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Author(s): Madiha Salam

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Indexing



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Psychological Impacts of Architectural Design on Living Spaces

Madiha Salam^{1*}

¹Department of Architecture and Planning,
NED University of Engineering and Technology, Karachi, Pakistan

Abstract

With the advancement of the modern era, architects have seen the architectural spaces as aesthetical masterpieces focusing more on their style, composition, pedigree, form, symbolism, allegory, etc and how wonderful they look from the street. Then there is the design having an impact on its user and its value in terms of cognitive health, functionality and social determinant of mental and physical wellbeing. It is a well-known fact that our environment and surroundings play a vital role on our moods and health. More aesthetically improved, but not very smartly designed space affects our disposition and vigor. This situation leads to various health issues that can easily be curtailed with the proper use of architectural techniques employed. The aim of this research paper is to identify the situation on hand around the city of Karachi and to focus upon the fact that people are socially, morally, ethically, and physically in a state of ultimate distress and how the environment responsive architectural spaces can be wholesome for the human if they are more nearer to natural instincts than phoniness. The adopted methodology for this research was observational with qualitative comparisons of stakeholders with conversational interviews from the context of Pakistan, specifically Karachi. Information for this was gathered through concentrated primary and secondary research methods both qualitative and quantitative.

Keywords: architectural living spaces, built environment, cognitive health, house as a comfort zone, technological interventions

Introduction

In the fast-moving world when everything is under profound effects of technological intrusions, human life, on the whole, has lost a very active connection of their mind, body, and soul. Where technology has put ease in human life, excessive use of this in the long-run has badly affected our health. Mind, body, and soul feeds each other and so well linked that if the connection between any one of them is disturbed, it disturbs a whole life. There must be a balance between the involvement of technology and nature in everything. The imbalance has led us to

*Corresponding author: madiha_salam@ymail.com

this painful situation where humans are suffering from frustration, depression, and mental agony.

Somewhere in the complex process of evolving our living spaces, cities, and roadways, we have become so absorbed in the power of machines, in the pursuits of new techniques of building and new cheaper materials that we have neglected our basic human needs. Our deepest human instincts are violated, and we have almost forgotten the glow and exuberance of being healthy and feeling fully alive. Many contemporary ailments, lack of vitamin D, asthma, hypertension, and neurosis are clearly no more than the evidence of rebellion against our physical surroundings and frustrations of the widening ways between the environment we yearn for and the stiffening artificiality which has enveloped us (Calame, 2019). We have plundered our forests, ripped our hills, befouled our rivers until our wildlife, flora, and fauna are endangered, our traffic ways are lined with commercial hodgepodge and senseless congestions, and we have built our houses tight row on a row with little thought for refreshing foliage, cleanliness, fresh air, and sunlight.

Until the previous century when life was not dependent that much on technology, people lived more decent livings and did not experience any of such surges of diseases and mental states, which seems more like a byproduct of urban living these days.

Now after experimenting and ruining the environment, human has realized that without nature they are nothing, thus many postmodern and contemporary architects are making it their practice to incorporate the natural living with the modern built spaces. There are now trends in green architecture and sustainability that are more focused upon intelligent climate responsive designs and less burdening the building with technological repercussion.

On the other hand, our environment and surroundings play a vital role on our moods and health. More aesthetically improved, psychologically designed space affects our disposition, our vigor and most importantly it also nourishes our soul. Anything around us does upsets our mind, body, and soul directly, not necessarily showing its effects as clearly in the short term but they are as disastrous for us as a ticking time bomb. Since we so readily take our surroundings for granted and rarely bring them to full consciousness, they can influence us very powerfully. Every single space we breathe matters a lot, whether we design our spaces to have positive effects on us, or make them haphazardly which in the future affects adversely on our health, our minds, and ultimately our souls. This does make the architecture a potentially dangerous tool to manipulate people. Thus, it is important to design

spaces with full considerations to achieve intelligent spaces for wholesome living, where we feel the most comfort, the most satisfaction, and the best relaxation for ourselves.

The research focuses on making the house beyond the four walls, envisioned as an entire neighborhood that will serve as a place that is wholesome in every aspect and provides maximum comfort to the residents and neighbors both physically, mentally, and psychologically. This housing scheme would be aimed to be a trendsetter, a benchmark that influences corporate housing schemes and terms of aesthetics, psychological comforts for humans, functionality, and experiences to bring a better living environment. It is also an attempt to find out the problems in our architectural designs and suggests ways to design a salubrious living environment in a neighborhood for Karachi which gives relaxation to mind, body, and soul and enhances the physical, psychological and sociological quality of human living.

