaneous perception between all subjects within the design. This socialization enables encounters at all levels of exposure between students: from the glances upstairs to the suppers prepared with ground-level seating or some bigger event like shows or film nights in open air.

The other limitation in any concrete realization of this typology is that residential projects set up as courtyard types also risk the communal living alienation from the overarching urban scene, especially when the site is not clearly visible or well permeable for movement. On some projects a good attempt has been made for avoiding this by way of open boundaries or getting the semi-public edge



Figure 36- Courtyard view of TWIST Student Housing at ETH Zürich, designed by Architektick. The semi-enclosed central space functions as a communal courtyard, surrounded by curved facades that maximize light, views, and social interaction. (Source: ArchDaily, TWIST Student Housing / Architektick)

conditions that endorse community interaction on the outside without disturbing privacy within. Thus the courtyard stands as a spatial transition between student to student and between institution to city (Gehl, 2010).

A contemporary rendition is the STUDENT HOUSING called the TWIST at ETH Zurich supposedly described by the architektick group. The project is an abstract of horizontally curved masses overlooking a central nucleus of the built portion set sideways to make up a planted core. Building the balcony continuum along with softened liners at the periphery of

the apartments was a designed balance of visual appreciation and comfort from the street noise. Events (structured) and lifestyles (spontaneity) consequently take hold of the landscaped void in this design, embodying in its physical form a design for community.

Another good example can be made from Le Corbusier's La Tourette Monastery, although it was not aimed at housing students but has been a successful model constantly looked up to within school corridors for its cloister configuration. The lexicon employed in its walls—structured silence, modularity, rhythmic voids—has

linked communal living in so many ways, including the whole setting of a dormitory. These examples may help understand how shedding light on such independent cases of the past may have unfolded numerous ideas for the present. The bastard son—a feature not often seen in ordinary dormitory quarters—would become a private idea-as-software of reference; and, due to solitude, his notion may be bared to the full sky above his head from there. Again, since isolation accomplishes a living wall in tandem with ever-existing obstructions, we see such weighty answers in dormitory manners accented by the containment of courtyards.

3.3.3 Tower or Vertical Dormitories

With an upright shape and small footprint, tower dormitories have appeared as a key response to growing numbers of students and shrinking land areas in urban settings. It is a stark difference set in contrast against horizontal corridor or courtyard models that arrange student life vertically using dense, multi-story buildings consisting of stacked rooms, communal areas, and circulation.

Rooted in post-war modernist ideals of modularity and spatial efficiency, this typology became popular with precedents such as Le Corbusier's Unité d'Habitation which emphasized collective life in vertical structures. The student housing manifestation of this typology can be understood as stacked units with common kitchens and lounges, along with intermittent sky gardens. The whole idea of establishing such junctures is for interaction and to avoid the feeling of isolation associated with high-rise living (Altman & Gauvain, 1981).

The major benefit of the tower dormitory is that it offers natural light, ventilation, and views to a majority of units while lessening land consumption. In addition, vertical arrangement favors different unit configurations and flexibility in terms of programming across floors. One can distribute communal functions to different heights in order to promote interaction from time to time while maintaining residential privacy.

Perhaps the most striking example is The House at Cornell Tech in New York City, a 26-story student residence by Handel Architects. Combining social design with sustainability, the building is the largest Passive House-certified building in the world. The building is organized with a shared amenity on several levels, including common kitchens and laundry spaces, which serve as informal gathering points. This shows that vertical dormitories strike a balance between environmental performance and residential well-being.

However, vertical living presents challenges. Because of the stacking of functions from floor to floor, space is often fractured, and many times that affects a sense of community feeling in the building, especially when circulation elements have not been properly designed. To offset this, one typically finds in modern design transparent stairwells, atria, or vertically connected lounges fostering visual and social continuity.

Tower dormitories have a different sort of psychological experience. The higher floors inspire reflection and disconnection through great views, while lower levels encourage more tangible participation with campus events. New hybrid models include podiums or terraced bases, bringing shared public spaces into ground plane use and easing the vertical transition, while strengthening communal identity.

To sum up, while the tower dormitory complicates interaction among students, good design may help translate some of these limitations in spatial opportunities into social possibilities. And, as continuing densification occurs among urban campuses, the tower remains a pertinent and evolving solution-even today-typically to student housing.



Figure 37- Exterior view of The House at Cornell Tech, Roosevelt Island, New York. Designed by Handel Architects (2017), this 26-story tower dormitory is recognized as the world's largest Passive House-certified residential building. Its compact vertical form reflects a growing trend in urban student housing, where density, energy efficiency, and spatial variety are combined. (Source: Handel Architects)

3.3.4 Cluster and Apartment-**Based Models**

Student housing models currently seen and cluster-based apartment systems represent a move away from institutional forms of residence to more domestic, socially integrated types. In contrast to the usual corridors or towers where typologies emphasize continuity and density, cluster-based apartment types are oriented to smaller-scale community living, where students are organized into self-contained, semi-autonomous units (clusters of 4 to 8, with a shared kitchen, bathroom, and living area). Accordingly, the alteration in residence will be spatial and psychological as it shifts from the anonymity of mass housing to a cozier household environment.

One such cluster model that became popular during the late 20th century, primarily in Northern Europe and North America, was the education institution asserting that besides efficiency, student well-being is social and emotional in nature. These plans best simulate apartment living-supplying a degree of privacy, flexibility, and opportunities for genuine peer engagement. The internal configuration benefits the sense of ownership and collective responsibility enhanced by sharing facilities and infrastructure, collective routines, norms, and informal governance of the space (Jamieson et al., 2000).

One of the typologies that recently received attention is the Minervahaven Student Experience in Amsterdam designed by Studioninedots. This project organizes living units into clusters of students with shared kitchens and social spaces surrounding an internal courtyard, which is the heart of the community. This spatial system stresses micro-scale social ties while embedding each unit into a more extensive collective framework. Modular furniture, shared balconies, and adaptable common rooms bring human experience closer to "home" than to "institution."



Figure 38- Exterior view of DUWO Student Housing in Delft, the Netherlands, designed by Mecanoo. This project exemplifies the cluster-based dormitory model, organizing students into small groups within modular units. The green facade and separated volumes reflect a human-scaled, community-oriented approach to dense student living. (Source: Mecanoo Architects official website)

Beyond architectural design, cluster models symbolize broader pedagogical and cultural transformations in higher education. It matches well with the rising interest in co-living and collaborative housing, where relationships among people, joint responsibility, and peer learning are encouraged. Spatially, it is a more responsive typology toward student diversity in terms of types of housing as family units, integration of international students, and hybrid live-work arrangements.

Apartment dormitories are the same as students' living arrangements to facilitate management. Kitchen and bath clustering decreases reliance on centralized systems, brings advantages like lower noise levels and benefits from better sanitation measures compared to corridor-based models, and generally reports students in such accommodation as having higher levels of life satisfaction as well as individual autonomy (Wiers-Jenssen et al., 2020). One downside is that more intense ties within the group possible reduce interaction across groups, especially in the case of campuses completely adhering to this model. Design strategies encouraging interaction between clusters-such as open circulation, shared terraces, or communal ground floors-can minimize this hazard.

Cluster and apartment models further exemplify how housing design may promote stu-

dent well-being and are valuable especially in connection with enhancing physical comfort as well as by enabling healthy social dynamics. They will remain adaptable with promising new models in inclusive student living community settings as cause and effects in the modernizing higher education context.

3.3.5 Hybrid and Mixed-Use **Dormitories**

Hybrid and mixed-use residence halls have emerged as a new paradigm in student housing going beyond the traditional definitions of residential architecture. These models bring living spaces for students with various public and semi-public and commercial activities—cafes, libraries, fitness centers, cultural venues, or retail units—within the same building or attached to an entire connected urban system. The ultimate goals come in enhancing quality of student life, promoting interaction with the broader community, and putting economic sustainability in place through the graduation of functions.

This typology does indeed respond directly to an increasingly broadened role of contemporary universities as urban actors. Especially, in any city with dense fabric and high land value, more and more education institutions are expected to take part in bigger regeneration efforts—not just accountable for public value beyond education. In that sense mixed-use student housing serves as residential infrastructure and civil asset. These projects blur the boundaries of separating student-exclusive and publicly accessible spaces that contribute to creating inclusive, vibrant, and multifunctional urban microcosms (Till & Schneider, 2007).

In architecture, no hybrid dormitory will be far from vertically layered or stratified systems. The more public portions such as open-access and commercial programs—cafeterias, exhibition halls, maker spaces—lie at the lower bases while the upper portions are built for more private student houses. Through this stage, cohabiting contrasting functions without compromising privacy or security is facilitated. Again, such a configuration can create activities at ground level that build vitality and foster community involvement.

An outstanding example is the Student Hotel model in all cities like Amsterdam, Florence, and Paris. So, it is a long-term student residence with short-stay tourist accommodations, co-working offices, restaurants, and public events, The ar-



Figure 39- Ground floor communal area at The Student Hotel Delft, designed by The Invisible Party. This multifunctional zone integrates co-working pods, informal lounges, and recreation areas, fostering interaction between students and the public. The open-plan design and layered programming exemplify the hybrid nature of mixed-use student dormitories. (Source: Steve Herud / ArchDaily, 2021.)

chitectural layout affords maximum fluid transitions across uses to create shared lounges, study areas, and recreational zones accessible to residents and outsiders alike. This dimension reinforces social integration but also promises financial resilience from a diversified revenue base that maximizes utilization of the building.

Another quite remarkable case-example is BASE Milano, where it was located in a repurposed old industrial complex turned into a cultural hub. Embedded within this is the student housing part in a larger ecosystem of art studios, performance venues, and public programming. Students, in this model, do not isolate themselves into the city but immerse themselves within its rhythms of creative and economic life. Such hybrid dormitories offer learning experiences beyond content, more through informal exchanges, collaborative projects, and exposure to diverse user groups.

Though these typologies have clear benefits, they certainly pose their share of challenges in the areas of management, acoustics, and identity. Balancing public openness and student comfort requires careful zoning, acoustic insulation, and behavioral guidelines. When the commercial programs become too prominent, student housing risks being relegated to secondary status within its own building. Hence, architectural clarity and programming sensitivity should

ensure that the residential character is safeguarded even as multifunctionality is embraced.

In sum, hybrid and mixed-use dormitories immerse student living into true paradigm-shifting forerunners: housing now becomes part of urban life rather than a place that is by necessity hidden. Such separations enrich the campus as well as the city as it connects students to larger cultural, social, and economic flows. This is the direction in which public service roles of higher education institutions redefine themselves, steadily making such types more embraced in the future development of campuses.

Conclusion

In the mid-20th century, student accommodations were defined by a line-up and inflexibility of linear corridors. Currently, such unnecessary lengths have transformed into facilities that are quite dynamic-hybrid, mixed, and multiused-contemporary forms that mirror larger transformations in pedagogy, urban contexts, and lifestyle ideals.

Each type of student living-from linear corridors, courtyard models, tower domiciles, cluster apartments, to hybrid complexes-presents distinct benefits and drawbacks in shaping the experienced life of a student. Linear, nonetheless, calls for repetitiveness, efficiency, while courtyard models allow for inward-facing collectivity. Towers provide for urban density and verticality, but are social cohesion challenges by their very definition. Cluster and apartment-based solutions would emphasize autonomy and domestic familiarity, while hybrid entails students in the civic realm and exposes this vague line of academic life and urban engagement.

From these vantage points, the trends emerging there encompass increasing spatial flexibility along emotional comfort and social integration. Student housing has morphed from a simple logistical necessity for education to being, in fact, a catalyst for personal growth, for community development, and of institutional identity. Today's best housing designs will focus on spatial configurations with psychological well-being, cultural multiplicity, and ecological awareness.

As higher education continues to evolve into a more globalized and inclusive arena, so too the models of student housing will have to cater to various lifestyles and economic conditions. This groundwork includes rethinking residential environments and housing not just typologically but as far larger, adaptable systems woven into the fabric of urban and educational settings.

Student housing addresses bigger questions at the architectural and social levels. Then privacy and collectivity, standardization and

diversity, or permanence and adaptability. As universities continue to transform to become global, student housing will continue to remain relevant in terms of innovation about architecture, social issues, and politics.

3.4 Case StudiesCase Study - 1

Project Name :

STUDENT EXPERIENCE MINERVAHAVEN

Designer: Vurb Architects

Typology: Off-Campus

Year: 2021

Location: Amsterdam, Netherlands



Location and Urban Context

Situated at the space between water and land, Minervahaven is in Amsterdam within such a transitional waterfront district. The Student Experience Minervahaven residence doesn't regard or provide what is for students' dwellings as might be confined within institutional campus enclaves. Instead of functioning as an isolated enclave of a kind, the project partakes deeply in a mixed-use post-industrial environment which is going through the process of major regeneration. From being a freight harbour, the site has been reprogrammed with adaptive reuse involving conversion of existing old docks, warehouses, and infrastructural remnants into creative, residential, and commercial parts. In such context, the residence for students becomes also accommodation and an active participant within reanimation of a neglected urban fabric (Student Experience, 2020).

The concept of 'campus zoning' is kept at bay throughout the project, which really goes beyond permeability, porosity, and openness. Their waterfront site is well connected to these emerging start-up offices and has easy access to public transportation and learning institutions, which means students are neither spatially nor socially segregated. Rather, the student here will not be just a transient figure at city's edge but a student-citizen, an actor in that cultural, economic, and social life of the surrounding neighborhood. The building typology underwrites such positioning: going beyond a monolith block, it allows for flexible layouts, common areas, and social infrastructure encouraging collective living and interactivity, in keeping with the architectural scale and industrial memory.

Such kind of approach indicates a transformation from student housing conceptions common to cities within Europe. More and more, student housing is not considered simply a logistical necessity, but, rather, an urban instrument, a vehicle that can set in place wider patterns of urban revitalization. Projects such as Minervahaven show how architecture can form new rhythms of daily life, whereby students gain access not only to education but also to mobility networks, employment hubs, and civic infrastructures. Such design schemes advocate hybridization, flexibility, and contextual integration over traditional hierarchical models of spatial use in contemporary urban thinking (Bosak & Foote, 2021).

It is by now as much a product as it is an agent of change in the city. It responds dynamically to the changing demands of student life-all degrees of co-living and privacy, fully facilitated, digital infrastructures, and, of course, amply equipped settings for living-while at the same time working as a driver for change around itself. Having done so, it breaks the idea of student housing as being by definition functionally self-contained. In lieu of just such an understanding, the residence becomes a mediator in the space between individual and collective, educational and urban, temporary and permanent. It serves its residents but also has the potential to enhance the chances of a whole neighborhood becoming livelier, more inclusive, and adaptive.

What makes Minervahaven a little different is that it is now both product and agent of urban change. It adapts to the changing demands of student life-co-living, potential gradients of privacy, digital infrastructure, and amenity-rich environments-while catalyzing change in the habitat-itself. Thus, it departs from the norm that contends student housing needs, by necessity, to be functionally selfcontained. Hence, it becomes the spatial mediator between individual and collective, educational and urban, and temporary and permanent. Its success does not just lie in serving its residents but in amplifying the potential of an entire district to become more vibrant, inclusive, and adaptive.

Thus, Minervahaven is more than just a housing unit: it is also a spatial statement of the future, in terms of student living, in cities built with a legacy of post-industrialization and demands of a contemporary global world. This is a space where student housing develops its role as an urban interface, bridging personal growth and collective regeneration.

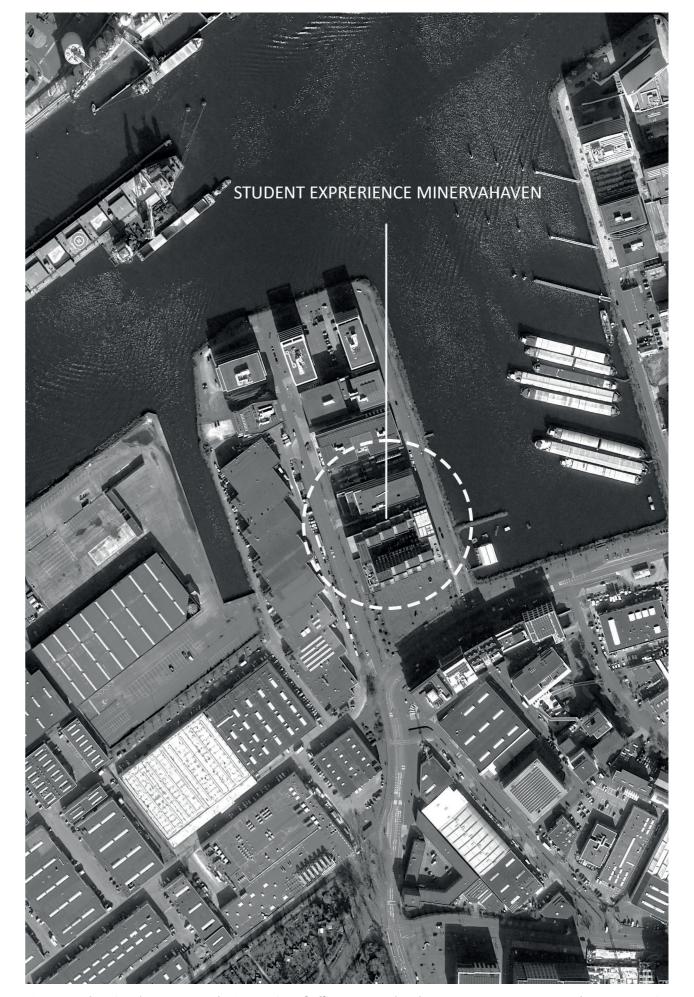


Figure 41- location demonstrates the integration of off-campus student housing into contemporary urban regeneration strategies.

(Image source: Google Earth, edited by the author.)

Morphological and Typological Strategy

The spatial organization of the Student Experience Minervahaven residence is based on a small courtyard typology, confined by an enclosing perimeter block that maintains an internal void. The formal arrangements comprise four linear building wings arranged into rectangular footprints and initiate a coherent spatial envelope. All residential units and circulation elements together encircle the courtyard, around which the compositions are ordered. The inward organization of the arrangement would make spatial legibility reinforced within the unified formal sense throughout the whole structure.

Horizontal circulation is on internal corridors

that trace the courtyard perimeter on each level. Such an internal corridor layout constructs a ring-like corridor that gives direct, unbroken access to all units while upholding their isolation from the building's external envelope. Circulation paths by minimizing intersection with shared or semi-public programs reinforce privacy and streamline resident movement because of the separation between the movement and other communal activities within the plan, a characteristic often emphasized in modular housing design (Hertzberger, 2001).

Modularity is an effective architectural system used with a rational structural grid which gu-



Figure 42- Original architectural floor plan of the Student Experience Minervahaven project by VURB Architects, retrieved from ArchDaily. The graphic has been modified and diagrammatically colored by the author for analytical purposes. (Source: ArchDaily, "Student Experience Minervahaven / VURB Architects,")

ides repetition in both vertical and horizontal articulation of spaces. Modularity planning ensures that similar room dimensions, alignment, and load distribution are adopted on all stories. This mode of operation brings about a visual rhythm across the facades and internal layouts contributing to the overall clarity of organization. This identical structural pattern also permits simpler construction yet adaptable in future room configuration.

In section, the massing has very slight alterations by strategic placement of stepped volumes at the level of the roof. This layered roofline offers depth and texture to a typically rectilinear block, which the building can more sensitively negotiate within its broader context of the city. Those setback volumes create dynamic silhouettes, contribute to the fragmentation of the mass into more human-scaled parts, and avoid the monolithic effect of perimeter blocks.

Even though the building remains morphologically closed system, its articulation through a variety of geometries, vertical modulation, and structural clarity assists in surpassing the system's mere functionality. This, along with the internal orientation and repetitive nature and lack of full upper-level communal spaces, hints at a language of efficiency-oriented residential living without sacrificing architectural expression. Such factors built into the whole unit serve architecture beyond purely utilitarian needs, joining in providing an experience in architecture compatible with an evolving contemporary student's understanding of living.



Figure 43- Original architectural floor plan of the Student Experience Minervahaven project by VURB Architects, retrieved from ArchDaily. The graphic has been modified and diagrammatically colored by the author for analytical purposes. (Source: ArchDaily, "Student Experience Minervahaven / VURB Architects,")

Functional Layout and Mixed-Use Integration

It is an inclusive, multifunctional interface on the ground floor of the Student Experience Minervahaven. This is where the building connects to the city. Rather than constructing solely residential buildings, careful incorporation of other facilities for use by students and non-student communities is done. These encompass a coffee bar, an unconventional laundromat and bar (laundry bar), gym facilities, lounge areas, conference rooms, study areas, as well as retail units at ground level. All these functions are built around a shared accessible green courtyard, which is the spatially and socially heart of the complex. The landscape supports informal interactions and provides a sense of calm amidst the urban density.

The first floor is intentionally open and accessible. Large amounts of glass facades create visual permeability—the continuity between spaces. The circulation design fosters movement on the ground level; its fluidity allows the user intuitively to orient themselves between the various uses. The ambiance—including the exterior spaces—should bathe common areas in natural daylight. This supports social encounter and visual comfort, while contributing to psychological well-being. Such openness not only lends architectural legibility to the building; it also embodies broader strategies of accessible and human-centered urban housing.

Nonetheless, the clear distinction between public and private areas is maintained. While the lower levels favor collective use, the upper stories feature private spaces for residential units. Therefore, people will have access to these places without compromising their privacy at home. This zoning system delivers a functional gradient, transitioning from public to semi-public and ultimately private levels to guarantee autonomy in the lives of the inhabitants while delivering a sense of community. The ground level incorporates a variety of programs to add life to the urban frontage for transformation in Minervahaven from being a neighborhood area into a lively social node in the wider regeneration context. Consequently, the building is in line with contemporary theories of "open architecture" demanding that buildings should serve as actively contributing elements to civic life rather than isolated monofunctional constructs. (Awan et al., 2011).

