



Basic Necessities to Luxury Living: The Crucial Role of House Plans in Modern Construction Practices

Swati Pandey^{1,*}

Abstract

In order to distinguish them from "Individual" houses, buildings that contain many individual dwelling units are frequently referred to as apartment buildings or block apartments. Apartments can be built around courtyards or as rectangular blocks surrounded by a space of varied proportions. buildings can also be built in pairs (semi-conducted), in terraces and all but two buildings having others on either side. Homes that were initially constructed as a single residence can eventually be divided into studios or bedsitters, or they may be adapted for a different use, such as an office or a shop. Early conceptualizations were built to meet only the most basic necessities, but today's lifestyle has evolved as everyone wants to live in luxury. In light of these various components, careful preparation is now essential. Without thoughtful preparation, no construction can be built. Construction of all types of structures is guided by construction drawings used by contractors and builders. Building guidelines can also be helpful for creating project budgets and cost estimates. Building guidelines provide a visual picture of a structure's completed appearance. A dwelling plan serves multiple purposes, including displaying both the house design and the finished result. Many people don't consult architects when they need plans for houses because they think they are irrelevant, particularly when they only would like to build their tiny dream home on an isolated piece of land. Importance of a house Plan and many readers disclosed to me that they were unaware of how crucial these documents were. In fact, many admitted that their bodies had always assumed that house plans were only for wealthy individuals who could afford them or those planning the construction of bigger houses (3 bedrooms and up) or stored homes. Therefore, when I highlighted the purposes of a house plan, many who intended to put up their basic one-bedroom homes did not think that significant.

Keywords: Building, environments, planning, construction, space planning

INTRODUCTION

Planning is critical for an interior designer so that the interior can be efficiently & inexpensively prepared. The design of an interior has always had basic necessities, but modern lifestyles have changed since everyone wants to dwell elegantly. since of this, careful planning is now required because many different factors must be taken into care. A well-planned interior cannot be created.

*Author for Correspondence

Swati Pandey
E-mail: swatipandey8975@gmail.com

¹Student, Department of Architecture and Planning, Amity University, Lucknow Campus, Uttar Pradesh, India

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The structure's construction and operations should all be planned to create a pleasant working environment that will support people in leading happy, healthy, and beautiful lives as well as to enhance the functioning of the general public so that work is more of a pleasure than a chore, [1] efficiency is increased, and discomfort is eliminated. The architectural layout of the building should be concise and specific in terms of length, width, and height.

Planning is a method by which an engineer arranges every aspect of the structure before work is completed by establishing regulations and guidelines in accordance with accepted practices with governmental authority.

Preparedness is thinking ahead before an event occurs in order to get the best outcomes in terms of efficiency, comfort, convenience, health, and happiness. The goal of building planning is to efficiently utilize the available space by organizing and arranging every space to meet its operational needs as much as possible. Building planning is therefore the art of creating aesthetically pleasing, practical, and cost-effective constructions [2]. Since planning is essential to civil engineering, structures built without it run the risk of failing. It is not feasible to erect the structure profitably and efficiently.

Scale diagrams of rooms, spaces, and bodily features as viewed from above are called floor plans. They offer a means of visualizing the passage between people through the area.

Key words of Building Planning

- Site analysis and selection
- Building orientation and layout
- Space planning and circulation
- Materials and finishes
- Energy efficiency and sustainability

"Architects and interior designers can create residential buildings that are sustainable, visually arresting, and functional through incorporating these key considerations for design into account."

Key Elements of Successful Residential Building Design

- (i) We will go about the essential components of a good residential building design and how to apply them to make stunning and useful spaces for living. The process of constructing a residential structure is intricate and requires integrating a wide range of components, encompassing beauty plus practicality.
- (ii) *Functionality*: Performance is the essential component of a well-designed building since it guarantees that the structure is useful and meets the needs of its users.
- (iii) *Energy efficiency*: Energy-efficient products for lighting, insulation, and building design that optimizes natural light and ventilation.
- (iv) *Sustainability*: Green roofs, solar power systems, energy-efficient appliances, and renewable materials are a few examples of sustainable design features.
- (v) *Comfort*: The comfort of the people who live there should be given top priority in residential building design.
- (vi) *Aesthetics*: Play a crucial part in residential building design since they establish the general mood and appearance of the structure. One can employ color, texture, [3] and form among other elements to produce a visually pleasing and well-rounded design.
- (vii) *Accessibility*: Ensuring that an apartment building is accessible to all occupants, irrespective of their ability to walk, is an essential component of good architectural design.
- (viii) *Flexibility*: A flexible buildings can adjust to the shifting requirements and preferences of its users. Utilizing modular furniture, creating multipurpose empty spaces on plus having a unified floor plan are ways to demonstrate flexibility.
- (ix) Protection and safety: Are crucial components of a well-designed residence because they provide the protection of the structure and the people who reside there.

