# CHAPTER I

# INTRODUCTION

## 1.1 Background of the Study

Man's need for shelter has always been a problem for both the individual in need of a home and the in charge of building or planning it. It is well known that, in the hierarchy of human requirements, food comes first and then shelter. Olotuah (2000) stated that housing is a basic need of man, the inadequacy which undermines his inherent abilities of and potentialities of man since his existence under threat. In order for this to happen, such environments should be designed according to his unique lifestyles and behaviors; which could be achieved through his involvement in the housing process. Human needs and preferences are influenced by several factors. Every society has an identity, and the cultural ideals of the people make up this identity. As argued by Rapoport (1969) architecture and culture depend on each other and are inseparable. In the light of this called for development of culturally sensitive housing.

People began to use or incorporate the many housing provisions discovered in locations where they had been into the housing in their neighborhood. The fundamental house provision or house form present in a location was influenced by the aim to either directly duplicate or enhance the style of housing present in that region or nation. It therefore becomes harder to distinguish between societies based on their housing design because it is influenced by architecture and the development of its design in relation with other factors like safety, security and other concern brought about a change in housing design. Resident users must not only be part of the housing process, but also the center of it, showing some level of control during the decision-making process. Martinez et al (2007) stated that every decision about their residential environment will have an impact on the residents' lives hence their views should count throughout the process, because, they are experts in defining their own needs. However, the level of residents' participation may vary depending on the kind of project involved.

As Omole (2001) stated Man needs to live in an environment that provides him with physical, mental, and social wellbeing. In order for this to happen, such environments should be designed according to his unique lifestyles and behaviors; which could be achieved through his involvement in the housing process.

Stephen (1999) defines the family as a social arrangement based on marriage including recognition of rights and duties of parenthood, common residence for husband, wife and children are reciprocal economic obligations between husband and wife. A family is a group of people related by the ties of blood, marriage, or adoption. Members of a family most often live in a single residence and perform different duties. Members of a family and their duties vary from culture to culture and at different times in history. Who is considered a family member, and what responsibilities that family member has, may depend on their age, sex, and relationship to other family members. They also have shelters and here we are only going to talk about their shelter and the relationship of that shelter with the members living in that shelter. The design of residential environments has changed in response to these trends byopening up kitchens to other family living areas in order to provide more familyinteraction time.Open plans accommodate communication and multi-tasking by takingaway barriers that keep activities separate. With pop-psychologyand self-helpinstruction at an all-time high, American families are realizing the importance ofcommunication and interaction and demanding homes that maximize the potential forbothMiller and Maxwell (2003).Today, meal preparationoften occurs as a family activity and social functions center around both cooking andenjoying food.

However, not all aspects of open-plan residential environments are seen aspositive.Some people react negatively to the open-plan trends and strive to maintainareasofprivacywithinresidentialdesigns.Forinstance, somecontinuetopreferlimitingthe view of food preparation areas from other areas because of the mess that is created bycooking. Murphy (2004) stated that, an extended family can also provide care for the elderly and young in the household. In India, for example, extended families usually consist of two or more married couples who share finances and a common kitchen. By sharing responsibilities, an extended family is able to support all members of the household both socially and economically.

Now while talking about the society, it comprises of different systems, units, groups and institution. There are different theories and perspectives to see those units or institution in the society and make its scientific studies, by the help of those theory and the sociological tools that are going to have research on an institution of a society which is known as household and on being more specific that is going or see the relationship between house design and the social relation in between household unit in that respective house. The design of the house used to be none framed as per the available materials, manpower, skills and construction technology traditionally. Geologically, Nepal is situated in an earthquake prone area. To minimize the risk factors of natural disaster government, implement the policies regarding earthquake resistance construction of the buildings. Due to which it looks easy cheap and fast construction technology for earthquake resistance building that resulted in replacing old non frame mud mortar houses to framed concrete structures not only the modernization but also increased population is caused to use small piece of land for habitat as compared to previous settlement. It needed to integrate structure with everything that required in a single building. i.e., previously toilet used to be far from building but now it has attached toilet bathroom. Even the praying room (worshiping room) is required individually in their house. All this changes also directly and indirectly affect in house hold and house design.

The built environment can impact people's social connections; certain aspects and design elements of the built environment such as the use of open spaces, seating, and housing clusters are well known to be more conducive to promoting socialization between neighbors. Brown, et al. (2009) stated that some community members have taken initiative and worked with developers and architects to design and build their own sustainable, socially-focused co-housing communities. However, the collaboration needed to implement housing design that promotes social support and connectedness can be perceived as challenging, and of course public health agencies do not normally design or maintain housing.Krieger and Higgins (2002) emphasize the importance of addressing structural factors such as poverty, racism, and social inequality in order to improve health outcomes. They argue that these factors not only influence individual health behaviors and outcomes but also shape the social and economic policies that determine access to health care, education, and other resources. The authors argue that poor housing conditions, such as overcrowding, inadequate

ventilation, and exposure to environmental hazards, can have a significant impact on physical and mental health outcomes. Krieger and Higgins (2002) also critically stated that,

*"While architects focus on novel forms, and public space advocates talk about the potential for park or plaza design to boost social connections, the evidence suggests that is continue to design and build housing that corrodes social wellbeing. Millions of people are moving to high-density housing around the world. Developers and policy-makers need to be guided by evidence or we risk building a new generation of unhealthy, isolating homes."*

As argued by Rapoport (1969) architecture and culture depend on each other and are inseparable. The house is not just a shelter or a place to relax and unwind. It is a family development center too. As house is the 1st school for the kids and from where the socialization starts, the material house and its design might also play an important role in that socialization process. Where the design of the house also plays an interesting role in the design of a household because household does not exist without a house and vice versa.

There are many theories and assumption regarding a house design, several factors is there to be considered as mention above is influenced individual house design. The factors to be considered on its design are unique life style in to the community, their family and socio- cultural aspects followed by religion. Some other thing to be considered is geographical condition, technology, safety and security and level of residence participation including family size and bonding. Ultimately, family size is just one factor that can influence family bonding, and there are many other factors that play a role as well which are to be studied in detail.

## 1.2 Statement of the Problem

Tavassoli&Fathi (2013) stated that design and formation of urban space focuses on interaction of human and environment. Whereas they also notified that there is a strong link between cultural and social characteristics as well as the household socioeconomic level and urban sustainability since these variables have a greater impact on urban space sustainability. Shehab and Kandar (2021), highlighted the interrelationships that exist among the significant social factors and cultural factors

that influence sustainable housing design. They also concluded that when it comes to designing a house to fulfill present and future needs, it also demonstrates that family structure and religious beliefs dominate the behavioral and attitudinal inclinations in the Gaza Strip.

Mishra (2019) elaborated in his article Development of Building Bye-Laws in Nepal that building bye laws were developed to ensure greater compliance with the building, planning/zoning and structural requirements, there were several pitfalls associated with their design, practice and implementation at local level. by laws only looked after building height, earthquake resistance design, road size, coverage area, plot size etc. whereas sociological factors are overlooked. He says, the reason may be either the building byelaws, under which existing development control rules are enforced, are too weak and inappropriate in addressing the problems of physical development or they are outdated and no longer suit the present socio-economic context. Nepal is a developing country and it is getting rapidly urbanized so that Looking upon these researches there is a lack of micro analysis of interaction of human and environment with household and house design. Even the socio-cultural factors that influence the present and future need are not enough to justify the core value behind household and their house design. It is necessary to know their relationship to each other. Due to the modernization and the globalization process everything is changing and going towards complex. The research is based on the following research questions.

1) What is the influence of socio-economic status of house hold on the design of a house?

2) What does the design of the house influence the behavior & relationship of household members?

## 1.3 Objectives of the Study

The purpose of this study is to examine the relationship between house hold structure and residential house design. This examination includes consideration of how the layout and configuration of residential environments impact interpersonal relationships among family members, how well the residential environment supports self-expression of each family member, and how the residential environment promotes place-identity for family members. Embedded within this exploration is an

examination of territoriality and control and how these are connected to place-identity in the family setting.

⟩ To study the influence of the socio-economic status on house design.
⟩ To analyze influence of house design on the behavior and relationship of household members.

## 1.4 Significance of the Study

As the house is left behind while studying about a household, this study will try to shade some light upon that area which is very often not noticed area in the sociological study. May be by knowing the relationship between the household character and the house design it will also help different family to build their house to give certain characteristics to our family and also have control over the institution too. It will also help the engineers design the houses that shape the society and helps in better socialization process too.

## 1.5 Limitations

The study is concerned with a small sample of families and their house design. Housing and homes are to a large extent the realm of the family. This is so obvious that it has always surprised that how little theory and empirical research there is that explicitly connects the family life course and housing. Demographers and family researchers tend to focus on transitions in the family life course without paying too much attention to housing. The detail engineering and architecture of houses are overlooked and mostly sociological factors are carried out. It is a qualitative approach rather than a quantitative one.

# CHAPTER II
# LITERATURE REVIEW

The way that space is organized in structures reflects both the nature of society and what is evident in how its members behave. As the primary actors in this space, humans have been instrumental in bringing about this transformation. Humans live in families, which are the fundamental unit of society, and as such, any change in society has an impact on the demands of families and their housing structure. Because of this, when residents' wants and habits change, so does the nature of their dwelling.