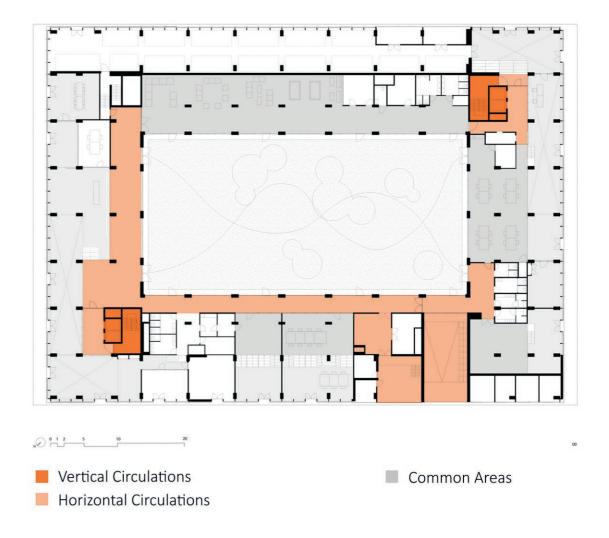


Figure 44- Original architectural ground floor plan and section of the Student Experience Minervahaven project by VURB Architects, retrieved from ArchDaily. The graphic has been modified and diagrammatically colored by the author for analytical purposes. (Source: ArchDaily, "Student Experience Minervahaven / VURB Architects,")

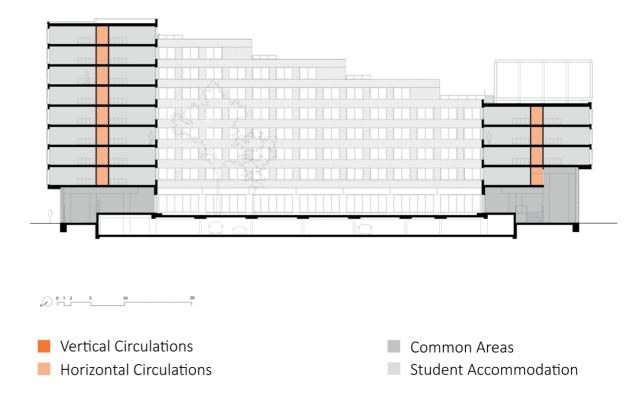


Figure 45- Original architectural section of the Student Experience Minervahaven project by VURB Architects, retrieved from ArchDaily. The graphic has been modified and diagrammatically colored by the author for analytical purposes. (Source: ArchDaily, "Student Experience Minervahaven / VURB Architects,")

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Room Typologies and Living Units

The Minervahaven residential block is also an important student living block composed of two principal room types that function electrically, in the full sense of that term, as completely self-contained micro-units. The difference between them is primarily in size and internal organization; functionally, they share the same principle of complete autonomy: every unit has its own little bathroom and its own mini-kitchen, enabling students to live independently without resorting to shared domestic amenities.

Room Type 1. Single room compact:

Although limited in area, the room provides an economically optimized layout, such that sleeping, study, cooking, and hygiene are all grouped into practically one continuous interior space. Because of the rational layout made possible by the complete separation of the wet zone (bath+ kitchenette) from the proper space, consistency in module size means that it can be repeated all over the floors.

Room Type 2 is a bit bigger and offers added flexibility. It is suitable for students who stay for longer periods of time or, in specific cases, require extra infrastructure because it can accommodate a second occupant or provide an extra working space. The same logic in the arrangement applies, but this one is more spacious and allows more personal freedom.

Both types of units are embedded into a linear corridor system. The repetitive organization allows easy access and maximized usage of space as all rooms run along the interior perimeter



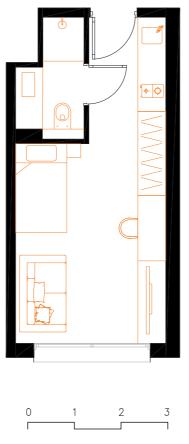


Figure 46- The plans illustrate two compact micro-unit layouts used within the residential block: Type 1 (single compact unit) and Type 2 (extended double-use model). Drawn by the author based on original architectural documentation.

of the courtyard of the building. The same unit positioning from one floor to another creates a clear horizontal rhythm and further defines the modular morphology of the building.

It is a housing model that defines itself uniquely among the co-living or cluster types; instead, it offers a pattern of accommodation that's more

privacy-oriented, in further taking into account the demands of these contemporary societies in terms of personal space, hygiene control, and flexible living arrangements. The architectural consistency of the units also contributes to structural rationality and construction efficiency, which might make this typology become easily scalable and adaptable to context.



Figure 47- Interior view of a student housing unit at Student Experience Amsterdam Minervahaven. The layout integrates sleeping, studying, and social functions in a compact and flexible manner. (Source: Student Experience, https://studentexperience.com/locations/2/amsterdam-minervahaven (accessed June 26, 2025).



Figure 48- Another perspective of a student room at Amsterdam Minervahaven, illustrating the integration of private workspace, storage, and minimal furnishings within a studio typology.

Source: Student Experience, https://studentexperience.com/locations/2/amsterdam-minervahaven (accessed June 26,

Conclusion and Critical Insights

Student Experience Minervahaven has a clearly articulated architecture defined by formal clarity, modular repetition, and user independence. With its closed-courtyard morphology, linear circulation, and fully self-contained living units, the model presents an alternative high-density student housing arrangement that contradicts co-living tendencies toward privacy, efficiency, and spatial self-sufficiently.

This strict zoning of activities is one of the most significant aspects of this project-the collective and commercial functions are relegated to the ground floor, while upper floors contain homogeneous residential units organized through a systematic and repetitive ordering-a clear gradient from public to private, giving vibrancy without infringing on personal space. Thus, a clear, readable hierarchy in space emerges, ripe for adaptability.

Morphologically, the project works its way from a repetitive type into a spatially expressive volume through minute shifts and facade articulation. While maintaining architectural expression, the grid-based ordering and linear massing establish ease of construction and flexibility for future expansion.

For the purposes of this research, Minervahaven provides some useful lessons about how student housing might function as a mostly light-weight urban-type infrastructure, targeted at the regeneration of certain territories. Unlike dorms, which exist wholly on campus, or heavily programmed co-living spaces, it is argued that autonomy, clarity, and repetition could be equally effective in creating community and spatial identity, all the more so when embedded into a larger urban context.

This design approach provides good precedent for proposals at places like Ex Scalo Vanchiglia, where high-density, transitional, and temporary uses can play a significant role in activating underused land. Minervahaven goes on to show how modular, soft, and student housing not only caters to its residents' needs but also adds to the landscape of a transitioning city.

Case Study -2

Project Name:

RMIT BUNDOORA WEST STUDENT **ACCOMMODATION**

Designer: RMA Architects

Typology: In-Campus

Year: 2016

Location: Bundoora, Australia



Location and Urban Context

RMIT's Bundoora West Student Accommodation is situated at Melbourne's suburban edge, almost entirely on campus. Though off-campus housing options would depend on urban integration and access to inner-city infrastructure, this project integrates right into the institutional core so that immediate adjacency is given to lecture halls, libraries, and sports amenities. This nearness helps cultivate a campus-oriented student lifestyle characterized by short-range mobility and temporal continuity within academic schedules.

While the building functions as a spatial anchor at the fringe of the campus, it mediates the transition from the expansive natural green belts of Bundoora to the dense educational fabric of RMIT. The edge condition defined by nature juxtaposed against institutional infrastructure gives it a dual position, mediating between open landscape and also formal architectural occupation. The threshold condition gives its functional importance and spatial symbolism even more worth.

In urbanism, this is low-rise and low-density, without the stacking that often defines inner-city student housing. Its massing strategy utilizes a rhythmic facade design as the common visual foundation, establishing a modest yet confident presence in the urban setting. Principles of passive orientation are evident in the alignment of the building, maximizing daylighting and reinforcing pedestrian continuity in the broader campus system.

The opposite model is to the student housing that seeks to revive derelict urban land or build housing into complex metropolitan contexts. This project rather avoids expansion into an urban void and fulfills and completes an existing institutional ensemble. In this sense, it questions the universality of compact urban intensification in favor of a situation-specific methodology that builds spatial identity on the campus (Neuman, 2003).

The Bundoora West project, in the end, opens up another path of student accommodation responsible for perpetuating belonging to the institution rather than mixed-use hybridization. It is architecturally and locationally structured to promote coherence, functional clarity, and integration with the academic environment, in which this case accommodation acts to affirm the spatial order of the university landscape rather than disrupt it.

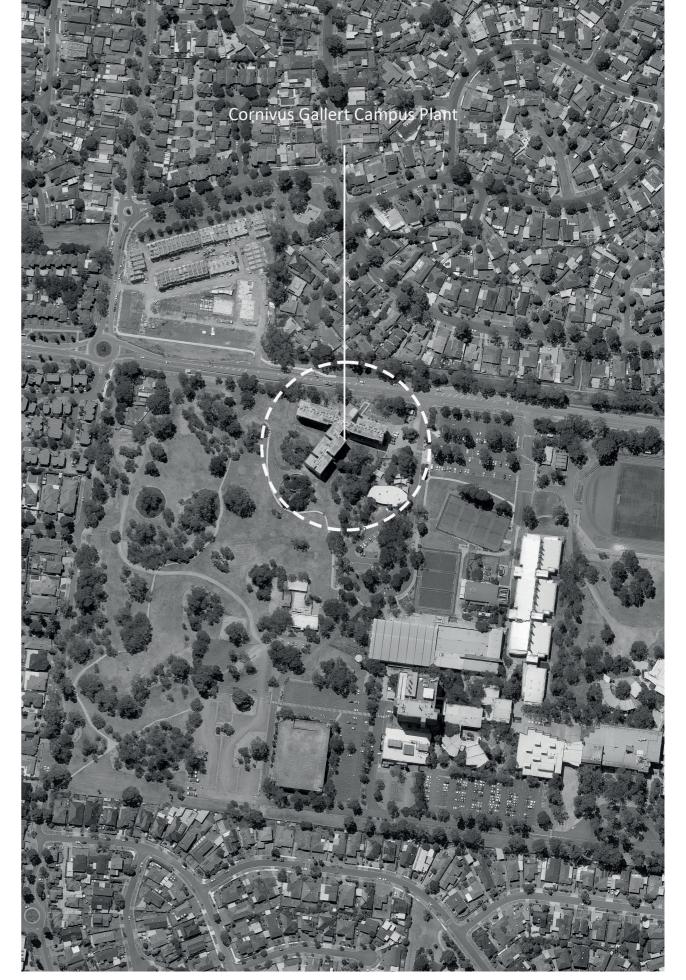


Figure 50- location demonstrates the integration of in-campus student housing into contemporary urban regeneration strategies.

(Image source: Google Earth, edited by the author.)

Morphological and Typological Strategy

RMIT Bundoora West is linked via a network of branches into diverse corridors, each serving a linear residential wing and attached to a central service-and-circulation core. The resulting starshaped spatial arrangement generates a number of interlinked wings capable of independent operation, whilst still contributing to a totality. The design also departs from the double-loaded corridor type in that it consists of various horizontal axes which join at right angles - to such effect that the plan is able to maximize circulation efficiency within the system and spatial clarity.

This model enables high-density student ac-

commodation without compromising programmatic distinction or wayfinding. The central core serves as both a spatial landmark and a collective node, concentrating essential services and vertical circulation (stairs and elevators). Corridors extend outwards from the central core, each associated with a symmetric lining of private rooms. In this way, the scheme creates a rhythm of repetition and predictability in space, making the floorplate as efficient as possible and averting the unwanted commonality of functions.

Morphologically, the project is characterized by its linear modular extension. Instead

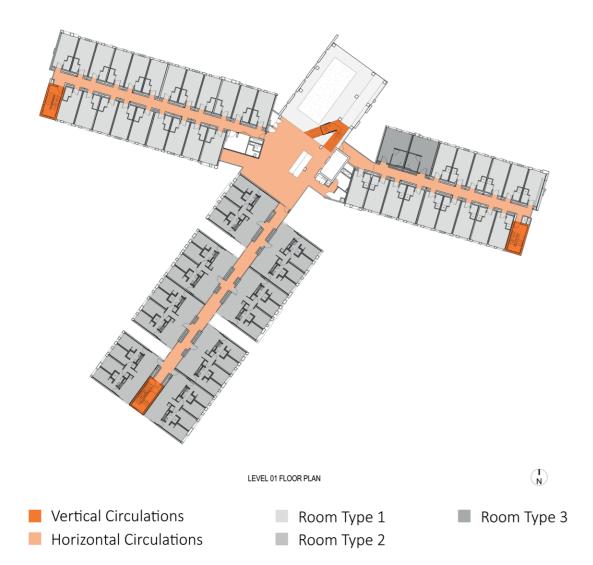


Figure 51- Original architectural floor plan of the Student Experience Minervahaven project by VURB Architects, retrieved from ArchDaily. The graphic has been modified and diagrammatically colored by the author for analytical purposes. (Source: ArchDaily, "Rmit Bundoora West Student Accommodation / RMA Architects,")

of being a solid perimeter block or courtyard, the building unfolds across the site in articulated "fingers," distributing its mass horizontally while minimizing perceived bulk. It can now integrate with the open green campus context while preserving constructability and clarity of function (Graham, 2005).

Externally, the architecture embodies internal organization: the window placing follows along the modular repetition of rooms, and nuanced faade articulations indicate transitional areas between building wings. On the interior, corridors keep standardized similar sizes and rhythms but interspersed with balconies and sporadic voids, which allow natural light and moments in space.

Overall, the RMIT Bundoora West project is a multi-corridor student housing prototype that emphasizes efficiency, decentralization, and engagement with both student and institutional needs. It radically reinterprets traditional dormitory models into a flexible and responsive-to-context form of academic residential infrastructure.

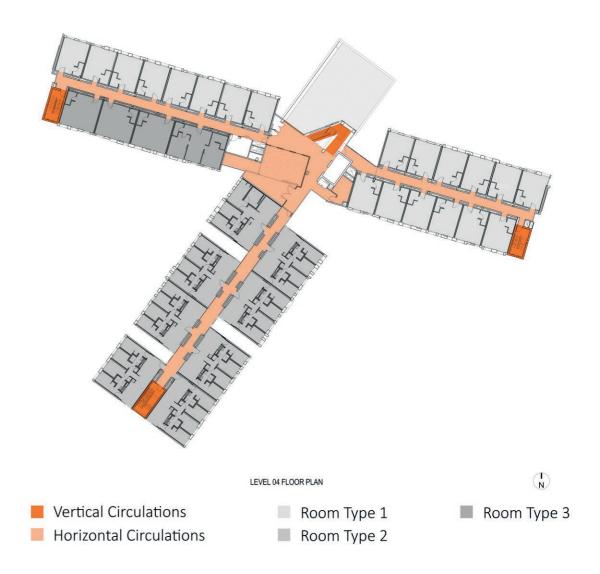


Figure 52- Original architectural floor plan of the Student Experience Minervahaven project by VURB Architects, retrieved from ArchDaily. The graphic has been modified and diagrammatically colored by the author for analytical purposes. (Source: ArchDaily, "Rmit Bundoora West Student Accommodation / RMA Architects,")

Functional Layout and Mixed-Use Integration

The spatial layout is compact though intentional, and the functional organization of the RMIT Bundoora West student residence arrives with several facilities. Although its primary purpose is housing, the residence additionally incorporates a few modest shared facilities, mainly around the central circulation core. Such areas consist of tiny lounge or social areas, kitchens, and service zones that encourage moments of social interaction, albeit brief, to occur in this chiefly utilitarian housing arrangement.

This kind fosters an inward, campus-oriented lifestyle unlike mixed-use housing projects with commercial programs on the ground floor to improve urban exchange. The communities here aren't hosted in volumes isolated from each other but instead are integrated along corridors, producing minor nodes of interaction peripherally instead of one substantial center of collective interaction. This favors a smaller and more academically oriented environment that values nearness and accessibility over spatial flamboyance (Blumenfeld, 2010).

The corridors are multi-corridor, improving the semi-autonomous functioning of each residential wing, and contributes to equality in the distribution of access among residents and facilities across the layout. Hence strengthening the horizontal strategy and also the legibility of the whole project.

All corridors lead to a nurturing vertical circulation core that acts as the spatial anchor of the building. It's the main entrance, the junction for moving vertically, and the integrating point of services. This spatial node supports easy-to-follow wayfinding and underlines the programmatic zoning: private quarters radiate outward from the core, while semi-public zones hug the edges along the corridors.

In the literature, the project functions as an architectonic case study in the integration of functions within a system of spatial repetition. Whereas this creates about the same ambiance for all realms, public and private, in terms of sectional and linear hierarchies, it refuses to confuse the two. In this way, the daily rhythms of the students are neatly folded into an ordering scheme that is spatially coherent and predictable; an ordering scheme that balances autonomy and collective identity.

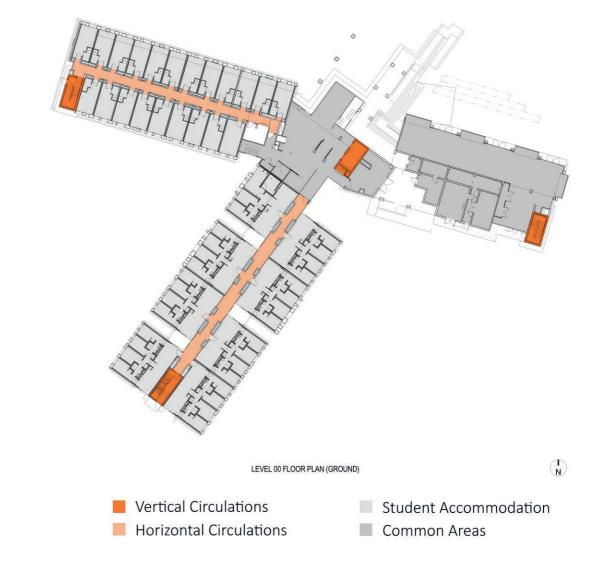


Figure 53- Original architectural ground floor plan of the RMIT Bundoora West Student Accommodation project by RMA Architects, retrieved from ArchDaily. The graphic has been modified and diagrammatically colored by the author for analytical purposes. (Source: ArchDaily, "RMIT Bundoora West Student Accommodation / RMA Architects,")

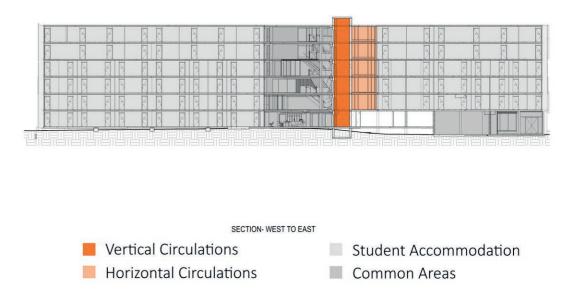


Figure 54- Original architectural section of the RMIT Bundoora West Student Accommodation project by RMA Architects, retrieved from ArchDaily. The graphic has been modified and diagrammatically colored by the author for analytical purposes. (Source: ArchDaily, "RMIT Bundoora West Student Accommodation / RMA Architects,")

Room Typologies and Living Units

RMIT Bundoora West's student accommodation has a rationalized, modular configuration to reflect efficient spatial use and user diversity. The complex organization of the residential layout is multi-void, which renders the central communal core to which elongated wings with symmetrically arranged units extend out. Each of these wings is treated as a relatively compact formulaic residential cluster internally consistent and thus formally repetitive for economic construction and spatial legibility.

Providing family taxes for double loading, lines outline on both sides of individual rooms or shared apartment modules. Such a design is forged under a clear structural grid reinforcing then morphological regularity of the entire block. Though this is linear in dimension, it is punctuated with voids and light wells vertically from top to bottom, disaggregating the whole

volume, creating a spatial rhythmic gallery, and enabling daylight access to these circulation spaces.

Of these, two principal residential types dominate the typology:

Private Studio Units: Totally included in the units are a bathroom, a kitchenette, and a study/sleeping zone. It is designed with the prospect that persons might occupy it alone. They will occupy the unit in private in that space in an otherwise very dense shared structure. Much standardised within its modularity, the unit layout can be repeated over more than one floor, with comfort through tight spatial planning.

Shared Apartments with 3 to 4 Bedrooms: These suite-style units consist of individual bed-

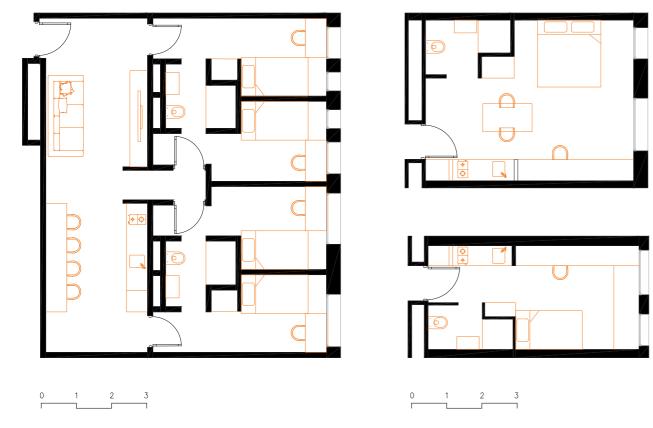


Figure 55- The plans illustrate three micro-unit typologies implemented within the residential block: Type 1 (single compact unit), Type 2 (extended double-use unit), and Type 3 (linear studio with separated functions). Drawn by the author based on original architectural documentation.

rooms that open onto shared kitchens, bathrooms, and living spaces. Unlike cluster-based co-living schemes, these flats are spatially sheltered, cultivating smaller communal living within the vast building bulk. The model thus merges personal space with controlled social interaction.

This combination allows the facility to serve a broad spectrum of student profile, meeting varying lifestyle preferences, financial situations, and levels of social involvement. In terms of morphology, this is the coexistence of both private and semi-private units within the same corridor infrastructure, showing how flexible and adaptable the project can be within a single architectural shell.

Externally, the typological structure is expressed in repetitive fenestration patterns and su-

btle facade articulation that runs directly with the internal modular system. Internally, the multiplicitous stacking of room modules on a number of levels creates a pronounced sensation of horizontalness and constructional logic.

The RMIT Bundoora West approach would not depend on a common lounge or an open co-living platform. Instead, this strategy embraces distributed density and controlled collectivity via the calibrated distribution of amenities and the specific modulation of corridor-accessed living units. In this way, the model would put forward a typology for student housing institutionally coherent, spatially efficient, and morphologically disciplined.



Figure 56- Shared lounge and kitchen area in the larger cluster-type units of the RMIT Bundoora student housing complex. The design integrates communal functionality with an industrial interior aesthetic. (Source: RMIT University, Bundoora Campus, https://www.rmit.edu.au/about/our-locations-and-facilities/locations/melbourne-bundoora-campus (accessed June 26, 2025).



Figure 57- Interior view of a double-occupancy apartment unit at RMIT Bundoora campus. The space includes a private sleeping zone and shared kitchen-dining facilities designed for co-living arrangements. (Source: RMIT University, Bundoora Campus, https://www.rmit.edu.au/about/our-locations-and-facilities/locations/ melbourne-bundoora-campus (accessed June 26, 2025).