House as the Comfort Zone

Since the most comforting space for us is our home, where we as humans want to be at the end of the day, no leisure or luxury around the world is more uplifting than our own home. This research has looked upon designing around the house, maximizing on views and framed vistas that will enhance the five senses of a human being inside the house, moments of solitudes, in its various communal or intimate spaces, or experiencing the surroundings. It works upon the spotlight and coalition of architectural spaces leading to other spaces. It also tries to maintain the privacy of the residences along with feeling openness. This is achieved through alternating courtyards, large communal, semi-private, and socially interactive spaces. The pathways are designed to give a safe intimacy to the users with the surroundings making the flora and fauna playing a vital role in experiencing the spaces, it becomes an enhancer for the senses as well as becomes the natural shading and very well serving the views.

According to research, if houses are in a similar manner to perceive every aspect of a perfect living through a better design than it would be a milestone in decreasing the stress and mental agony a person gets from his day's work by about 70% when he gets back to his home at the end of the day (Gross, [2015](#)).

Builders and developers projects in Karachi focus mainly on generating more money by stacking house units row by row or on top of one another congesting them into small plot sizes. In doing so these developers not only violate by-laws but also violate the essence of human living. They neglect the basic physical and psychological needs of the inhabitants. Nevertheless, in the end, it may be observed

that any physical change leads to environmental change and subsequently has its impact on the social habits of the people which might take either a positive or a negative turn. There are many forces that influence the neighborhoods in the series of experiences they are designed. These experiences are in four-folds, the first is that residents living in these neighborhoods experience the views and vistas from within their house as well as of the surrounding facilities available. The second, residents having the effects of their surroundings on their behavior, moods and psychology impacting upon their mind, body and soul, while the third is the visitors, the transition from the outside to the inside, and last but not the least the passer-by who experiences on the emitting identity (Candill, [1978](#)).

Effects of Built Environment Psychologically

The built environment is a part of the terrestrial and cultural environments. Of concern here is the built environment as part of the habitat of humans. The architectural environment consists of the artificial arrangements of different surfaces of different materials with different pigmentations and/or different textures, illumination, and degrees of transparency and translucency, and the spaces between them. These are the essential variables of design.

The built environment will regard here as the set of adaptations people have made to their terrestrial and cultural environments. The way people structure the surfaces of the world around them affects all interactions between them and the terrestrial environment. It changes the patterns of heat, light, sound, and odors and the mechanical contacts a person experiences.

Whether in country or town, boundaries made of unrelieved straight lines are harsh and lifeless. If lines, shapes, forms, and spaces can be given qualities of movement, life, harmony, gesture, and resolution of dynamic forces, they can bring life- influence to the place building bounds. These qualities, normally found in curves, can also be achieved with hand-drawn straight lines in conversation with each other (Lang, [1987](#)).

The necessity is to design the spaces keeping in mind the psychological repercussions on the human being. If space is not designed according to the ergonomics of the inhabitants' space is a mere failure than being high tech or aesthetically very sound. No design can be just aesthetically great and not much of a mind body and soul relaxant. Trends of high tech buildings with sophisticated mechanical systems that take humans away from nature are disastrous and though they look more comfortable in the short term and puts humans more to ease in the long run affects the human being psychologically and becomes the breeding ground

from the common health issues like stress, frustrations, anxiety, and other cognitive matters.

Nowadays we can design the building in one country to be built in another, regardless of climate, culture, or tradition difference. Such 'international' buildings are made of 'international' materials and have artificially controlled indoor climate, they can therefore be sited anywhere in the world, but they belong nowhere. Forcing ideas on people doesn't make them healthy - it's more likely to embitter them and make them ill, likewise, architecture would not be health-giving, if imposed.

Leighton's model has been founded by certain writers to be a 'convenient handle' for understanding the nature of the built environment with respect to humans Leighton identifies the following needs:

- 1) Physical security,
- 2) Sexual satisfaction,
- 3) The expression of hostility,
- 4) The expression of love,
- 5) The securing of love,
- 6) The receiving of recognition,
- 7) The expression of spontaneity,
- 8) Orientation in terms of one's place in society and the places of others,
- 9) The securing and maintenance in a definite group and belonging to a moral order (Lang, [1987](#)).

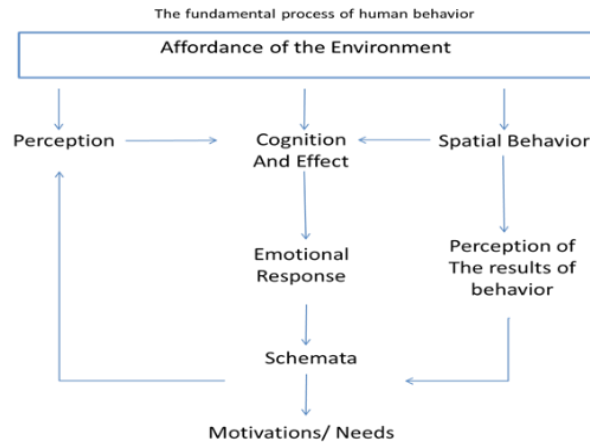
The works of environmental designers are very much influenced by their concepts of human nature. These have varied during history, at one-time people are perceived as being free-willed at another as controlled by their environments. The later view was central to the thinking of the modernist in architecture and remains so in much architectural theory today. During one period people are believed to be rational, at another irrational. This difference is reflected in the differences between the first and second generation modes of the design process. Anthropological, sociological, and psychological research has reduced some of the mysteriousness of human behavior but much remains unknown. Our present understanding does, however; clarify much about the person-environment interface and thus about environmental design.