## 2.1 Concept of house Design and Socio-Economic Status of House Owner

Spatial organization deals with the internal relations of space; thus, every spatial organization causes some specific perceptual qualities which play a crucial role in the understanding of architectural works According to Rapaport (1995) spatial organizations represent the values, objectives, and activities of the individuals who created them. Accordingly, as the characteristics and values of their creators change, the spatial organizations undergo some changes, too. In fact, in each context, the spatial organization of housing is affected by technological, social, economic, and cultural features of that context and, as these factors change, the spatial organization of housing changes, too in this study, it refers to space as perceptual space because, as was already mentioned, in perceptual space, space is defined in the observer's mind. In reality, the relationship between the observer (the mind of the person who sees) and the mathematical space is examined when perceptual space is investigated. Therefore, the observer's perception should serve as the foundation for all investigations of space. This perspective varies greatly from one culture to another and varies depending on the individual. In order to investigate the changes in the arrangement of the space from the perspective of the occupants and based on their behavior toward the space, the grounded theory approach was used.

According to Asfour (2012)any housing requirement to be effectively addressed, the housing project's goal must go beyond simply providing housing units to creating

buildings that meet the different demands of possible occupants. it is obviously one of the most considering factors while designing a house. This theory stated very crucial necessity of demand and supply chain. Where it can assume even before renting the house, we should look for the requirement of household as well as there are several things that can be adjusted. Housing is a crucial aspect of society that has a major impact on the well-being and quality of life of individuals and communities. According to Un-Habitat (2004) housing is a significant and permanent investment that is specific to the location in which it is built. The design of housing is closely tied to the social order of the surrounding neighborhood and can affect the connections and status of residents. Community sustainability, or a community's ability to sustain itself, is linked to concepts such as social solidarity and social capital, which involve shared norms, social networks, and organization within the community. This also includes how the design of the housing can affect the well-being of current and future generations, as well as social and cultural aspects of the community, such as the representation and identity of the residents. These socio-cultural factors play a vital role in shaping the identity and character of any housing, and should be taken into consideration when designing successful housing.

Jiboye (2010) suggests that there is a strong connection between the social and cultural aspects of home living and sustainability. This means that by considering people's needs during the design of houses, we can improve the quality of the environment. The research shows that cultural and social factors play a significant role in ensuring long-term sustainability. The study findings on providing sustainable housing for low-income urban residents are also used as a way to evaluate the quality of life.

Hamed (2003) also believes that culture, nature, and the environment of the inhabitants are crucial factors to take into account when designing homes and environments for people. The researcher emphasizes that all factors, even small ones that have direct or indirect effects on house design, should be considered. The importance of these variables may vary depending on the individual and should be taken into account during the design process.

Alahmed (2014) found that favorable social conditions for housing provision are crucial for sustainable housing and creating a livable environment. The nature of society and the behavior of its members is reflected in the way buildings are

organized. In this respect, people, as the main actors in space, play a crucial role in bringing about change. People live in houses as families, which are the basic units of society, and any changes in society lead to changes in the structure of families and the needs of their members. Therefore, when residents' needs and lifestyles change, their housing structure also changes. The study defines space as perceptual space, which is a mental concept in the observer's mind and is different in different individuals and cultures. The grounded theory strategy was used to investigate changes in space organization from the residents' perspective and based on their behavior towards space.

Fazeli (2013) argues that individualism is one of the important characteristics of modernity in the last century, and it refers to preferring individual and personal needs over the needs, values, and general structures of society. Extended families are characterized by being meta-individual in nature, where the family benefit is important in different aspects, such as livelihood. On the other hand, nuclear families are characterized by the centrality of individuals, where individuals build their lives based on individual work and effort, and economic independence is the source of political and social independence for individuals. Today, families consist of individuals who are different from each other, engaged in their own tasks and responsibilities, and have different positions in society and norms and values that guide their personal behavior. The study examines the effect of changes in family structure (in terms of the role of members, their relations, and the functions of the family) on the spatial organization of housing.

## 2.2 Review of Previous Studies

Shehab and Mohd (2021) in their research highlighted the relationships among significant social factors and cultural factors that influence sustainable housing design. They have argued that sustainable housing design is a crucial area in the built environment literature that encompasses social, cultural, and economic factors. However, literature revealed that the problem of sustainable housing design exists due to the imbalance between these influential factors.

The study employed a quantitative method design to answer research questions and objectives. Firstly, it investigated the direct relationship between socio-cultural values and sustainable housing design in the Gaza strip. Secondly, it addressed the

antecedents of sustainable housing design (SHD) such as family structure (FS), family values (FV), family lifestyle (FLS), privacy (PV), religion and attitude beliefs (RB), safety and security (SS), in explaining SHD and bridged identified gaps in literature.

A self-administered survey was applied as a research design. Stratified probability sampling was used to choose the respondents for quantitative data collection. Survey questionnaires were distributed among 384 residents of Gaza. Data of 252 respondents were analyzed through Structural Equation Modeling (SEM) technique using AMOS 22. The results of the quantitative study brought important findings based on socio-cultural factors influencing sustainable housing design. The findings revealed that both social factors i.e., family structure (FS), family values (FV), family lifestyle (FLS) and cultural factors i.e., privacy (PV), religion beliefs (RB), safety and security (SS) related positively with sustainable housing design (SHD).

The study's findings indicate that when it comes to creating a home to meet current and future needs, the Gaza Strip's behavioral and attitudinal inclinations are dominated by family structure and religious beliefs. As a result, such inclinations exist within a closely related socio-cultural setting are carried down via the generations in the creation of a more favorable environment. The government sectors and policymakers have given particular attention to sustainable housing design for the residents. Smart houses, as part of a sustainable housing strategy, employ innovative technologies and models to provide comfort and improve quality of life. However, previous research inquiries ignored the social, cultural, emotional, and religious factors that play a role in the context of home and space. The study's findings shed light on a wide range of issues on house design that is environmentally friendly. Overall, findings provide comprehensive constructive insight to employ a sustainable housing design framework align with socio-cultural values in Gaza. Finally, future research should use other forms of analysis based on observation etc. and conduct comparative analysis in context of other Arab countries.

In their Journal Stephen et al.(2006) critically analyzed how designers and building bye laws are ignoring the need to gauge changes in lifestyle and, as a result, changes in user requirements for structures, focusing on the young working-class families in Shanghai. It was noticed that designers and legislators frequently assume a status quo

scenario by merely following construction laws and building standards, which are frequently quantitative in nature, as the norm for creating structures.

In an ultra-economic-based transformation of society, it is suggested that user requirements for dwelling change dramatically. According to a poll conducted by the research team, the youthful working class's work-oriented lifestyle has resulted in a shift in attitude and expectation about the function of home and space usage. The authors argued that there are two new trends in young working families, one that favors open-plan kitchens and the other that favors separate kitchens, using kitchen space as a control subject of the study. The ramifications on design and space consumption as a result of these opposing preferences urge for re-structuring the kitchen design paradigm and its role (other than utilitarian) in the home.

This study is a simplified field research of two growing trends of user attitudes and behavior.

The study conducted byAmal et.al. (2022) aimed to investigate the impact of socio-cultural factors on the internal layout of public housing in Jordan. They used a mixed-methods approach including a survey, interviews, and recording of new layouts. The researchers found that factors such as gender segregation, privacy, social network, and safety were significant in determining the layout of the houses. The study also revealed that demographic variables, such as family structure, income level, and ownership, along with socio-cultural factors, have a significant influence on layout transformations. Respondents noted that privacy and cultural values were important factors in the changes made to the units, and that family expansion and financial status also played a role in these transformations. The study highlights the need to take socio-cultural factors into account when designing public housing to ensure residents' needs are met and they are satisfied with their homes.

Henny and Joris (2001) published a paper and they used a means-end theory approach to investigate how motivational micro-level factors such as values and goals influence preferences for housing features. They collected data using a semi-structured interviewing approach called laddering. The sample size was small (10 people), as the focus was on exploring the links between values and housing preferences rather than testing specific hypotheses. The authors of the paper suggested that means-end theory could be used in applied research on housing preferences, such as segmentation

research, where groups of consumers with similar housing preferences are identified for targeted marketing activities. They also suggested that means-end theory could be used in the town planning and architectural design of house development projects, as it can reveal the connections between product attributes and consumer values. However, it should be noted that the findings from the pilot study were speculative in nature and more research would be needed to establish their robustness.

Bruce & Derek (2016) conducted a study to investigate the effects of architectural and personal factors on neighboring behaviors in a residential community. They used a two-pronged approach of qualitative informal talks with neighbors and systematic recording of activities in the community's shared social space. They found that the inhabitants who used the social space made up a small percentage of the total population and that there was a neighborhood-based network that was maintained by direct house-to-house interaction rather than neighboring in the communal area. They also found that some residents did not want to be a part of any local social network, and that the social room did not encourage group mixing. They also found that some social groups originate and maintain themselves without participating in a social environment, which contradicts previous notions in neighboring research. The study gave unique insights into the neighborhood architecture and community, and it revealed a type of behavior which has not been emphasized in previous studies of neighboring behaviors and neighborhood communities.

Vishnu & Kumari(2019) stated that Indian colonial architecture was directly influenced by British and European styles, and that the design relationship was influenced by their culture. Their study aimed to examine the socioeconomic and environmental components of colonial architecture and how colonial influences influenced architectural advancements in India. Which concluded that historic buildings can act as focal points for communities and revitalize their sense of civic pride? They also used examples such as the restoration of the early 19th-century St. John's Church in London, which has been developed to incorporate a nursery school, community café, an employment project, a fitness center, as well as its continued use as a church. The study concluded that architecture is a valuable tool for studying culture, society, and politics and the contributions of colonial architecture to India's architectural development.