Figure 58- Example of an individual student unit with integrated study desk, kitchenette, and storage solutions at RMIT Bundoora. The layout emphasizes functional minimalism in a compact footprint. (Source: RMIT University, Bundoora Campus, https://www.rmit.edu.au/about/our-locations-and-facilities/locations/ melbourne-bundoora-campus (accessed June 26, 2025).

Conclusion and Critical Insights

The RMIT Bundoora West Student Accommodation proffers a practical and modular approach to student living arising within a suburban campus setting. The distinctive approach does not seek architectural novelty through expressive form or social experiment, but rather relies upon systematic repetitions, spatial clarity, and infrastructural coherence to achieve a highly dense yet functionally grounded living environment.

The multi-corridor organizational strategy, anchored by a central circulation and service core, can be said to support the building in operating as a network of semi-autonomous wings, with each wing accommodating its own set of standardized but flexible living modules. While being morphologically stable, the system organizes evenly for planning and construction without introducing any unnecessary complexity, thereby retaining spatial legibility. Hence, the building operates as an infrastructural matrix an entity carrying repeated units of maximized circulation and modular service integration.

From a typological standpoint, it accommodates two opposing residential models-private studios versus multi-room shared flats—delivering fine-tuned balances between individual privacy and managed collectivity. It therefore avoids the extremes of student housing design: neither being too extroverted nor too introverted. Instead, it strengthens micro-social clusters within a larger institutional frame of reference to achieve some identity without compromising autonomy.

Functionally, the temptation to muddy the mixing bowl with commercial or overly programmatic elements has been successfully resisted. The focus has remained squarely-defined student activities: study, rest, and modest socializing—all organized around a clear zoning hierarchy that separates movement from rest and interaction. Such discipline in program distribution reinforces the notion of the building as an academic residential core over a hybridized urban complex.

For this thesis, RMIT Bundoora West poses an interesting counterpoint to urban infill or co-living models. It shows that morphological clarity, typological rigor, and corridor-based modularity still provide excellent means for creating livable, scalable, and replicable buildings for student housing. Its emphasis on providing clarity over complexity and autonomy over forced collectivity might be especially informative within the context of designing for transitional or post-industrial sites, such as Ex Scalo Vanchiglia, wherein spatial control and programmatic focus must coexist within an ever-changing urban fabric.

Case Study -3

Project Name:

Corvinus Gellert Campus

Designer: PLANT – Atelier Peter Kis

Typology: In-Campus

Year: 2024

Location: Budapeset, Hungary



Location and Urban Context

Situated at the suburban edge of Melbourne, The Bundoora West Student Accommodation THE RBBEILLE campus is fully integrated into the RMIT University campus, creating a direct symbiotic residence-academic infrastructural relationship. Unlike off-campus models, which take urbanization and its connectedness as their fundamental premise-with the assumption that such areas remain comfortably wedded to the amenities of city life-this alternative prioritizes anything but distance. Therefore, the residence materializes casually on the educational precinct. The reward for such embedding guarantees a ring-side view of the day-to-day campus life as the primary bubble of living is perpendicularly tilted and proximally placed toward the lectures, research, sports parties, and all other magnificent assemblies of the university. Hence unhindered careers maneuver by daily rhythms and movements for a solid embrace with the academics.

The residence stands as a threshold at the very edge of the campus between the institutional built form and the natural green belts that characterize Bundoora. Thus, the residence serves as the point of link between the organic and unassuming landscape and that logical geometry which helps accelerate the institutional core of the university; it suggests perception transition, not dichotomization. This state puts the structure at findings such that it becomes both an identity-defining marker of the institutional boundary and a segment of architecture promoting ecological continuity as part of the design narrative of this enclosed master plan. Into this mix then, the project instigates an embedded openness between architecture and landscape being depicted with stark consideration for the spatial narratives one normally associates with the Duclare.

The morphologic configuration of Bundoora West provides a low-rise, low-density alternative to the high-rise density typical of urban student housing. The design happily divides the massings into rhythms on the facade that simultaneously allow for the play of light and

shadow-with its associated shade of spatiality-varieties of the visual, and human scales. All points considered, the aspect of environmental responsiveness is also a vital part of the design-a very crucial aspect! There are passive solar design strategies giving optimal daylighting and the buildings within this campus path to enable the free flow of pedestrian life, thereby enhancing the viability image and course imprints.

At its core, the Bundoora West residence will not revitalize an inner-city neighborhood, disused or otherwise, nor participate in a broader metropolitan regeneration. Rather, the said design consolidates and densifies RMIT's existing institutional landscape. That double part is a statement of the identity of the university campus, which to present universityization of student housing is tantamount to further cementing the idea of university space and not being a separate entity by itself. This model, thus, identifies an alternate narrative in student housing where architecture does not seek urban hybridity but supports the coherence of a purpose-built academic enclave-outline by Neuman (2003).

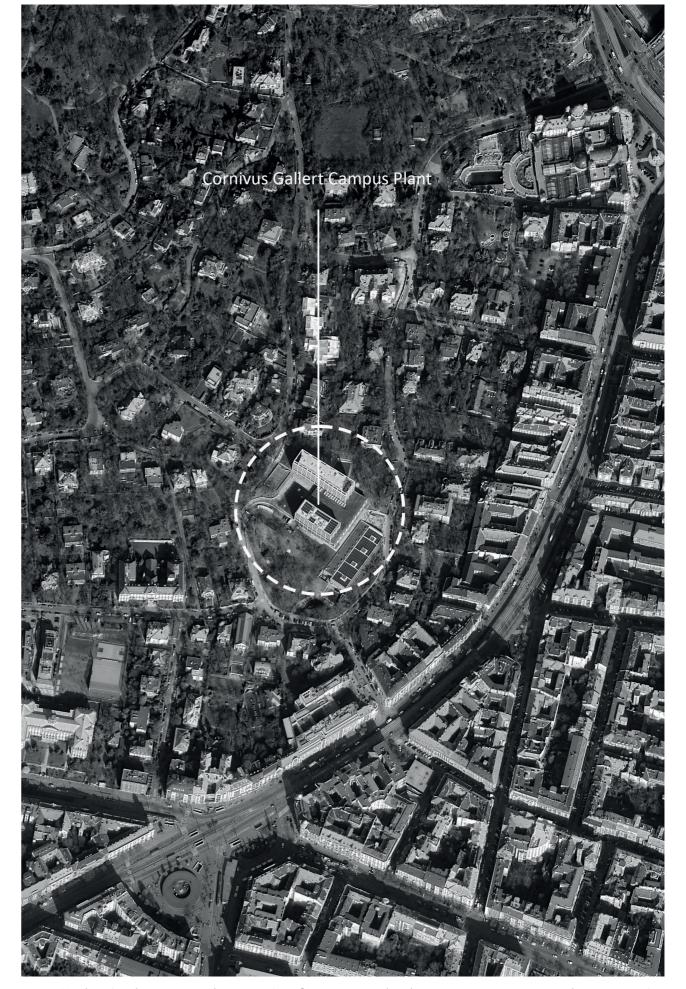


Figure 60- location demonstrates the integration of in-campus student housing into contemporary urban regeneration strategies.

(Image source: Google Earth, edited by the author.)

Morphological and Typological Strategy

Situated at the suburban edge of Melbourne, The Bundoora West Student Accommodation THE RBBEILLE campus is fully integrated into the RMIT University campus, creating a direct symbiotic residence-academic infrastructural relationship. Unlike off-campus models, which take urbanization and its connectedness as their fundamental premise-with the assumption that such areas remain comfortably wedded to the amenities of city life-this alternative prioritizes anything but distance. Therefore, the residence materializes casually on the educational precinct. The reward for such embedding guarantees a ring-side view of the day-to-day campus life as the primary bubble of living is perpendicularly tilted and proximally placed toward the lectures, research, sports parties, and all other magnificent assemblies of the university. Hence unhindered

careers maneuver by daily rhythms and movements for a solid embrace with the academics.

The residence stands as a threshold at the very edge of the campus between the institutional built form and the natural green belts that characterize Bundoora. Thus, the residence serves as the point of link between the organic and unassuming landscape and that logical geometry which helps accelerate the institutional core of the university; it suggests perception transition, not dichotomization. This state puts the structure at findings such that it becomes both an identity-defining marker of the institutional boundary and a segment of architecture promoting ecological continuity as part of the design narrative of this enclosed master plan. Into this mix then, the project instigates an embedded openness between arc-

LEVEL 11 FLOOR PLAN

Vertical Circulations

Room Type 1

Room Type 2

Common Areas

Figure 61- Original architectural floor plan of the Corvinus Gellert Campus project by Atelier Peter Kis, retrieved from ArchDaily. The graphic has been modified and diagrammatically colored by the author for analytical purposes. (Source: ArchDaily, "Cornivus Gellert Campus / Atelier Peter Kis,")

hitecture and landscape being depicted with stark consideration for the spatial narratives one normally associates with the Duclare.

The morphologic configuration of Bundoora West provides a low-rise, low-density alternative to the high-rise density typical of urban student housing. The design happily divides the massings into rhythms on the facade that simultaneously allow for the play of light and shadow-with its associated shade of spatiality-varieties of the visual, and human scales. All points considered, the aspect of environmental responsiveness is also a vital part of the design-a very crucial aspect! There are passive solar design strategies giving optimal daylighting and the buildings within this campus path to enable the free flow of pedestrian life, thereby enhancing the viability image and course imprints.

At its core, the Bundoora West residence will not revitalize an inner-city neighborhood, disused or otherwise, nor participate in a broader metropolitan regeneration. Rather, the said design consolidates and densifies RMIT's existing institutional landscape. That double part is a statement of the identity of the university campus, which to present universityization of student housing is tantamount to further cementing the idea of university space and not being a separate entity by itself. This model, thus, identifies an alternate narrative in student housing where architecture does not seek urban hybridity but supports the coherence of a purpose-built academic enclave-outline by Neuman (2003).

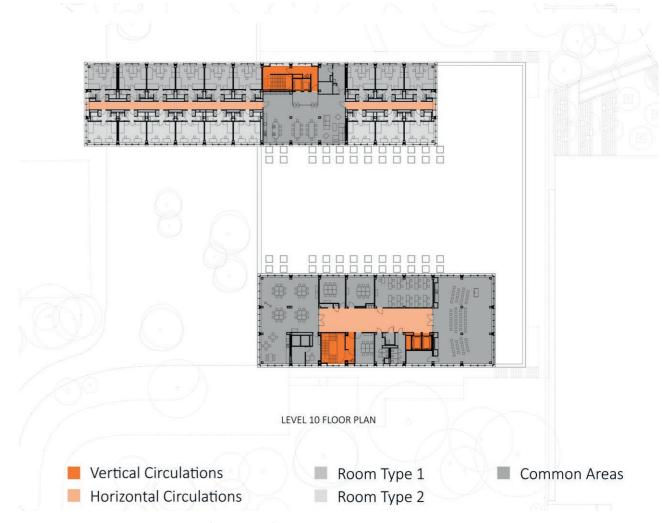


Figure 62- Original architectural floor plan of the Corvinus Gellert Campus project by Atelier Peter Kis, retrieved from ArchDaily. The graphic has been modified and diagrammatically colored by the author for analytical purposes. (Source: ArchDaily, "Cornivus Gellert Campus / Atelier Peter Kis,")

Functional Layout and Mixed-Use Integration

The Corvinus Gellért Campus showcases its diverse academic program through deliberate linear typology whereby three elongated bar-like volumes accommodate different entities, i.e., student housing, academic, and shared community area. This volume arrangement is set into a U-shaped plan opening outwards against the background of a generous accessible courtyard that functions as a threshold connector and spatial anchoring for the entire composition.

The residential component, positioned at the northern edge of the site, carries an identity in morphology and program. Housing, viewed as a vertical slab organized along a double-loaded corridor system hosting stacked modular rooms accessed symmetrically via central corridors. As the most prominent of the three structures, its tall bar evokes residentiality through a sense of verticality, consistency in massing, and back-and-forth rhythmic progression. Thus, its configuration is such that it is essentially self-contained, enabling clarity—a separation that, in turn, works toward ensuring resident privacy and the efficiency of circulation.

The academic bar is located in the south and contains classrooms, staff offices, and meeting spaces. Compared with the other bars, this has a higher level of permeability and integration of internal and external routes to its benefit, allowing more accessibility and openness. The area between the bars would not be left undefined; rather, it becomes a landscaped terrace for informal congregation, transition, and cross-program interaction. Rather than being generalized as residual space, this central platform becomes an urbanized connector melding the two dominant types of spaces-residence and education-while assuring individual autonomy.

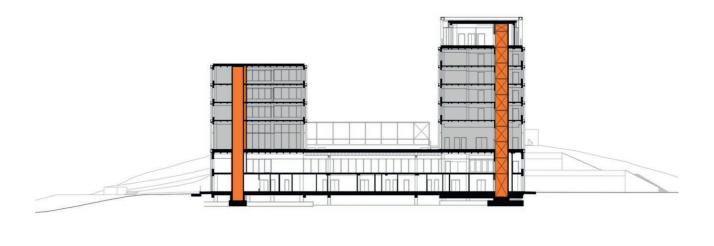
The strategy of circulation prescribes a thorough rift between functions. Each of the bars is accessed through discrete vertical circulation cores and is linked horizontally at the base by the common terrace. This logic of space neatly avoids vertical mixing of functions while pro-

moting horizontal adjacency thereby making use easy to appreciate and functionally explicit.

The zoning is staggered into three distinct levels: private for the residences, semi-public for the academic areas, and social for the courtyard, each with different architectural treatment. The project avoids hybridization or common living but rather proves that integration could also be achieved by means of oppositional spatial contrast and linear coherence. Thus, functional alignment further enhances the operational legibility of the building and makes it adaptable in the long run, all under a shared morphological character (Schneider & Till, 2007).



Figure 63- Original architectural ground floor plan of the RMIT Bundoora West Student Accommodation project by RMA Architects, retrieved from ArchDaily. The graphic has been modified and diagrammatically colored by the author for analytical purposes. (Source: ArchDaily, "RMIT Bundoora West Student Accommodation / RMA Architects,")



SECTION B

Vertical CirculationsHorizontal CirculationsStudent AccommodationCommon Areas

Figure 64- Original architectural section of the RMIT Bundoora West Student Accommodation project by RMA Architects, retrieved from ArchDaily. The graphic has been modified and diagrammatically colored by the author for analytical purposes. (Source: ArchDaily, "RMIT Bundoora West Student Accommodation / RMA Architects,")

Room Typologies and Living Units

The accommodations for students at the Corvinus Gellért Campus are concentrated in the tallest and most formally autonomous block of the project, situated on the west edge of the complex. This wing has a stacking of vertically arranged floors with a central design of double-loaded corridors, where room modules are symmetrically arranged on either side of a central hallway. This kind of repetition, in terms of planning and building types, provides a clear typological structure for circulation, privacy, and maintenance.

The room units themselves mainly follow two typologies:

Double occupancy rooms: In the accommodation for two students, shared sleeping and study areas are complemented with a private bathroom.

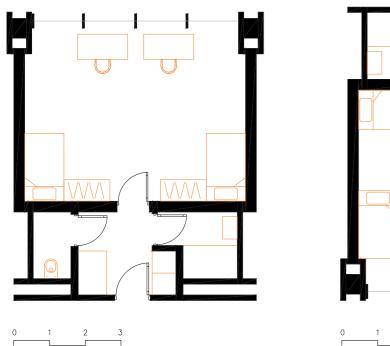
Triple occupancy rooms: In these rooms, three students accommodate themselves in a shared sleeping and study area, finding another private bathroom.

Each floor consists of fully furnished commu-

nal kitchens, encouraging social interaction and common domestic activities amongst the inhabitants.

As for the architectural expression, the facade of the accommodation wing continues the rhythm of internal units with repetition of window bays and vertical articulation, thereby reinforcing the modular logic externally. The vertical stacking of identical floor plates emphasizes the building's housing function but maintains constructional and operational efficiency.

Morphologically, the typologies for rooms directly contribute to the architectural character of the building. The repetition of singular spatial units not only enables predictability and ease of use but also generates visual coherence defining the external form of the block.



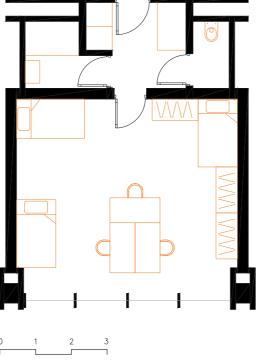


Figure 65- Re-drawn unit plans of the Corvinus University Gellért Campus dormitory, based on original drawings published on ArchDaily. The diagrams show typical double and triple occupancy configurations, highlighting shared sleeping, study, and sanitary areas. Drawings by the author.

Source: ArchDaily – Gellért Campus Dormitory, Corvinus University.



Figure 66- Interior view of a student dormitory room at the Gellért Campus of Corvinus University, Budapest. The room features minimalist furniture, including two single beds, built-in wardrobes, study desks, and large windows providing natural light. The design emphasizes functionality, shared living, and spatial efficiency. (Souce: Indoor Photos/Cornivus University of Budapest)

Conclusion and Critical Insights

Indeed, student housing should assert its existence and support one's expression within an academic program. The architecture of this building is based on a theory of clarity of bar-type plan morphology, whereby functional differentiation is not accomplished by vertical stacking but by horizontal distribution and adjacency, thus creating a readable, modular, and independently functional apartment wing integrated into but never diluted by the larger campus program.

The height and clarity of an envelope give the building authority, despite a simple morphology. Each of the proposed blocks uses double-loaded corridors with two principal types of accommodation (double and triple rooms) and two central circulation cores to achieve the efficiency and comfort of use by all residents. Each floor contains communal kitchens to balance privacy and sociability.

Rather than merging two realms into one, the Corvinus opted for a strategy where functional separation is always clear in morphology. The student accommodation is not spread across the building, but rather concentrated in a distinct volume, asserting its identity and architectural independence. The academic wing and adjoining shared terrace layer the transition from living, learning, and social areas without erasing the boundaries between them.

Broader lessons from the Corvinus Gellért Campus suggest that student housing can coalesce around institutional logics while providing a diverse experience architecturally and urbanistically. Repetition here is not reductionist, but a means of control, clarity, and continuity. Where hyper-programming and co-living stand as more fashionable paradigms, the case shows that linearity, spatial discipline, and a focused typological approach are still potent strategies in the design of educational housing.

In that regard, it represents an important precedent for student housing yet to be established in congested urban setups or campus contexts, wherein programmatic clarity, efficiency of circulation, and coherence of architectural language are preferred over the drive for experimental fusion of space.

Comparative Morphological Assessment of Case Studies

Here are the three selected case studies: Minervahaven (Amsterdam), RMIT Bundoora West (Melbourne), and Corvinus Gellrt Campus (Budapest), which will be evaluated based on two critical morphological parameters-campus positioning and corridor typology. This study attempts to analyze, through these lenses, how spatial structure, circulation systems, and programmatic layout affect a student's lifestyle and, eventually, architectural identity.

1. Campus Positioning: Off-Campus and In-Campus

There would be a critical morphological difference between off-campus and on-campus student housing strategies. Thus, the Minervahaven project located in a post-industrial waterfront area of Amsterdam is characterized by this porous, externally-oriented morphology. Its place in the urban fabric necessitates a typological openness and results in a U-shaped courtyard block that balances privacy with interaction. Student life is thus embedded in the urban rhythm, while the residence acts as a filter between private living and public space.

On the contrary, RMIT Bundoora West and Corvinus Gellért Campus are both on-campus projects in which student residences are engulfed in general institutions. The architectural language in these projects tends to be more introverted and functionally disciplined. RMIT confirms this by extending grid-like campus logic through row deployment as modular units in several linear wings. The Corvinus design is very lively in the morphological sense; however, it obviously segregates the housing of students into a vertical-dedicated block, while visually and spatially separates it from academic programs.

Therefore, the off-campus projects lean toward urban integration as one of the driving factors that leads to spatial porosity; while on-campus models accentuate precision of typological clarity, zoning hierarchy, and the act of morphologically containing built spaces within an already-existing institutional space.

2. Building Typology: Closed Courtyard Linear and Multi-Corridor

The internal structuring of each project reflects diversities on circulation strategies and spatial identity. Minervahaven, for example, is typified by a closed courtyard configuration, surrounding independent living unit spaces with an internal semi-private void. This form allows for indirect socialization, visual cohesion, flexible access patterns, but avoids deeply communal cores. The architecture stays low-rise and fragmented, adapting to the changing urban con-

RMIT Bundoora West uses a multi-corridor arrangement into which different wings are radiated from a central node. This makes the best use of every floor area and the greatest capacity for residents but operates to define smaller communities within the larger network. The corridor is more than just a passage: it is a platform for micro-interaction, punctuated by vertical voids and social interruptions.

In contrast, the Corvinus Gellért Campus is based on a linear double-loaded corridor-type design. It vertically stacks the residential wing and arranges rooms on both sides of an extended uninterrupted hallway. The system is thereby aligned with a dormitory logic: individual autonomy, low overlap, and precise functional zoning. There are shared kitchens and lounges, but these are confined to lower or intermediate levels so that everyday living is distinct from academic routines.

In each of these cases, the corridor types not only determine but control the balance between autonomy and collectivity. Closed courtyard morphologies encourage visual engagement, while multi-corridor systems emphasize distribution and density. In contrast, linear corridors impose clarity and predictability by control.

Across these three case studies Minervahaven in Amsterdam, RMIT Bundoora West in Melbourne and Corvinus Gellért Campus in Budapest-it was very clear that morphological configuration is not only a formal resolution or circulation strategy, but rather becomes a structural determinant of spatialization for student life, identity in architecture and institutional values.

The major factor influencing the open space tendencies, public-involvement and programmatic arrangement is the project location within or outside a campus. Minervahaven, located in a post-industrial, off-campus site, mediates with an environment characterized by domesticity and urban exposure by its morphology. The courtyard type and collection of low-rise mass create dialogue with an urban fabric while retaining semi-privacy for residents. Here, morphology is a negotiation tool---allowing the project to engage with its external environment while structuring inward communal life through spatial gaps, terraces, and clustered residential massing.

In contrast, RMIT Bundoora West and Corvinus Gellért Campus have some formal parts within institutional frameworks, meaning that student accommodation becomes one element in an overall very complex academic ecosystem. Both use a certain extent of programmatic zoning and typological independence, but vary in their morphology — RMIT keeps using a multi-corridor, fragmented block system to maximize modular repetition-and thus social flexibility across wings; Corvinus stresses verticality and linear continuity concerning clarity, repetition, functional separation within a highly dense structure themselves.

