

# Housing Typology of Pune

(A Case Study from Nal stop to Chandni Chowk, Pune)

Ar. Ketki S Darp

**Abstract**—This paper aims to discuss the various types of housing systems in Pune that is traditional, planned and unplanned in a way the city evolved. Further going to details of traditional system that includes the Wadas and chawls of Pune followed by planned unit development including residential bungalows or detached housing, town housing or row housing, apartments and mixed use housing. It also discusses how the typologies are somehow interconnected and also deals with slums or the informal housing types. This paper looks at the choice and appropriateness of different housing typologies<sup>1</sup>, considerations given to the availability, cost of land, socio-economic profile of end-users and thus, enhancing their general wellbeing.

**Index Terms**—Housing system, Typology.

## I. INTRODUCTION

Pune city is not an exception to the phenomenon of growth of a traditional city in to a prosperous metropolitan city and the same reflects in the housing typologies<sup>2</sup> as well. The study focused on a 6.1km patch from Nal stop to Chandni chowk which is a busy two way street. Nal<sup>3</sup> stop used to be the last water distribution point in the city limits and was used by nearby areas to source water .Hence, the name and Chandni chowk serves as a junction to connect Mumbai-Bangalore national highway and Pune Paud road.



Fig. a view of the road from Chandni Chowk to Nal stop.

Pune city is the second largest metropolitan city in the state of Maharashtra. Its fast changing its character from an

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<sup>1</sup> Refers to classification and distillation of existing building types and urban forms in terms of social function and spatial efficacy.

<sup>2</sup> A classification according to general type

<sup>3</sup> tap

Educational-administrative center to an important industrial city. This has affected the housing typology of Pune to a large extent.

The term typology comes from the Greek term ‘typos’, meaning to model, matrix or mold and it constantly undergoes modification. It defines much more than the appearance and defines the borders between the public and private realms. It defines whether one can adapt one’s home to his /her needs.

Housing typology is a reflection of the tastes, needs and priorities of a generation. It has evolved with technological advances, with the rise of automobiles and introduction of industrialized building components and has also changed according to the needs of the developers who have been building housing.

## II. ABOUT THE TOPIC

The pattern of housing changes with the choice of people with their ability to pay, land available and according to the needs and it shows the impact of the culture of the inhabitants residing in the respective area.

## III. HOUSING SYSTEMS OF PUNE

City has been divided into different subsystems that is traditional, planned and unplanned in a way the city evolved.

### A. Traditional

This pertains to the core and historic areas of the city. Generally this are the early settlements. In this there are traditional areas, where the typical character of the city can be seen like Peth areas, camp, Mandai, Gymkhana etc. These areas are commercial hub of the city.

### Wadas

It symbolizes the tales of Pune’s rich culture and heritage. Used for both domestic and political purposes but mainly for residential purposes. They were elaborately planned paying minute attention to all functions and requirements of women folk and at the same time safeguarding their privacy and security. They are the huge massive structures for which material used for construction was mainly of stone, limestone and bricks. These are normally load bearing structures.

Wadas are partly developed and partly undeveloped .i.e. In undeveloped Wada the owner resides and in the redeveloped Wada the tenants continue their tenancy. At the time of development of Wadas there were no parking provision restrictions so today parking is the major problem. They have independent water supply, electricity, bathrooms and toilets. The solid waste collection is door to door. In today’s time

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mostly internal changes are being done but the external appearance is still historical to retain the identity of Wada

## B. Unplanned

These are the refugee settlements, slums, community based settlements. These areas came up eventually due to different reasons like drought, partition, urbanization etc. These areas lack in infrastructure.

Housing demand is a product of household formation as a consequence of net population growth. Demand has two aspects absolute and effective. Absolute demand is a physical phenomenon of number of houseless households, while the effective demand is a consequence of the household affordability. It's the lack of attention to the former that leads to the growth of slums and housing shortage.

Slums are the solutions found by urban poor for satisfying their housing needs. Urbanization and slums in Pune is going hand in hand.

In Pune bigger the growth, higher is the proportion of people living in the slums. This situation is mainly due to the fact that urbanization in Pune leads to mass migration of rural poor who have low skills and are not in position to meet their demands for formal housing from the given market.

