

Redevelopment of Community Centre Precincts

New Delhi

Selected Studio Projects
Semester 9
July–December 2019



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Message from the Director



The School of Planning and Architecture, New Delhi, one of the oldest institutions in South-east Asia, has been dealing with multifaceted aspects of the built-environment for over seven decades. Located in the heart of New Delhi, the national capital, the School and the city have a symbiotic relationship; each contributing to the evolution and betterment of the other.

The city acts as a laboratory at many levels for studio and thesis projects in the various Departments of the School. Working on these projects, students learn how the city, its neighbourhoods and significant building complexes function and what can be done to further improve the living conditions and the built environment. Young minds guided by competent Faculty work together to produce solutions from first principles, leading to innovative outcomes worthy of dissemination.

It gives me great pleasure to bring forth one such effort by the final year students of the Department of Architecture of this School. The Faculty and students have worked on three community centre precincts in the city to test the idea of densification. The outcome is a set of excellent examples of sustainable mixed nodes which could act as models for other developments of this nature.

I take this opportunity to congratulate the Faculty and the students who have worked hard to bring out this excellent document. I am sure that academic and professional institutions as well as students at large would find this useful.

April 2020

Sd/-

Prof. Dr. P.S.N.Rao
DIRECTOR
School of Planning and Architecture

About this publication

This publication is the work of students of the final year Bachelor's degree program in Architecture, School of Planning and Architecture, New Delhi, India. From August to December 2019, groups of four students undertook an architectural design exercise for three areas of Delhi. Working under a mentor on a common studio agenda, these 96 students produced 24 solutions. Nine top solutions have been reproduced herein.

Architectural Design is the backbone of architectural education, wherein students and faculty dealing with the everyday life in and around buildings, craft solutions to the built environment. In semester nine the city of Delhi is the laboratory for the studio endeavor. Keeping in mind the existing city and the various forces which are acting upon it, an attempt is made to search for solutions which will deliver an inclusive built environment and a better quality of life for the Delhi of tomorrow. These solutions are responsive to the existing framework of planning and development norms and thus studio outcomes are in some ways a glimpse of what city precincts or neighborhoods could actually become in the real world.

Till semester eight students as individuals are taught to create buildings within the site. They are also encouraged to look at the built and learn from it. In early years, while the context is important, the first emphasis is on the programmatic requirements of the building type in question. This is followed by understanding of form creation, the structure, services, skin and fenestration etc

In this semester while all these aforesaid concerns were engaged with, students are made to recognize the significance of the context and the dynamic two way relationship of how the development in question and the city are likely to interact with each other and how this evolving relationship will effect the city and the user of this development. In a way the students are made to recognize how the architect can be responsible for the future growth of the city by the urban inserts she or he creates and thereby shape the city itself. The challenge was how to make the students integrate their learnings from previous years to Design development while looking at a much larger context.

Another fundamental challenge of this semester was to work in groups of four to create one design solution. Having been a soloist of some merit in the past eight semesters, how to talk amongst each other about what you think is appropriate, and to agree to a common

well-argued solution is an important learning endeavor which was attempted in this semester. World over, the master-architect is being replaced by collaborations which are more often than not multi-disciplinary. The students became a little closer to becoming industry ready after this semester.

This publication is a structured compilation of learning of students over a sixteen week semester. They have undertaken detailed studies of the three areas and based on predicted future requirements created a built-form open-space structure in response to the operating Masterplan and its development control regulations. Three best projects from each selected area forms the substance of this book. In addition the annexures at the end of the book would enable the reader to understand the day to day working of the studio, the studio support structure and the manner in which the design endeavor was a healthy mix of individual and collaborative effort.

New Delhi as the laboratory

Situated in the heart of the city, drawing its faculty from the cream of practice and academia the School is in a unique position to use the city of Delhi as a laboratory for its design studio endeavor. A significant section of the faculty have lived in the city for more than four decades and have seen it evolve over at least two masterplan periods. Delhi, being the first planned city post-independence has also entered its third masterplan period.

