

CONTEMPORARY BUILT FORM IN PAKISTAN: AN ANALYSIS OF RESIDENCES AND URBAN AREAS OF LAHORE

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ABSTRACT

The world is changing rapidly on socio, politico and economic grounds. Art is the reflection of societies and the changes in a society are reflected in all art forms. Pakistan is also affected by the global changes and it is the need of the day to conceptually understand the contemporary art of Pakistan. Out of many forms of art, architecture is discussed in this research paper and an effort is made to find the direction in which the contemporary domestic architecture and urban design of the mega cities of Pakistan is heading towards. Data is not only gathered and analyzed from books and already published research papers on the particular and supplementary subjects but, interviews of architects, urban designers and general public have also been conducted in order to get the first hand knowledge about the subject under study.

Keywords: Contemporary architecture, Urban design, Global, Pakistan

INTRODUCTION

The contemporary world is changing rapidly. This change has given new shape to the societies of the world. The rich are becoming richer and poor are becoming poorer with 2.5 billion people living under poverty line today. There is mass migration of population from the south to the north, resulting in change of economy and ecology. Economic growth generally means ecological decline that results in global warming (Jencks, 2000).

As art is a reflection of a society, the change in the societies is reflected in all of the art forms whether painting, sculpture, design, architecture of Pakistan being part of the globe is also affected by these changes and these effects get reflected in the built form of the country. It is the need of the day to

understand the contemporary architecture of Pakistan in order to understand the effect of the global changes and to identify the direction in which the contemporary architecture of Pakistan is heading.

This research paper deals with two branches of architecture i.e. building design and urban design, in the mega or metropolitan cities of Pakistan. Even within the parameters of building design, only domestic architecture is studied. The objective of this research is to analyze the contemporary architecture in Pakistan and understand the reasons behind this practice. The research methodology is based on literature review, qualitative interview of architects and photographic documentation and analysis of architectural projects.

THEORETICAL FRAMEWORK

For the purpose of this paper it is important to understand the term, 'contemporary'. The word, may be described as something belonging to the same time or equal in age (Pathak, 1938). It is also described as concurrent or synchronic with time (Oxford Thesaurus of English, 2006). Another description of "contemporary" is, something which is modern or up to date or ultra modern (Oxford Thesaurus of English, 2006).

Referring to these definitions the one that is closest to the meanings used in this research is, 'ultra modern' or 'post modern'.

Art and architecture of any society depicts the ideology of that society at a particular time. In order to understand current design trends, one has to turn to the philosophy that asks a very basic question, what is truth? or what is reality? The answer to this question will in-fact define what are the current design trends as explained by Architect Kamil Khan Mumtaz in an interview conducted by the author in 2015.

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The modernity project has been part and parcel of modern European history, the history of its political economy, its science and technology and particularly its philosophy. From Descartes through Kant, and Hegel to Marx, European philosophy has moved from speculation on the nature of God to rational analysis of the nature of man, from intuitive and inspirational experience of the abstract, to phenomenal experience of the concrete, from idealism to dialectical and historical materialism, from faith and vision of a heavenly kingdom to altruist ideologies of a utopian fraternity of man, to phenomenalism, existentialism and pluralism. In this process, European philosophy has reduced the truth from, the absolute to self evident cause, to a logical postulate, from mental construct to a relative personal truth and finally to a meaningless game of semantics.

At the same time, modern science began by reducing man, made in the image of God, to man the thinking animal, and then proceeded to de-sanctify his myths and archetypes to the level of the collective subconscious, bringing his loftiest emotions and profoundest thoughts down to the level of animal sensuality and sexuality. It then proceeded to assign even these animal reflexes and responses to the machinations of molecular chemistry and genetic codes.

With each stage in this downward spiral, European man's penetration into the depths of the material, physical, phenomenal world has been reflected in his art and architecture; from the inspired cathedrals and icons of the Middle Ages, to the humanist harmonies and proportions of the Renaissance; from the calculus and perspective of the Baroque; to the analytical and scientific theories and machine aesthetics of the Modern Movement; and from the iconoclastic puns and sensual delights of the Post Modernists to the nihilist anarchy of the De-Constructivists.

Of course there have been other developments as well like secularism, the nation state, democracy and the new social contract. The spirit of inquiry, the scientific, empirical method, the rapid development of the means of production and the means of communications, not to mention the means of destruction, coercion, exploitation and domination, which have enabled man not only to conquer nature but, other men as well, and to acquire much material wealth. Indeed, these are the achievements which have been held up as proofs of the efficacy of modernity, spurring man on to ever greater conquests and acquisitions.