As per the census of 2001, a slum is defined as, 'a compact area of at least 300 people in poorly built congested tenements surrounded by unhygienic environment, usually with inadequate infrastructure and lacking proper drinking water and sanitary facilities.

'Nowadays the skyline of Pune city seems to be spoiled and dotted with slums on the hills (Parag Narkhede). Slums have also spoiled the beautiful composition of natural heritage elements such as hill slopes, river fronts and lakesides in the city leaving an adverse impact on the overall character of the city.

## C. Planned

These pertain to public and private housing, co-operative societies and employee housing. These are newly developed areas in the form of townships, apartments with modern infrastructure and materials with optimum utilization of land.

As a regulatory process is a means of land regulation which promotes large scale unified development of land by means of mid-range, realistic programs, in chase of physically curable, social and economic deficiencies of land and cityscapes.

Frequently planned unit developments take on a variety of forms ranging from small clusters<sup>4</sup> of houses combined with open spaces to new and developing towns. However doesn't take into consideration these type of development unless they fit into the category of size ranging from 100 to 200 acres.

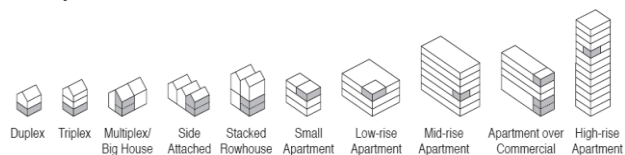
Within them zoning becomes much more integrated with multiple land uses and districts being placed on adjacent land parcels. Residential properties in planned housing systems tend to incorporate single family residential uses within close proximity to two family units and multiple family dwellings to form a large diversified concept. They tend to use the best land in the community and the most favorable sites are protected from commercial and industrial uses. Its further classification includes:

Free standing or detached dwellings: single family houses are separated from neighbors on all four sides. Most desirable type of housing for many, especially families. Allows for great variety of floor plans as well as personalization and expression of individual identity. Number and type of retail and public amenities within walking distance can be limited due to lower number of residents.

*Row houses:* A row of identical or mirror image houses sharing side walls. Characterized by relatively narrow and deep proportions with windows at the front and back. Allows for private entries to individual dwellings<sup>5</sup> within a narrow street frontage, thus minimizing the length of utility runs and provides relatively low rise dwellings with medium to high density.

*Apartments:* A classification of housing where multiple separate housing units are contained within one building. They have technical and economic advantages in areas with high population density. In contrast with low rise and single family houses, apartment blocks accommodate more inhabitants per unit area of land and also decrease the cost of public infrastructure. In recent years they have become popular with their excellent views, desirable locations and architectural styles and now command high prices. Basically the high rise apartments started to emerge as lifts became more reliable and affordable. In this the possibilities for private outdoor space are limited to balconies and terraces. Personalization of units is difficult except at interior unit entries.

*Mixed use building:* A building with space for both commercial, business and office use, space for residential use. These were initially occupied by single families with their private living areas in an upper space and the public family business downstairs.



## IV. AIM AND OBJECTIVE

The purpose of this paper is to create a well-supported yet simple illustration of the relationship between various housing typologies and its impact on the character of the area in correlation with the surroundings, landscape, needs of people etc. This report illustrates the variations in housing from Nal stop to Chandni chowk.

## V. LIMITATIONS

For a systematic and detailed analysis the scope of the study was restricted to a 2km patch from nal stop and a two km patch from Chandni chowk dealing with the present conditions of housing patterns.

<sup>4</sup> Group of something

<sup>5</sup> Residential unit

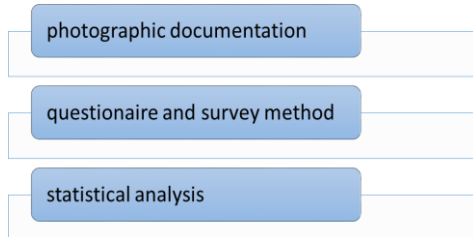
## VI. HYPOTHESIS

The increasing trend of multipurpose dwellings in the particular stretch because of less availability of land, increasing costs, good connectivity to all the major areas of the city.

## VII. RESEARCH METHODOLOGY

It includes the conceptual framework of the study following the standardized and accepted practice of a qualitative and quantitative analysis.

Methodology includes a two-step procedure.



Photographic documentation was done by walking along the two patches, capturing the related images and doing a comparative analysis.