Delhi is slated to be one of the largest urban agglomerations of the world in the near future with a projected population of 230 lakhs in 2021. The vision of the Delhi Master Plan 2021 is to make the city a global metropolis and a world class city. All citizens would live and work in a sustainable environment and be assured a better quality of life than the previous generation. Due to peculiar geographic location of the Union Territory of Delhi, hemmed in between the states of Haryana and Uttar Pradesh there is limited land availability for urban development. There is also an urgent need to protect parcels of land identified as agricultural/ rural and green for better environmental health of the city. Therefore, along with a limited physical expansion, the Master Plan for Delhi 2021 proposes to increase the population holding capacity of the existing urban limits through:

- Careful mix of housing typologies with other uses to ensure optimization of FAR as well as residential density.
- Re-development / re-densification of low density areas in the earlier master plan periods by enhancing existing FAR by 50%
- High density transit oriented development in the vicinity of the Metro corridor for optimum utilization of public transport.

Shopping and commercial areas reflect the economy and the image of the city. By 2021 it is expected that there would be 4.15 lakh retail trades enterprises in the city employing about 9.63 lakh persons. This indicates the predominance of retail and allied service activities in the economic structure of the city. These enterprises have to be suitably housed within carefully selected pockets of the city during the densification exercise. The major changes in the economic structure are due to liberalization of the economy, entry of multinational companies in the consumer sector, improved telecommunication system, increased per capita income and the purchasing power of the people. (MPD 2021) The following five-tier system of Commercial Areas

is envisaged to accommodate required shopping, commercial office and other service activities like cinema, hotel and restaurant and various community services and facilities in an integrated manner.

- Central Business District
- District Centre for a population of 5 lakhs
- Community Centre for a population 1 lakh
- Local Shopping Centre for a population of 10,000
- Convenient Shopping Centre for a population of 5,000

Community Centers are conceived as shopping and business centers catering to the needs of the population at community level. These centers may have retail shopping, commercial and government offices, cinema or Cineplex, a hotel, stand-alone restaurants, a banquet hall, a guest house, a nursing home, dispensary, clinical Laboratories, clinic and poly clinic facilities together with other community facilities as indicated in table 5.1 of MPD 2021.

This semester project looked towards the re-development of three Community Center precincts and the residential areas around it. This redevelopment would be at a higher density and have a mix of residential, commercial and institutional establishments not only to accommodate all existing facilities in the area but also to achieve optimum densities to utilize public infrastructure and ensure a better quality of life for its denizens.

Semester objectives driving the pedagogy

At the beginning of the semester the following objectives were laid forth and a sincere attempt was made by students and faculty to create solutions within this framework:

- To understand the three different city locations and the impact of context on the generation of a unique mixed-use development in each case.
- To establish the necessary and suitable physical and temporal linkages to the surrounding neighborhoods and its associated urban infrastructure as a means of integrating the project into the existing urban realm and simultaneously acting as a catalyst for the future growth of the city.
- To develop an understanding of the principles of a high density, mixed-use development within the framework of the Delhi Master-plan and the consequent development controls, building by-laws, National Building Code.

- To develop a built form / open space structure that could serve as a model for humane and sustainable development.
- To explore, understand and integrate the multiple spatial typologies that comprise of the mixed-use development and its ramifications on the building's structure and associated support services.
- To examine the question of sustainability concerning optimizing the need for energy and water, ensuring suitable living/working conditions in terms of natural light, ventilation and seasonal climatic variations to generate ecologically sound solutions.
- To learn the work ethics and discipline of group-work and deliver well explored and argued solutions that reflect the collective in a wholesome manner.

Semester endeavors

Each faculty mentor was to guide one project in each of the selected sites. Three community centers were selected after much deliberation amongst the faculty mentors. One important criteria was to select precincts which had distinctly different socio-cultural, architectural and urban conditions so that under the guidance of each mentor distinctly different approaches could be explored to create a plethora of solutions. The other critical criteria was to select those precincts which had low densities, had adequate accessibility to public transport, had wide peripheral roads and showed the potential for redevelopment at higher densities. The community center precincts of New Friends Colony, Janakpuri and Vikaspuri were finalized based on

Students were divided into groups of four and a faculty mentor was assigned to each group. As this was a group endeavor, the faculty mentor was expected to guide, support and play the role of referee simultaneously. This student faculty mentor relationship was not exclusive and students were encouraged to reach out to all the available faculty members to gain different perspectives on the same project. This was done formally in the form of mock juries with marks and informally as and when some group felt the need to get an alternative perspective.

