

THE CHANDIGARH CHALLENGE: BALANCING CULTURAL HERITAGE AND URBAN DEVELOPMENT

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INTRODUCTION

Following the partition of British India into Pakistan and India in 1947 the government of India decided to build Chandigarh as a new capital for Punjab. The aim was to create a modern planned city that would represent the aspirations of the newly independent nation. This commission was given to Le Corbusier, who developed the renowned masterplan for Chandigarh together with his cousin Pierre Jeanneret and a team of Indian architects such as Aditya Prakash and Balkrishna Doshi.

With a projected population increase of 35 % by 2035, the Chandigarh metropolitan region serves as an illustrative case study of dynamic urbanization in India. This leads to a conflict of interests between the aim to preserve the central part of the city and the urgent needs of urban development. Would it have been in Le Corbusier's interest to design the city as a living museum or did the team of urban planners intend to create constantly renewing urban structure?

This paper presents the results of an urban design studio that developed alternative scenarios for a balanced urban transformation, taking into account the pioneering character of Le Corbusier's masterplan, and examine answers for the city of the 21st century in terms of density, new housing and functional mix, sustainability and climate adaptation.

With a 'research by design'-methodology several teams created innovative concepts that in the sense of 'What if...?' scenarios - show how cultural heritage and urban development could be balanced. The design teams interpreted the site in different ways and derived urban visions for future development. What all contributions have in common is a re-densification strategy with the addition of new functions combined with a re-organization of parking and qualification of the existing public spaces.

These design projects provide a valuable basis for further planning steps. By comparing the proposed urban design scenarios, important findings can be derived for the discussion about the various alternative options of future urban transformation of Chandigarh.

„Chandigarh is free. It is beautiful. It is an expression of the nation's faith in the future.”
(Jawaharlal Nehru, *India's first Prime Minister, on the inauguration of Chandigarh, 1950s*)

RESEARCH GAP AND METHODOLOGY

Objective

Chandigarh is a city of extraordinary architectural and historical importance, which, like other Indian cities, is subject to enormous development pressure. However, it is currently apparent that there are certain obstacles to adapting the historic core of the city to the changing needs of society. This in turn leads to various problems, including vacant plots and buildings and a decline in investment and maintenance. The aim of this project is to identify ways in which Chandigarh could develop further in terms of urban development without compromising its historically valuable features.

Hypothesis

Chandigarh is a vibrant city, not an architectural and urban planning museum. The center of Chandigarh can (and must) be developed in terms of urban planning in order to continue to fulfil its central functional role in the urban fabric. In this process, it is essential to ensure a balance of urban development and the cultural heritage of the architecture and urban fabric of the functional city.

Research Methodology

The research methodology for this project consists of three parts: (i) The first part includes the work with literature sources in the thematic field of the modernist movement in architecture and urbanism, and the theoretical background of the *Functional City*, the *Charta of Athens*, the role of *Le Corbusier* and the *Planning History of Chandigarh*. (ii) The second part comprises an analysis of Chandigarh's urban fabric and condition today through personal site visits and interviews with local stakeholders and experts. (iii) The third part consists of a 'research-by-design'-methodology, which uses an urban design master studio at KIT to develop a series of alternative proposals. These design projects are presented in intermediate and final presentations to local experts in order to include feedback in the process and facilitate a qualified discussion. The results are documented and published at the end of the process.

“The seed of Chandigarh is well sown. It is for the citizens to see that the tree flourishes.”
(Le Corbusier, Edict of Chandigarh, 1959)

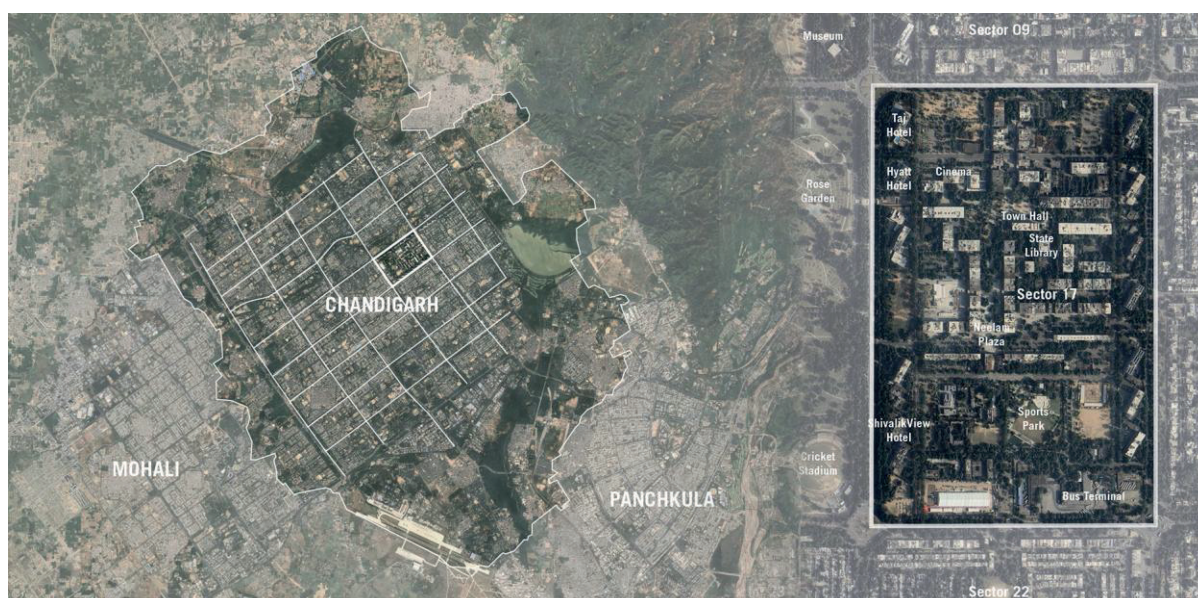


Figure 1: TriCity – Chandigarh with Panchkula and Mohali: Aerial Image with Municipal Border - Sector 17 - The Commercial Heart of Chandigarh.¹

URBAN PLANNING HISTORY OF CHANDIGARH

Chandigarh occupies a singular position in the history of twentieth-century architecture. It represents the largest concentration of Le Corbusier's work in a single location, while also serving as the arena where Pierre Jeanneret matured professionally and where Maxwell Fry and Jane Drew advanced their conception of "tropical architecture." Equally significant, the city provided a platform for India's first generation of modernist architects, including Aditya Prakash, Anant Prabhawalkar, and Bhanu Prakash Mathur, who developed a lasting body of work across the city.²