Principle of residential building planning

"Principles of Architectural Planning" refers to the idea of arranging all of a building's components and units in a scientific and useful way in order to make the most use of the area, facilities, and space that are available (Figure 1).

Let's study the remaining main ideas of construction planning after examining the impact of climate change.

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|---------------|-----------------------------|
| 1 Aspects | 7 Privacy |
| 2 Prospects | 8 Furniture requirement |
| 3 Grouping | 9 Sanitation |
| 4 Roominess | 10 Economy |
| 5 Circulation | 11 Elegance |
| 6 Flexibility | 12 Practical consideration. |



Figure 1. Principle of building planning and designing.

Aspect in building planning: Aspect corresponds to the arrangement of units in a building with regard to the four directions so that the occupants [4] can take full advantage of the natural comforts provided by the sun, breeze, scenery, etc. (Figure 2).

Any direction's light and circulation into a room is referred to as having that direction's aspect. Every room in an apartment needs a specific feature.

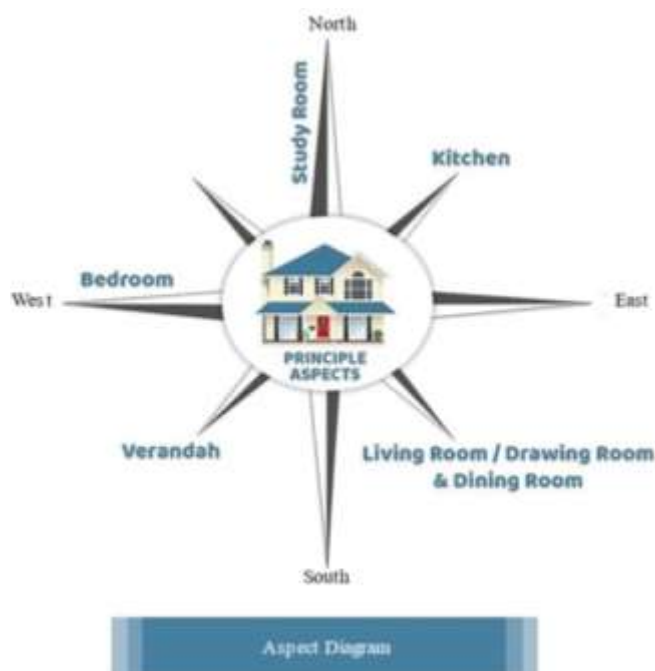


Figure 2. Principle and aspects of building rooms.

Prospect: In the larger scheme of building planning, a prospect is the view that the building's residents would like to have from a particular room. Prospect is determined by the site's nearby features, ranging whether favorable or unfavorable, such as flower gardens or landfills. It requires how openings and door-like features are arranged. Good prospects alone ought not to, however, cause one to upset a well-constructed layout.

Furniture requirement: A room needs furniture in order to function. Each type of space—living, dining, kitchen, workplace, laboratory, hospital, etc.—has different furniture needs.

Roominess: The goal of roominess is to maximize use of the smallest possible space without compromising design (Figure 3). The building's advantage of spaciousness is obtained by making use of every crevice and corner.

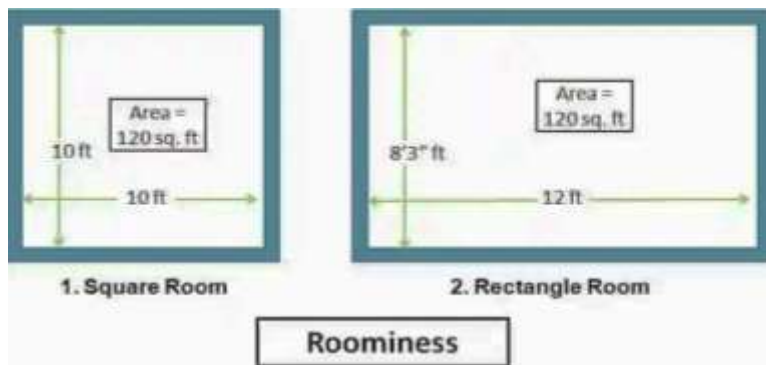


Figure 3. Roominess.

Grouping: In architectural planning, grouped refers to ordering a building's locations based on how [5] invitation and transition relate to one another (Figure 4). The organized arrangement of the rooms places all of them in appropriate proportion to their neighbors and in accordance with their respective purposes.