For students attempting to design at this scale, other than studio guidance individual research and reading became important. A list of suggested readings was shared with the students (attached as Annexure 1) at the beginning of the semester. This list included most relevant theories for the proposed design exercise and covered books, government and NGO publications, papers and websites. These readings not only

helped the students become aware of various design philosophies but also provided them with alternate ways of approaching design solutions. In addition, faculty mentors would share essays and other relevant readings with the entire batch as and when the need arose.

The case study formed an important aspect of the semester endeavor. Students were encouraged to do both primary and secondary case studies to gain insight into the profile, scope, and working of the components of the projects. To help the students identify the typology to be studied, examples were shared. A detailed framework was shared with students to help them identify key parameters for analyzing them. (Attached as Annexure 2). International examples were also emphasized upon and students were asked to obtain data from both internet study and Library research. Students successfully undertook case studies of high density housing, mixed-use development and, transit-oriented development from all over the world. The case studies and learning from them were shared by the individual groups with the entire batch.

This was followed by assigning the site to individual groups. A brief about their respective site was explained to them. They were then asked to gather as much data as possible (see Annexure 3) about their site through various sources such as primary data collection, visiting the site, talking to the resident and shopkeeper associations, internet research, library study, etc. A detailed framework was shared with students to assist them in the organization of data and analyzing them. (Attached as Annexure 3). This analysis was also made available to all and the collective information formed the basis of creating the area program.

Semester nine of the bachelor's program in architecture performs the role of a bridge between the semester of professional training and architectural thesis. Architectural Thesis is a solo endeavor with very high expectations on design product resolution. A fine architectural expression, sound resolution of function, a high degree of structure and service integration are standard jury expectations at the end of the thesis semester.

On the other hand, during the training semester a student, as part of an office team may have dealt with specific issues over several projects in a sixteen week period, with perhaps very little actual architectural design work. So in some sense at the beginning of semester nine she/he is actually in the semester seven space and

a bit rusty at that. It therefore became imperative that every individual undertook detailed design of individual buildings so that the student hits the final semester running, with dexterous minds and active hands.

In this semester while the students worked in groups for overall site resolution they also worked as individuals taking responsibility to design one or two buildings each. The detailed building design ensured a better site resolution and the site plan of the group created the necessary constraints and context for building resolution. Simultaneously, the individual student was dealing with specific functionalities in the building type in question.

It is recognized that in an ideal world a detailed site analysis should culminate in the students creating individual programs for themselves. This would require a time period of two to three weeks of the sixteen week semester, cutting into the time which they would be using to design the buildings, the movement systems and the supporting physical construct. The programs created would have degrees of correctness and depth of detail leading to difficulties in the architectural design of the building. In the past it had been seen that students did not freeze the program and kept changing it adding yet another level of difficulty. All this created a lack of parity amongst groups and difficulty in evaluation of schemes.

Keeping this in mind a common detailed program was created after discussion with all the faculty mentors shared with students at the end of the site survey and data collection stage. These common program was 'read' and analyzed (parameters are attached as Annexure 4) along with their understanding of the site, the semester objectives and lessons learnt from case studies. Under the mentorship of guides a broad project vision and detailed design approach was spelt out and then fleshed out over the semester in the form of a series of formal submissions. Students were encouraged to put up their work and talk not only in front of their mentors but other guides in the studio as well. This ensured that students were able to create a cogent argument for themselves and also take cognizance of 'outside' opinion to structure their presentation. Final design outputs were detailed out by individuals and groups and the result was presented in front of the Jury. In the pages to follow, the design schemes of students have been described in detail.