A significant difference aspect in all the three projects is the treatment of corridor - a divergence from merely serving as circulation to spatial index of collectivity and control. Minervahaven's courtyard is set up in such a way that communities are informally formed without forced congregation. RMIT's scheme entails a multi-corridor set-up that encourages localized social density within each wing, while ensuring

efficient distribution at scale. By contrast, student housing is officially housed in a linear residential slab, where patterning and autonomy are prioritized at the expense of internal social dynamism. Every one of these choices is not neutral, as they encapsulate a different kind of expectations, cultural and architectural priorities from different institutions.

Functionally, then, morphology also necessarily determines how thresholds are crossed for living and learning, individual and collective living, and permanent and transitional. In Minervahaven, such borders are very intentionally blurred; in RMIT infrastructures coordinate them; and in Corvinus architecture reinforces them. In the end, architecture in its separations or connections of residential units, communal functions, and academic life will define the student experience spatially and psychologically.

And so, these case studies illustrate the ways in which morphology operates as a framework of values-a spatial language in which institutions communicate independence, efficiency, openness, or hierarchy. It sounds repetitive, perhaps even neutral, at face value; but within this typology, it becomes a person-giving apparatus: modeling interaction rhythms, regulating privacy, and anchoring architectural identity. The interplay between off and in-campus strategy, between linear and multi-corridor systems, leads to an understanding that morphology is not a universal formula in response; rather, it is a situated answer to context, function, and ideology.

Thus, as typologies and sites begin to have morphological implications, these are indeed crucial for the designers of future residential student accommodations-especially in urban or regrowing contexts-not only in creating habitable and functional places but bringing into them a logic that resonates with how students live, interact, and belong.

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04

DESIGN PROPOSAL

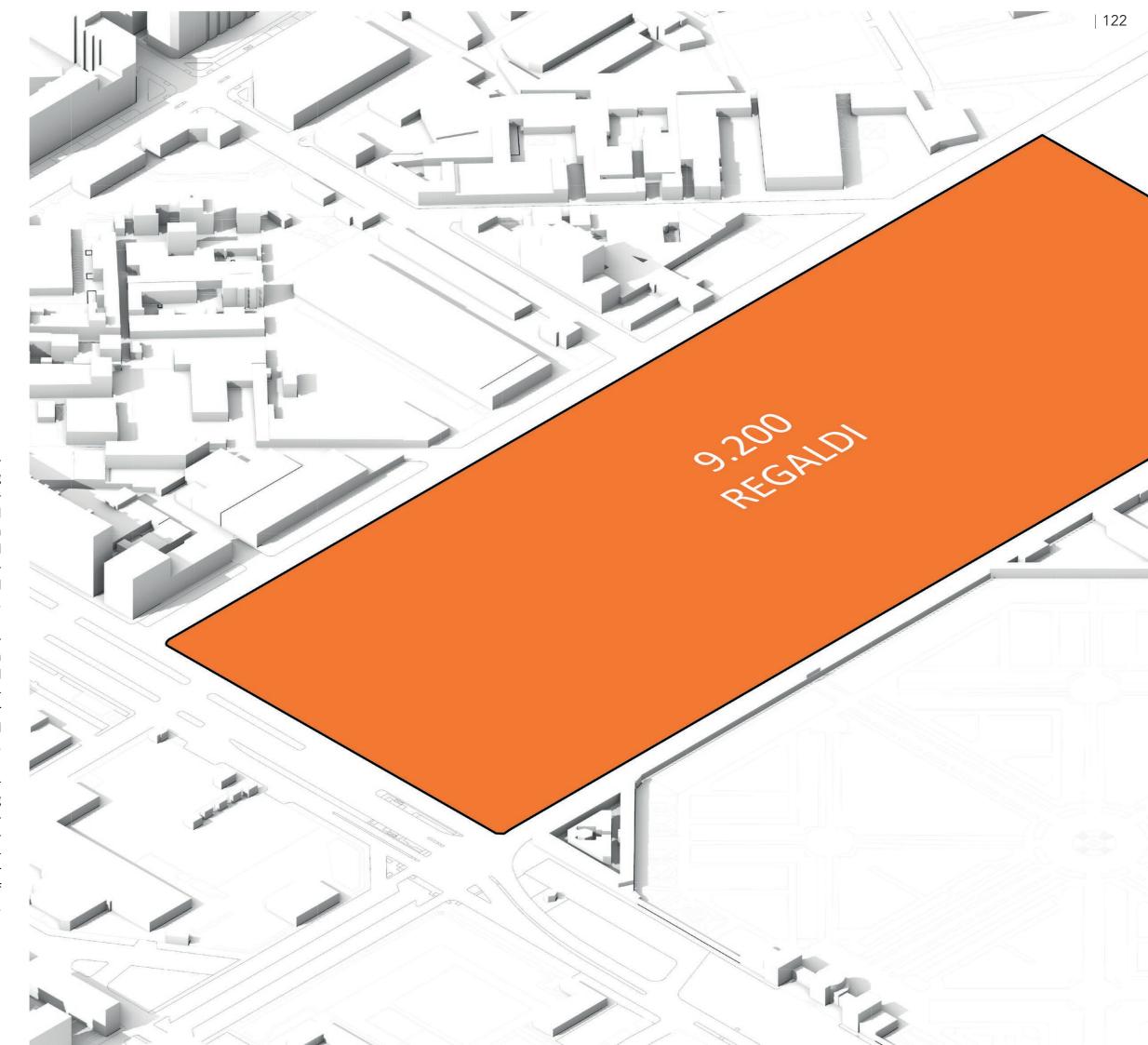
4.1 CONCEPT, **OBJECTIVES AND INTERVENTION STRATEGIES**

SITE AREA - 9.200 REGALDI

The design approaches begin by understanding the spatial and regulatory setting of the 9.200 Regaldi area. The site, contained within a zone defined by the local PRG, permits the compelling integration of new realms of living, commerce, and hospitality. With its scale and connectivity, a mixed-use scheme is ideally situated here with student housing as the anchor.

In keeping with the wider urban strategy, the goal is to reinterpret the hidden potential of the site through a stepped program of residential blocks, a mixed-use center, an urban hotel, and outdoor sports facilities, combined in a coalesced campus ecosystem instead of isolations.

The project emerges in response to the urban void of prior projects on-site, changing it into a socially and programmatically energetic space. Its character presents it as a lively urban node that will bring students, residents, and the external community together in support of a longstanding philosophy of sustainable and inclusive place-making.

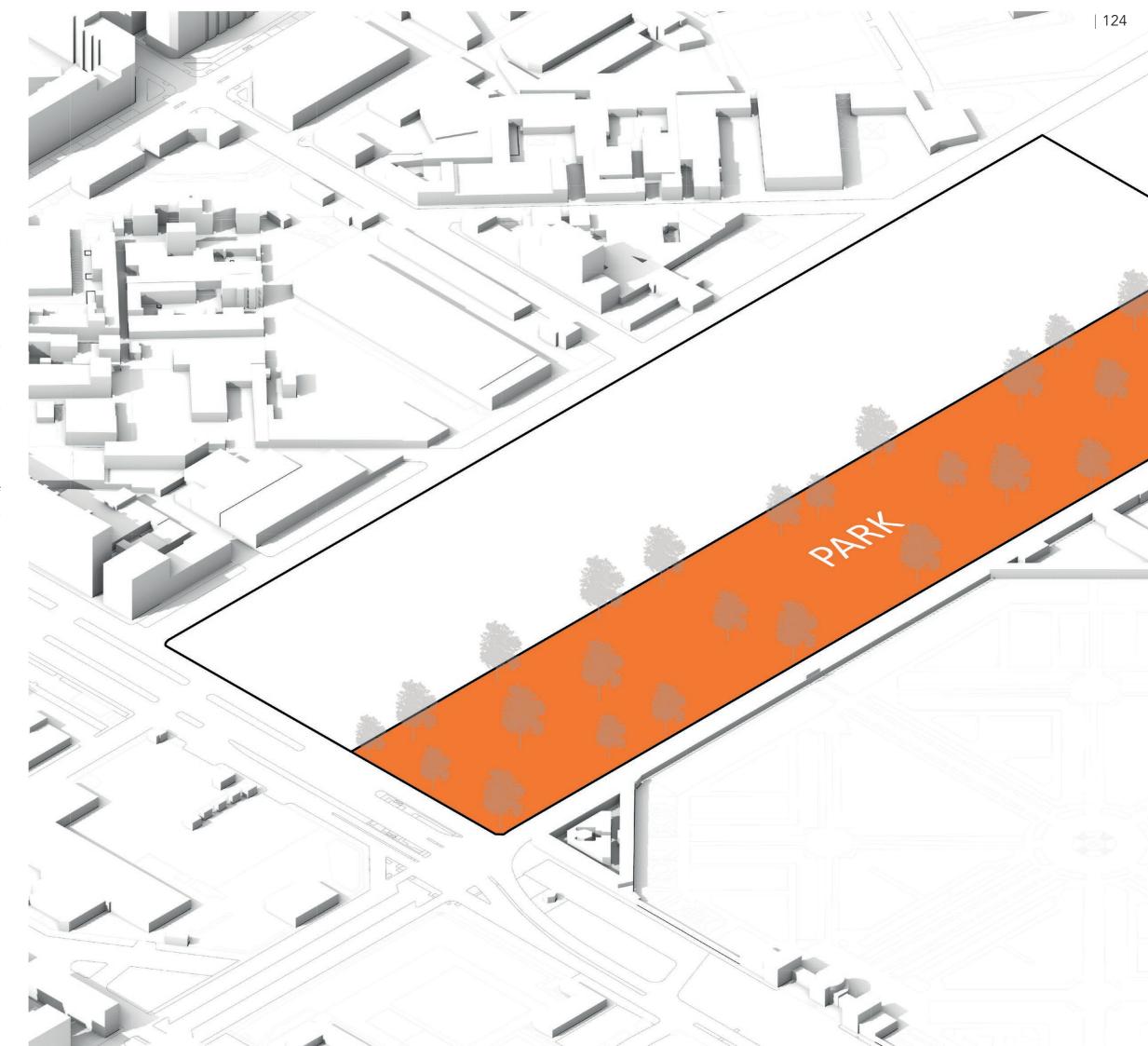


LOCATION OF PARK

Within the southern area of the site, this public green corridor is presently conceived as a recreational amenity which will further function as a buffer versus the built setting and the nearby cemetery. The PRG requires a mandatory setback space from the cemetery boundary that is now reconfigured into a vibrant linear park.

Meeting daily needs, while encouraging social interplay between students, inhabitants, and guests, this green area integrates a network of trees, soft landscaping, and public seating. The arrangement of space involves the concepts of permeability and openness, while staying aligned with the adjacent urban fabric.

Modifying otherwise inactive setback zones into active public areas would improve the environmental quality of the site and advance a significantly broader outlook of sustainable and inclusive urban development.



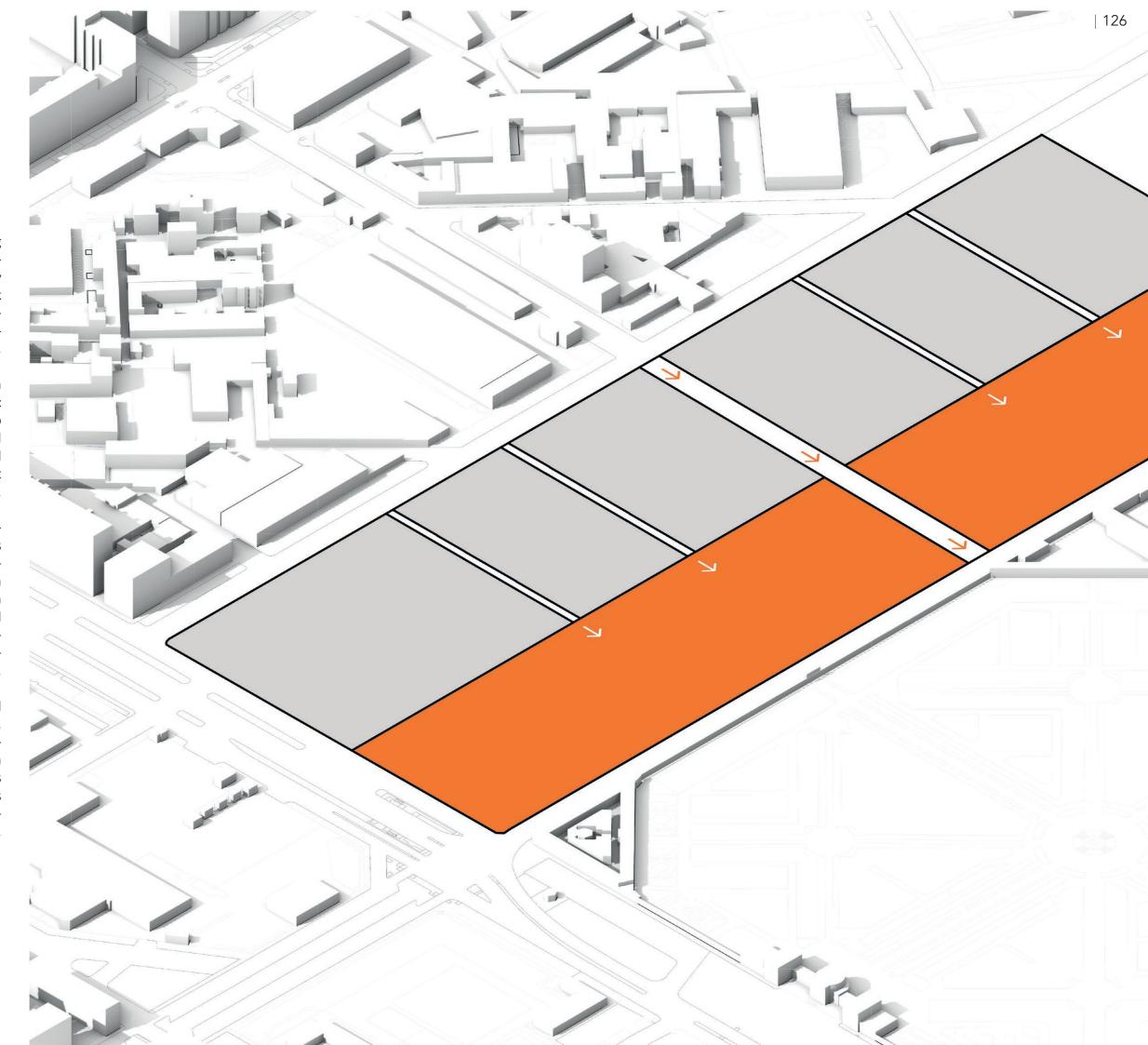
CONNECTIONS BETWEEN URBAN BLOCKS AND PARK

Modular building plots are organized along a northern portion of the site and are arranged in a way that balances the density and permeability of buildings. Each block is dimensioned for flexibility with potential future applications as student housing, residences, or commercial spaces.

New pedestrian connections run between the volumes, linking the upper urban fabric with the southern park, opening the site into a uniform, accessible system. These internal pathways reinforce visual transparency and walkability, framing open courtyards that offer function and environmental purpose.

The central longitudinal path that traverses the site will also function as its main backbone-infrastructure. It extends as an existing road axis from north to south. Such acknowledgment is even made in the PRG, with its nearly planned urban connection, and this spine organizes circulation while further integrating the site within the mobility network.

A clear formal coherence of the urban grid leads to spatial efficiency and intelligibility, while concurrently permitting the emergence of a lively architectural identity through typological variety. The layout encourages coexistence of private and public functions and generates a dynamic edge that welcomes social interaction and adaptive growth.

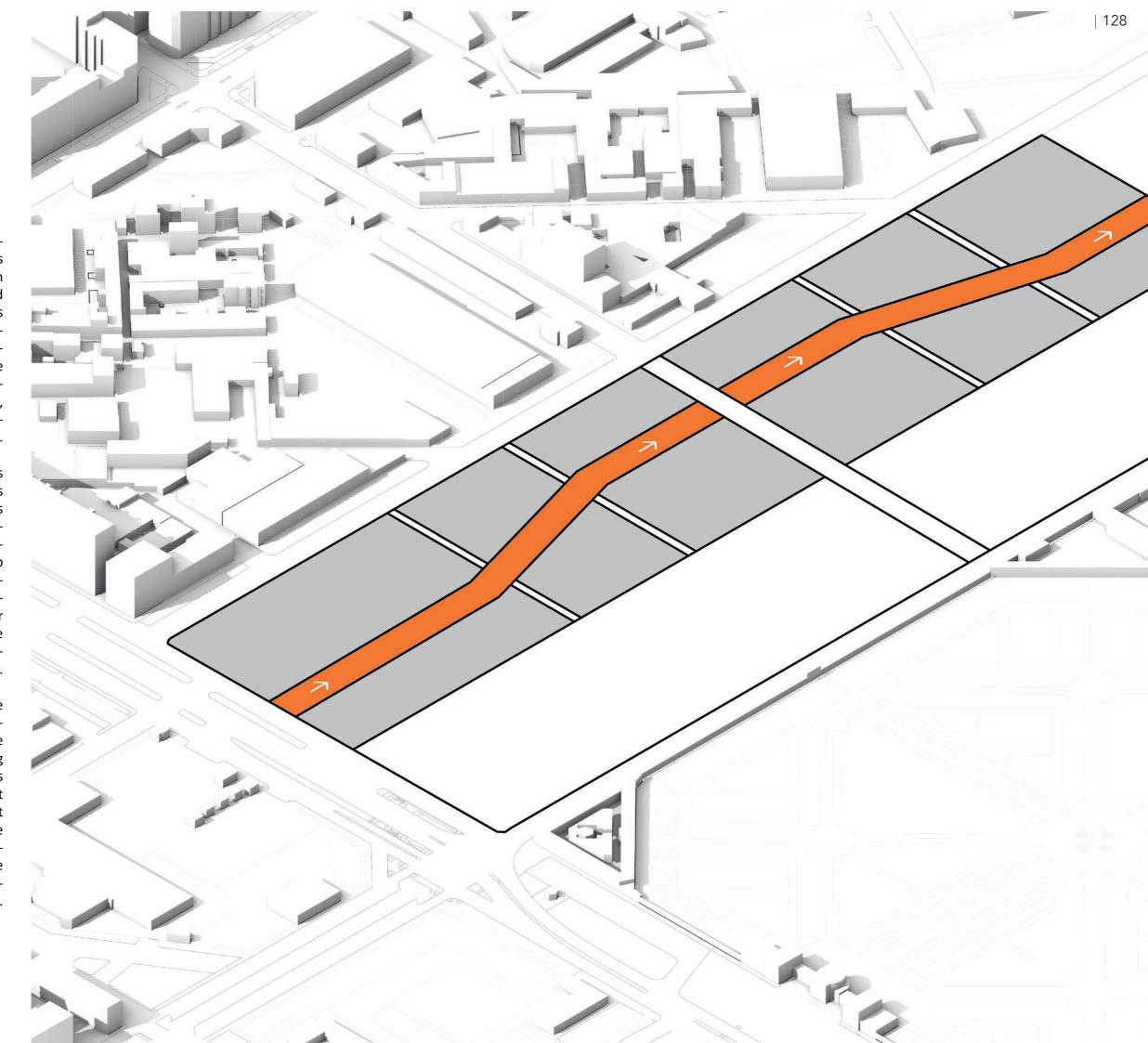


COMMERCIAL PEDESTRIAN PATH

This central commercial spine rhythmically runs through the site and serves as a framework for the organization and an interface between built structures and public life. The commercial center defines this axis, which acts as the primary approach to each building and structures sequential shared spaces that accommodate commercial, social, and transitional activities. Not only does it provide circulation, but the spine is also an active social corridor enabling interactions and exchanges.

There is a designated bicycle path along this spine to promote sustainable mobility as well as continuous internal movement. This path, with strips of linear greenery on either side, incorporates small patches of greenery interspersed among the blocks into the built environment and softens the transitions from public to private domains. These green buffers are intended not only for ecological performance but also to enhance the user experience-sight, shade, and informal gathering spaces throughout the day.

The form of the spine will respond to the programmatic zone's specific spatial needs through delicate curves that articulate changes in depth, frontages, and building type. This intentional curvature of the axis allows it to absorb functional variation but without sacrificing spatial clarity. Thus, it works as a connective tissue and flexible infrastructure that makes the spine a dynamic and adaptive system able to integrate mobility, greenery, and access, while anchoring the overall identity of the masterplan.

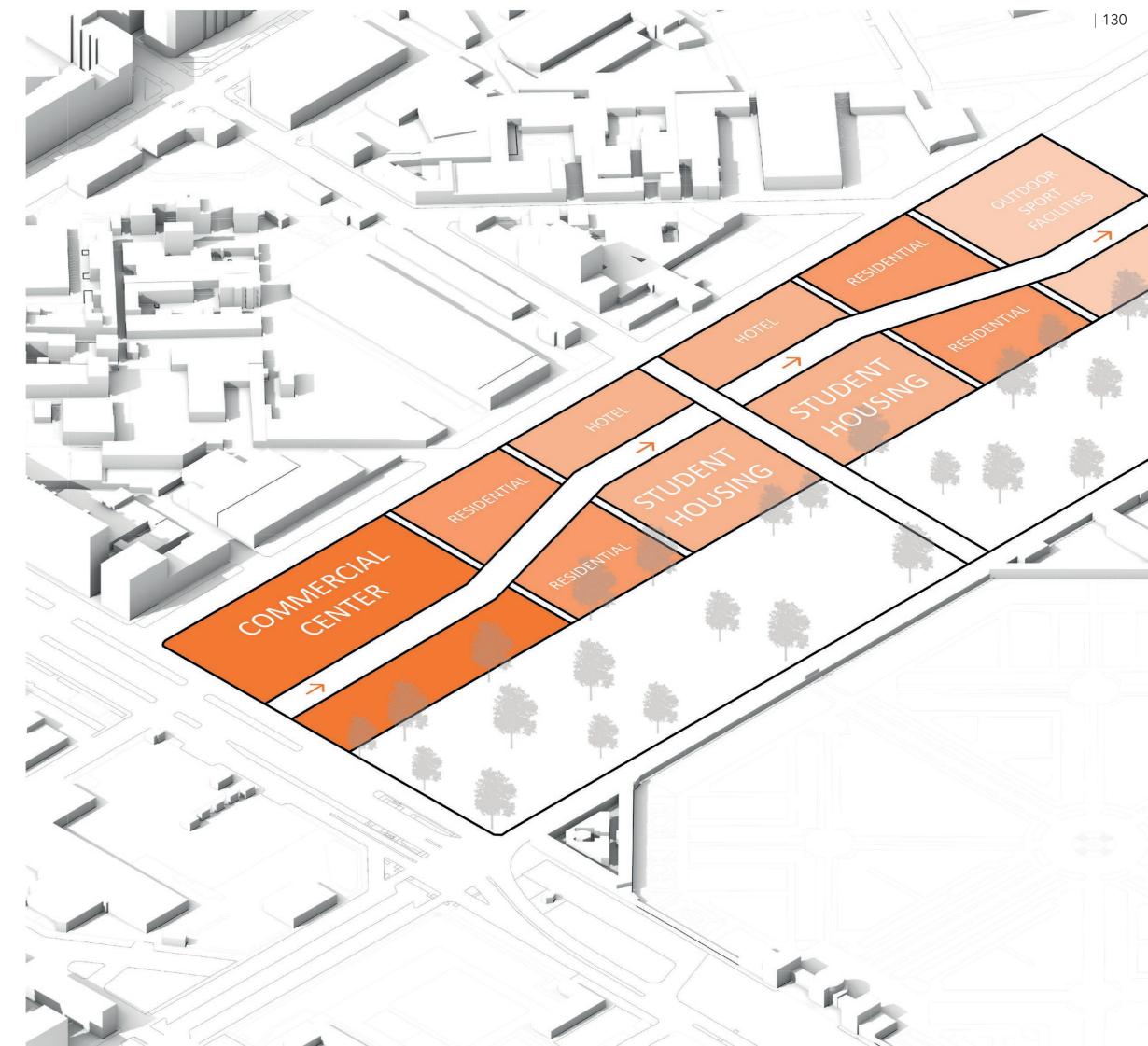


Functional Program and Spatial Strategy

This project suggests a multifaceted programmatic infrastructure that centers mainly on improving student life while it fosters relationships within the encompassing urban setting. Founded on student housing, the design incorporates uses which complement and are needed by both individual well-being and collective wellbeing. Clusters of housing units will promote both privacy and shared living; they are arranged along effective circulation spines that enhance spatial orientation. Ground-level programs are strategically porous to allow public interaction through cafés, study lounges, a flexible exhibition area, and a hybrid laundromat-social node-the boundary between academic life and the city.