The creation of such a remarkable ensemble must be understood within the context of India's early postcolonial years. After two centuries of colonial rule, independence led to a national drive for accelerated modernization. Tensions within society between the desire for emancipation from and dependence on the former colonial power shaped the architectural debate. Instead of simply copying Western models, the new republic sought to convey self-confidence and progress by adapting modern urban planning concepts to the Indian context.³

The partition of India and Pakistan in 1947 intensified this need. The Indian state of Punjab, left without a capital, required a new administrative center. Existing cities such as Amritsar were deemed unsuitable, and the creation of an entirely new city aligned with Prime Minister Jawaharlal Nehru's vision of a modern India, who described Chandigarh as "a symbol of the nation's faith in the future."⁴

The first scheme came from A.L. Fletcher, a civil servant who drew inspiration from the British "New Towns" and the writings of Ebenezer Howard. Fletcher envisioned a modest administrative town surrounded by green space. In 1949, P.N. Thapar was appointed as the Chief Administrator and P.L. Verma as the Chief Engineer, tasked with bringing this vision to life. Internal conflicts soon forced Fletcher to withdraw, but Thapar and Verma remained devoted to the project throughout their careers. In the late 1940s, American planner Albert Mayer, working for Nehru in Uttar Pradesh on creating 'model villages,' was asked to draft the new master plan for Chandigarh, given his background as a town planner influenced by Garden City principles. Recognizing the symbolic importance of the project, Mayer accepted and collaborated with the Polish architect Matthew Nowicki, to design the city's signature government buildings and contribute to housing and public buildings. Tragically, Nowicki died in a plane crash in August 1950. To keep the project moving forward, Thapar and Verma sought replacements in Europe and found Maxwell Fry and Jane Drew, a London-based couple specializing in 'Tropical Architecture' after working in Africa.⁵

Fry and Drew were excited about designing housing and civic buildings for Chandigarh but were hesitant to take on the monumental state buildings. They suggested bringing in Le Corbusier, who was eager to design significant, world-class buildings, but could not imagine relocating to Chandigarh as a salaried employee of the Punjab government. Instead, he proposed that his cousin and former partner, Pierre Jeanneret, take on the role, with Le Corbusier overseeing the project from Paris. Thus, in 1951, Jeanneret, Fry, and Drew moved to Chandigarh as employees of the Punjab Government, while Le Corbusier was appointed as the "Architectural Advisor" with a small annual honorarium, under the condition that he spend at least one month per year on-site.

Thapar and Verma's insistence that foreign architects serve as government employees was decisive, ensuring close collaboration with Indian professionals and the training of a new generation. Around sixty architects, planners, and draftsmen formed the newly established "Architects Office," the city's first completed building and the nucleus of its design culture.

While Le Corbusier's contract required him to implement Mayer's plan, he quickly modified it, making the city more compact and rectilinear, and altering the layout of the sectors. He retained the central green belts and adopted the 7Vs system for the road network, inspired by CIAM principles. His

responsibility apart from the master plan was limited to the Capitol Complex, the Museum Complex in Sector 10, and overseeing building designs in Sector 17 and along Jan Marg and Madhya Marg.

The larger development of the master plan was carried out by Jeanneret, Fry, and Drew in collaboration with Indian architects such as Dethé, Lamba, and Prabhawalkar.. The city's core program included government buildings, housing for government staff, a university, a library, a museum complex, a library, technical training institutes, and essential infrastructure like markets, bus and train stations, clinics, and schools.

In 1954, Fry and Drew left the project as their contracts were not renewed, but Jeanneret remained as the city's Chief Architect, becoming a mentor for Indian architects and planners. The Indian architects on the team had largely colonial training, and Chandigarh's radical modernist design made the "Architect's Office" a professional workshop where teaching and mentoring became integral to the culture. Teaching and mentoring came naturally to Jeanneret, unlike Le Corbusier, and he quickly grew into that role. Under him and then with him, the Indian architects built out most of the city and in turn trained a new cadre of architects who then went on to continue that work in Chandigarh and beyond. This culture of teaching and collaboration as a planning team shaped the city's development and its distinctive and strong architectural character, with Chandigarh becoming the vibrant, modern city it is today.⁶

"The city of Chandigarh is planned to human scale. It puts us in touch with the infinite cosmos and nature. It provides us with places and buildings for all human activities by which the citizens can live a full and harmonious life. Here the radiance of nature and heart are within our reach."

(Le Corbusier, Edict of Chandigarh, 1959)