Questionnaires and interview were conducted for a set of 25 people for collecting information from the residents and the shop owners of the area. The questionnaire had structured open and close ended questions. Open ended questionnaire were used to collect qualitative data while close ended ones were used to get quantitative data. Questionnaires were divided into 3 sections –the first criteria sought to ask questions regarding surroundings –plantation, roads etc. The second about the multipurpose dwellings and lastly about the existence of informal residents.

According to this information statistical analysis was done and pie charts are prepared. Finally the observations are being made. Thus, this compilation of data allowing the reader to make their own decision about the validity of data and results.

### A. Primary Data

Nal stop to Chandni chowk is a busy two way street with continuous honking of vehicles. Basically four kinds of housing typologies are identified here –

- Private bungalows
- Residential apartments
- Apartments with commercial space at the ground floor.
- Informal settlements

All the constructions are majorly in brick and R.C.C. except two houses in stone. The first stretch (2km from Nal stop) gives a very old look, something that has existed for generations with buildings going at the most three to four storey high and 5 individual bungalows. Kedar Empire is the only building having glass, cement and tile work and has more informal settlements as compared to the second stretch. The second stretch (2km patch from Chandni chowk) gives a newly developed look with IT park, Bandal complex, apartments going seven to eight storey high constructions found in glass and R.C.C.<sup>6</sup>

<sup>6</sup> Reinforced cement concrete

## B. Problem Identification

### First stretch images

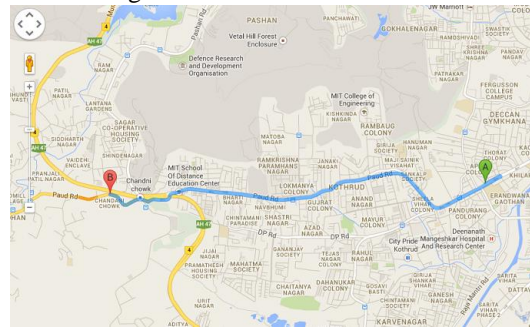


Fig. Base map from Nal stop (A) to Chandni chowk (B).