Educational amenities like seminar rooms and collaborative study zones are distributed throughout the building so they are easily accessible and thus augment the culture of learning not only via formal education but also through in-between spaces. A fitness area, as well as a wellness hub, respond to both the physical and mental health of students, while co-working spaces and maker labs respond to those efforts that lend themselves to entrepreneurship and creativity. The logic spatially moves from public to private: with dynamic, open programs concentrated at the base and developing into more secluded residential and, ultimately, reflective zones arranged above.

This program further encompasses cultural and ecological consciousness by means of urban gardens, adaptable courtyards, and event terraces that encourage sustainability and seasonal activities. Overall, the distribution of functions creates a dense yet breathable campus microcosm, balancing isolation from the wider community with integration into it, between rigorous academic pursuit and leisure, and between the horizons of local identity and global relevance.



ISOMETRIC VIEW

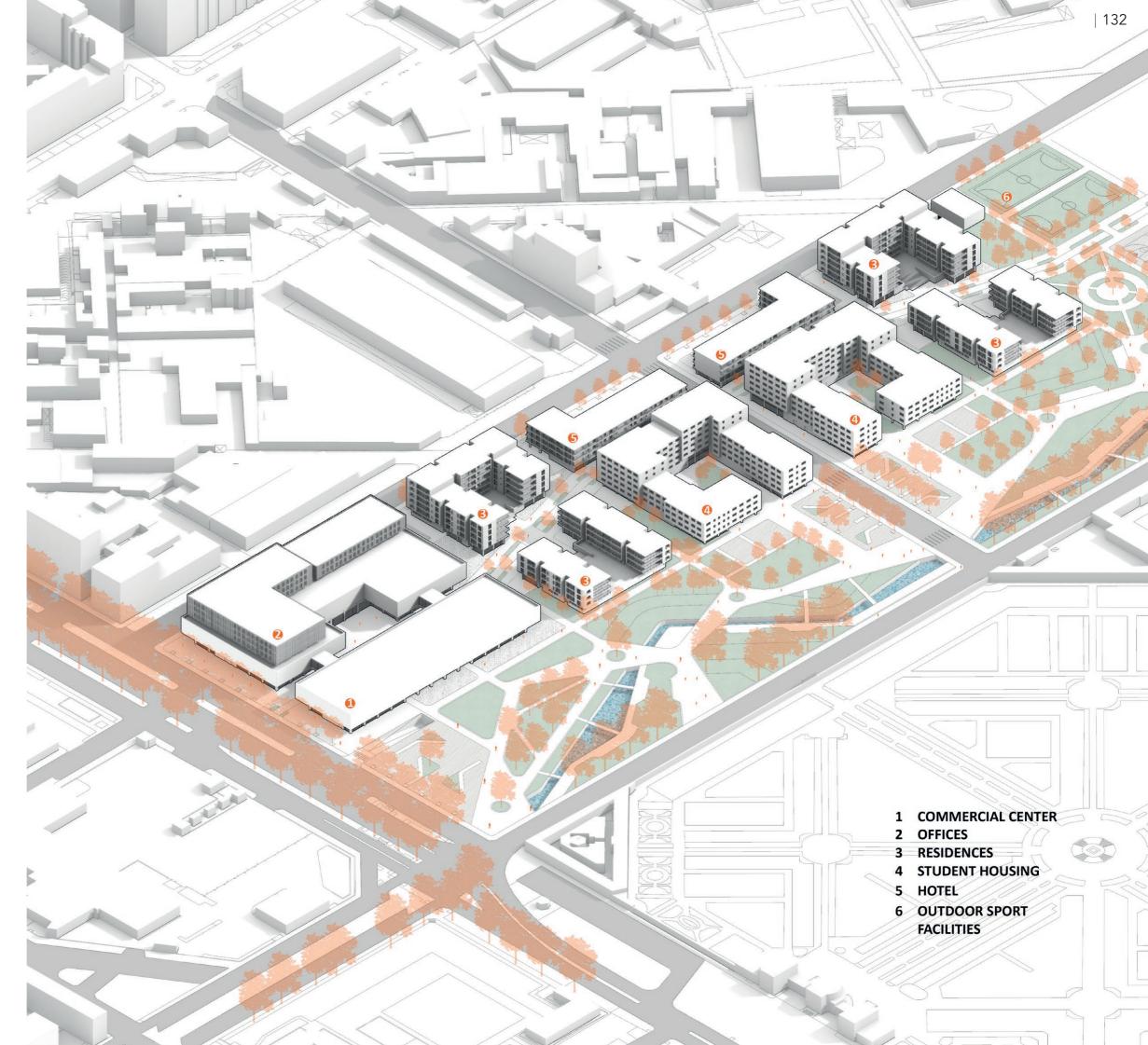
The proposal for the regeneration of Ex-Scalo Vanchiglia is defined concerning its spatial logic and functional organization as seen in an isometric view. A central pedestrian-commercial axis aligns the entire length of the area, forming the core of the masterplan, providing a link between the varied programs into a cohesive and walkable urban system.

At the site entrance edge, the retail shopping center together with an office block generates a backdrop compressing within itself an intensity of urbanity that energizes the creating streets and establishes a metropolitan link. Further, moving into this entrance-corner, the student housing volumes, splayed through a rhythmic distribution, will be at the heart of the proposal and establish a vibrant social core. Following a modular typology of courtyards, these units will allow for daylight penetration, passive ventilation, and semi-private collective life.

Surrounding the student housing are residential blocks, which furnish a functional mix and demographic diversity as they soften the transition toward the surrounding neighborhood. Through this arrangement, one can see and breathe between the built formations, itself strengthened by generous open spaces and planted hallways.

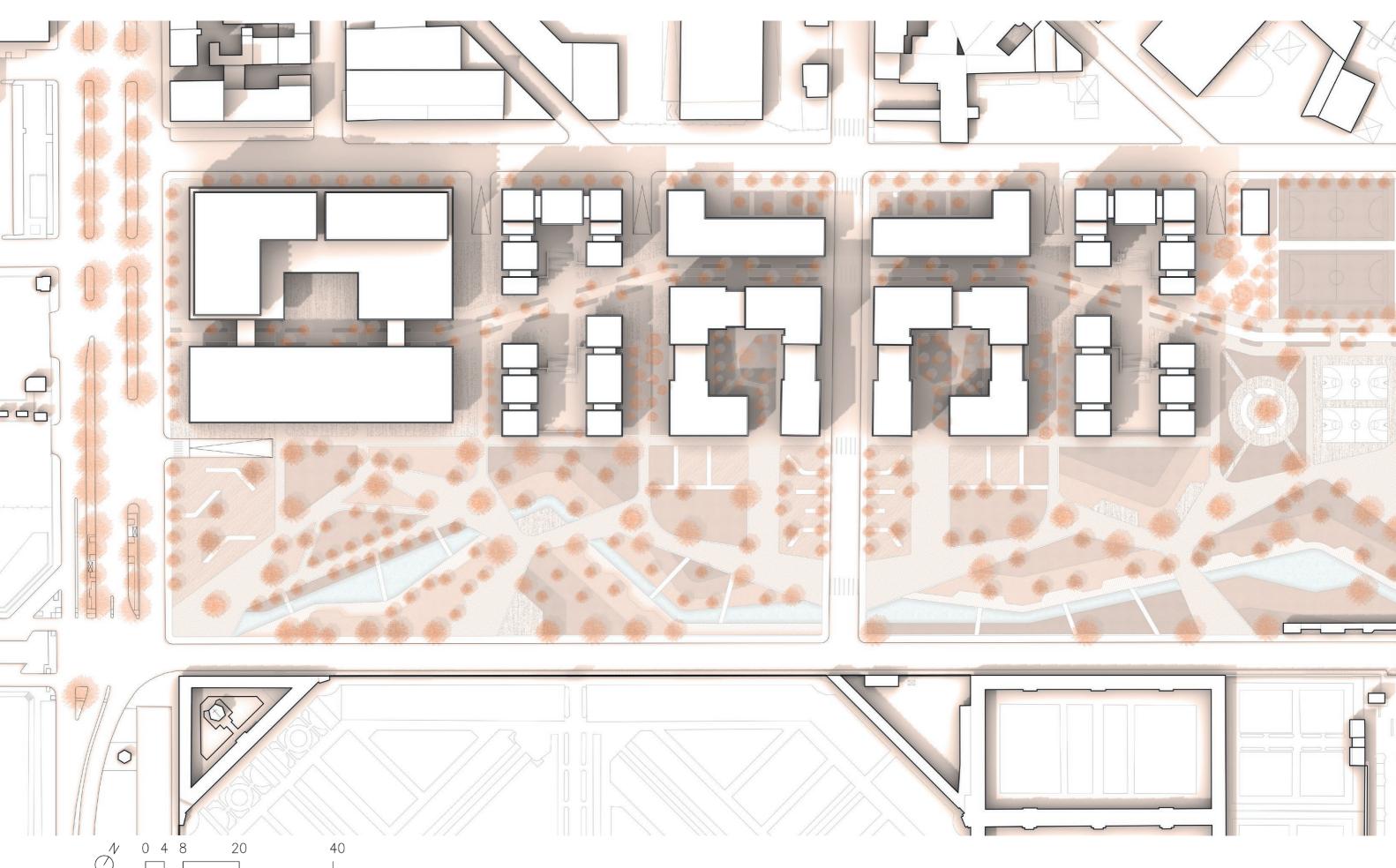
At the opposing corner, hotels and outdoor sports facilities are introduced to the public or recreational portion of one's site. These programs are part of a more permeable edge that, with the linear park and green buffer, integrate existing ecological infrastructure and add more livability.

By this setup, the project proposes a layered urban fabric - balancing the academic, residential, commercial, and leisure with the opposing theme of fragmentation, where an infrastructural void is reclaimed and redefined as a socially active, morphologically coherent, and environmentally integrated piece of the city.



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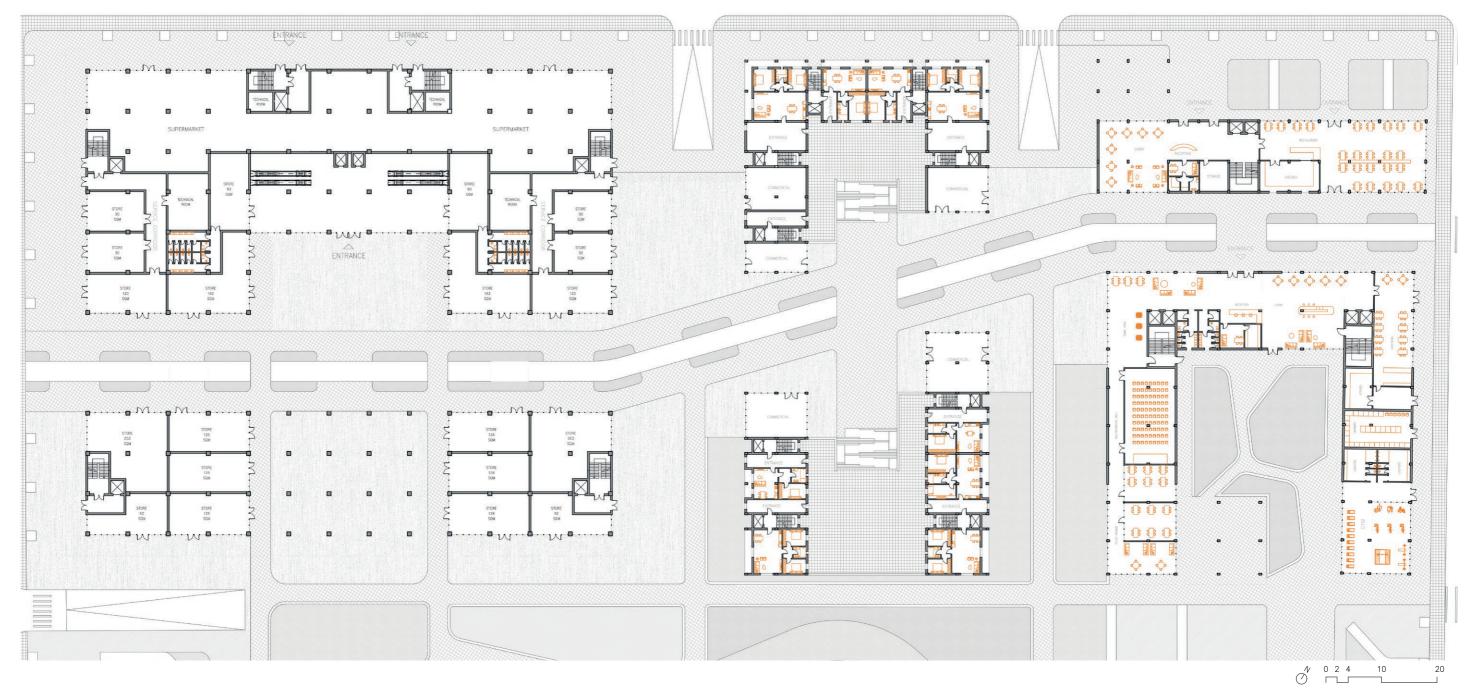
MASTER PLAN







GROUND FLOORS STRATEGY



The western border of the project, found across the main traffic route, has some ground-floor units that are intended to have a direct and permeable relationship with the city fabric around it. These blocks accommodate a range of uses: retail, semi-public lounges, communal laundries, and ground-level facilities for students that cater to residents in addition to the public at large.

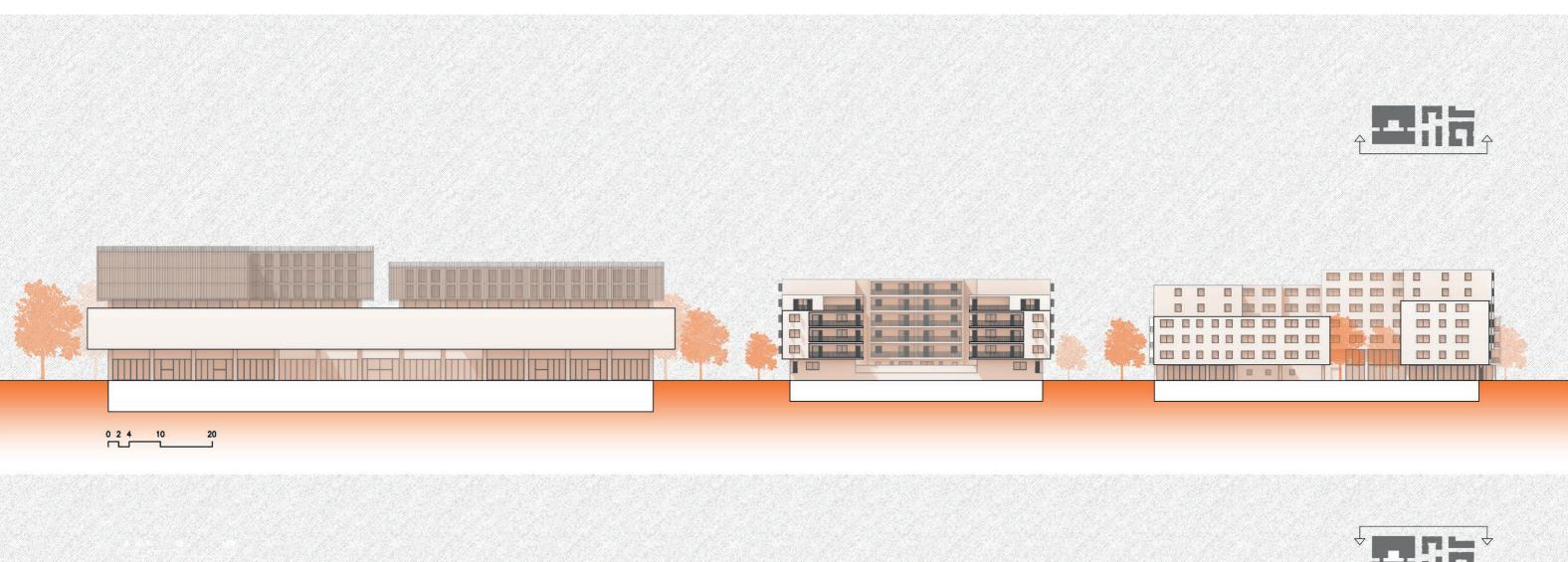
With strategically placed entrances, transparent facades, and open thresholds, visual and physical permeability is strongly depending on these factors in order to connect the interior and exterior spaces. The interface zones are activated through a series of entrances, court-yards, and linear pathways of circulation, all of which relate directly to the nearby sidewalks and public green areas. Thus, the building masses are perceived not as isolated, independent structures, but instead as filters betwe-

en private residency and the urban realm. Programmatically, the ground levels of these buildings are configured to sustain the daily routines of life. Smaller vendors on the street corners, cafés, study lounges, and maker spaces invite chance encounters while encouraging an active flow of pedestrians across this site. The positions of commercial and social functions are carefully considered to facilitate an active frontage, whereas residential lobbies and vertical access cores are

recessed to augment privacy and security. By fostering interaction and layering of functions along this western edge, this project makes a gradual transition from modeled public space: to semi-private, to private space—a gradient of interactionwhichenrichesthespatial complexity and inclusivity of the urban renewal strategy.

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SECTIONS OF SELECTED UNITS



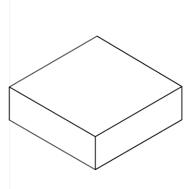






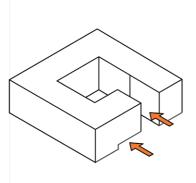
CONCEPT OF STUDENT HOUSING

EXPLODED PERSPECTIVE OF STUDENT HOUSING



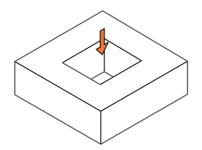
1- Volume of Building

Starting with a concise but effective number establishing the greatest buildable footprint of the location, this massing tactic essentially zoned residential units distant from vertical circulation. Beyond organizational clarity and structural logic, the simplicity of this form is also advantageous for its modular construction. Maybe most importantly, it forms a robust architectural presence against the background of the surrounding urban fabric.



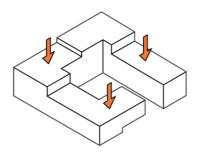
3- Connection with Park

The definitions, using strategic openings and voids, provide visual and physical access to the structure from the nearby green park. These connect the nature experience to the project, permitting semi-public transitions between inside and outside. The thresholds are regarded as shared gathering spaces that soften the building's edge. As such, the design encourages students to be more fluid and informal in their interaction with their environment.



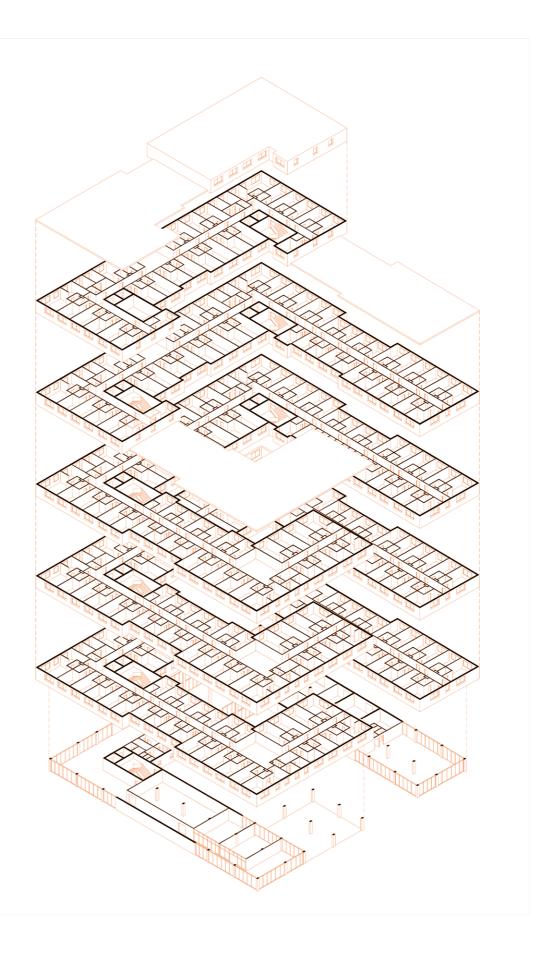
2- Courtyard

The original building's mass was hollowed out to establish an internal courtyard. This opens the building toward natural light, ventilation, and, eventually, toward social interaction. This void functions as the 'community anchor' that will determine and enhance the quality of internal spaces and provide visual respite. It also fosters passive environmental strategies in the promotion of connectivity across various floors. Furthermore, this is intended to establish a sense of collectivity amongst the student housing units.