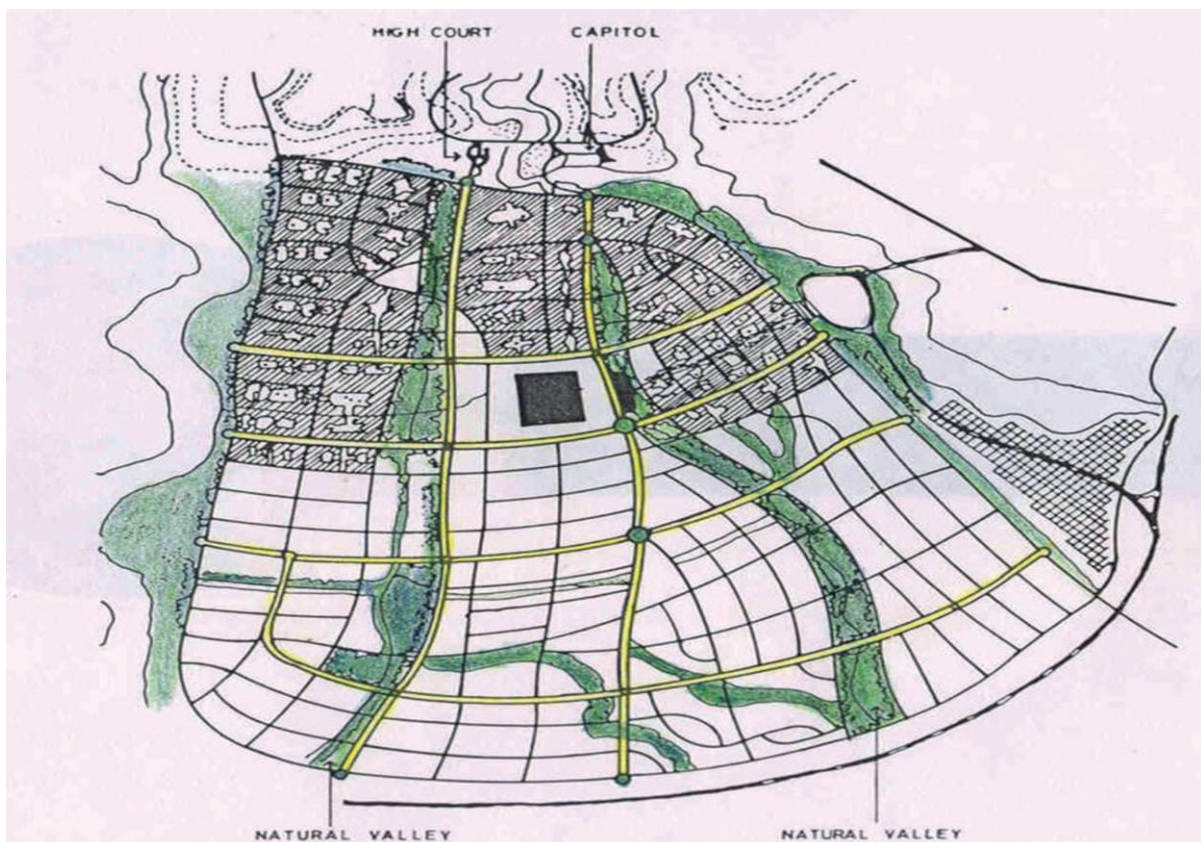


Figure 2: First Master Plan Draft based on Garden City Concepts and Superblocks by Albert Mayer and Mathew Nowicki.⁷

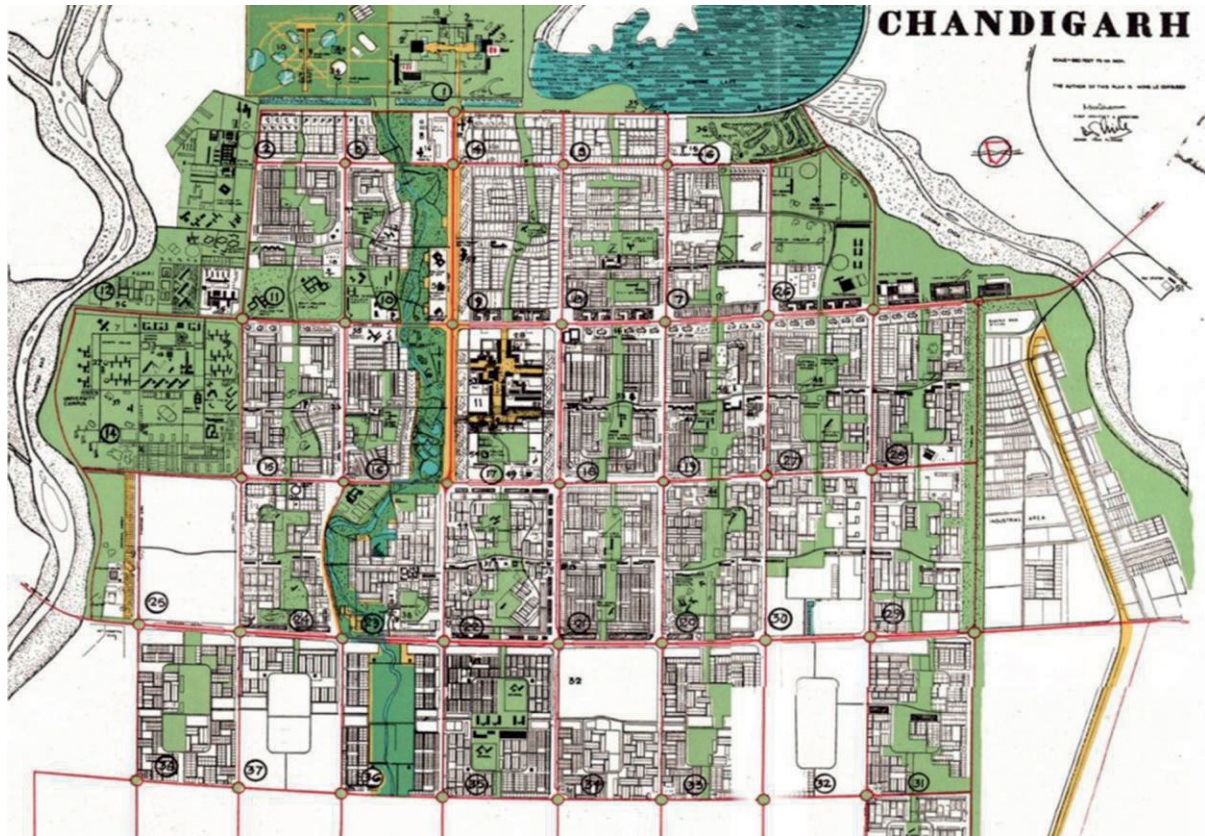


Figure 3: Masterplan based on the Principles of the Functional City by Le Corbusier, 1950.⁸



Figure 4: Chief Engineer P.L. Varma with Le Corbusier and Pierre Jeanneret.⁹

CHARTA OF ATHENS IN THE CONTEXT OF CHANDIGARH

In 1928, the first of the international congresses of modern architecture, CIAM (Congrès Internationaux d'Architecture Moderne), took place in La Sarraz (Switzerland). CIAM was primarily the initiative of Parisian architects Le Corbusier and Gabriel Guévrékian, as well as Swiss art historian Siegfried Giedion. Their stated goal was to establish an avant-garde of the international modern architecture movement in order to supplant the influence of the then-dominant academic neoclassicism.¹⁰

Le Corbusier subsequently summarized the results of the CIAM Congress of 1933 and published them in 1943. The core of the demands was the spatial separation of the four functions of living, leisure, work and transport in urban planning, i.e. a systematic division of the city into clearly separated functional areas. This was intended to avoid the abuses and conflicts of the industrial cities of the 19th century. This concept of the so-called functional city, which had already been envisaged in Ebenezer Howard's Garden City model, often led to a rigid allocation of function and space in the post-war period.¹¹ Le Corbusier consistently adhered to this model, but despite high recognition from other modern architects as a pioneer of CIAM, he remained unsuccessful for a long time – until he was finally offered the opportunity to implement his ideas in Chandigarh, India.¹²

From today's scientific perspective, however, this approach has serious limitations. The functional separation ignores essential social and cultural dynamics of Indian urban life, in which the informal economy, family structures and social exchange are closely intertwined spatially.¹³ The planned city of Chandigarh hardly responds to the social and cultural reality of the Indian population, leading to the marginalization of informal settlements and the social exclusion of large sections of the population.¹⁴ The planning concept took little account of the poorest population groups; informal settlements sprang up on poorly serviced open spaces. Thilo Hilpert sums this up succinctly: “Chandigarh is the ideal city for a privileged minority – modern, clean, empty.”¹⁵ The resulting monotony and lack of urban vitality illustrate the partial failure of the functionalist model in this context.