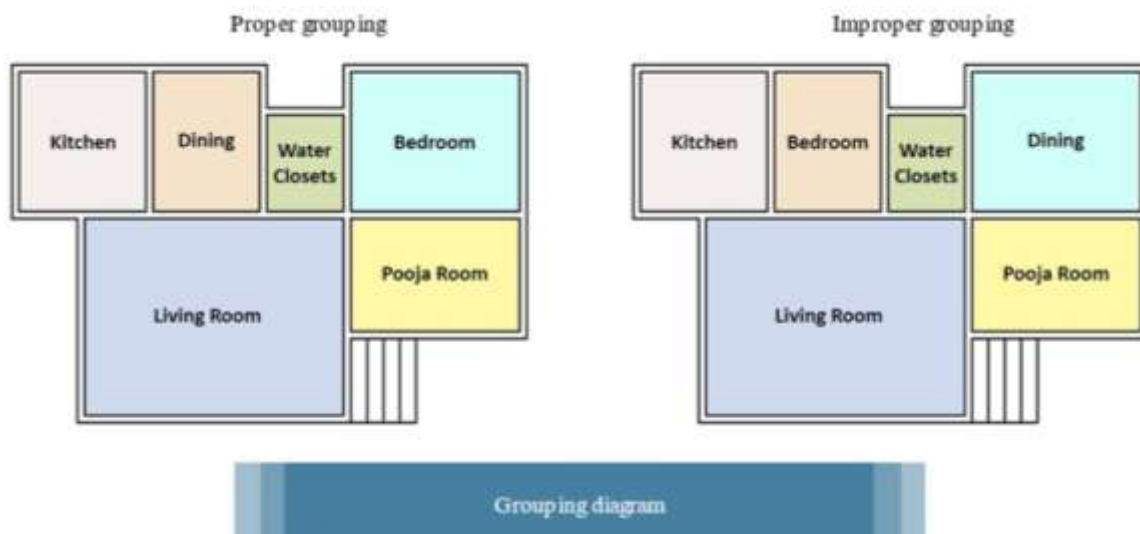


Figure 4. Grouping of architectural planning diagram of home.

Circulation: Circulation represents the access or physical link between rooms on the same floor or between floors. Horizontal circulation encompasses movement across passageways, halls, corridors, and other spaces that connect rooms on the same floor [6–7]. Vertical movement refers to movement through staircases, elevators, and other means of transportation between various floor levels.

Privacy: Planning for solitude is crucial when designing a building. Privacy can extend from one area (Figure 5) of a building to another, or it can extend from adjacent buildings, roads and etc.

There are 2 types of privacy:

- Internal
- External

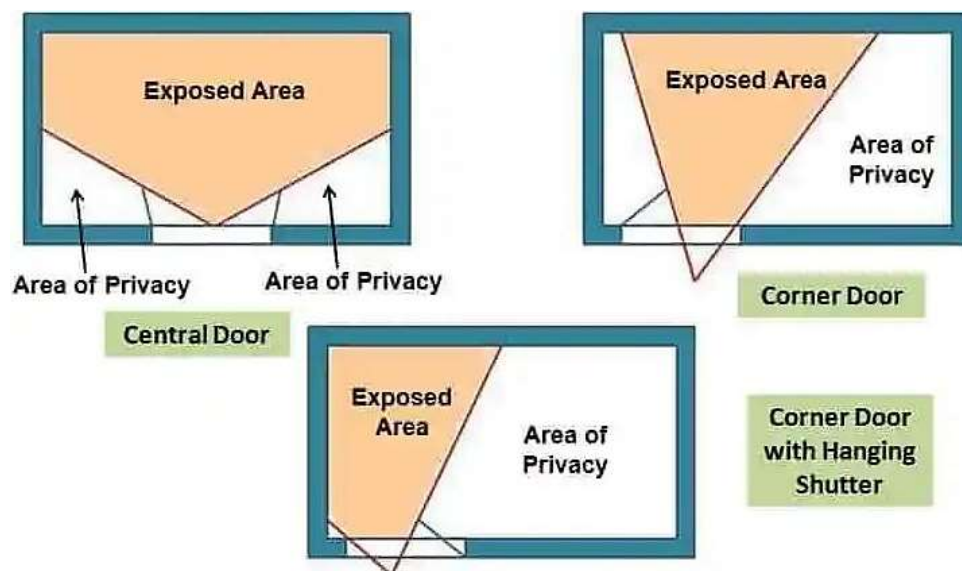


Figure 5. Types of Privacy

Flexibility: Planning something with versatility entails making adjustments even though the initial intent was for the space to serve something particular. It ought to serve other intended duties in the future, as space is at its highest right now. Thus, space economy is a critical consideration [8–10]. Lack of space is an issue for everyone; the way out is to maximize the capacity that is already available, not to search for more of it.