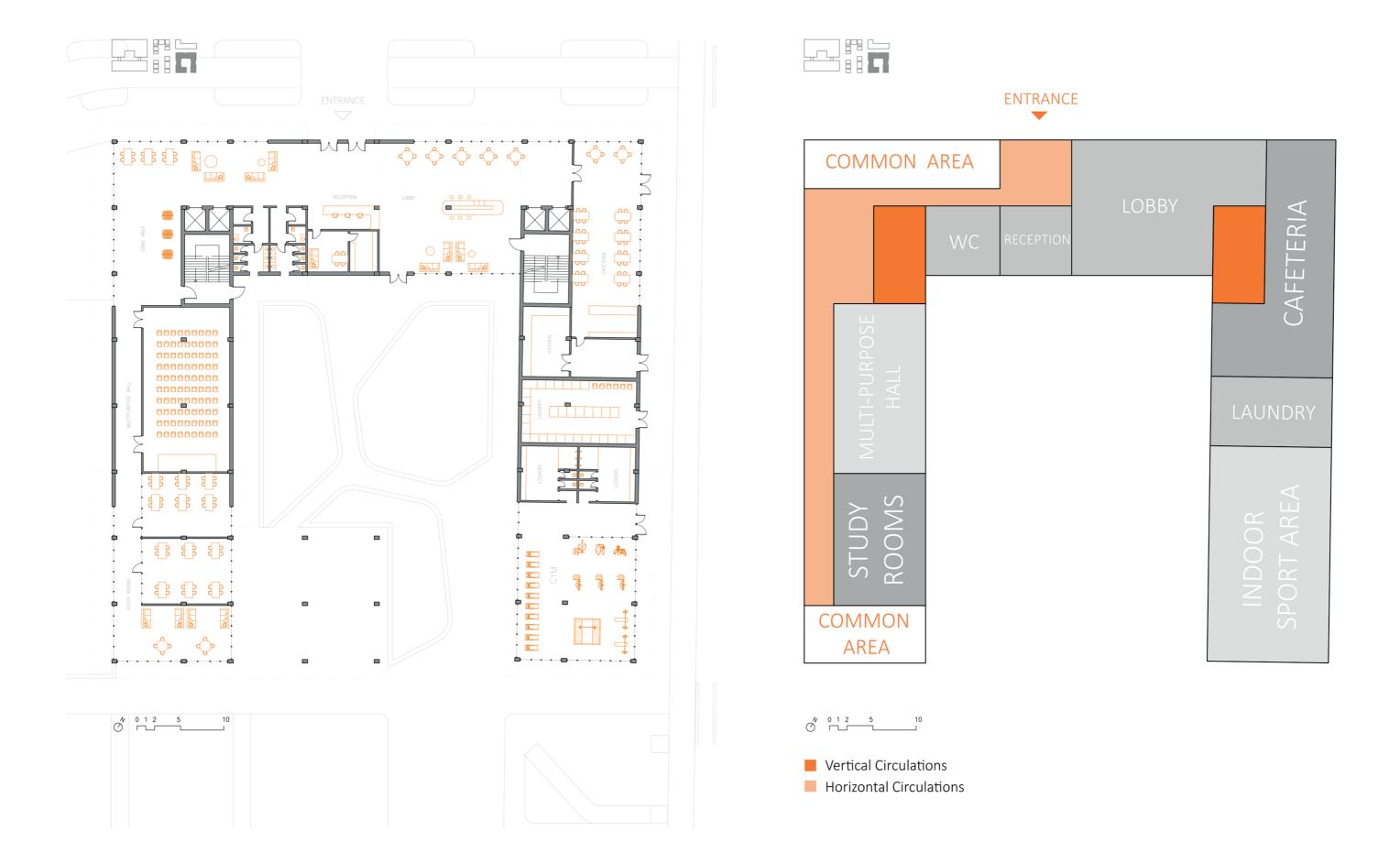
4- Leveling of Building

The step-like massing setup permits the lower levels to accommodate public and shared areas, like the cafeteria, thus improving social interaction. The terraced massing configuration bolsters visual and spatial orientation towards the adjacent park. With the lessening of height, the landscape embraces the building in a friendly manner. The form generates terraces that embrace accessibility and reinforces the building's connection to its verdant surroundings.



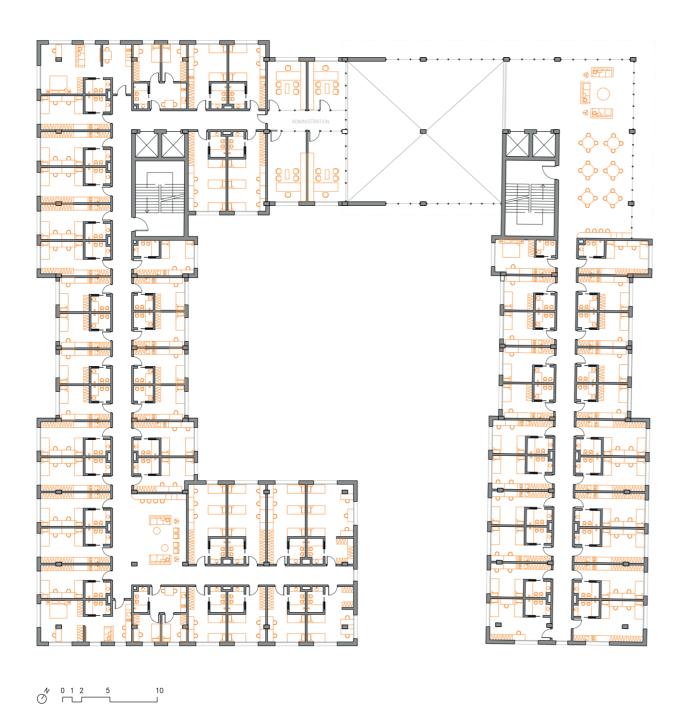


STUDENT HOUSING GROUND FLOOR PLAN

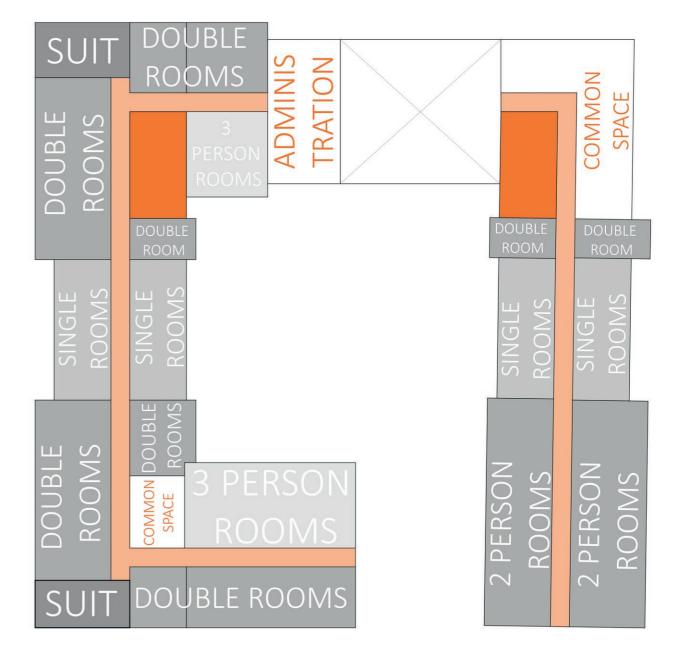


STUDENT HOUSING FIRST FLOOR PLAN







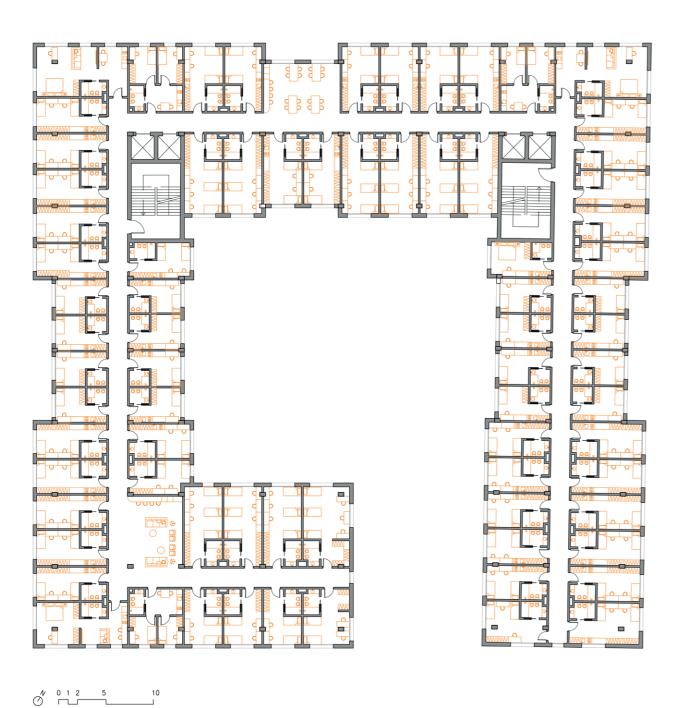




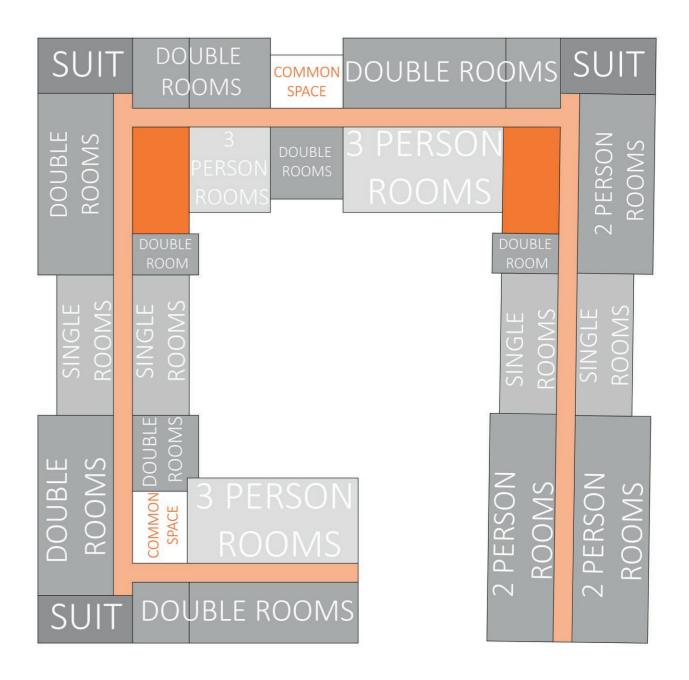
Vertical Circulations Horizontal Circulations

STUDENT HOUSING FLOOR PLANS











Vertical Circulations Horizontal Circulations

STUDENT HOUSING SECTIONS

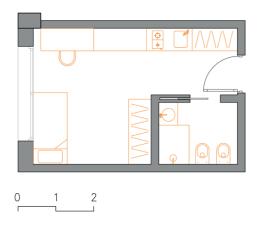




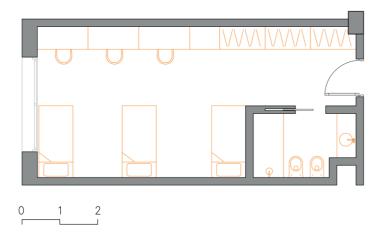
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STUDENT HOUSING UNITS

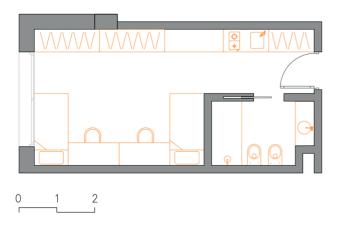
SINGLE ROOM



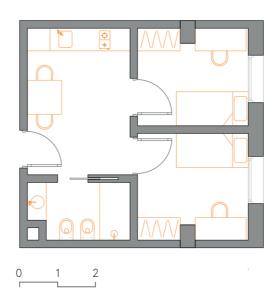
3 PERSON ROOM



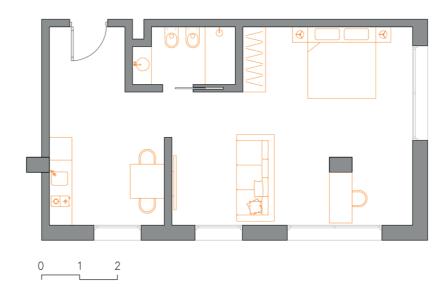
DOUBLE ROOM



DOUBLE- SINGLE ROOM



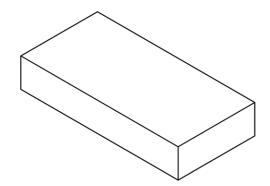
SUIT ROOM



BUILDINGS 4.3 RESIDENTIAL SECONDARY FUNCTION

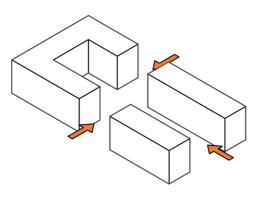


CONCEPT OF RESIDENTIAL BUILDINGS



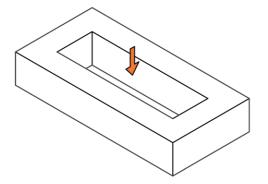
1- Volume of Building

Functioning as a type of setter for either side of the site, the design phase starts with the simple elongated form; hence offering programmatic versatility and supporting longitudinal spatial arrangement. This small footprint optimizes light exposure to both sides of the building while also preserving a continuous urban edge, initially informing the framework for potential future design changes.



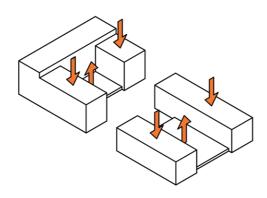
3- Connection with Park and Commercial Path

The building volume is curiously broken to form pathways that connect the adjoining green park to a commercial promenade that runs through the site. These cuts in the form delineate semi-public thresholds that activate the ground level and make pedestrian connections. The integration of public passage and shopping continuity produces an open and welcoming environment. This spatial permeability is instinctive and establishes a dynamic interface between the housing and the urban environment.



2- Courtyard

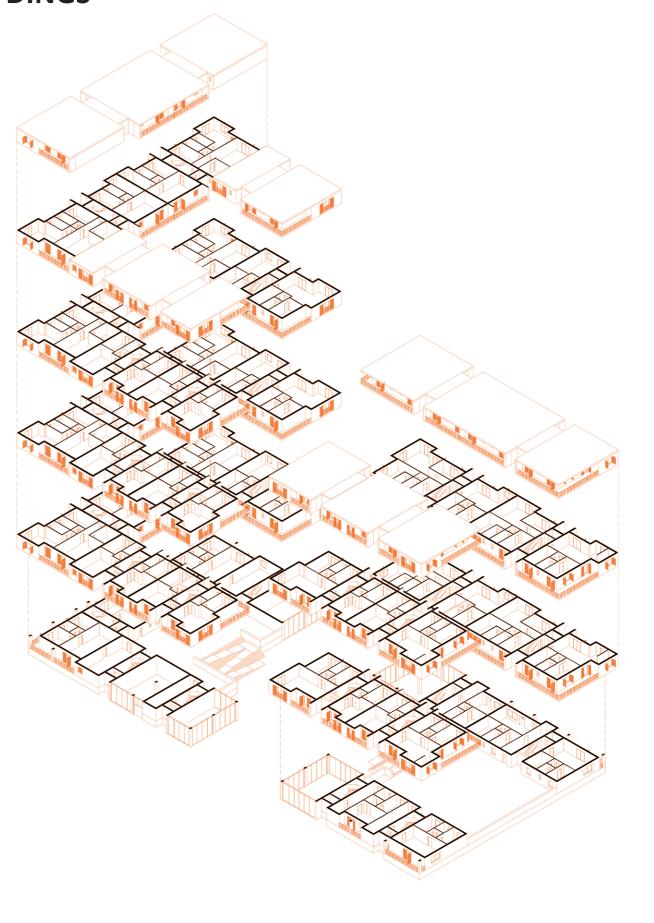
Everything flows into the courtyard, hewn from the solid mass to generate space, pouring daylight and natural ventilation into the contrasting interior spaces. The massing of this void provides environmental comfort and functions as a gathering core for inhabitants. The courtyard promotes spatial openness and social visibility to the collective ambiance of the whole structure, a place for respite from the programmatic intensity of the surrounding functions.



4- Leveling of Building

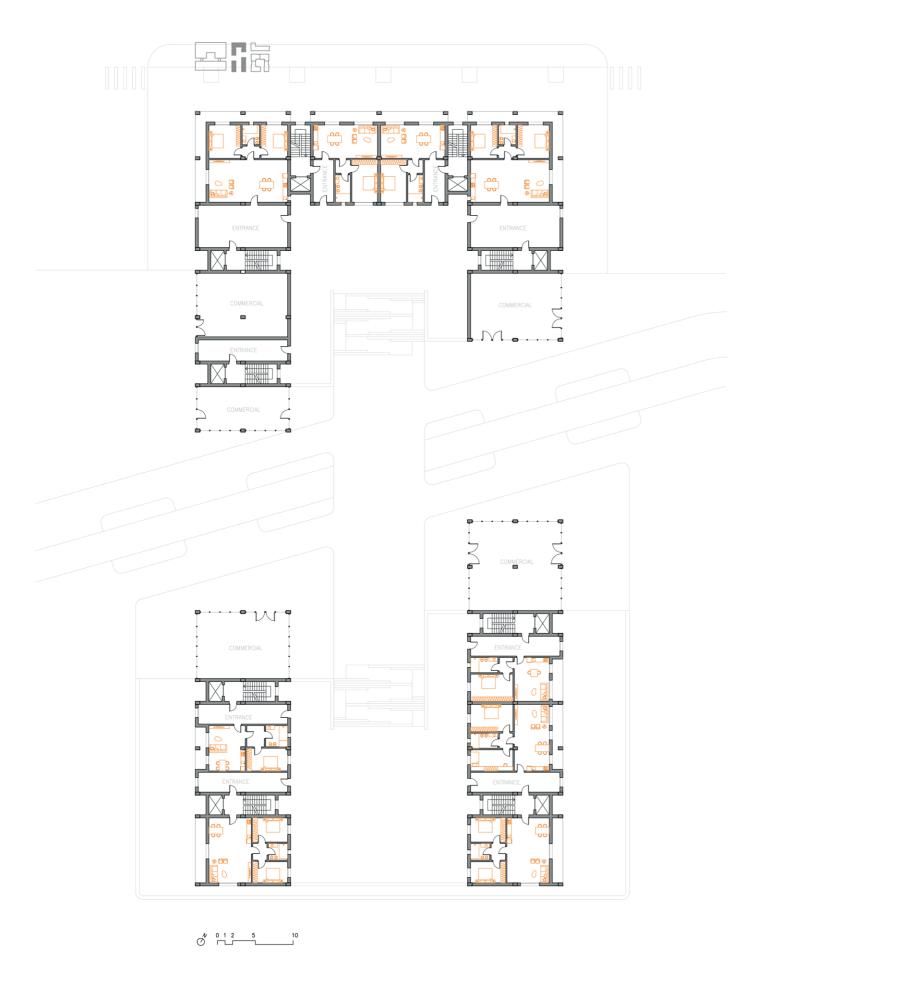
The structure is designed with three-tiered organization, permitting private residential uses above and commercial uses below. The mass is stepped so as to maximize orientation toward the park and offer terraces and outdoor platforms. The building base sets back to establish smaller commercial units and public amenities that contribute to the liveliness of the pedestrian experience, encouraging a layering of functions to achieve spatial hierarchies and ultimately a process of urban integration.