Furthermore, the focus on private transport led to an infrastructure that disadvantaged broader sections of the population and reinforced social inequalities¹⁶. Important cultural and social aspects of urban space were not taken into account, resulting in urban planning that is strongly technocratic in nature.¹⁷ The case of Chandigarh provides a fundamental insight for contemporary urban planning: planning must be multidimensional and context-sensitive, taking into account the cultural, social and economic interrelationships of urban society in order to create liveable and resilient urban spaces.¹⁸

The critical analysis of the Charter of Athens based on Chandigarh contributes significantly to the further development of urban theory by highlighting the limitations of the modernist paradigm and paving the way for integrative, participatory planning approaches.¹⁹

Chandigarh is thus exemplary of the ambivalence of modern urban planning: conceived as a technocratic utopia, it proves to be a social and cultural challenge in practice. This insight is highly relevant for architects and urban planners in order to design future urban developments in a sustainable manner that takes local realities into account.

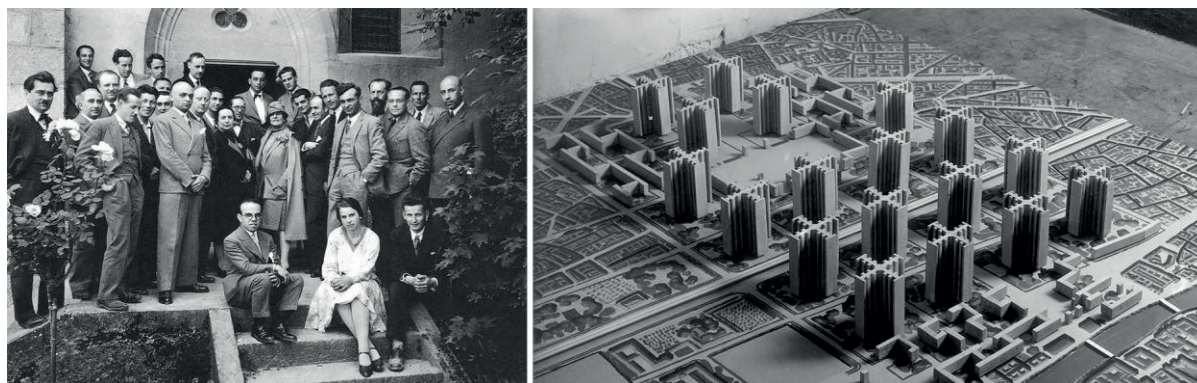


Figure 5: Congrès Internationaux d'Architecture Moderne (CIAM), First Meeting in La Sarraz, CH 1928 (left)²⁰ - Ville Radieuse (The Radiant City), Le Corbusier's Plan Voisin for Paris, 1925 (right).²¹

URBAN CHALLENGES TODAY

The Functional City and the Charta of Athens were not received positively by all professionals and scholars in the fields of architecture and urbanism. Very early on, projects like Chandigarh²² and Brasilia²³ received criticism for their functional separation, car-oriented development and lack of human scale in open spaces. When visiting Chandigarh today – almost 75 years after its initial construction phase – we are able to observe where the functional city works well, and where to identify deficiencies. With a focus on Sector 17, the following urban challenges can be summarized: The commercial heart of Chandigarh is characterized by functional monotony. Except for retail, office and administration, there is relatively little mixed-use. Old building stock, inadequate maintenance, declining attractiveness of the commercial offering and increasing vacancy rates are creating a downward spiral. At the same time, large areas on the backside of the pedestrian areas can be identified that are completely undeveloped or are only used for ground-level parking.

Furthermore, in line with the theoretical concepts of the Athens Charter, the center of Chandigarh is suffering from car-oriented functional separation. Large-scale ground-level parking spaces restrict alternative developments and create an unattractive environment. Oversized pedestrian areas, unused open spaces and large distances between buildings create a feeling of emptiness in the pedestrian zone.

“This city is ruled by architects. We have to act now. Chandigarh is dying!”
(Anonymous local expert in interview, Chandigarh, March 2025)



Figure 6: Images of Sector 17, 2025. ²⁴

DESIGN TASK

The students of the Urban Design Master Studio at KIT had a total of 15 weeks to develop the results presented below structured by two intermediate and the final presentation. This included diving into the specific theoretical background and an unfamiliar cultural context in India as well as going through an intense urban design process. The project was organized into seven teams to develop alternative proposals in order to be able to discuss and evaluate different options and qualities with local stakeholders and experts.

The task for the students was (i) to create a new urban development vision for the city, (ii) to focus on Sector 17 – the “heart of Chandigarh” and (iii) to balance heritage and urban development.

The urban design process was divided into the following steps:

- Research on the theoretical background of the *Functional City*, the *Charta of Athens*, *Le Corbusier* and the *Modernist Movement in India*.
- Analysis of the situation and urban structure in Sector 17.
- Mapping the potentials and challenges.
- Developing an urban design concept in plan and model.
- creating a specific thematic focus supported by atmospheric visualizations.

RESULTS

In the following paragraphs, a selection and summary of three exemplary projects is presented. All of them were developed in an urban design master studio at KIT. For the full overview and graphical details of the proposals, please refer to the KIT publication.²⁵

All projects share the same planning premises: As the analysis revealed, there is plenty of undeveloped and underused land within Sector 17, in addition to a growing vacancy rate for shops and office space. Therefore, there is no pressing need to tear down existing buildings in order to gain space for new development and to overcome the challenges mentioned in the section above. All three proposals maintain the existing buildings and thus the unique character and cultural heritage of Chandigarh, while focusing on the transformation of the open, fallow land and undeveloped areas, combined with careful interventions within the existing urban fabric and open spaces.