Fig. Irregular parking along roadsides



Fig. Kedar Empire building



Fig. A bungalow in stone

### Second stretch images

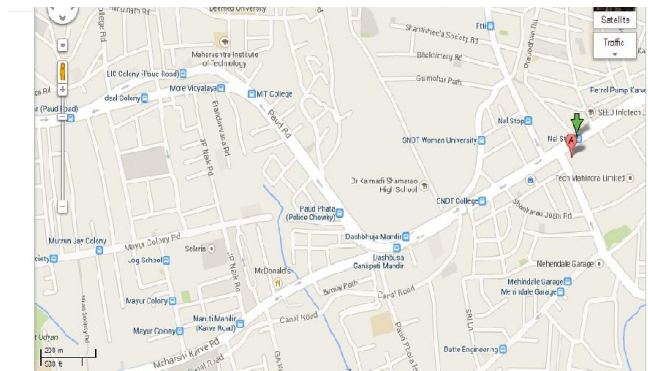


Fig. From Nal stop to Ideal colony



Fig. Individual bungalows



Fig. High rise apartments with shops

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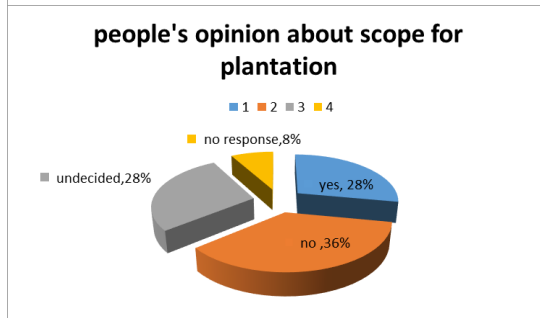
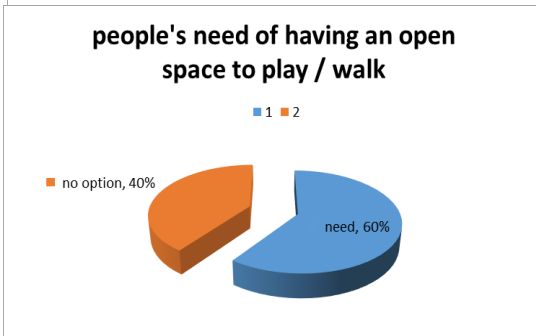
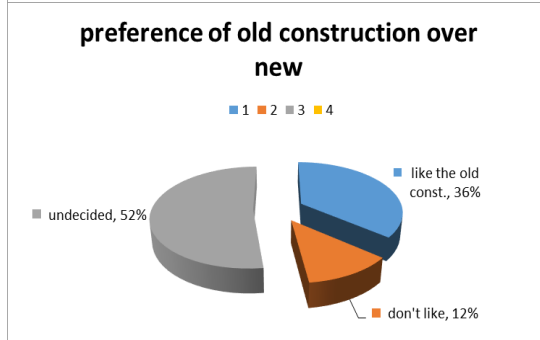
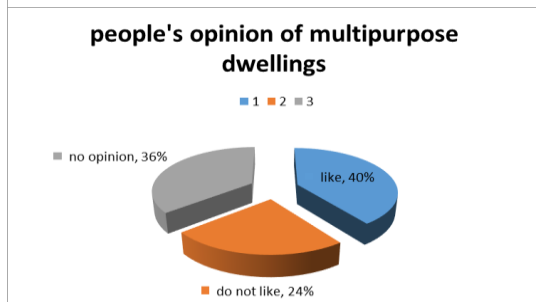
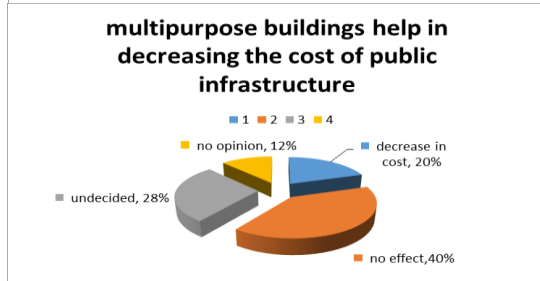
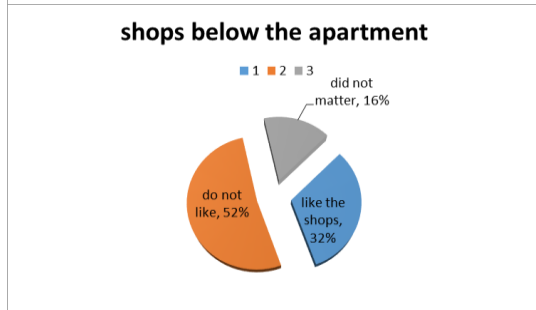
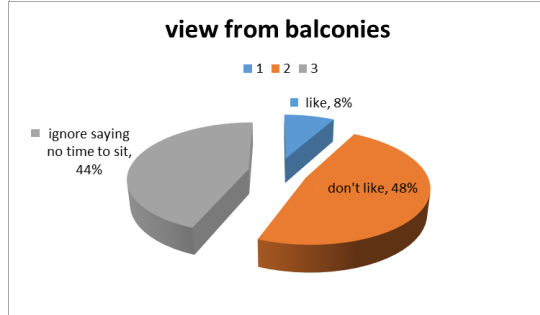
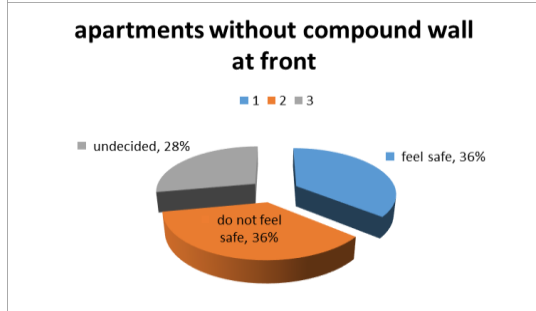
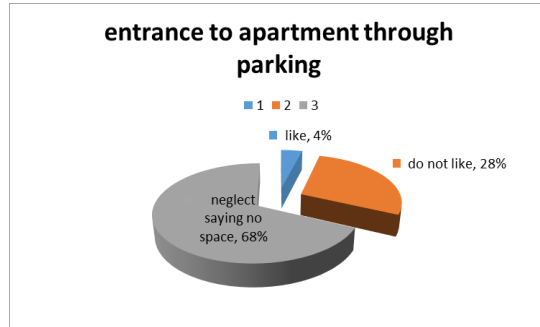
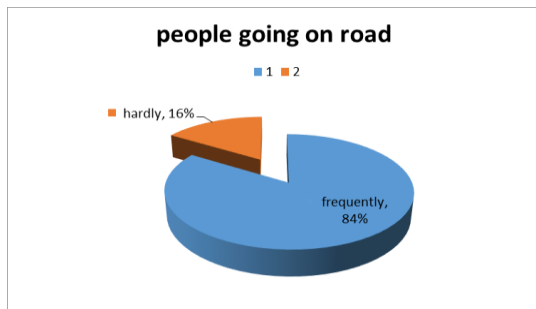
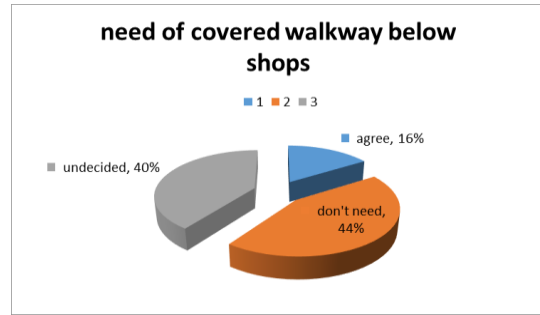