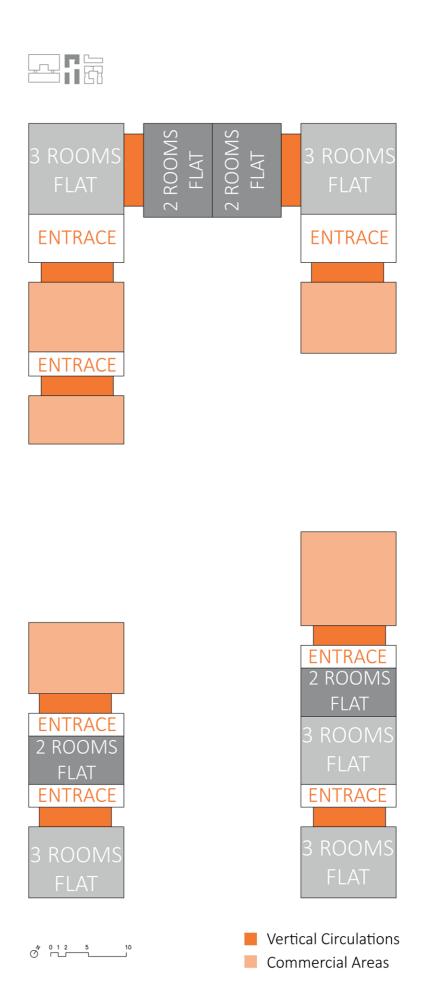
EXPLODED PERSPECTIVE OF RESIDENTIAL BUIL-DINGS





RESIDENTIAL BUILDINGS GROUND FLOOR PLAN

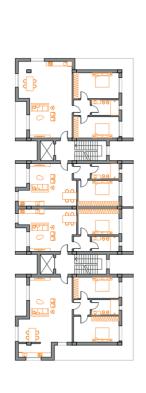




RESIDENTIAL BUILDINGS FLOOR PLAN





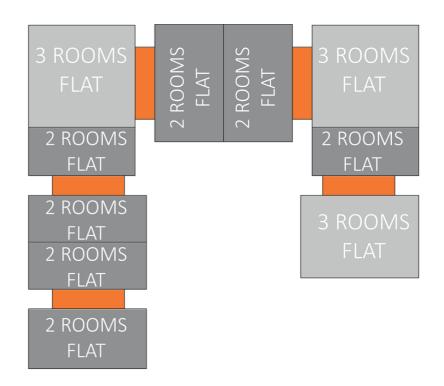


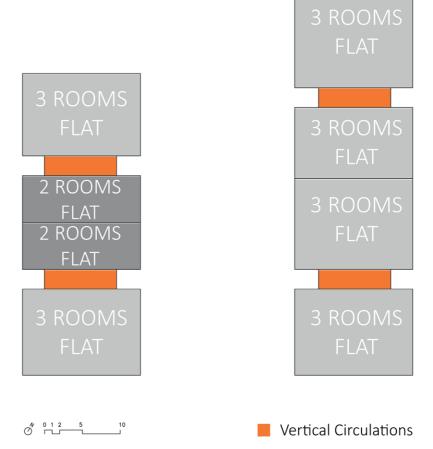
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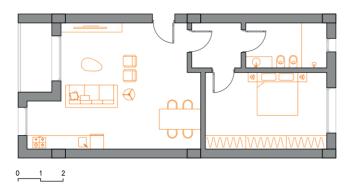
RESIDENTIAL BUILDINGS SECTIONS



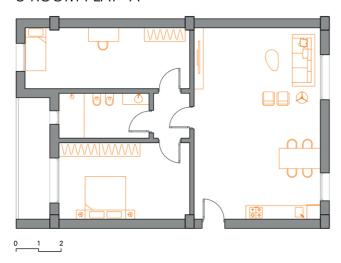


RESIDENTIAL BUILDINGS UNITS

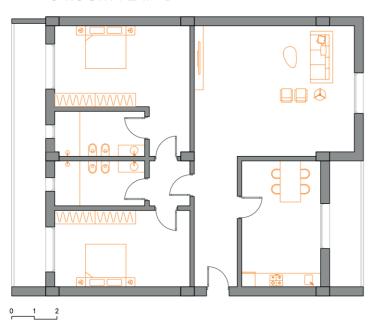
2 ROOM FLAT- A



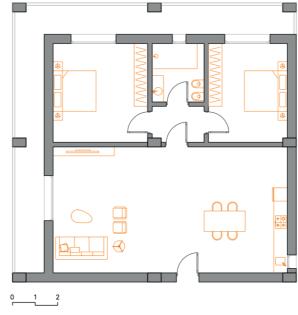
3 ROOM FLAT- A



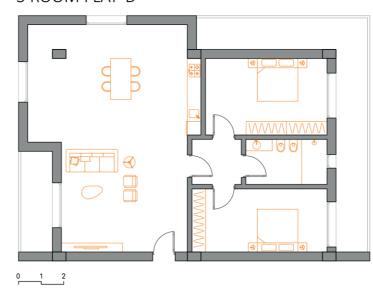
3 ROOM FLAT- B



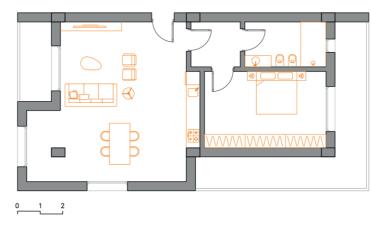
3 ROOM FLAT- C



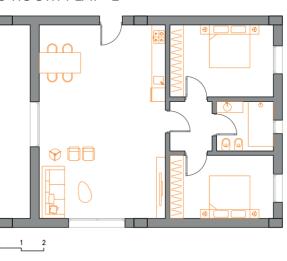
3 ROOM FLAT-D



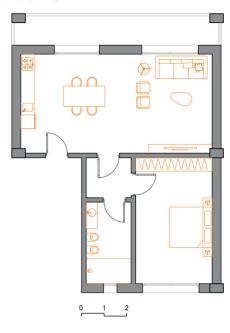
2 ROOM FLAT- B



3 ROOM FLAT- E



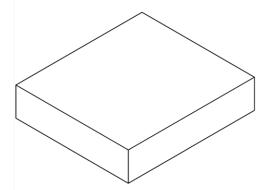
2 ROOM FLAT- C



4.4 COMMERCIAL CENTER AND OFFICES SECONDARY FUNCTION

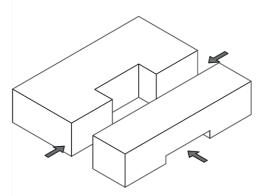


CONCEPT OF COMMERCIAL CENTER AND OFFICES



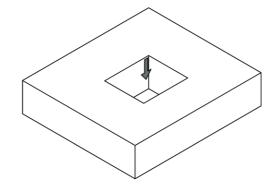
1- Volume of Building

The design process initiates with a simple elongated shape, serving as a frame work on either side of the site; so allowing for programmatic adaptability and facilitating longitudinal spatial configurations. This diminutive foot print optimizes light exposure to both sides of the structure, while providing a crucial continuous urban edge, informing potential design adjustments moving forward.



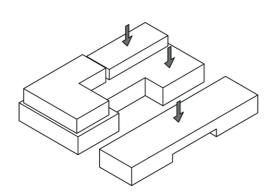
3- Connection with Park and Commercial Path

With the intentto connect the nearby green park to a commercial promenade that traverses the site, the volumes of the building are carvedin a deliberate manner. These cuts en liven the ground level and act as pedestrian connections. The blended effect of public passage and shopping continuity develops an open and appealing environment. This permeability is intuitive, creating a dynamic interface between built mass and urban landscape.



2- Courtyard

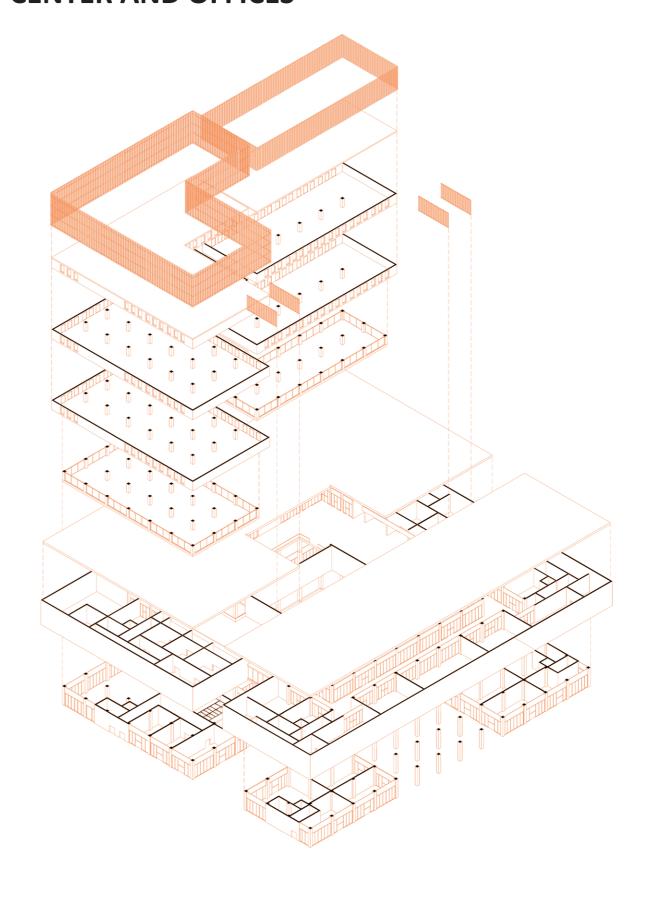
All things flow into the courtyard, hewn from the solid mass to generate space, pouring day light and natural ventilation into contrasting internal areas. The massing of this void offers comfort related to the environment and becoming a center for congregation for users. The courtyard supports spatial openness and social visibility to the shared environment of the entire building, are fuge from the programmatic intensity of surrounding operations.



4- Leveling of Building

The building is expressed through adistinct vertical stratification: Two base levels accommodate commercial activities to create a bustling public interface, whilst the upper levels include adaptable office areas. The mass has been tiered to maximize daylight access and generate terraces facing the park and plaza. This graded formation ensures a lively pedestrian environment at the base, whilst above supports productivity and workplace quality — all contributing to an integrated model of urban and programmatic integration.

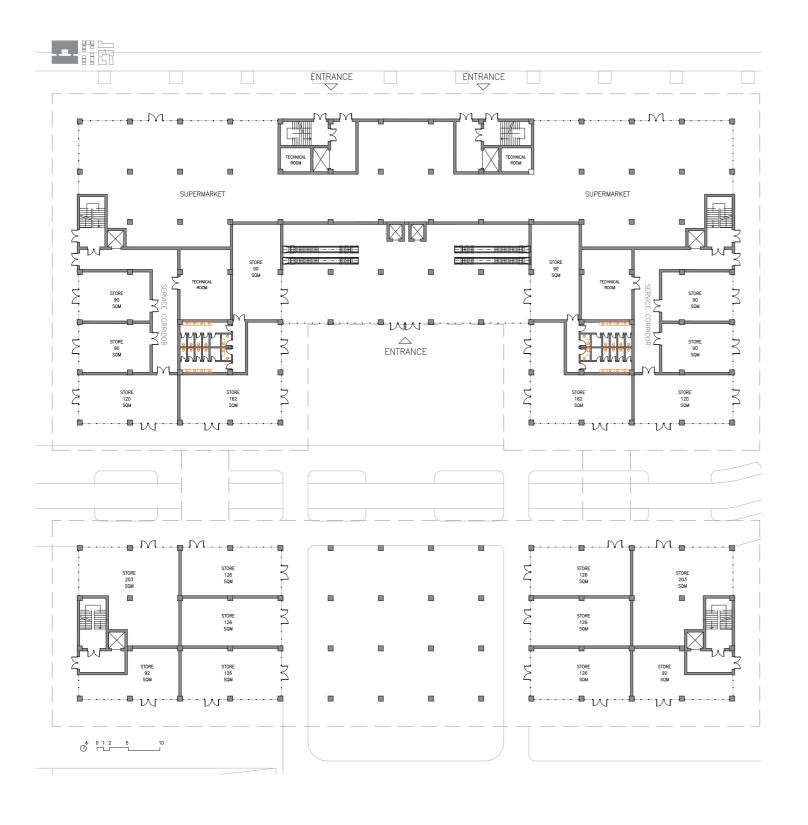
EXPLODED PERSPECTIVE OF COMMERCIAL CENTER AND OFFICES

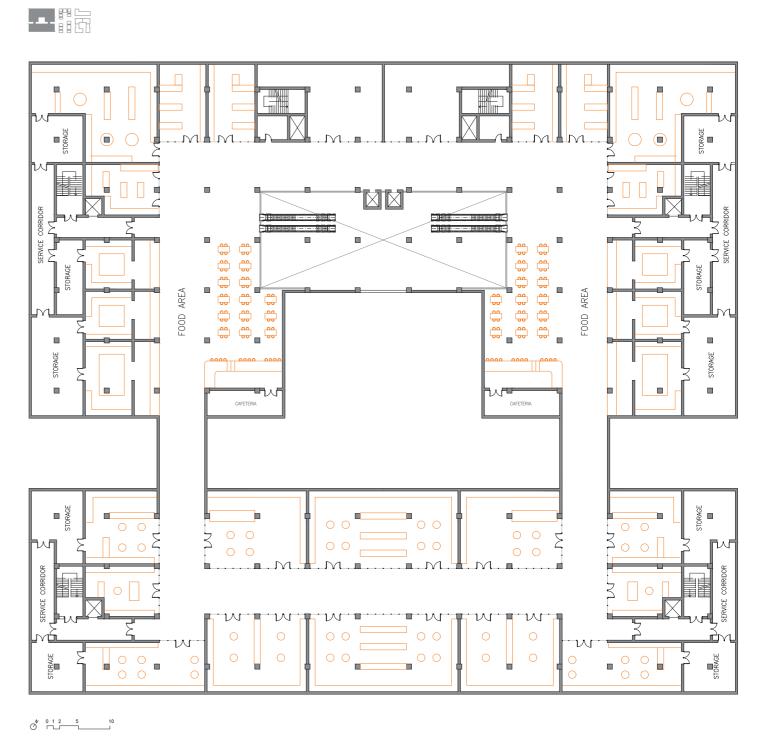




COMMERCIAL CENTER GROUND FLOOR PLAN

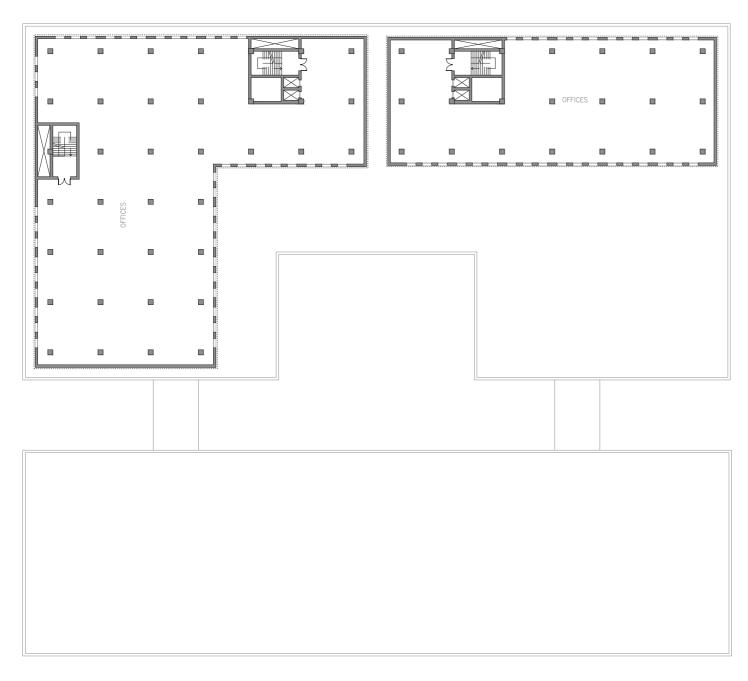
COMMERCIAL CENTER FIRST FLOOR PLAN





OFFICES PLAN





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COMMERCIAL CENTER AND OFFICES SECTIONS

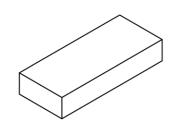




4.5 HOTEL SECONDARY FUNCTION

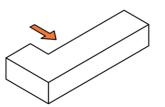


CONCEPT OF HOTEL



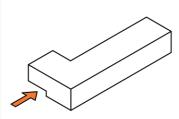
1- Volume of Building

Start with a compact and linear volume that will fit working within the urban plot. This form is good in circulation and maximizes the number of standard hotel rooms on every floor. Simple geometries give ease in terms of structural repetition and thearrangement of the facades. The rectilinear shape is only the beginning; it sets the basic geometry for subsequent manipulation.



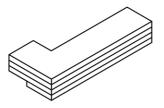
2- Distance from Road

The building has been slightly adjusted away from the road so that a comfortable pedestrian buffer zone and entrance forecourt can be defined. This action helps soften the realm of public circulation and that of the building mass. It could also create opportunities for landscape integration, drop-off zones, or small gatheringplaces. This offset contributes to enhancing spatial quality and interaction at the street level.



3- Connection with Context

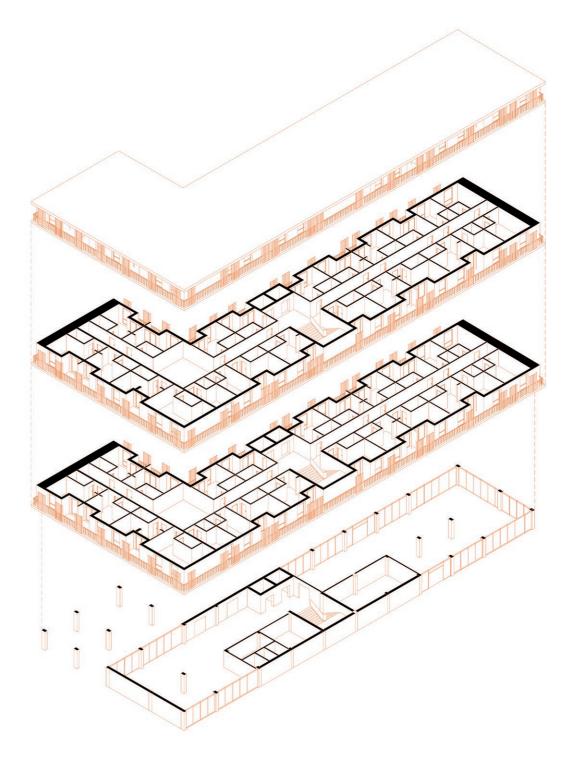
Strategically placed openings and orientation create active linkages between the hotel and its urban context. The mass of the structure opens toward major visual or pedestrian axes to encourage accessibility and transparency. Connectivity at ground level ensures a good face to the hotel for either their guests or the passersby strengthening the need for the hotel participants to be part of the surrounding urban life.



4- Programatic Split Among Functions

The program follows the vertical axis: public and shared uses are found on the ground floor; standardized guest rooms are located on the upper floors. The ground floor houses a restaurant for the use of hotel guests and local residents, serving as the social connective tissue between the hotel and its context. The repetition of the floor plans above serves to enhance the operational efficiency of the hotel while assuring a coherent spatial organization; the stratification of function certainly adds to both efficiency and hospitality.

EXPLODED PERSPECTIVE OF HOTEL



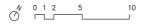


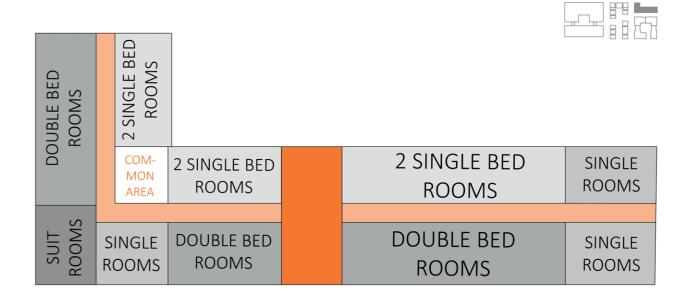
HOTEL GROUND FLOOR PLAN

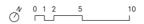


HOTEL FLOOR PLANS









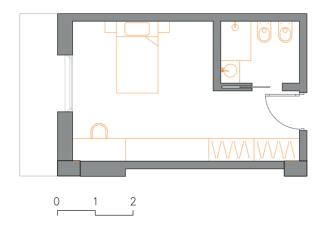
Vertical Circulations

Horizontal Circulations

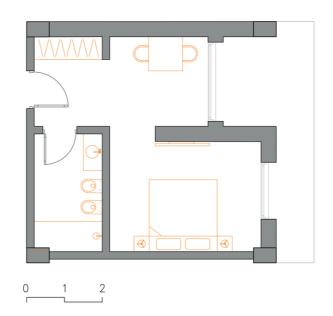
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HOTEL UNITS

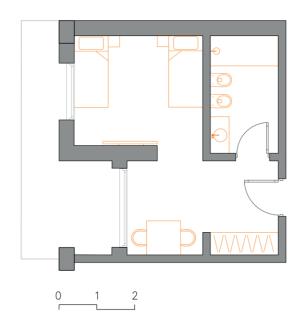
SINGLE ROOM



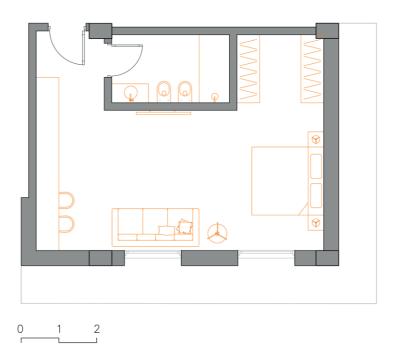
DOUBLE BED ROOM



DOUBLE ROOM



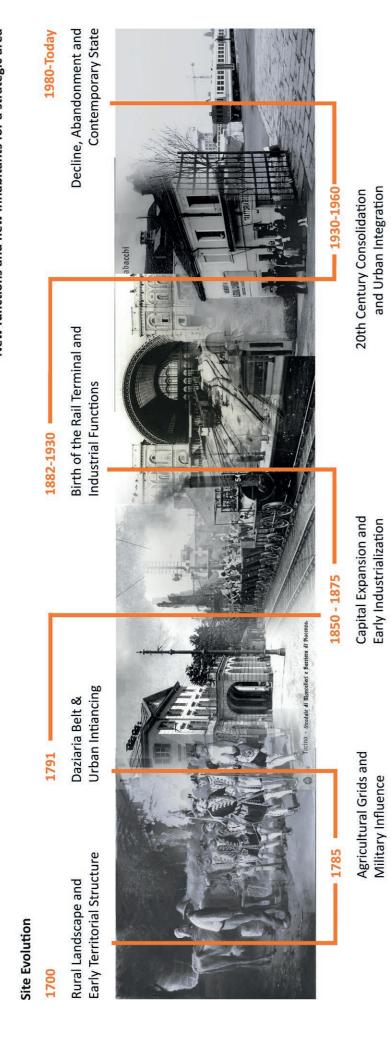
LUXURY ROOM



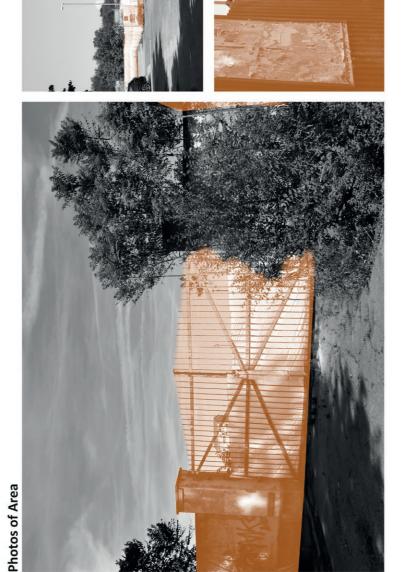
PROJECT BOARDS

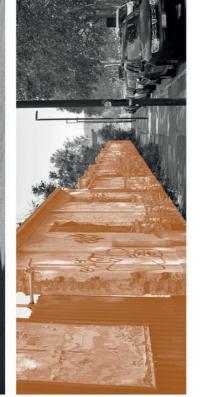
Urban Regeneration of Ex-Scalo Vanchiglia: New functions and new inhabitants for a strategic area

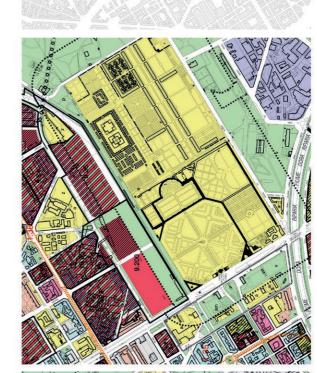
Politecnico di Torino













	Urban transformation zones (designation of area)	-	Lower Education
	Roads	•	Facilities of common interest
100	Services	>	Public parks, playgrounds and sports areas
1	Sport facilities	۵	Parking
1000	Continnassi - Redevelopment area	Arti	Public markets and shopping centers
1.0	Building concentration, predominant lans use	36	Urban hygiene and technical services
1000	Residential		Social services and facilities of general interest (art. 22 U/R)
	Tertary activities and service facilities for individual abd businesses.		Higher education
1	Residential - Tertiary activities	£	Social, health and hospital services
	Productive activities	A	Urban and commercial public parks
1	Facilities of general interest (university,etc.)		
1	Receptive activities		
	Commerce: large-scale retail		
1000	Eurotorino _ Technology Park		
	Lingotto - Multipurpose center		
	Management of the Park of the		