The common aim of these projects is to use new additional urban development to create a balanced mix of uses and stabilize the existing functions by adding a new user base. This means adding mainly residential, and supporting social infrastructure like nursery schools, a (primary) school and new central public functions along the main pedestrian spine. The proposals reduce street-level parking by concentrating it in strategically located multi-storey carparks. They qualify the public spaces with new program and landscape design elements. Regarding sustainability and climate adaptation, there are various specific proposals for additional shading, introduction of new vegetation, reduction of sealed surfaces as well as storm- and rainwater management in public spaces.

The difference between these three concepts lies in the specific urban planning and landscape design, which allows to compare and to evaluate their individual qualities. Even though all concepts start with the same premises and questions, it is interesting to see how different the outcomes in terms of urban structure and spatial qualities are.

Team 1: Same Heart, New Pulse: Continuity Within Chandigarh’s Timeless Grid

The irregular grid of this concept is inspired by Piet Mondrian’s famous geometrical paintings from the 1920’s to 40’s. After an analysis of existing structures, this approach uses the proportions of several buildings of the masterplan, e.g. standardized building length and width as a new basic element to fill the grid. Using straight and angled building configurations to fill the existing voids in combination with the ‘Mondrian Grid’ results in an intriguing and complex urban design based on a relatively simple set of rules.

With the self-similarity of building proportions and configuration new and existing buildings blend into a well-balanced mix of scales and functions. By not using the traditional perimeter block, there is a lot of freedom and opportunity to innovative interpretation of inner city public and semi-public spaces.

In addition to the grid this proposal introduces four precisely positioned new buildings in the central spine that redefine the vast public spaces next to the town hall and Neelam square. The existing road bridges are repurposed for cyclists and pedestrians to reduce the noise impact in the central pedestrian spine. Each new neighborhood is equipped with a multi-story carpark and neighborhood square with adjacent ground-floor functions for the everyday needs of the new residents.

In summary, this proposal offers a flexible strategy to guide the densification of sector 17, while maintaining the urban logic of the masterplan. The openness of the grid is able to adapt to various functions and development scenarios. At the same time, it can be read as innovative re-interpretation of the existing urban fabric.²⁶

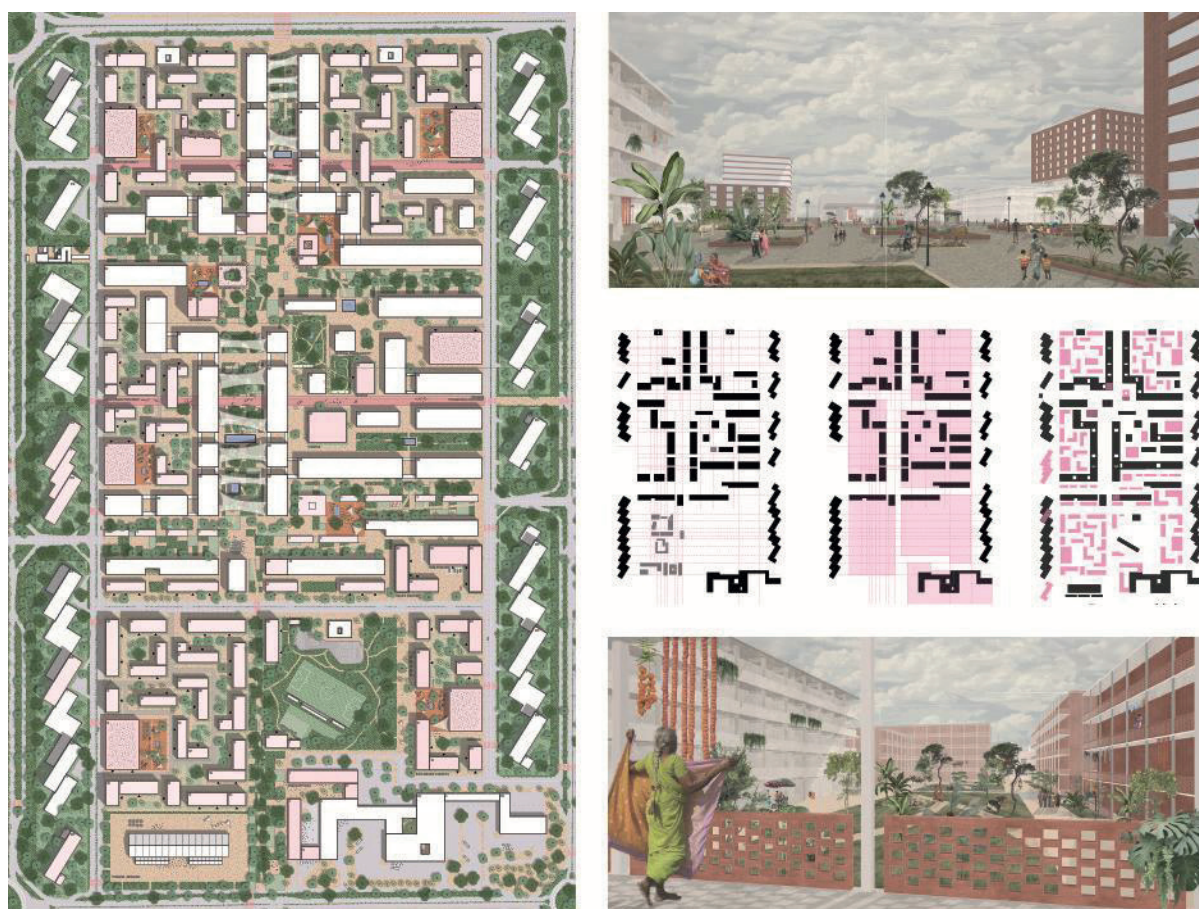


Figure 7: KIT Team 1, Same Heart, New Pulse.²⁷

Team 2: The Cooled Grid

This proposal addresses the climatic and social challenges of Chandigarh’s Sector 17 by combining densification with strategies for climate resilience and reactivation. Extreme heat, humidity, and monsoon rains are met with shading structures, water features, and greenery that improve the microclimate and restore the sector’s central role. The pedestrian zone is reorganized into thematic strips for art, culture, sports, commerce, and mobility. Modular structures allow flexible uses and create a multifunctional public realm. Vertical extensions and new buildings increase density and add housing, education, and cultural spaces while maintaining the order of the grid.