Nevnihal (2016) looks at the connection between vernacular dwelling architecture and social, cultural, and religious traditions in Turkey. The paper aims to explore how traditional Turkish family beliefs, values, and rituals influence dwelling architecture in Turkey. The researcher uses a four-part model to depict the relationship between architectural artifacts chosen or created by a culture, architectural values, social conventions, and social values. The study focuses on how social values such as religious beliefs, the relationship between the male and female figure, family structure, family status in society, family privacy, neighborhood, hospitality, and social values in Turkish-Islamic tradition relate to the design of the traditional Turkish house. The researcher uses this model to analyze the traditional Turkish house in order to understand how social values and norms shape its architecture.

Setha (1995) explains that the study of cultural elements of design focuses on the complex relationship, interaction, and correspondence between cultural processes and design principles. He states that culture can be viewed from various perspectives, such as social structure, cognitive structure, meaning system, and interpretation. Each of these perspectives can be used to study culture and its relationship to the built environment.

The first perspective, culture as social structure, focuses on the rules and conventions of behavior and the dynamics of how social groups influence the spatial arrangement in the house, neighborhood, and community. The second perspective, culture as cognitive structure, examines the laws that regulate spatial arrangements and how they are reflected in language aspects that make up culture. The third perspective, culture as a meaning system, looks at the symbolism in the personalization of the built environment and landscape, and how the environment can be understood as a symbolic system that encodes cultural meanings. The fourth perspective, culture as interpretation, examines how the built environment is interpreted by people and how it reflects cultural values, beliefs, and norms.

Also,Setha (1995) argues that by understanding these cultural aspects of design, architects and designers can create built environments that are more responsive to the cultural values, beliefs, and norms of the people who will use them. He also suggests that cultural aspects of design research, theory, and methodology can be divided into

four categories, which can be thought of as a typology for cultural components of design research, theory, and methodology.

In summary, the research by Loni Dee (2005) examines the relationship between residential design and family lifestyles, focusing on how the layout and configuration of homes affect interpersonal relationships among family members, how well the residential environment supports each family member's self-expression, and how the residential environment promotes family members' sense of place identity. The study uses a combination of traditional interview methods and novel visual exercises to gather data from 10 participating families, with the goal of providing home designers with useful information to assist them in making educated decisions when working with residential clients.

The research conducted by Allison et al. (2003) explores the role of home design in fostering family interaction. They conducted research using design programming, activity logs, parental interviews, and a card sort method with 24 single parent and dual-earner households with primary school-aged children. The findings showed that families interact most frequently during mealtime and while watching television, and that the kitchen, kitchen/dining area, or living/family room are the most common places for interaction. The research also found that settings that promote concurrent activity are the most conducive to family engagement and that the home should be able to accommodate specific family activities, multiple activities in the same location, facilitate household tasks, and maximize the aesthetic appeal of family spaces to foster family interaction.

The research paper by Fallah&Hojat (2018), explores the connection between changes in family structure and the corresponding changes in the design and layout of housing. The study uses a qualitative method and grounded theory strategy to examine the changes in housing in the city of Yazd from the early 20th century to the present. The research employs a variety of data collection methods, including open-ended and semi-structured interviews, participant and non-participant observation, and the use of theoretical foundations from the social sciences. The study aims to provide insight into how housing transformations can be better understood from the perspective of people, their lifestyles, and their actions, and to aid practitioners and decision-makers in creating alternative housing options for today's families.

In summary, the study by aimed to understand how to strike a balance between the psychological and architectural associations with home. They used a study on human relations and behaviors within the context of the built and natural environments to show how the physical nature of a residence can impact one's view of home association. They investigated architectural techniques such as contrast, stimulation, and security, as well as history vs. modern, scale, and a home's link to nature to understand how they can affect the psychological state of the occupants. The study found that architecture alone is not sufficient to foster a sense of belonging and proposed that architecture education should shift to include a deeper understanding of the occupants' needs, wants, and behaviors. The study also suggests future research on non-resident homes and the concept of renting as a way to identify specific architectural components that have a stronger impact on the feeling of home connection with multiple occupiers.

Although identifying the effects of family transformations on housing plays a crucial role in making decisions and doing thoughtful planning for the future, very few studies have been conducted in this connection. In fact, most of the studies carried out on housing have only referred to the effects of family structure on housing in general, such that the relationship between the changes in family structure and housing in a focused case study has not received the attention it deserves asserts that such studies are related to the field of social sciences; rather than, architecture. However, if this issue is addressed by architects, it provides more practical results for planning in the field of housing. Given the abovementioned research gap, the present study, adopting an interdisciplinary approach, aims at answering the following question: "What changes are brought about in the space organization of houses of as a consequence of changes in the family structure.

## 2.3 Conceptual Framework of the Study

The study conceptualized the framework of house design in the relationship with household, which is influenced by internal and external factors. The previous study has been conducted according to the structural functionalism macro level theory justify that the society as an interconnected with each part having a different function by working together. It is also focused on only social order is based on norms and values that individuals follow to feel like a part of a large group, such as society,

norms are ruled or expectations that are socially enforced. This theory includes educational, health care, family, legal system, economics and religion. Theory moreover discussed sociologically theory that how society maintain social order and stability.
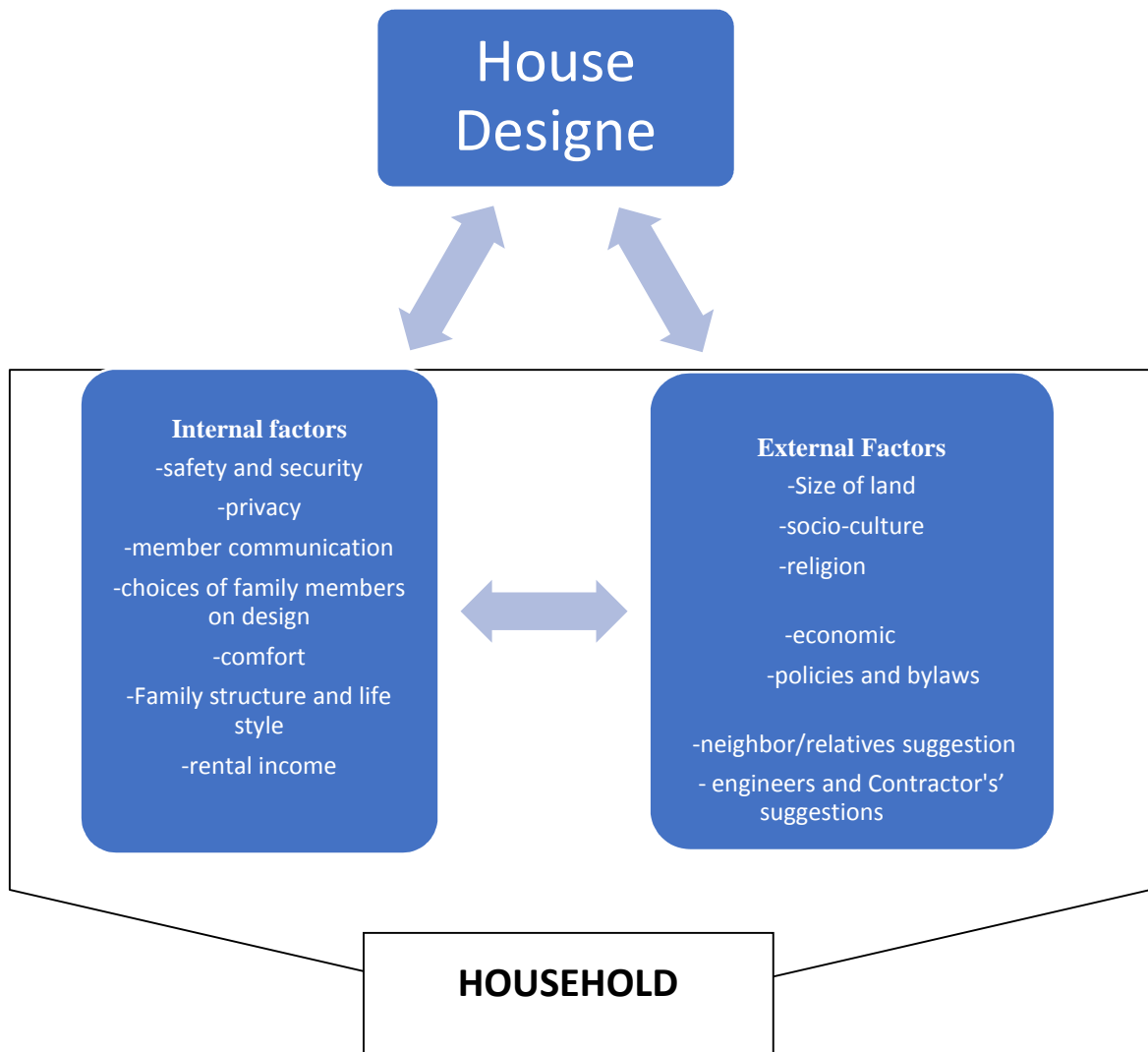
Since they all seek to explain certain social phenomena, the structural functional theory is also known as the structural functional approach or structural functionalist perspective. According to sociologists, social order is founded on the values and standards that people adhere to in order to feel like they are a part of a bigger group, such as society. Norms are expectations or regulations that are upheld by society, such as not robbing your neighbor or acting appropriately at a dinner party. Values are basic principles of what is desirable, such honesty or integrity.

Humans are influenced by all social institutions, including schools and their systems. People need social institutions, and social forces like belonging have an impact on how people behave.