Sanitation: In order to be regarded sanitary, a space must have enough light, ventilation, neatness, and reproductive convenience.

Elegance: Elegance is graceful and beatific. More purity, delicacy, or ornamental embellishment in the building produces this appearance. Elegance is associated with the building's elevation, which can be constructed to appear stunning, remarkable, and charming. A building can attain this beauty through the way its walls treat them, how its doors and windows are proportioned, how one story is connected to another, and other factors [10–12]. Second, it can be accomplished through the exterior presentation of a building that is visually noteworthy overall. Examples of this include the rhythm of projections and economic downturns, the impact caused by a dome's pitched or flat roof, etc. Thirdly, it is capable of being completed by the way the interior is decorated, how the rooms are arranged, a beautiful staircase, etc. There can be three ways, and this one is two.

Economy: Economical is an element that can be used to inform planning, not the planning theory itself. Since there are many ways to achieve efficiency depending on the circumstances, there are no general principles than can be used.

Orientation: Setting or maintaining the direction that governs a building's plan so that its occupants can fully appreciate what is good and steer clear of what are bad for the way they feel in the natural elements is known to be appropriate orientation.

CONCLUSION

Because of that, our concept is based on the {{G+1}} residential building's design. We looked into the fundamental planning requirements for our residential project, determining the planning ideals, DCR under Nagpur City Millennium regulations, and the important role of Vastu Shastra in planning.

We earned experiences applying the theoretical parts of evaluation to real-world initiatives through the implementation of this project. We looked into the appraisal and calculation procedure that discovered that this is a crucial part of contributing funds to the project. essential to finishing the task. Our computations depends on exact measurements, which can give us figures that are both accurate and approximate. So that the aforementioned principles can be implemented in real, current initiatives, a comprehensive structural evaluation has been produced.

To ensure that the cost estimate satisfies the project's structural requirements, the current unit incomplete rate of each work item must be evaluated when assembling the cost estimate brief. Consequently, this project is a precise imitation.

REFERENCES

1. Planning a Residential House (9 Principles) [Internet]. Your Article Library. 2015 [cited 2024 Jan 2]. Available from: <https://www.yourarticlelibrary.com/home-management/planning-a-residential-house-9-principles/47825>
2. Kumar V. An Overview on Various Applications of Deep Learning. [cited 2024 Jan 2]; Available from: https://www.ijmrset.com/upload/2021/may/11_paper_5.pdf
3. AEC Moreno Corp. What is a Building plan? [Internet]. Aec Moreno . Aec Moreno ; 2019 [cited 2024 Jan 2]. Available from: <https://www.aecmoreno.com/post/what-is-a-building-plan>
4. Archi_com. Residential Building Design In Architecture [Internet]. Archi-Monarch. Archi-Monarch; 2023 [cited 2024 Jan 2]. Available from: <https://archi-monarch.com/residential-building-design-in-architecture/>
5. Principles of Building Planning/Designing | Basics to Learn! [Internet]. Gharpedia.com. 2022 [cited 2024 Jan 2]. Available from: <https://gharpedia.com/blog/principles-of-building-planning/>
6. Building by laws [Internet]. Slideshare.net. Slideshare; 2017 [cited 2024 Jan 2]. Available from: <https://www.slideshare.net/sameerthaiyam1/building-by-laws>
7. Ruiz PA, Martín JG, Lissén JM, de la Flor FJ. An integrated optimisation method for residential building design: A case study in Spain. *Energy and Buildings*. 2014 Sep 1;80:158-68.
8. Islam R, Nazifa TH, Mohammed SF, Zishan MA, Yusof ZM, Mong SG. Impacts of design deficiencies on maintenance cost of high-rise residential buildings and mitigation measures. *Journal of Building Engineering*. 2021 Jul 1;39:102215.
9. Zakaria Z, Sophian RI, Gusriani N. Environmental Aspect in Infrastructure Planning Using Starlet-Perdana Model. In IOP Conference Series: Earth and Environmental Science 2019 Mar 1 (Vol. 248, No. 1, p. 012013). IOP Publishing.
10. Borkowski AS, Wyszomirski M. Landscape information modelling: an important aspect of BIM modelling, examples of cubature, infrastructure, and planning projects. *Geomatics, Landmanagement and Landscape*. 2021.
11. Dyczko A. Production management system in a modern coal and coke company based on the demand and quality of the exploited raw material in the aspect of building a service-oriented architecture. *Journal of Sustainable Mining*. 2023;22(1).
12. Aboelata A. Vegetation in different street orientations of aspect ratio (H/W 1: 1) to mitigate UHI and reduce buildings' energy in arid climate. *Building and Environment*. 2020 Apr 1;172:106712.