Mobility is restructured through consolidated parking and a tram line linking Sector 17 with Mohali, Panchkula, and other centers. A southern hub integrates bus, tram, and bike services, transforming infrastructure into civic space and freeing land for public use. Residential neighborhoods follow a flexible framework with varied apartment sizes. Activity belts along the strips support interaction, while rear courtyards provide shade, privacy, and recreation. Climate-responsive elements such as green roofs, shading devices, and water systems enhance comfort and biodiversity. Central squares act as neighborhood hubs with local services and cultural programs that reinforce identity and cohesion. Together these measures form a coherent framework that balances density and openness, embeds climate strategies in daily life, and secures long-term resilience. The Cooled Grid revitalizes Sector 17 as a climate-adapted, socially vibrant, and culturally significant center while preserving the logic of Chandigarh’s modernist heritage.²⁸

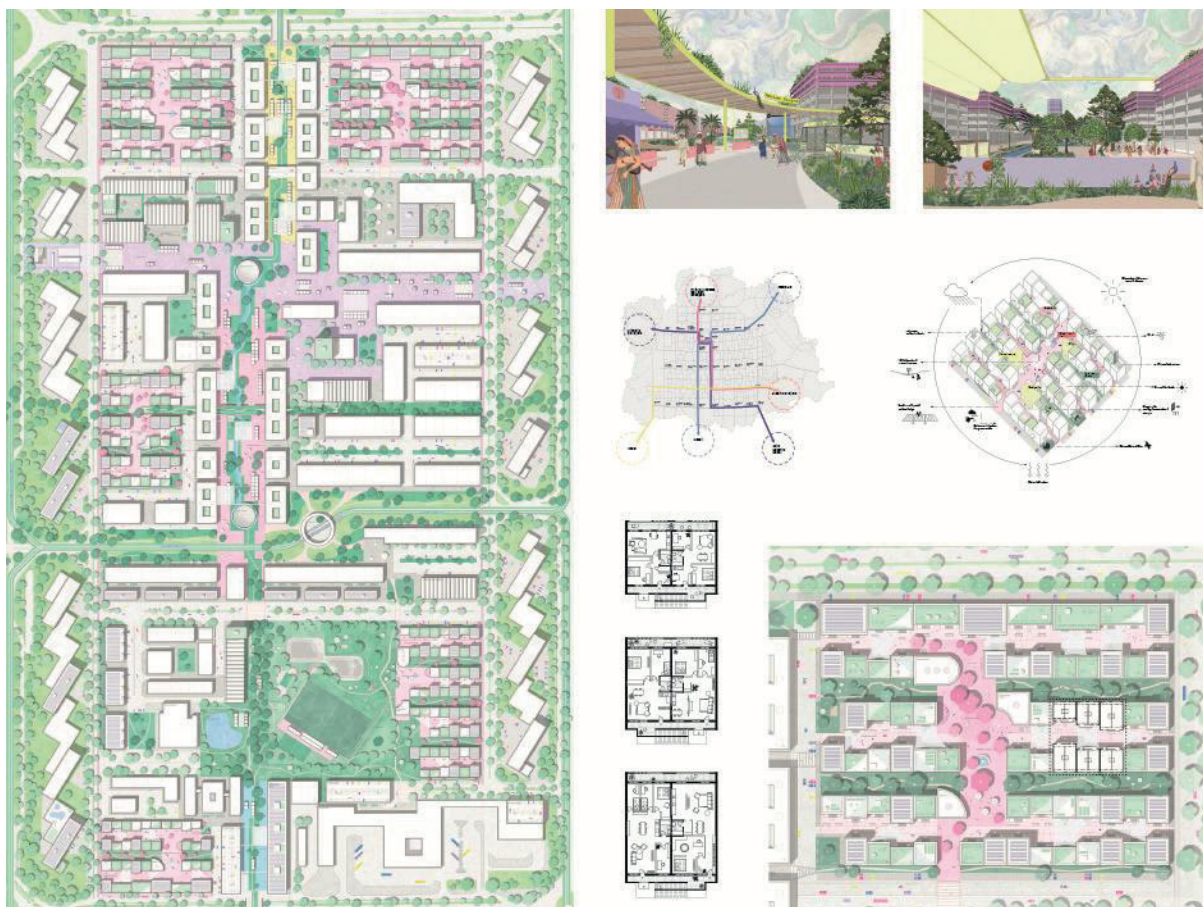


Figure 8: KIT Team 2, The Cooled Grid.²⁹

Team 3: Sector 17 – From Heritage to Revitalization

This approach is characterized by the aim to densify sector 17, while continuing some of the underlying principles of the modernist city, for instance the use and logic of certain typologies and the flow of open spaces, while following a different, more contemporary path when it comes to designing the mix of uses, mobility-concept and programming of public spaces. The existing structures are completed by adding a series of well-defined new typologies. First, there is a set of three new high-rise buildings that occupy specific central areas within the main pedestrian zone, thus bringing in new contemporary office and retail spaces to the center and activating the main spine. Second, on the rear side of the pedestrian zone several straight forward buildings complete the existing urban structures adding further non-residential program. Third, four geometrically well-defined areas are occupied groups of slab buildings that are oriented diagonally with an optimal solar orientation in this climate zone - mimicking the non-residential buildings at the flanks of sector 17. Fourth, a special cluster of co-housing or student housing is placed on top of the existing underground parking. Fifth, four residential high-rise buildings add a new typology for housing and also add this new function on the edge of the sector. Lastly, the need for parking is addressed by six strategically located multi-storey carparks in each neighborhood.