The environment is potentially rich in affordance for human experiences and behavior. The basic processes involved in the interaction between people and their environment are shown in the figure 1.

Our surroundings and experiences act upon us and educate us and their layouts have effects on us and we in turn affect them. It is a two-way process. Thus a surrounding, environment designed by an architect not only contributes towards the thought process of the residents but also affects their lifestyles.

Figure 1

The Fundamental Process of Human Behavior (Lang, 1987)



Kiyo Izumi (Year??), suggests that some buildings are designed more for the successful functioning of machines and equipment than for the people who run them. In other buildings the needs of people are paramount (see fig. below). He labels the former type "anthropogenic buildings" and the latter type "anthropophilic." In anthropogenic buildings people have to adapt to the conditions: in anthropophilic buildings, the equipment has to be adapted to the conditions of people.

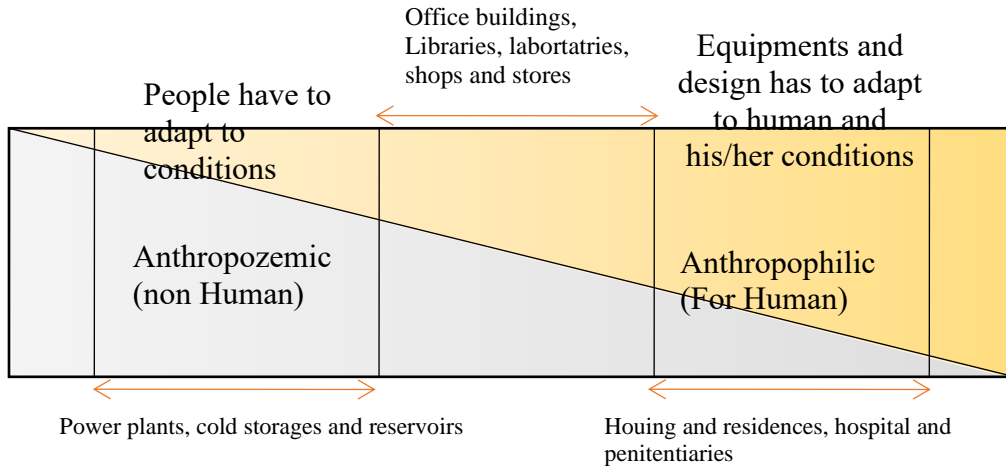
People are socialized differently, growing up as they do it in different geographical and social environments. They differ also in their motivations. They look at the environment and use it differently.

Focusing on some architects around the globe it was noticed that many architects have worked upon concentrating the linkage of nature with architecture, even Christopher day has named a book 'Places of Soul' to define all the spaces which have better connectivity to sunlight, foliage, and other natural resources. According to him, architecture has such profound effects on the human being, on place, on human consciousness, and ultimately on the world, it's far too important to be shaped by short-lived fashion appeal that can have powerful negative effects, personal, social, and environmental, links with ill health, alienation, crime, and

climate change are now well known, but can it, if consciously worked with, have equally strong positive effects. At another place, he mentions that Architecture has responsibilities to minimize pollution, ecological damage, adverse biological effects on occupants, be sensitive to and in harmony with surroundings, and to the human individualities that will encounter the buildings.

Figure 2

How to Design Spaces(Source: (Lang, 1987))



Even aesthetic responsibilities aren't only to visual and sensory experience, but also the intangible but perceptible spirit of place. To be healing, a place must be harmonious. This means fetching change as organic progress so that new buildings seem not forced aliens but inexorably belong where they are, responsive to their surroundings. Healing also involves invisible responsibilities like minimizing off-site pollution. But places-and buildings must be more than that: they must be wholesome to the human being thus while designing we must be very considerate that architecture can either support or damage physical health and mental health (Christopher, 1990).

Another architect Balkisrishna Doshi says he has learned this from Le Corbusier to observe and react to climate, to tradition, to function, to structure, to the economy, and the landscape. To an extent, he also understands how to build buildings and create spaces and forms. In his practice over the two decades, he has discovered that the buildings that he has designed seemed somewhat foreign and out of milieu; they do not appear to have their roots in the soil. With the experience of his work over the years and observation, he is trying to understand a little about his people, their traditions, and social customs, and their philosophy of life to

provide them with the better architecture which belongs to them and they are more comfortable to use it without any implications (Doshi, [1987](#)).