Tutor: Michela BAROSIO

ASPI Min 40 % Indice Territoriale

81.026 sqm

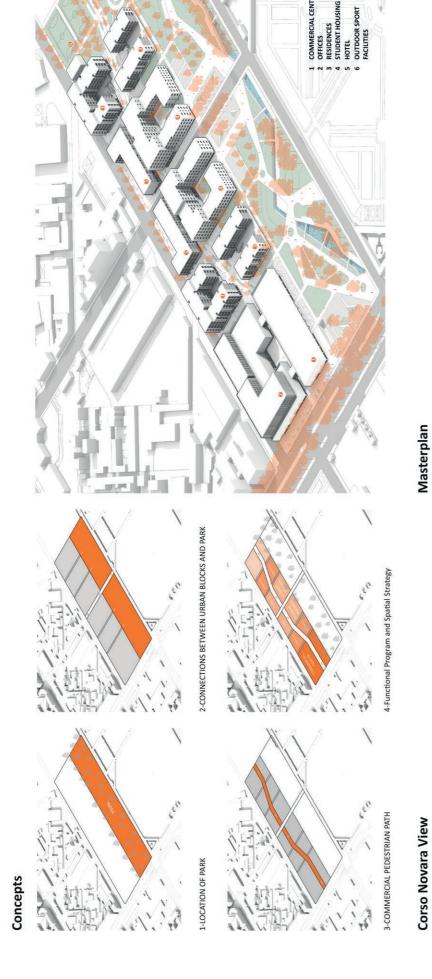
| 198 Student: Ahmed Yusuf AKCAY

Student: Ahmed Yusuf AKCAY

MsC in Architettura Construzione Città A.Y. 2024/2025

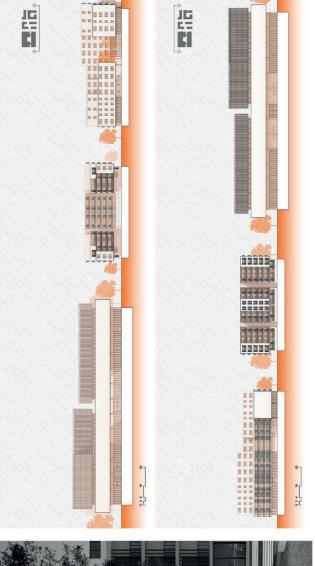
Urban Regeneration of Ex-Scalo Vanchiglia: New functions and new inhabitants for a strategic area

Politecnico di Torino









Tutor: Michela BAROSIO

Urban Regeneration of Ex-Scalo Vanchiglia: New functions and new inhabitants for a strategic area

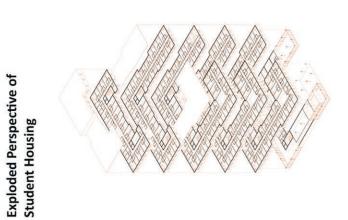
Concept of Student Housing

Politecnico di Torino

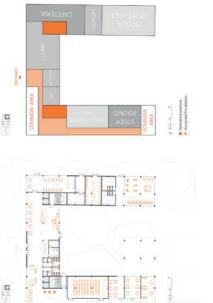








Student Housing Ground Floor Plan



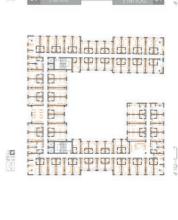
Student Housing Views



Student Housing First Floor Plan



Student Housing Floor Plans

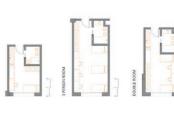


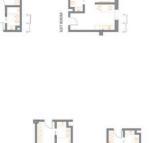


Units of Student Housing

Student Housing Sections

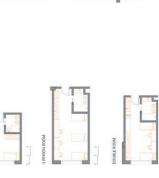
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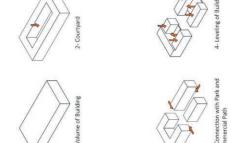






Urban Regeneration of Ex-Scalo Vanchiglia: New functions and new inhabitants for a strategic area

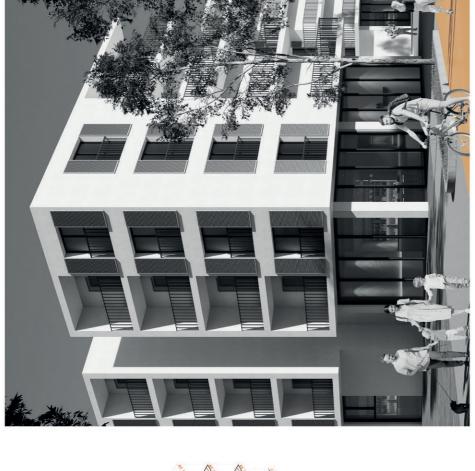
Concept of Residential Buildings







Exploded Perspective of Residential Buildings

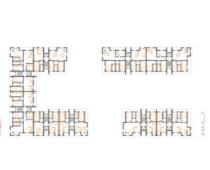


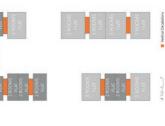
Residential Building Ground Floor Plans





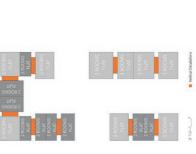
Residential Building Floor Plans





Units of Residential Buildings

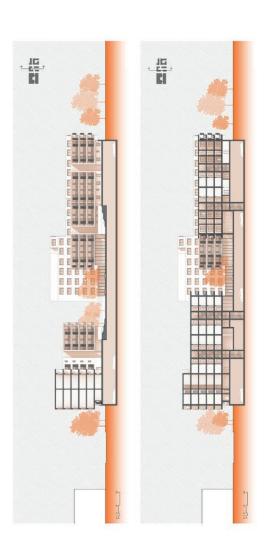










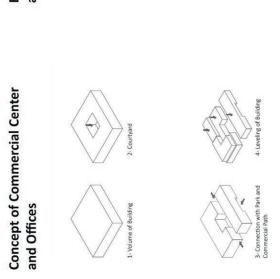


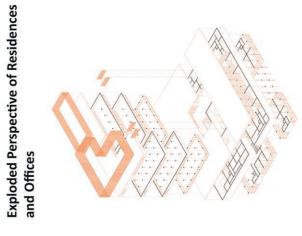
Student: Ahmed Yusuf AKCAY

Tutor: Michela BAROSIO

Politecnico di Torino

Urban Regeneration of Ex-Scalo Vanchiglia: New functions and new inhabitants for a strategic area





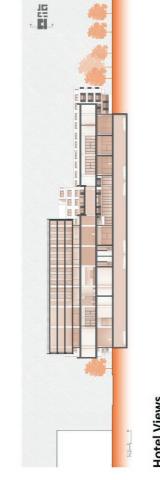


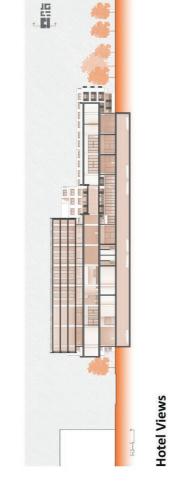


Commercial Center First Floor Plan

Commercial Center Ground Floor Plan







TE ISI

Commercial Center and Offices Sections

Exploded Perspective of Hotel

Concept of Hotel

















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06

Conclusion

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CONCLUSION

As a case study, this thesis, using a student housing lens, has analyzed the latent future possibilities of Ex-Scalo Vanchiglia, a historical industrial, now potentially abandoned site in central Turin, against the background of contemporary urban regeneration. The site is seen as both challenge and chance under compounded demographic pressure and rising infrastructural fragmentation in a city in transition, a dormitory fragment to wake up anew in light of holistic, equitable, and resilient city-making.

Ex-Scalo Vanchiglia's-more-in-space-dilemmas-spaces has an inward-looking morphology and a freight-oriented past. It was indeed turned into a void in space and symbolism in the throbbing, lively city life of Turin. However, this can bring quite an impact as it nestles close to leading academic institutions, efficiency mobility corridors and lateral neighborhoods. The importance of the aspect raised in the study is how to take this void and turn it into a solid part of an active city: a place that places life, learning, and exchange at the center and where new forms could be accommodated and activated.

At the outset is laid the groundwork for clarity over the context of urgency about student housing in Turin—structurally permanent, rather than temporary. The city has increasingly attracted aspiring academics; indeed a big student population has not been capitalized on through student residences that might be built as accessible, affordable, and well integrated into the urban areas. All these do create a symbiotic effect of social exclusion, increased journeys, and disruption of the relationship between students and the city itself. So student housing is redefined by the thesis, not as a marginal support function but as a spatial and social catalyst for transforming the city. That is, it will consider this as typology of dwellings and as a strategy capable of reconstituting fragmented areas into the urban whole.

Examining this theory will be practicable from a design-led intervention, where student housing acts as the key functional driver for a mixed-use masterplan for the Ex-Scalo Vanchiglia site. Besides construction functioning-on, the facility provisions also cover public parks, housing units, commercial establishments, offices, and a hotel. All these components are very well organized to amplify their permeability, programmatic synergy, and environmental responsiveness. Rather than using a single architectural gesture, the project employs a modular, adaptive form-making approach, thus promoting a phased development and future flexibility.

One of the most evident distinctions this proposal carries is its sensitivity to the context. Instead of eliminating the industrial memory of the site, the design processes several of its constraints—those of spatial logics and topographic conditions, and of infrastructural traces—in order to anchor the proposal in both history and geography. It thereby adheres to the tenets of critical regeneration, where place-making is accomplished through reinterpretation and not a tabula rasa replacement. Collectively, the project forms corridors that are pedestrian-compatible, public squares, green buffers, and semi-open courtyards, fostering an open-ended yet coherent and distinct sense in articulation and architecture.

The student housing offered once more revolves around hybridity, where balancing autonomy and collectivity features is the norm for the housing typology. Ground floors open to cafés, co-working lounges, laundromat-social nodes, and study zones- in effect blurring the threshold between private life and public en-

counter. The upper floors then come as offering modular and effective units to support short-term and long-residency inhabitants. That flexibility and structural integrity are important at the broadest level also applies across the entire masterplan, with each building block being an essential element in a shared ecosystem of interaction, mobility, and sustainable living.

The student's thesis engaged with the university city as a broader area - not just as a place of education but also a space with demographic renewal, vibrancy, and inclusion. By embedding the student housing at the center of an urban void, this project sought to redefine the habitation of learning communities in cities. Its resulting urban landscape will not be limited to academic functions but will generate a composite of overlapping lives - in students, workers, travelers, and residents - who live in a dynamic, interlinked, adaptive environment.

Adding a secondary function (residential spaces, commercial center, an office place, or hotel) ensures continued viability for the development beyond the academic cycle. Such a mixed use also introduces economic diversity and diminishes dependency on monoculture. For instance, short-term use will activate the site through its hotel space, while commercial and office functions relate the broader city and improve cross-generational connectivity. This is not a superficial hybridization but one structural to be embedded within the spatial DNA of the proposal.

The contribution is also to a wider theoretical and methodological discourse in urbanism. The research shows a multi-scalar and inter-disciplinary methodology for tackling urban transformation under historical analysis, urban morphology, typological synthesis, and si-

te-specific design. Regeneration is by no means simply a design issue; it becomes a socio-political one - requiring negotiations between institutions, communities, and designers over time. Thus, the masterplan is not a finished product but a strategic framework for future change.

Lastly, this thesis shows how Ex-Scalo Vanchiglia could be transformed from a relic of infrastructural obsolescence and urban neglect into a vibrant, multifaceted neighborhood. The insertion of student housing as the catalyst, together with other housing types and functions, including commercial and public programs, makes that site the prototype of future resilient and inclusive cities. It is a place where learning and living, memory and innovation, isolation and integration cease being opposites but become part of a singular urban conversation. The project does not just fill up a void in the city; it redefines what it signifies to be part of a city that is constantly evolving.

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Bibliography

List of Figures

Part 2

Figure 1. Pianta di Torino, 1706. Topographic map of the city and its surroundings, engraved by Nicolas Visscher.

Figure 2. Pianta di Torino e dei suoi contorni, 1785. Copper engraving by Francesco De Caroly. This map clearly illustrates the regularized agricultural grid and peripheral topographies surrounding the fortified city of Turin.

Figure 3. Pianta della Città di Torino, 1790. Copper engraving by Antonio Maria Stagnon. The map highlights the fortified city and its emerging tax boundary (cinta daziaria) along peripheral roads.

Figure 4. Nuova pianta della città di Torino, 1869. The plan illustrates the expanding urban grid and infrastructural connections during the early phase of Turin's industrial development.

Figure 5. Tram and workers in front of the Ex-Manifattura Tabacchi, Regio Parco, in the 1920s.

Figure 6. Plan of Turin, ca. 1930. The map highlights the Scalo Merci Vanchiglia (freight terminal) amidst an increasingly dense residential and infrastructural fabric.

Figure 7. Former cargo terminal entrance of Ex-Scalo Vanchiglia, with disused tracks and rolling stock, reflecting its abandonment and infrastructure degradation since the late 1980s.

Figure 8. Plan of Turin's tramway network in 1928, illustrating the infrastructural framework that supported the city's industrial expansion. The convergence of transport lines reveals the spatial centrality of logistics in early 20th-century Turin.

Figure 9. Satellite image of Ex-Scalo Vanchiglia and its surroundings, 2007. The site—once a thriving freight terminal—appears as a spatial void within the dense urban fabric of Turin. Despite its central location, the area remains fenced off and functionally disconnected, a remnant of its industrial past.

Figure 10. Map showing the spatial distribution of university campuses (orange) and existing student dormitories (black) across the city of Turin. The Ex-Scalo Vanchiglia site appears significantly disconnected from the existing student housing network despite its proximity to major institutions such as the University of Turin and Politecnico di Torino. This spatial gap highlights the site's potential for introducing new student accommodations that can bridge infrastructural voids and support an equitable urban strategy.

Figure 11. The map illustrates the geographical positioning of Ex-Scalo Vanchiglia in relation to surrounding landmarks such as the Manifattura Tabacchi industrial complex, Parco della Colletta, and Piazza Castello. It highlights the site's centrality and spatial disconnection within Turin's urban fabric.

Figure 12. Disused railway infrastructure and overgrown vegetation at the Ex-Scalo Vanchiglia site.

Figure 13. Disused railway infrastructure and overgrown vegetation at the Ex-Scalo Vanchiglia site.

Figure 14. Disused railway infrastructure and overgrown vegetation at the Ex-Scalo Vanchiglia site.

Figure 15. The map illustrates the strategic positioning of Ex-Scalo Vanchiglia in relation to major urban corridors such as Corso Regina Margherita, Corso Regio Parco, and Corso Giulio Cesare.

These infrastructural axes ensure both vehicular accessibility and integration into the metropolitan

Figure 16. View of Corso Novara, a major urban boulevard adjacent to the Ex-Scalo Vanchiglia area. Figure 17. View of Corso Regio Parco, showing the dense tree alignment and green buffer along the roadway. This linear vegetation belt defines the northern edge of the Ex-Scalo Vanchiglia area and contributes to the ecological and visual continuity between the site and Parco Colletta.

mobility system.

Figure 18. The map highlights the spatial distribution of major and minor green spaces in the eastern central portion of Turin, including Parco Colletta and Giardini di Reali. The fragmented green fabric surrounding the site reveals potential for ecological linkage and public space continuity through the redevelopment of Ex-Scalo Vanchiglia.

Figure 19. A tree-lined pedestrian and cycling path in Parco Colletta, illustrating the park's green infrastructure and recreational potential along the Dora River corridor.

Figure 20. View of the renewed "Boschetto" area with the "Pietre Preziose" installation in the Giardini Reali of Turin, reflecting contemporary landscape restoration strategies within historical urban parks.

Figure 21. Existing public transportation network surrounding the Ex-Scalo Vanchiglia area. The diagram illustrates the current tram and bus infrastructure in proximity to the site, highlighting strategic transit corridors and nodal connections.

Figure 23. Legend of the zoning plan for the Scalo Vanchiglia and former Railway Trench area. This legend illustrates the designated land use categories defined in the updated urban redevelopment plan, including functional zones such as transformation areas, residential and tertiary uses, productive activities, educational and health services, and green and commercial public spaces.

Figure 24. Area di Scalo Vanchiglia ed ex Trincea Ferroviaria. P.R.G. TAVOLA N. 1. AZZONAMENTO – STATO ATTUALE

Figure 25. Area di Scalo Vanchiglia ed ex Trincea Ferroviaria. P.R.G. TAVOLA N. 1. AZZONAMENTO – VARIANTE

Figure 26. The map outlines the subdivision of Ex-Scalo Vanchiglia into distinct planning sectors, including Scalo Vanchiglia Est, Ovest, and the 9.200 Regaldi zone. It visualizes the applicable zoning regulation for future urban transformation, focusing on land use mix, density, and strategic connections to surrounding urban systems.

Part 3

- Figure 27. Vue cavalière du couvent des Bernardins.
- Figure 28. Courtyard of Trinity College, Cambridge.
- Figure 29. Exterior view of Collegio delle Province, Turin, 1926. Photo by Mario Gabinio.
- Figure 30. Maison du Brésil student residence, Paris, designed by Le Corbusier and Lucio Costa (1959).
- Figure 31. Plan of Bologna (1743), showing the urban layout and the dispersed location of the university marked as "B." The university's integration within the civic core reflects the traditional embeddedness of academic life in the urban fabric.
- Figure 32. Residential blocks in Berlin-Marzahn, illustrating suburban mass housing typologies similar to post-war student dormitory design.
- Figure 33. Casa dello Studente, Torino Facade of the Casa dello Studente, located between via Bogino and via Principe Amedeo. Designed by Ferruccio Grassi, Paolo Perona, and Luigi Ferroglio between 1935 and 1937.

- Figure 34. Communal kitchen and lounge area at WeLive Wall Street, New York City. The image illustrates the co-living model's emphasis on shared amenities, flexibility, and cultural diversity—features increasingly integrated into global student housing typologies.
- Figure 35. Floor plan of Baker House Dormitory at MIT, designed by Alvar Aalto (1946–1949). The plan illustrates the undulating linear corridor system aimed at enhancing spatial variety and natural lighting.
- Figure 36. Courtyard view of TWIST Student Housing at ETH Zürich, designed by Architektick. The semi-enclosed central space functions as a communal courtyard, surrounded by curved facades that maximize light, views, and social interaction.
- Figure 37. Exterior view of The House at Cornell Tech, Roosevelt Island, New York. Designed by Handel Architects (2017), this 26-story tower dormitory is recognized as the world's largest Passive House-certified residential building. Its compact vertical form reflects a growing trend in urban student housing, where density, energy efficiency, and spatial variety are combined.
- Figure 38. Exterior view of DUWO Student Housing in Delft, the Netherlands, designed by Mecanoo. This project exemplifies the cluster-based dormitory model, organizing students into small groups within modular units. The green facade and separated volumes reflect a human-scaled, community-oriented approach to dense student living.
- Figure 39. Ground floor communal area at The Student Hotel Delft, designed by The Invisible Party. This multifunctional zone integrates co-working pods, informal lounges, and recreation areas, fostering interaction between students and the public. The open-plan design and layered programming exemplify the hybrid nature of mixed-use student dormitories.
- Figure 40. Student Experience Minervahaven student housing complex in Amsterdam, designed by **VURB Architects.**
- Figure 41. Location demonstrates the integration of off-campus student housing into contemporary urban regeneration strategies.
- Figure 42. Original architectural floor plan of the Student Experience Minervahaven project. The graphic has been modified and diagrammatically colored by the author for analytical purposes. Figure 43. Original architectural floor plan of the Student Experience Minervahaven project. The graphic has been modified and diagrammatically colored by the author for analytical purposes. Figure 44. Original architectural ground floor plan and section of the Student Experience Miner-

Figure 45. Original architectural section of the Student Experience Minervahaven project. The graphic has been modified and diagrammatically colored by the author for analytical purposes.

Figure 46. The plans illustrate two compact micro-unit layouts used within the residential block:

Type 1 (single compact unit) and Type 2 (extended double-use model).

Figure 47. Interior view of a student housing unit at Student Experience Amsterdam Minervahaven.

The layout integrates sleeping, studying, and social functions in a compact and flexible manner.

Figure 48. Another perspective of a student room at Amsterdam Minervahaven, illustrating the

integration of private workspace, storage, and minimal furnishings within a studio typology.

Figure 49. RMIT Bundoora West Student Accommodation in Bundoora, designed by RMA Archite-

cts.

Figure 50. Location demonstrates the integration of in-campus student housing into contemporary urban regeneration strategies.

Figure 51. Original architectural floor plan of the RMIT Bundoora West Student Accommodation

project. The graphic has been modified and diagrammatically colored by the author for analytical

purposes.

Figure 52. Original architectural floor plan of the RMIT Bundoora West Student Accommodation

project. The graphic has been modified and diagrammatically colored by the author for analytical

purposes.

Figure 53. Original architectural ground floor plan of the RMIT Bundoora West Student Accom-

modation project. The graphic has been modified and diagrammatically colored by the author for

analytical purposes.

Figure 54. Original architectural section of the RMIT Bundoora West Student Accommodation

project. The graphic has been modified and diagrammatically colored by the author for analytical

purposes.

Figure 55. The plans illustrate three micro-unit typologies implemented within the residential blo-

ck: Type 1 (single compact unit), Type 2 (extended double-use unit), and Type 3 (linear studio with

separated functions).

Figure 56. Shared lounge and kitchen area in the larger cluster-type units of the RMIT Bundoora

student housing complex. The design integrates communal functionality with an industrial interior aesthetic.

Figure 57. Interior view of a double-occupancy apartment unit at RMIT Bundoora campus. The space includes a private sleeping zone and shared kitchen-dining facilities designed for co-living arrangements.

Figure 58. Example of an individual student unit with integrated study desk, kitchenette, and storage solutions at RMIT Bundoora. The layout emphasizes functional minimalism in a compact footprint.

Figure 59. Cornivus Gellert Campus in Budapest, designed by Plant - Atelier Peter Kis.

Figure 60. Location demonstrates the integration of in-campus student housing into contemporary urban regeneration strategies.

Figure 61. Original architectural floor plan of the Corvinus Gellert Campus project. The graphic has been modified and diagrammatically colored by the author for analytical purposes.

Figure 62. Original architectural floor plan of the Corvinus Gellert Campus project. The graphic has been modified and diagrammatically colored by the author for analytical purposes.

Figure 63. Original architectural ground floor plan of the RMIT Bundoora West Student Accommodation project. The graphic has been modified and diagrammatically colored by the author for analytical purposes.

Figure 64. Original architectural section of the RMIT Bundoora West Student Accommodation project. The graphic has been modified and diagrammatically colored by the author for analytical purposes.

Figure 65. Re-drawn unit plans of the Corvinus University Gellért Campus dormitory, based on original drawings. The diagrams show typical double and triple occupancy configurations, highlighting shared sleeping, study, and sanitary areas.

Figure 66. Interior view of a student dormitory room at the Gellért Campus of Corvinus University, Budapest. The room features minimalist furniture, including two single beds, built-in wardrobes, study desks, and large windows providing natural light. The design emphasizes functionality, shared living, and spatial efficiency.

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