A macro-level theory known as structural functionalism views society as a connected systemwith interrelated parts that each have a unique purpose. In this session, we will study more about the theory and the early pioneers who helped shape our current knowledge of it, including Auguste Comte, Herbert Spencer, and Robert Merton,

Talcott Parsons, who developed his action theory in 1930, was greatly influenced by Durkheim and Max Weber. He synthesized much of their work and based it on the system-theoretical idea and the methodological principle of voluntary action. He believed that "individuals' behaviors make up the social structure." As a result, his starting point is the interaction between two people who are presented with a range of possible actions, and whose actions are impacted and constrained by a variety of physical and social circumstances. Following is a Conceptual diagram which will shade the light upon the relation that is intended to be studied in the research.

**Figure 1: Internal and external factors of influence on development of house design.**

House design is not influenced by single theory, it has socioeconomic and demographic characteristics, it is a relation of household members and their kind of bonding patterns. It is affected by Internal factors like safety and security, privacy, member communication, choices of family member on house design, comfort, family structure & lifestyle, rental income are the core area of consideration. Similarly, external factors like size of land, socio-culture aspects, religion, economy, policies & bylaws, neighbor /relatives' suggestions, engineers and contractors' suggestions etc. Each element of internal and external factors is definitely differing to individual households' behavior on its design and choices, it will also shape by their knowledge,

education and others. Besides the those factors human psychology is another role model in the matter of house design. According to (Kopec,2018) "psychology of space" is actually "the study of human relations and behaviors within the context of the built and natural environments." Interior design has been ingrained in people's psychology because to its direct influence on the subconscious, which influences your emotions and perceptions through that unique area of your brain that responds to the geometry of the place you occupy. Interior space has significant effects, even if it is not the only issue at play. Mental image of house design and its architectural structure also changes due to some standards and technical causes provided by engineer and contractors even though internal and external factors are there to influence the entire design. internal and external factors which affects household and also affect the house design and vice versa so we see direct relationship of household and house design. We tried to observe the thesis in relation with "The Theory of Cognitive Adaptation" Taylor (1983)

# CHAPTER III

# METHODOLOGY

## 3.1 Study Area and its Rationale

The study aims to understand the social, cultural, and economic factors that influence the design of housing in Pokhara Metropolitan City, Nepal, using an explanatory research design and descriptive research. The city is known for its diverse population and it is a popular tourist destination. The study will focus on a specific area of the city that contains various cultural and ethnic groups, local residents, and migrants, as well as people from different professions and business owners. The places where they live and work are considered as the significant areas of human experience and social interaction. The study was also examined design techniques that prioritize social considerations in order to address complicated human problems, and the role of designers in society and how design processes can be used to bring about social change.

Pokhara is considered an ideal place for research on housing design for several reasons: It's diverse culture and architecture. It has a rich and diverse cultural heritage, which is reflected in its traditional architecture. The city is home to a wide range of architectural styles and building techniques, which offer a wealth of material for research on housing design. Economic and social challenges, Pokhara is a developing city that faces a number of economic and social challenges, such as poverty and lack of access to basic services. Research on housing design in Pokhara can help to identify and address these challenges in a way that is sensitive to local context and culture. Growing urbanization: Pokhara is experiencing rapid urbanization, with a significant increase in the number of people moving to cities. Research on housing design in Pokhara can help to understand the specific challenges and opportunities that arise as a result of this trend, and to develop strategies for addressing them. Climate change, Pokhara is considered as a city highly affected by climate change, and this affects the housing design and planning for the future. Researching on the housing design that is sustainable and resilient to the changing climate can be crucial for the country. Unique geography, Pokhara is a city of diverse

geography, which affects the housing design and planning in different ways. The research on housing design in Pokhara can help to understand the specific challenges and opportunities that arise as a result of this diversity and to develop strategies for addressing them.

Overall, Pokhara offers a unique and dynamic context for research on housing design, with a rich cultural heritage and a wide range of challenges and opportunities. The research can contribute to the development of sustainable and resilient housing design, which is important for the city's future.

## 3.2 Research Design

The research was conducted under 'Descriptive Research Design' because the study describes systematically the planning of house design. The research is to explore the impact of house design on the basis of socio-cultural factors. Various impacts and aspects are coherent in decision making of a physical house design. people and their activities are inherent to architecture. Buildings, essentially social and cultural products, are influenced by the ideas, values, beliefs, activities, relationships and forms of the social organizations that they sustain.

## 3.3 Nature and Sources of Data

Primary Sources: Primary data were collected by interviews and case study to residents of selected site's member as well as their family members to identify the true facts and conditions.

Secondary Sources: Secondary data were collected from books, local periodicals social media, newspaper, magazine, journals, internet search, articles etc. and other published and unpublished reports.

## 3.4 Universe and Sample

"The universe of this study is the population of homeowners in Sarbeshwor Marg, Ward no-4 Pokhara Metropolitan City, Nepal. There was total 50 houses which were taken in to consideration in terms of age, income, religion and occupation, a feasible sample size given the resources and time available for the study. During at that time after interview 12 houses the response was similar so, based on the principle of theoretical saturation interview was concluded.

The sample was chosen to be representative of the population of homeowners in that area. The sample may not be representative of homeowners in other cities in Nepal. The selected houses are a large enough sample size to provide a high level of statistical power, which is the ability to detect real differences in the population. It allows for a diverse range of individuals with different characteristics and perspectives to be included in the sample

## 3.5 Methods of Data Collection

A) Interview was used as the method of data collection. A series of written unstructured questions were asked to respondents to allow for more open-ended answers and responses as per the research needed. Voice recording devices also being used for its accuracy.

B) Case study was another technique of data collection in this study. where cases are systematically relevant with specific individual, group, or situation in order to understand a complex phenomenon. 5 cases studied are made and attached in this study paper.

## 3.6 Method of Data Analysis

In the process of data analysis data which is recorded and transcribe in to its themes, identifying patterns and relationships. Which is converting in to mathematical interpretation to gather necessary outcome related to this study? Secondly, case study was presented in the box with in this study to analyze qualitative data such as transcripts of case study and Interpretation of data that has been collected and analyzed. It involves identifying patterns, trends, and relationships within the data, and drawing conclusions and inferences based on those findings. In the context of research on house design through interviews and case studies.

# CHAPTER IV

# INFLUENCE OF THE SOCIO-ECONOMIC STATUS ON HOUSE DESIGN

In this section research highlighted the interrelationships that exist among the significant social factors and cultural factors that influence housing design. Furthermore, housing design is a vital area in the built environment literature that consist of social, cultural and economic factors. However, literature revealed that problem of housing design exists due to the imbalance between these influential factors. This study employed qualitative method design to answer research questions and objectives. Firstly, research investigated the direct relationship between socio-cultural values on housing design. The first objectives addressed as:

## 4.1 The Significant of Socio-Cultural Factors that Influence Housing Design

We know that the built environment can impact people's social connections; certain aspects and design elements of the built environment such as the use of open spaces, seating, and housing clusters are well known to be more conducive to promoting socialization between neighbors Brown, et al., (2009). Some community members have taken initiative and worked with developers and architects to design and build their own sustainable, socially-focused co-housing communities. However, the collaboration needed to implement housing design that promotes social support and connectedness can be perceived as challenging, and of course public health agencies do not normally design or maintain housing Krieger & Higgins (2002).It showed a positive significant relationship between the level of resident participation in house design and the level of residential satisfaction. The significant participatory predictors of satisfaction were number of bedrooms, general house design, development of the brief for the design, arrangement of interior spaces, and selection of finishing materials. Space size and building materials were not significant predictors in this context. Resident participation is a means of ensuring that housing environments suit the lifestyles of users to achieve residential satisfaction. Ensuring that users

participate in house design is a major means of guaranteeing that the housing needs of users are met. Moreover, designing houses that suit the lifestyles of users leads to a high level of user satisfaction. However, Jiboye(2012) indicated that in developing countries, such as Nepal, the majority of public and private residential house design is unsuccessful because the requirements of residents are not sufficiently considered or their residential needs are not met. The participation of residents in house design is not a norm in Nepal but an exception; this condition usually results in low residential satisfaction.

Design is understood as a strategy focused at improving future enjoyment. It affects not just the economy and technological advancements, but also society as a whole. Design's position alongside other intangible assets in value creation has been noted as one that requires measurement of its socioeconomic impact. Design has an impact on society and the economy, yet the phrases "excellent design always provides good value" and "design adds value" do not offer trustworthy or factual data to support this claim. There is minimal proof from the standpoint of the design user or the value recipient, despite the professional designer's discussion of design added value and assertion that it benefits organizations as design maturity matrices. This study highlighted the interrelationships that exist among the significant social factors and cultural factors that influence housing design. Furthermore, sustainable housing design is a vital area in the built environment literature that consists of social, cultural and economic factors. However, literature revealed that problem of sustainable housing design exists due to the imbalance between these influential factors. This study employed qualitative method design to answer research questions and objectives.

It is known that formation of dwellings and architectural forms is affected by a wide spectrum of factors, and that the characteristics of dwellings are not only determined by physical influences or factors but also shaped by the results of all socio-cultural factors within the society. The design of the house is influenced by both cultural values and choices. House reflects rules, norms and social relationship.

Housing Design Housing is a residential setting that offers equipment, the physical structure, amenities, shelter, and gadgets that are necessary for social well-being to its residents. By studying the connection between society and the built environment, we

could determine how architecture, as well as the larger built environment, is used as an instrument of social control. It is not just a question of 'society's' ideas and beliefs being incorporated into built form. True, some ideas and behavior are shared by all members of a particular society (indeed, it is partly these that distinguish them as belonging to the same culture); others, however, are not. The social distribution of ideas, knowledge or values is equally important. So, on the basis of whose ideas, whose beliefs, who's values or whose view of the world are decisions based? These questions can be asked equally about any aspect of the built environment today.