This concept is a valuable contribution because it shows the development potential of sector 17 and depicts how the cultural heritage could be conserved while adding new elements that use a similar conceptual approach as the existing urban layout. The proposed structures present a balanced vision, continuing the existing structures while developing their own distinct character and thus creating an inspiring dialogue between the existing buildings and new additions.³⁰

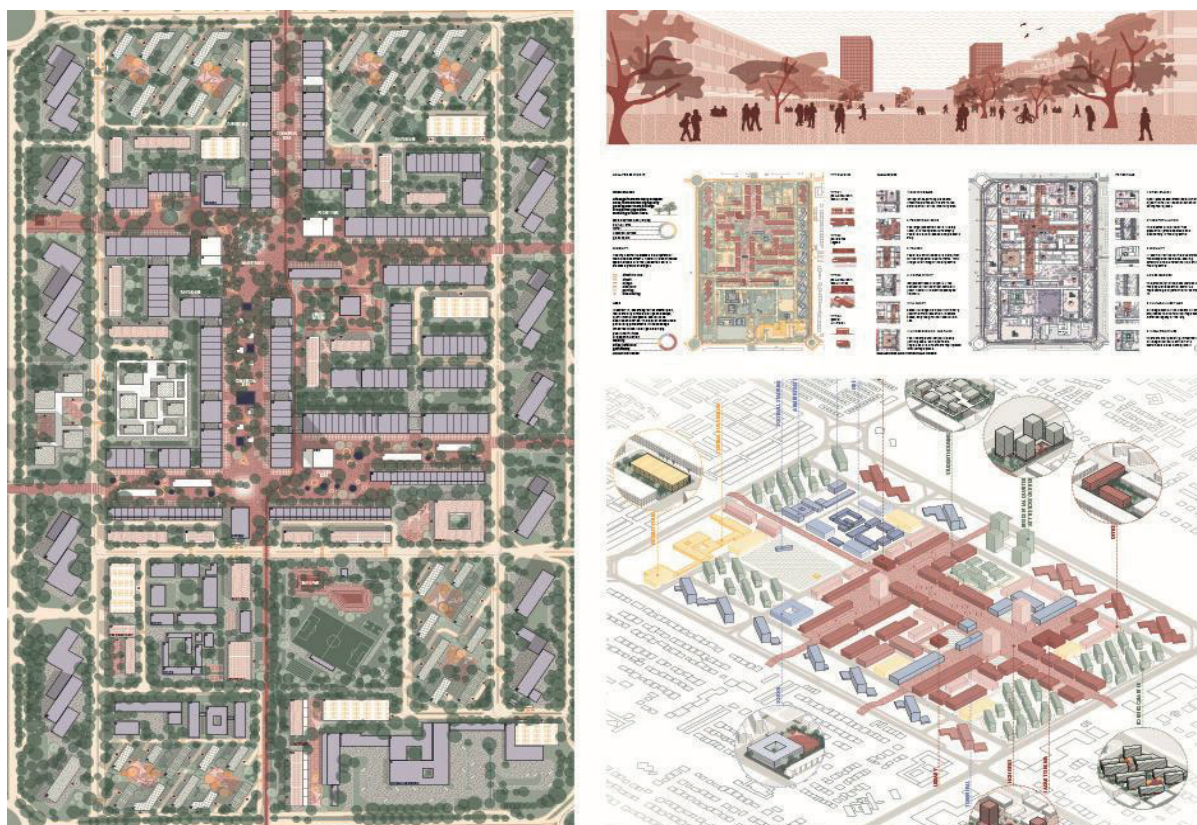


Figure 9: KIT Team 3, Sector 17 – From Heritage to Revitalization.³¹

CONCLUSION

Referring back to the urban challenges of Chandigarh summarized at the beginning of this article, what are the results and contributions of this project to overcome these issues?

The project started with a critical analysis of the urban fabric and cultural heritage of Chandigarh as an outstanding early example of a 'Functional City' based on the Chart of Athens.³² The 'City Beautiful' with its tree-lined streets, little traffic congestion, lively neighbourhood squares and well-designed communities has a very livable character overall.

However, the personal analysis during an extended visit, literature research and interviews with local stakeholders reveal the weaknesses of the existing urban building structures and its vast and underused public spaces. It has come to a point where the urban fabric, for the most part frozen in the time of construction in the 1950s to the 1970s, is not able – or allowed – to adapt to the rapid changes in society regarding the way we live, work, move, shop and spend our leisure time.

In addition, the city of Chandigarh is not able to create housing for the growing population, which leads to increased inequality and excludes the poor, young and new arrivals from affordable housing. This in turn leads to raising inequality and restricted access to amenities and opportunities, as well as limited participation and inclusion. (see Lefebvre's 'Right to the City').³³

These challenges come together in Sector 17 - commercial heart of Chandigarh - as if under a magnifying glass. Therefore, this urban design master studio focuses on this well documented central sector as an exemplary case study. Within this project, a series of alternative urban design solutions have been developed, which show a balanced approach that opens the path to urban development, while maintaining the character and cultural heritage.³⁴

Apart from the specific solutions presented, many urban strategies that have been applied are transferable to similar contexts. For example, introduction of mixed-use and densification of the existing urban fabric. Strengthening and stabilizing of inner cities with new residential functions, integration of innovative mobility solutions and reducing car-dependency, qualification of public spaces and climate adaptation.

With these "What if...?" scenarios in this urban design approach, we would like to raise awareness of the potentials and opportunities of Sector 17 and Chandigarh as a whole. We aim to contribute to the discussion about the future urban development of Chandigarh with local stakeholders, decision makers, scholars in academia and last but not least: the residents of this unique and beautiful city.

The process described here therefore demonstrates the possibilities of a research approach based on 'research by design'. A purely academic discussion about the future of Chandigarh would not be able to convey the pros and cons of urban development in Chandigarh in this way. Only by testing and developing various design approaches, the potential of existing urban structures becomes apparent. Comparing several design approaches creates a learning process that elevates the quality of the discussion about specific solutions and may facilitate informed decisions about the urban future of Chandigarh.

We sincerely hope that the city of Chandigarh will overcome its current stagnation and break out of the downward spiral. By taking an innovative approach to the city's cultural heritage, Chandigarh will demonstrate its ability to embrace change and create a new vision for the future while remaining a sustainable, livable city and outstanding example of modern urban planning for future generations.

NOTES

¹ Figure 1: *TriCity – Chandigarh with Punchkula and Mohali: Aerial Image with Municipal Border - Sector 17 - The Commercial Heart of Chandigarh*

Photos: both from Google Earth, April 8, 2025. © Google, Image data: © Maxar Technologies, © CNES / Airbus with graphical additions by the authors.

² Vikramaditya Prakash: *Chandigarh architectural travel guide*. Barcelona, Edicions Altrim S.L., 2014, 8ff.

³ Boris Niclas: *Funktional geplant. Der Versuch der Realisierung der Charta von Athen in Chandigarh und Brasilia*. Magisterarbeit, Universität Oldenburg, 2009, 42.