Findings

Psychologists

Human Behavior

According to psychologists' stress, cognition, perception, emotions, and aggressions are some of the factors which affect human behavior mostly, apparently, the environment too plays a very vital role in setting a human behavior.

The Relationship of the Human Mind, Body and Soul

The three are too much interrelated, the coordination between these three is quite vital in determining human thinking and his lifestyle. It's a common belief that a healthy body gives a healthy mind and vice versa whereas both nourishes the soul

Role of Five Senses

The five senses play a 100% role in assisting the mind-body and soul, to keep your senses active we must indulge them inactive activities as they play an important role in controlling the mind and nourishing the body and soul.

Psychological Affects of a House Design

How we live affects our thinking our social and ethical behavior and sets our moods too. Thus, if a house provides a relaxing environment to its occupants the stress level of these occupants would be 80 % less than an occupant whose house does not provide such a vital phenomenon. House must be designed in a manner that it becomes a complete home for its residents because of its good design only.

Types of Spaces Which Can Reduce Stress Levels in Normal Routines

Green spaces, water bodies, open spaces, quite personalized spaces, calm environments all provide a reduction in stress level. This is the only reason women of the house prefer to go out from where they can at least see the sky in the evenings be it a park, their rooftops, or even in their gardens or terraces only. It is necessary to design houses such that natural features or elements are at least viewable from them.

Role of Technology in Our Lives

A balance should be provided between nature and technology; the design must not be done in such a way that it is too heavily dependent on technology only.

Affect of Surroundings, Culture, and Community

Surroundings, culture, and Community individually play an important role in forming the status of the housing. This all matters a lot and affects the human mind-body, and soul psychologically, mentally, and socially.

Overall Comment

It is a good effort to think about housing to be designed in this manner, none of the developers' projects going on throughout the city contain any goodwill for the people, however, through their marketing they show something different. The best part is if a house is designed keeping psychological effects it will play upon its occupants and how they can be made most pleasant it will surely reduce 75% of mental tensions and frustrations which prevails in Karachi a lot these days.

Architects

A client always wants a dream house, it's the architect's duty to make his house as such. The architect must make his best effort to persuade the client and design a house that is both aesthetically good and an intelligent design to be made to the best comforts of the residents. Such designs are always relaxing and provides the users with a house which will satisfy them for always, as clients always want a comfortable and beautiful house. The design of a house matters a lot, each and every enveloped or open space has a different effect on the person's psychology, mind, body, and soul. Every single space we breathe matters a lot, whether we design our spaces to have positive effects on us, or make them haphazardly which in the future affects adversely on our health, our minds, and ultimately our souls. This does make the architecture a potentially dangerous tool to manipulate people. Thus it is important to design spaces with full considerations to achieve intelligent spaces for salubrious living, where we feel the most comfort, the most satisfaction, and the best relaxation for our mind, body, and soul. Since the most comforting space for us is our home, where we as humans want to be at the end of the day, no leisure or luxury around the world is more comforting than our own home. The best way to make a comfortable design is to amalgamate both nature and technology in such a way that the essence of both is given and our resources are not overburdened. Nature always has a therapeutic effect on the human, we must consider this as our basic design tool and incorporate nature so much so that our designed spaces become healthy places to live in, somewhere a person loves to be and his mind, body, and soul are relaxed.

Conclusions

In a conference, a doctor of psychology at Department of Brain Sciences, University of Colorado said “People are largely unaware of the constraints imposed on them by their own cultures in their everyday behavior. The impact of a culture on an individual is mediated by norms- “the patterns of commonly held expectations,”

The architects must design a space that is the need of the community, with all respects such as moral, physical as well and cultural. In a city like Karachi, housing of such a type is a rare sight, here. We as humans have been granted the best position when descended upon the earth, by understanding its superlative natural heritage of twinkling mind, by now we should have created a paradise upon this earth for itself. But what have we done? We are dragging ourselves to more disturbance and mental agony than providing a better home - something nearer to nature, more pleasing, relaxing, and soothing for mind, body, and soul. Due to land value, most of the housing is done in a row to row tightly packed schemes which not only destroy the experiential urges of a human as well as provide a proper and salubrious living to its residents. According to a study, where natural elements and greenery is made part of the neighborhood, the neighborhood very easily saves upon the recreations expenses which in general many pay in form of going too far of recreation lodges to earn the peace of mind which is lost from the normal routine living. Thus, it's a need of time to design housing to provide the ultimate respectable living more nearer to human nature than the artificiality the modern world is prisoned into.

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