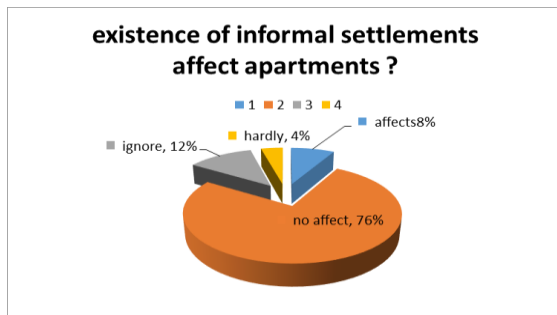
Fig. No provision for parking



Fig. Commercial aspect of the area.

### C. Statistical Analysis of questionnaires and surveys





## VIII. OBSERVATIONS

With reference to the questionnaire, sample feed backs and photographic documentation it is being observed that the area mostly comprises of multipurpose dwellings that is residential and commercial space below with no space for recreational activities .There is no provisional space for parking adding to the road congestion. As the buildings lie close to each other, it results in lack of spaciousness.

The people living in individual bungalows strongly condemn the spread of multipurpose buildings and residential apartments as it is spoiling the skyline of the Pune city and aesthetically not at all appealing as it has no connectivity with the nature .although at the same time it is reducing the cost in terms of public infrastructure.

However the people living in the slums / informal settlements exist as a different entity in the area as both the sections of society are engrossed in their lives. The existence of such settlements does not interfere with the functioning of people in apartments and bungalows. Also the area is self-sufficient in regard to the day to day needs.

The following conclusions were made from the findings of the study –The area is very crowded and noisy and so there is an urgent need of plantation in the area between the dividers and corners of road as they act as a buffer protection. The typology of bungalows depicts the old character of the pune city while the buildings symbolize the adjustments made according to the land available, cost etc. And the change in the mindset of people (thinking in terms of business, moneymaking).

The area lacks place and provision for future planning in terms of parking, recreational spaces etc. No growth of development is taken into account. So the further development should take into account these provisions.

## IX. CONCLUSION

This paper discusses the features of housing design from a typological point of view. With the changing character of the city major typologies identified are residential, mixed use apartments and an increase in informal housing slums and also more demand for housing.

Also it is noticed that a combination of different typologies create a mix of units and affordability levels within the same development. Cost reduction techniques of mass housing<sup>7</sup> can be applied. Focusing on policy for development of Wadas. Revised building design should reflect the essential character of Wada such as central courtyard.

<sup>7</sup> To design and build customized dwellings in collective housing to be useful to many people.

The quality of life of the household as well as the character of the area in the city is greatly affected by the spatial arrangements such as the unit type, plan, layout of sites/buildings and open spaces. A preference exists in housing environments which have clearly demarcated boundaries and that make visual contact possible with the surrounding boundaries.

A combination of typologies used in the same development for different income groups and household configurations enable residential environments to offer choice and diversity, especially relating to sustaining local economic development. The promotion of mixed use, which includes social facilities and trading space for small or microenterprises can help create vibrant housing environments and support resident's livelihood activities and enhance their wellbeing.

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