It is believed research related to this topic would be useful in the sense that it will try to establish what is common to all men as humans and social beings and what is unique to them as individuals, or as members of any one society or culture. The result would not only bring a possible social explanation of built form but the way in which built form can be used to understand society and its institutions. Design consumers assess the worth of a design based on their own subjective values, attitudes, senses, or perceptions as well as cultural narratives. People's activities in relation to information that is translated from and provided by objects and services are guided by perception and cultural narrative. Although design action and its outcomes have an impact on the economy, the environment, and society, they also change people's habits, attitudes, and behaviors over time. However, the value that design's products and services bring to society outweighs how design's quality and usage of products and services affects our sense of enjoyment and contentment in the material world. It is more than obvious that buildings and the entire built environment are essentially social and cultural products. Buildings result from social needs and accommodate a variety of functions: social, political, economic, religious and cultural. Their size, appearance, location, and form are governed not simply by physical factors but by a society's ideas, it's forms of economic and social organizations, it's distribution of resources and authority, its activities, and the beliefs and values, which prevail at any one period of time. As changes in the society occur, so too does change in its build environment. New building types emerge as old ones become obsolete. Some buildings are modified, extended and take on different functions; others may simply disappear. Society produces its buildings, and the buildings, although not producing society, help to maintain many of its social forms.

And as a result, if we are to understand buildings and environments, we must understand the society and culture in which they exist. Not only will this help contribute to the development of methods for designing with intent, furthermore generating design patterns for environmental and social behavior change, but it will contribute to emphasizing the importance of inter-disciplinary collaborations in general, and sociology and architecture in particular.

This study examines the relationship between residents' level of participation in house design and level of residential satisfaction in Pokhara, Nepal. According to the study, there is a strong correlation between the degree of resident involvement in home design and residential satisfaction. The number of bed rooms, general house design, creation of the design brief, organization of interior space, and choice of finishing materials were important predictors of happiness. However, it is noted that in Nepal, resident participation in house design is not a norm and often leads to low residential satisfaction. The study also highlights the interrelationships that exist among the significant social factors and cultural factors that influence housing design, and the importance of considering these factors in sustainable housing design. The research method employed is qualitative.

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**Case No 1**

*The study is based on a narrative description of an interview conducted with a retired school principal named Mr. Parajuli, who is the owner of the house in question.*

*The interviewee, Mr. Parajuli, reveals that the construction of the house was a new experience for him, as he had to build it after his family separated. He states that the construction began with suggestions from relatives and family friends, and the best ideas were applied. Financially, he had to sell some of his land to fund the construction.*

*The location of the house is in the heart of the city, and Mr. Parajuli mentions that the ground floor was intended for rental income and the first floor for family use, which is why wide and open rooms were constructed. He also states that the interior design, architecture, and home decor were unfamiliar to him at the time. As the family grew and their needs changed, he realized that the design of the house was incomplete, and that there was a need for private rooms, study areas, and other spaces.*

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*The interviewee's wife mentions that her main concerns during the design process were the structure and budget of the house, as well as the need for individual rooms for each family member and a large kitchen space. The elder son mentions that he was too young when the house was built, but he requested his own private room for his study and friends, which his parents agreed to.*

Overall, the findings of the study suggest that the design of a house is not only a dream but also a necessity, driven by factors such as budget and lifetime earnings. The location of the house also plays a role, as people often expect to earn rental income from it. Health, security, and privacy are also important considerations, but are often overlooked. Additionally, factors such as religious beliefs and social relations do not play a significant role in the decision-making process.

## 4.2 The importance of Considering Social Value in the Design of Houses

Social value is the quantification of the relative importance that people place on the changes they experience in their lives. It is important to consider and measure this social value from the perspective of those affected to house design. It is a core principle in architecture, but how can it be balanced with other key considerations such as economics and social norms?

We believe that social value has a huge potential to help us change the way we understand the society around us, and make decisions about where to invest resources. By changing the way, we account for value    that have fond of discovering the relationships and variety of factors that determine certain choices related to architecture, design and even lifestyle. And it is believed that to be very little connected to philosophical inclinations.

The design of the house should be followed as per other's style and current demand that society we cannot escape current trend of market place and even the location which situated purely for business purpose and we just can't build house only for residence purpose. Somehow it influences to increasing monthly revenue throughout the design for rental income.

The connection between architecture and society is obvious and even though sometimes ignored, it is something that we have to keep in mind whenever we want to build or design something for people other than ourselves.

Buildings, essentially social and cultural products, are influenced by the ideas, values, beliefs, activities, relationships and forms of the social organizations that they sustain. Society produces buildings, and the buildings, although not producing society, help to maintain many of its social forms.

But don't you sometimes wonder that maybe our physical environment influences the way we live together and behave toward one another in social situations such as housing, work, school, health care, and that buildings influence and become influenced by society and its organizations, as well as by human behavior.

Social value, which is the quantification of the relative importance that people place on the changes they experience in their lives, should be measured from the perspective of those affected by the design. Balancing social value with other key considerations such as economics and social norms is important. The design of a house is always influenced by the current demand and trends in the market place, and that the location of the house should also be considered, especially if it is for business purposes. The buildings are influenced by the ideas, values, beliefs, activities, relationships and forms of the social organizations that they sustain and that society produces buildings and the buildings help to maintain many of its social forms.

*"We after construction of our old house realized that a separate Toilet bathroom for guest as well as attached Toilet bathroom were good for us. Also, a separated guest room would have been better as it is missing in ours.".*

Mr. Parajuli suggested that a separate guest room and a attached toilet bathroom were better which were the missing things in his. A separate guest room as a social value also has some effects in house design too.

## 4.3 Cultural Influences on Architectural Design of House

Culture shaping architecture is a very inherent concept. But we usually tend to overlook this concept or idea. In order to truly understand this concept to understand what culture is? Culture is defined as the ideas, customs and social behavior of

particular people or society. The behaviors we are accustomed to and have been taught are the factors determining the kind of spaces we need to live in.

Now let us try to understand architecture in its basic form. Architecture is the designing of space to fulfill certain functions based on the needs of the users. The user's needs arise based on their activities, which are all well defined by their culture. Their practices and beliefs dictate what their living and gathering spaces should be like. At times, architecture becomes a direct expression of culture and/or beliefs.

Among the foremost things that decide the role of architecture or space, culture plays a very significant role. The location of a space, the size required for that function and the way through which it connects all are aided by the basic cultural significance space is being designed for. Space and culture are interlinked together to the extent that space cannot be analyzed without that factor coming into play. First, space is formed based on certain cultural requirements, later it may even influence some changes in the existing culture.

This is a pivotal reference source for the latest research on the impact of culture on architecture through the aspects of planning and production, and highlights the importance of communicative dimension in design.

Cultural beliefs and architecture have been recognized as having a strong relationship. However, a gap in knowledge exists regarding the interaction between culture and spatial organization in domestic house design the impact of cultural factors in forming and designing detached houses and apartments in Nepal. Specifically, this article aimed to explore the socio-cultural impact of privacy on spatial hierarchy in order to ascertain socio spatial designs in Nepalese culture.

This research found that cultural factors and overall traditions affect detached housing design more than apartment design in Nepal. Also, cultural beliefs and traditions in Nepal are strongly reflected in people's values, practices, activities, and the level of privacy needed in a given home. Therefore, privacy becomes a social, religious, and personal need that Nepalese domestic architecture should accommodate. Because culture shapes humans' worldviews, and then both culture and worldview build social and personal values to define lifestyle, clearly determine specific activities, and set residents' requirements for the design of the components of space requisite for cultural recognition. This research recommends that housing designers should adapt

to the cultural practices, beliefs, and privacy needs of a given people when designing homes. Future research is needed to replicate the study for an authentic perspective on a cross-cultural basis. Mr. Gurung is a not so religious person but still he pointed out that.

*"We believe that the entrance for the house, if possible, should be from East which is maintained in our house. We have also placed our religious symbols in our Main entrance that guards our home from negative energy."*.

This statement suggests that religious beliefs and cultural values have an influence on the design of the house. It implies that these factors are considered and incorporated into the design process.

## 4.4 Religious Assumptions and Its Influence on House Design

Histories of the role played by religions on architecture can be stretch back thousands of years ago. Religious teachings have shaped the lives of people since prehistoric times. Architecture is both the process and product of planning, designing and construction.

Building first evolved out of the dynamics between needs and means. As human cultures developed building became a highly formalized and respected version craft, this was named as "architecture"

The religion indirectly impacts each and every aspect of life of its follower's architecture is no exemption. Belief in something sacred A distinction between sacred and profane objects. Ritual acts focused on sacred objects. A moral code believed to have a sacred or supernatural basis. Characteristically religious feelings Prayer and other forms of communication with the supernatural. A social group bound together by the above. Religion arises out of the necessity to understand a universe. Religion has acted to complement our scientific understanding and answered to questions too difficult for science by presenting a set of guidelines and rituals as a balance against the destructive side of human nature and key aspect of religion is trying to recreate this order as the religion has its mark on its followers, it indirectly impacts each and every aspect of life of its follower's architecture is no exemption. Religion has been a major source of inspiration for the arts also. In all societies, architecture concretizes religion. The edifices people erect and the spaces they shape support and reflect

spiritual practices and religious beliefs. thus, the abstract religion is concretized by the architecture. The two mediums order the relationships individuals develop amongst themselves and towards nature and the supernatural world, thus providing a framework for daily life. A transformation in religious practice alters the meaning of a religious environment thus in architecture. Thus, both religion and architecture are inseparable from each other and religion has its impact on architecture.