⁴ Vikramaditya Prakash: *Le Corbusier's Chandigarh Revisited: Preservation as Future Modernism*. Oxfordshire: Routledge, 2023, 2.

⁵ Boris Niclas: *Funktional geplant. Der Versuch der Realisierung der Charta von Athen in Chandigarh und Brasilia*. Magisterarbeit, Universität Oldenburg, 2009, 41-44.

⁶ Vikramaditya Prakash: *Chandigarh architectural travel guide*. Barcelona, Edicions Altrim S.L., 2014, 8-12.

⁷ Figure 2: *First Master Plan Draft based on Garden City Concepts and Superblocks by Albert Mayer and Mathew Nowicki*. Photo: © ARAM, aram.co.uk, 2016 .

⁸ Figure 3: *Masterplan based on the Principles of the Functional City by Le Corbusier, 1950*.

Plan: © Le Corbusier, Source: freearchitectureportal.com

⁹ Figure 4: *Chief Engineer P.L.Varma with Le Corbusier and Pierre Jeanneret*.

Photo: © Jeet Malhotra / Wikimedia Commons

¹⁰ Eric Mumford: *The CIAM Discourse on Urbanism 1928–1960*. Cambridge, MA: MIT Press, 2000, 9.

¹¹ Heinz Heineberg: *Stadtgeographie*. 3rd ed. Paderborn: Ferdinand Schöningh, 2006, 219.

¹² Boris Niclas: *Funktional geplant. Der Versuch der Realisierung der Charta von Athen in Chandigarh und Brasilia*. Magisterarbeit, Universität Oldenburg, 2009, 17.

¹³ Thilo Hilpert (Ed.): *Le Corbusiers „Charta von Athen“*. *Texte und Dokumente, Kritische Neuausgabe*, Bauwelt Fundamente, Bd. 56, 1988.

¹⁴ Christian Dürrenberger: *Chandigarh - Entstehungsgeschichte und Auswirkungen auf die Architektur in Indien*. Institut für Geschichte und Theorie der Architektur, ETH Zürich, 1999, 14.

¹⁵ Thilo Hilpert (Ed.): *Le Corbusiers „Charta von Athen“*. *Texte und Dokumente, Kritische Neuausgabe*, Bauwelt Fundamente, Bd. 56, 1988.

¹⁶ Michael Bose, Ursula Bartscher: *Die neuen Hauptstädte des 20. Jahrhunderts – Planung, Realisierung und aktuelle Anforderungen. Band 2.2: Fallstudie: Chandigarh – Unionsterritorium und Hauptstadt der indischen Bundesstaaten Punjab und Haryana seit 1949*. Hamburg: Hafencity Universität Hamburg, 2017, 69.

¹⁷ Thilo Hilpert (Ed.): *Le Corbusiers „Charta von Athen“*. *Texte und Dokumente, Kritische Neuausgabe*, Bauwelt Fundamente, Bd. 56, 1988.

¹⁸ David Harvey: *Rebel Cities: From the Right to the City to the Urban Revolution*. London: Verso, 2012, 23.

¹⁹ WBGU – German Advisory Council on Global Change: *Der Umzug der Menschheit: Die transformative Kraft der Städte*. Berlin: WBGU, 2016: 40, 101, 325.

²⁰ Figure 5, left: *Congrès Internationaux d'Architecture Moderne (CIAM), La Sarraz, CH 1928*.

Photo: © Hannes Meyer.

²¹ Figure 5, right: *Ville Radieuse (The Radiant City)*, *Le Corbusier's Plan Voisin for Paris, 1925*. Photo: © Roger-Viollet/Rex/The Guardian

²² Thilo Hilpert (Ed.): *Le Corbusiers „Charta von Athen“*. *Texte und Dokumente, Kritische Neuausgabe*, Bauwelt Fundamente, Bd. 56, 1988.

²³ James Holston: *The Modernist City: An Anthropological Critique of Brasilia, 1989*: Holston uses Brasilia as an example to criticize the modernist city and uses the term 'the death of the street'.

²⁴ Figure 6: *Images of Sector 17, 2025*. Photo: © Nima Maghsoudi and Manuel Giralt; KIT, 2025.

²⁵ Markus Nepl, Manuel Giralt, and Nima Maghsoudi (eds.): *Chandigarh Reimagined: Urban Design Strategies between Heritage and Transformation*, KIT Institute for Urban and Landscape Design, Master Studio (Karlsruhe, KIT, 2025) accessed December 15, 2025: <https://publikationen.bibliothek.kit.edu/1000184812/169006259>

²⁶ Team 1: Christina Giers, Anna Glock, Samuel Ruf: *Same Heart, New Pulse: Continuity Within Chandigarh's Timeless Grid* (KIT Urban Design Master Studio - Summer Term 2025)

²⁷ Figure 7: *KIT Team 1, Same Heart, New Pulse*. © Graphics: Christina Giers, Anna Glock, Samuel Ruf, 2025.

²⁸ Team 2: Lisa Alberti, Luna Baumgärtner, Johannes Döring: *The Cooled Grid* (KIT Urban Design Master Studio - Summer Term 2025)

²⁹ Figure 8: *KIT Team 2, The Cooled Grid*. © Graphics: Lisa Alberti, Luna Baumgärtner, Johannes Döring, 2025.

³⁰ Team 3: Marion Baumgärtner, Katharina Haase, Niclas Zumholte: *Sector 17 – From Heritage to Revitalization* (KIT Urban Design Master Studio – Summer Term 2025)

³¹ Figure 9: *KIT Team 3, Sector 17 – From Heritage to Revitalization*. © Graphics: Marion Baumgärtner, Katharina Haase, Niclas Zumholte, 2025.

³² Thilo Hilpert (Ed.): *Le Corbusiers „Charta von Athen“*. *Texte und Dokumente, Kritische Neuausgabe*, Bauwelt Fundamente, Bd. 56, 1988.

³³ Henri Lefebvre: *Le droit à la ville*. 3e éd., réimpr. Paris: Ed. Economica, 2015.

³⁴ Markus Nepl, Manuel Giralt, and Nima Maghsoudi (eds.): *Chandigarh Reimagined: Urban Design Strategies between Heritage and Transformation*, KIT Institute for Urban and Landscape Design, Master Studio (Karlsruhe, KIT, 2025) accessed December 15, 2025: <https://publikationen.bibliothek.kit.edu/1000184812/169006259>

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