According to Shehab&Mohd (2010), social and cultural variables are important when it comes to family size and Islamic-based family practices, such as those relating to privacy and women who seem to be invisible, which have a key role in the construction of sustainable housing. Additionally, cultural and social activities are not overlooked in the design of housing, resulting in the establishment of such a solution. Religious attitudes and ideas are held in high respect as a tradition. As an alternative to public parks, parks for relative families have been built in every place, where socio-cultural or religious reasons do not justify the free interaction between men and women. Foreigners are not permitted to utilize these gardens; only those who are authorized to communicate in this community are permitted to do so Horn &Skomsvold (2011).

Further more during interview Mr. Gurung who had recently build the house told that:

*"We have separate pooja room in our house whereworshiping and rituals are done".*

It is clear from statement how a separate room is required in house to be set according to their religious belief. Therefor Mr.  Gurung created spaces that are not only functional but also deeply connected to their cultural and religious traditions.

## 4.5Men's Participation in Household Decisions on the Rise

The participation of men in household decisions regarding the design of their homes is on the rise. This trend is driven by a number of factors, including changes in gender roles and societal expectations, as well as an increasing awareness of the importance of involving all members of a household in the design process.

One reason for the rise in men's participation in household design decisions is the changing gender roles in society. In many cultures, men were traditionally seen as the primary breadwinners and were not expected to be involved in domestic decision-making. However, as more women enter the workforce and take on a more equal role

in providing for their families, men are also taking on a more active role in domestic life, including decisions related to the design of their homes.

Another reason for the increase in men's participation in household design decisions is the growing awareness of the importance of involving all members of a household in the design process. Research has shown that involving all members of a household in the design process can lead to more successful and satisfying outcomes, as everyone's needs and preferences are taken into account.

Additionally, as men are becoming more interested in interior design, they are becoming more aware of the design options available to them and more willing to express their preferences and ideas.

In conclusion, the participation of men in household decisions regarding the design of their homes is on the rise. This trend is driven by changes in gender roles, an increasing awareness of the importance of involving all members of a household in the design process and men's interest in interior design.

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**Case No 2**

*The case study is conducted with a retired Indian army member, Mr. Ram Bahadur Gurung, who is building a new house with his family of six. The family, who has been living in a rented house for several years, has recently moved to Pokhara and has a history of socio-cultural and religious beliefs.*

*Mr. Gurung, who is the sole earner and decision maker in the household, has used his retirement fund to plan and build the new house. He has considered factors such as budget and land size in the design process and has chosen to invest in a house rather than a business. Mr. Gurung does not rely on the suggestions of his family members for the design of the house but rather has sought input from family friends and community members.*

*The new house will be a two and a half story building, with the family residing on the first floor and plans to generate revenue through renting out the ground floor. Mr. Gurung's religious beliefs and cultural values also play a role in the design of the house. Overall, this case study highlights the role of the man as the primary decision maker in the design of a new house within the context of socio-cultural and religious beliefs, and financial stability.*

This case study examines the decision-making process for a new house design within a family, focusing on the role of the man in the household. The case study is based on an interview with Mr. Gurung, a retired Indian army member who is building a new house with his family. The study shows that Mr. Gurung, as the sole earner and decision maker in the household, has a significant influence on the design of the new house. He used his retirement fund, considered factors such as budget and land size, and sought input from family friends and community members. The case also highlights the importance of socio-cultural and religious beliefs in the design of a new house and Mr. Gurung's financial stability.

## 4.6 Design in Its Relation to Economic Factors

Building a luxury home in Nepal can be a significant investment. As you plan your custom build, it is important to consider the cost factors that will affect the overall cost of the project. These factors include location, building type, height, quality, number of floors, and construction technology. Techniques like regression analysis, Monte Carlo simulation, and neural networks are commonly used to estimate the costs during the early stages of the project. The shape of the building also plays a significant role in determining the overall cost. A simpler building shape generally results in lower unit costs, but the choice of shape also depends on factors like construction timing, location, and area of the construction site. The shape of the building also affects not only construction costs but also expenses throughout the building's life, including usage and energy costs. It is aims to present indexes that relate to the complexity of the building shape and their impact on construction costs. It also examines the sensitivity of these costs to changes in building dimensions.

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**Case No 3**

*The Thapa family had a difficult transition when they moved from India to their own land in Pokhara, Nepal after the death of the father. The father was the only earning member of the family, and the mother was a housewife, so they decided to use the death compensation fund to build a house in Nepal. They had to start from scratch, and it wasn't easy for them to adjust to the new environment and culture.*

*They initially stayed in a rented house until their son graduated, but the family had a dream of owning their own house. With the help of an uncle, the son started his own*

*business and after three years, they were able to build their own house. However, the land was very limited, and they had to make do with what they had. The house was designed according to the need of the family and the settlement purpose, with suggestions from relatives and friends. They had to think about the practicality of the design and follow some believing factors but it was not possible due to the limited land.*

*Furthermore, they also had to follow the municipality laws and orders while designing the house. As a result, the house was quite congested, with limited space for a garden and parking areas. They didn't have enough money to think about a dream design, so they had to be practical and make do with what they had. Despite the challenges, the Thapa family is grateful to have a roof over their heads and a place to call home. But one thing Mrs. Thapa is serious about Vaastu beliefs she said what ever happened in the past, that was past and, in this house, I do not want to lose any family members so she followed ritual norms and guidelines regarding proper design.*

This case is about a family that, after the death of the father, moved to Nepal and used compensation money to purchase land and build a house. Due to financial and space constraints, the house was cramped and did not include a garden or parking area. The son started his own business to support the family and it took them 3 years to complete the construction. The younger sisters are still in school.Mrs. Thapa is serious about Vaastu beliefs and followed ritual norms and guidelines for proper design in the house not to have any trouble for her family members. We can clearly relate how Economy effects on house design.

## 4.7 Design a House for Rental Income

The design of a house can be affected by rental income because it plays a significant role in attracting and retaining tenants. A well-designed house that is functional, attractive, and easy to maintain will be more appealing to renters and can command higher rent. Additionally, certain features and amenities can also make a house more desirable to renters and affect the rental income. For example, a house with modern amenities like energy-efficient appliances, updated bathrooms and kitchens, and in-unit laundry will be more attractive to renters and may command higher rent. Similarly, a house that is located in a desirable area with good schools, public

transportation, and amenities will also be more attractive to renters and may command higher rent. By considering these factors in the design of the house, the potential rental income can be maximized.

Renting out your home, or even just a room can be a great way to generate some extra income. But you may be wondering, can I rent my home if I have a mortgage? Well, it depends. You may not be able to lease your home with your current mortgage if your lender doesn't allow it or has strict occupancy requirements.

Many people mull over the idea of renting out their homes. They may want the benefit of extra income to save money or pay down debt, or they may see it as an option to selling during a housing slump, a way to wait things out until the economy improves.

The potential benefits and responsibilities of renting out a home as a short-term or seasonal rental. It advises to investigate the rules and regulations for these types of rentals in your town and city before signing up with a short-term rental group like Airbnb. It also states the importance of determining if being a landlord is an obligation you can handle and the responsibilities that come with it such as repairs and maintenance, rent collection, and homeowner's insurance. The passage also mentions the IRS Minimal Rental Use rule and how it affects tax benefits and reporting rental income. It also mentions how renting out a room or entire house can be a way to make enough money to pay the mortgage. The passage also mentions that the development of houses for rent has become an important factor in modern society and goes on to mention the background of the study, definition of the project problem statement, objectives, scopes, project justification, project deliverables and project budget and schedule.

Mr. Parajuli, who is a retired teacher of a government school stated that:

*"My house is located in the city center where we can get good rental income, therefore except for the Second floor where we live, All the other Floors are in rental".*

This statement suggests that the house is located in a central area of the city and that the owner, Mr. Parajuli, had a specific plan for how the house would be used. The ground and First floor to be rented out, as a source of income, while the Second floor

is used by his family. It implies that the house is designed to serve both functional and financial purposes too.

**4.8 Design of the House as per Vaastu Shastra and other Beliefs**

According to Vaastu Shastra, the main door of a house should be located in the fifth pada of the east length of the house (from the northeast corner to southeast corner) as it is the location of the Sun and represents fame and respect for the residents. For east-facing homes, it's important to ensure that the main door entrance is in the middle and not in the south-east or north-east corners, as these are considered unlucky.

The bedroom is an important personal space and Vaastu principles can help create a harmonious and relaxing environment. The ideal direction for the bedroom is the south-west corner of the house, and the ideal bed direction is with the head towards the south or east, so that the legs are towards north or west.

The kitchen should be located in the southeast direction of the home according to Vaastu, as it is the direction of the Lord of Fire. If this is not possible, the north-west direction will also work. All objects in the kitchen representing fire should be placed in the south-east part of the kitchen and should be placed in a manner that makes the person cooking face east.

The ideal location for an underground water tank is north-north east or east-north east, while the best direction for overhead water tanks is south-west or west. Vaastu advises against placing a water tank in the center of the house.

Staircases in east-facing homes should be avoided in the north-east corner and instead placed in the south-east or north-west corner. The staircase should turn in a clockwise direction and no room should be built under it.

Mrs. Thapa Who has lost her husband several years ago and was taking full responsibility of her family replied that:

*"I believe in Vaastu because it ensures the safety and well-being of my family. I am determined to follow possible ritual norms and guidelines to create a properly designed home that will help prevent any future harm to my family and provides harmony."*

From the response we can easily understand that Mrs. Thapa is serious about traditional beliefs related to the design of houses, specifically regarding the "Vaastu" She believes that following the rituals and guidelines related to proper design can prevents the negative happening in her family. It will also bring happiness, harmony and prosperity in the family.

# CHAPTER V

# INFLUENCE OF HOUSE DESIGN ON THE BEHAVIOR AND RELATIONSHIP OF HOUSEHOLD MEMBERS

## 5.1 Exploring the Connection: How Home Design Shapes Family Dynamics

For most Nepalese, the "family" refers to a wide network of extended relationships. Households are often overcrowded with many members from multiple generations. The relations are normally connected through the male side (matrilineal). Traditionally, the living pattern is patrilocal with women moving into their husband's place of residence at marriage. This means couples generally expect daughter(s)-in-law to join the household.

Adults often continue to live in the same household as their parents to start families. There is usually limited privacy in these multigenerational houses. However, as the country modernizes, a greater diversity of living patterns is emerging. Some people may live in households that allocate a level to every generation (i.e., parents on one floor with their children and grandchildren living on the level below them). This provides a greater degree of independence for adult children. Other Nepalese who has a stable income may choose to live as a couple alone whilst continuing to support their parents financially. Nevertheless, while the nuclear family has started gaining preference in urban areas, the multigenerational household is still most common. As unemployment in Nepal is a chronic issue, often a household's main stable source of income is provided by remittances sent by family members who are working in foreign countries. Commonly, this responsibility (as well as the duty to care for elderly parents) falls on the eldest son. Respect for age is a longstanding tradition and value in Nepali society. Children are expected to defer to and obey their parents and older siblings. Some Nepalese believe that as increased independence becomes more accessible, the reverence of elders is decreasing. Every family communicates a little bit differently. However, family communication generally falls into two patterns, defined by the power relationships between people in the family. one of the most

basic patterns, monopoly, where one person is seen as having all of the authority. In this type of family, there is a clear head of the household who is seen as all-knowing, all-powerful, and whose authority cannot be challenged. In many traditional Nepalese societies, this person has often been the father, although in other cultures across the world, the person with complete authority has been the mother, the uncle, grandparents or very often the oldest living person of the family. In families with this power relationship, communication between family members is influenced by power. The person with absolute authority is treated more formally and with greater respect. This also means that most family conflicts come from challenging that authority, like when people speak out of turn or disobey a command.

The opposite pattern from monopoly is equality, where all individuals share in decision-making and have shared roles. In these families, major decisions are discussed and agreed upon, and no one person is seen as having more power than the others. This sort of family pattern leads to communication that is direct, honest, and open.

The decision-making process of house design that guides families in identification of needs and selection of alternatives to meet those needs is heavily dependent on communication process. The family systems theory refers to these shared understandings as family rules. family rules as patterned or characteristic responses, generally unwritten, that are formed over time and difficult to change. These rules fall within a hierarchy and are ranked in order of significance to the family unit. They are created consensually or through conscious and unconscious power struggles among family members. These rules may operate at overt levels (visible to family members) or at covert levels.

In Nepal, the traditional family structure is a wide network of extended relationships, with households often overcrowded with multiple generations. Living patterns are typically patrilocal, with women moving into their husband's household at marriage. However, as the country modernizes, a greater diversity of living patterns is emerging, such as multigenerational households that allocate a level to every generation, and nuclear families becoming more common in urban areas. Respect for age is a longstanding tradition and value in Nepali society and family communication patterns are heavily influenced by power dynamics within the household, with some

families led by a male head of household and others led by a woman or senior family member. Remittances sent by family members working abroad are a common source of income, and this responsibility falls on the eldest son. The decision-making process of house design is heavily dependent on the communication process within the family, with the family systems theory guiding families in identifying needs and selecting alternatives to meet those needs.

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**Case No 4**

*Mr. Shrestha has a strong sense of cultural identity and this is reflected in his desire for a large, centrally located house that can accommodate frequent visits from friends and family. He also places a high value on the privacy and comfort of his senior citizen parents and other family members. The fact that his business is successful and he is economically stable, gives him the freedom to design the house in a way that reflects his cultural and personal values without compromising on practical considerations such as privacy and accessibility.*

*In addition to the architectural design of the house, Mr., Shrestha is also conscious of the surrounding environment and has incorporated features such as parking areas, gardens, and a playground into the design. This shows that he is not only thinking about the practical needs of his family, but also about creating a comfortable and inviting environment for his visitors and community.*

*Furthermore, the man is a main role and decision maker in the family and in his business. He has the ability to make important decisions that affect his family and his community, and this is evident in the design of his house. It not only reflects his personal tastes and values, but also his status as an economically successful and respected member of his community.Overall, the design of the house is an important reflection of the family's cultural identity and values, as well as the man's status and role in the community. It is a testament to his success and ability to create a comfortable and welcoming space for his family and community while also considering practical considerations such as privacy and accessibility.*

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The above case shows that a Mr. Shrestha ethnicity who have migrated to Pokhara. The head of the household is a man who owns a successful business selling plastic products. He values his religious and cultural heritage, and is focused on building a

large, centrally located home that reflects his status and can accommodate frequent visitors and family members. He wants the design of the house to take into account the needs and preferences of all household members, including areas for parking, gardening, and a playground. He also places a high value on the privacy and comfort of his senior citizen parents and other family members

## 5.2 Communication Pattern

The communication pattern of family members can have a significant impact on the design of a house. Some common patterns include:Consensus-based: In this pattern, all family members participate in the design process and work together to make decisions. This can lead to a design that is well-suited to the needs and preferences of everyone in the family. However, it can also lead to delays and disagreements if family members have conflicting ideas.

Hierarchical: In this pattern, one or two family members make most of the design decisions, with input from the other members. This can lead to a more efficient design process, but it can also create dissatisfaction among family members who feel like their opinions are not being heard.

Individual: In this pattern, each family member makes their own design decisions without much input from others. This can lead to a house that is poorly suited to the needs of the family as a whole, as well as conflicts and dissatisfaction among family members.

Overall, the best communication pattern is one that allows all family members to express their needs and preferences, while also ensuring that the final design meets the needs of the family as a whole. It can be beneficial to have a neutral facilitator, such as an architect, to help guide the process and ensure that everyone's voices are heard.

Mr. Parajuli as being the senior and most responsible person of his family responded as:

*"We watch Tv together in living room and together while eating in the Dining room. Mostly group talk and sharing views are done in those times. Also, if any information is to be flown in the family, then we say while dinning together."*

Mr. Parajuli communicated that their family mostly communicate while dinning and also while staying in common room. Mainly if any important notes are to be circulated, they are told While dinning. This shows how the communication Pattern is in their family is.

Family communication patterns can have a significant impact on house design. A family that values openness and togetherness may prefer a more open floor plan with shared spaces that encourage socializing and interaction. On the other hand, a family that values privacy and personal space may prefer a more compartmentalized floor plan with separate rooms and designated spaces for different activities.

Furthermore, the communication patterns within a family can also influence the design of the house in terms of the number and size of rooms, as well as the overall layout. For example, a family that values quiet and individual time may prefer to have more bedrooms and personal spaces. In contrast, a family that enjoys group activities and socializing may prioritize larger shared spaces, such as a spacious living room or dining area.

In addition, the family's communication patterns can also affect the overall aesthetic and style of the house. For instance, a family that values tradition and cultural heritage may prefer a house design that reflects their cultural background, while a family that prioritizes modernity and innovation may prefer a more contemporary design.

Overall, family communication patterns play a crucial role in determining the layout, functionality, and style of a house and it is essential to consider these factors when designing a home that meets the needs and preferences of the family members.

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**Case 5**

*The Adhikari family is a local agricultural family from Pokhara, consisting of parents and two adult children, an elder son and a younger daughter. The family's main source of income is from traditional vegetable farming and they are uneducated. The parents have decided to build a new house for their son before he gets married and to provide a rental income for themselves in their old age. They sold some of their land to finance the construction.*

*The purpose of building the new house is to maintain social standards and to provide a comfortable living space for the family. The design of the house is a mutual understanding between the family members, with a 2.5-story structure, a garden, motorcycle parking, and a tulishi math for praying. The house is facing East and the family consulted a local pandit and followed local government guidelines and contractors' suggestions for the design and construction of the house. The interior design is influenced by the neighborhood and local styles. The family has a strong bond and they worked together to build a home that meets the*

This case study examines the importance of structural and interior design in house design for a local agricultural family of four in Pokhara. The Adhikari families, who rely on traditional vegetable farming for income, are building a new house before their son gets married. They sold some of their land to finance the construction and plan to rent out the ground floor for additional income. The design of the house includes two and a half stories, a garden, motorcycle parking, and a Tulishi math for praying. The house will face east and the family followed local government guidelines and contractor's suggestions for the design and color scheme. The interior design is influenced by the neighborhood and local styles.

This family in Pokhara building a new house for their son before his marriage. They sold some land to finance the construction and plan to rent out the ground floor. The design includes two and a half stories, a garden, motorcycle parking and a Tulishi math for praying. The family followed local government guidelines and contractor's suggestions for the design and color scheme, with interior influenced by the neighborhood and local styles. The case study highlights the importance of structural and interior design in house construction for the comfort and functionality of the space for the residents. The family has a strong bond and they worked together to build a home that meets the needs of all family members, including a child with a mobility impairment, making the house functional and comfortable for everyone.

## 5.3 Privacy

Privacy is a crucial aspect of house design, impacting the overall livability, comfort, and well-being of residents. It is important for families as it allows them to have separate spaces for different activities and maintain boundaries between family members. Additionally, privacy can be a cultural consideration, with many religious and social traditions placing importance on maintaining privacy and separating public and private spaces. Privacy is a fundamental aspect of housing design and should be taken into account when designing homes. Properly designed private spaces can improve residents' overall quality of life, comfort, and well-being.

Studies have been conducted to explore the meaning of privacy and its influence on architecture. Alitajer&Nojoumi (2016) examined and analyzed the relationship between spatial configuration and privacy within a two residential typology: The first was a build without an architect, and the other was a modern dwelling designed by an architect (bungalow) using the space syntax method. The relationship between socio cultural dimensions and spatial configuration in terms of design process, transformation, and

morphological attributes. Explored how to achieve privacy and comfort in multistory buildings in Pokhara. They found that the availability of outdoor private living spaces contributes directly to residents' level of comfort, privacy, and perception of livability.

Privacy is a socio-cultural need, a social value, and a form of cultural meaning. It can be described as a socio spatial aspect that should be considered in design strategies and a means to control space hierarchy Al Thahab et al. (2014), Defined privacy as an interpersonal boundary control process. Privacy controls the relationship between openness-closeness as well as the relationship between accessibility-inaccessibility in which the multiplicity of circulation access enhances privacy.

Privacy is a cultural concept; it is the process of changing boundaries to control interactions between the self and others. It is an important factor for both indoor and outdoor socio spatial design in most traditional Arab settlements. It can be measured by the extent to which residents can control outdoor to indoor visibility, the intensity of their interactions with neighbors, the amount of private outside spaces, and the existence of transitional and intermediate spaces.

Mr. Parajuli replied us following as his view upon privet space:

"*Common Living Room is important but I love my privacy too, I need privet room for my privet work like studying, one to one communication or changing dresses and etc.*"

Mr. Parajuli stated that although common rooms are important for family but privet room or space is also equally important for him.

The significance of privacy in housing design cannot be overstated. This component of culture is linked to our religious traditions widely practiced. The religious, social, and legal foundations of Hindu forbid violations of one's privacy and provide the threshold that separates the public from the private a symbolic meaning. i.e., the front door. Ozaki (2002) surveyed the residents of a new housing prototype. The study revealed that the new house prototype had no privacy. The new home prototype's tenants concerned about the lack of privacy, both auditory and visual. Jiboye (2004) discovered that demographic characteristics have an impact on where people live. Housing features such as the number of bedrooms, bedroom sizes, level of privacy, and overall house size have all been explored by past researchers.

# CHAPTER VI

# FINDINGS AND CONCLUSIONS

## 6.1 Findings

The research highlights the importance of considering social, cultural, and economic factors in housing design. Resident participation in the design process can lead to higher levels of satisfaction and it is important to consider social and cultural factors in sustainable housing design. The study also emphasizes the need for collaboration between architects, developers, and community members to achieve this goal. The cultural practices, beliefs, and privacy needs of a given people should also be taken into consideration when designing homes. Additionally, family structure, religious beliefs and practices, and privacy all play significant roles in shaping architectural design and should be considered in the design process to ensure livable and comfortable living environments.

**Major findings on this research are:**

1. Socio-cultural and socio-economic factors are more important for individual house design, although it is still a framework of architecture.

2. The framework of house design is directly related to the race, ethnicity, and religion of household members.

3. The design of a house is also influenced by the working and surrounding relationships within the family.

4. Socio-economic factors have a direct impact on house design, rather than just the structure of the house.

5. The family structure and status within a community determine the design of a house.

6. Privacy, safety, and security are major factors in house design, rather than just the aesthetics.

7. The senior-most person or leader of the house has a direct impact on house design.

8. The design of a house may be compromised due to rental income expectations.

9. Cultural beliefs and considerations for a traditional 'Vaastu' have a significant impact on the overall design of the house.

10. From another perspective, house design is influenced by the behavior and relationships of household members.

11. The family communication pattern, family bonding, and interpersonal relationships lead to the perfect shape of the house that meets the needs of household members.

12. Age and perceptual factors have a relationship with house design for sustainability, economy, and suitability, rather than just following current design trends.

## 6.2 Conclusions

Although this research was conducted with a small sample of Sarbeshwor Marg, Pokhara ward number 4's families and cannot be generalized beyond this sample, several conclusions can be drawn. The study supports the theory that behavior is influenced by environment; and, in turn, individuals seek to alter the environment to reflect what is meaningful to them. House design is a primary need of human being and adjusting as per their suitability from large scale to small, nuclear family and family bonding and responsibility as well as the social values and religious aspects which determine the entire structure and its development. Comfort is one thing but having limited budget and availability of land and space is major factor that affects design of a desired house for major households.

The purpose of the study is to identify the relationship between household and house design with integration of socio-economic factors that are interconnected and influence in their own as per a personal preference of the decision maker. where those factors interact internally and externally to the decision of household on house design upon the analysis internal factors like safety, security, privacy, members communications, choices of family members on its design, family structure life style and somehow rental income was considered at the first stage of decision-making process of house design on the research area and such commercial areas are actually not suitable for residential purpose too.

It is also noticed that basically, before planning of house generally the decision maker makes some sort of planning, family discussion and came out with a level of conclusion.

Secondly, there comes external factors which are beyond control and initial consideration of discussion among the family i.e., government policies, rules and regulation, neighbor influencing factors and contractor's suggestion for suitable house. After taking all the consideration and advice the only thing at last dependable upon the type of house that is going to be constructed is upon the budget. How that money is going to come either by loan of by selling other property or by the savings. Hence major Factor is the budget upon which the house design also relays as that house design again representing a social status for a household in a society. Only after the economic factors other social factors like religion and cultures are taken in consideration. By which we see there is direct influence of socio-economic condition of a household upon the house design.

Similarly, A house design also has direct effect upon the level of communication in the family as stated in the cased the level of communication is more if there are more common sharing space in the house rather than the personal ones. As while sharing common space there is frequent contact an s upon frequent contact communication occurs which result in sharing and bolding that nourishes socialization too. Having food along with the family in kitchen and discussion in common rooms also helps keep family together and understand different kind of roles different member is playing in the family too.

Hence, we can conclude that the socio-economic status is one of the major factors influencing on house design and again a design has direct effect upon the level of communication that happens in a household.

This exploratory study highlights the need for serious attention to the sociological prospective in residential design. The design of the house is not only structure of the engineer or architecture, where several factors need to be understood and considered for its safety & strong foundation but also emotion of individual family member are there to be study. The culture and ethnicity and religious beliefs should be introduced with the same amount of emotional value of each member in architectural design. Further study with a larger, more diverse sample is necessary before the results of this study can be generalized; however, the results of this study suggest that a key factor in

the success of a residential design is in the ability of the designer to build a trust relation with in the family It is suggested that the methods described in this study is a qualitative one and others methods are also to be look forward for detail result and inclusive approach that will not only establish trust, but also provide the designer with important insights into how to design spaces to best meet the needs of each family. Further testing of this concept would reinforce the literature on territory, self-identity, and place identity.

This study offers only a first-step in programming for residential clients. Further research is needed in the systematic testing of results and comparisons across diverse populations. More study of this process is recommended in order to eliminate redundancies and develop more efficient use of the time spent with client. It is suggested that by developing and standardizing these processes, the quality of service and the perception of residential designers may be enhanced with the public at large.

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# APPENDIX

**Checklist for interview**

**1. Socio-demographic profile of respondents**

**Section A**

Gender

Age

Ethnicity

Location

Education

Marital Status

**Section B**

Household Income

Employment

Family and Dependents

Living Status

Voting Status

Language

Place of Birth

Religion

**2. Socio-economic profile of respondents**

a) Are you local or migrated from somewhere else?

b) How did you plan for the investment in this house?

c) What is your major consideration while designing this house in regards bastu beliefs?

d) Is there is any religious consideration while designing this house?

e) Is this house highly influenced its design to have rental income?

f) Have you ever focused on cultural aspects while its design?

g) How would like to describe your immediate financial status upon a completion of your house?

3. **Behavioral and relationship factors of house holds**

a) Did you live in any other house before this one? if yes, what is difference? (Focusing on comfort of the family

b) Do you share or even shared your room with any other in your family or lived by sharing? If yes) how do you describe bonding and communication with that person during the time of sharing and not sharing).

c) How do you prefer spending time at home in common room or private room?

d) How often do all family members gather and communicate in common rooms?

e) Do all members in your house have private room? yes/no. why?

f) Do you feel by having separate and private rooms decreasing communication and sharing level in the family?

g) How do you describe an ideal house for four people?

h) Are family-spaces open to each other so that tasks can happen simultaneously (e.g., the kitchen and family room visually connected)?

i) What area would you most like to change (or include) as per the choices of your family members within your home? (Name)?

j) j. Is meal preparation a family activity?

k) k. Does the family routinely gather socially in a specific area within your home? (May include more than one)

l) L. Except your own fund is there is any financial support is added from any family members to have a additional design of the house? If how/what?

m) M. Is this house design being influence by the family structure and visiting friends and relatives?

n) How often you face conflict on its design in regards modern style as argued by your family members and your own traditional style.

Thank you for your participation in this study. All answers will be kept confidential.

If you would like to read the resulting analysis from this study, copies of the forthcoming thesis publication will be available upon request.