Naturally, all of these developments have had an impact on the non-European world. But this impact has been largely

superficial and has neither penetrated sufficiently into the deepest layers of these cultures nor transformed them to the extent that it has the west. Under an often deceptive veneer of modernity, these cultures have retained much of their traditional values, beliefs and social behavior patterns.

If the understanding of truth is subjective, and relative to time and place and if its representation requires a language and symbols operative in a given collectivity, then for art and architecture to be relevant and meaningful, it must represent the 'truth' as defined within its own specific cultural context, and in doing so must employ a language which is operative in its own specific culture (Mumtaz, 1999).

Up till now, many developments have been made to answer the very basic question i.e. what is reality? The answers are still unknown and even the Quantum physics remained unable to answer this question. In order to answer the question quantum mathematics was evolved that made it possible for the scientists and philosophers to answer, what is reality? e.g. quantum mathematics asks, what is the square root of a negative number?

Physics cannot define the physical universe. It can only describe what it observes, thus nothing is certain. Philosophers say that when nothing is certain, there is no absolute reality, there is no absolute truth. Truth has become subjective therefore, there is no right or wrong and that is the reality of modernism or contemporary (Mumtaz, 2015).

EVOLUTION OF DOMESTIC URBAN ARCHITECTURE OF THE HIGH INCOME GROUPS IN PAKISTAN

Contemporary (domestic) architecture is defined by various contemporary architects, based on their experience and philosophy of design and all definitions are correct. Some of the definitions are given below. These definitions help understand conceptually the contemporary architecture of Pakistan.

Wasif Ali Khan, a Lahore based architect defines architecture as, "I love the geometric patterns inherent in our traditional architecture" (Husain, 2006:221).

Yasmeen Cheema, another Lahore based architect says, "I believe a house should be modest, comfortable, pleasing and built from local materials. I would use a lot more colour today colour is an important part of our culture" (Husain, 2006: 107).

Naeem Pasha, an architect from Islamabad describes architecture as, “I try to communicate the nature, purpose and cultural implications of the architecture I create. My continuing search has been to enable my work to endure as a true expression of our time” (Husain, 2006: 114).

Shaukat Nawaz Raja, an architect from Lahore says, “we cannot negate time and change. Our heritage remains a profound source of inspiration. Well assimilated, it transpires through the most contemporary of our works and behavior, and should do so. That my work reflects Ghoragali, U.E.T. and L’ecole des Beaux Arts, that I imbibe from the strong geometry of the Renaissance as well as the Mughals is only wonderful. I believe my house reflects my beliefs” (Husain, 2006: 162).

Suhail Ashfaq Abbasi from Islamabad defines his house as, “The house was made so that one does not see a completed space, there is always a promise (or surprise) around the corner” (Husain, 2006:196).

The control of many traditional societies in Asia, Africa and Latin America by European Colonial power commenced the process of modernization. As far as the Indian subcontinent is concerned, the dynamics of the societies in different states after independence in 1947 was shaped by cultural dualism, which was a result of hundred years of British rule. This paved the way for contemporary cultural dialogue in Pakistan in which the conflicting cultural demands for modernity and tradition appeared as a core issue but, the individual feelings of architects, builders and clients adjusted the way in which the concept of modernity and tradition has been practiced in architecture.

The feelings of architects were governed by the academic training. Modernization has fractured the local, indigenous and those institutions which had traditionally supported the profession of architecture. When the modern institutions empowered the traditional system of education, it made the architects sensitive towards contemporary European concerns like form, function and aesthetics and made them less concerned about the syntax and grammar of their indigenous architectural heritage.

The feelings of the client show the cultural dualism of the society more clearly. On one hand the westernized client tends to promote architecture which reflects his modern and progressive scientific views and taste. On the other hand there are clients who are clear in demanding indigenous architecture that is deep rooted in their culture and history (Mumtaz, 1999).

In the post modern era of 1980s industrially advanced societies challenged the modernist model. The modernist model was also challenged by the countries of the south but for different reasons. The question of national identity and culture had been closely related to national liberation movements in the Post Colonial societies. The corrupt and materialistic culture and the negative impact of irresponsible industrialization paved the way for emergence of regionalism and demand for alternative strategies for development as global issues.

Most of the architects have not responded to these changes thoughtfully. The old international style became the new international style. The foreign qualified architects, on their return to Pakistan, practiced architecture in Post Modern idiom e.g. Ijaz Ahad, Arshad and Shahid Abdullah, Tariq Hassan, Obaidullah Ghayyur and Amjad Mukhtar. On the other hand, architects such as Ameer Ali Qamar, Qayyum and Willayat khan and Sajjad Kausar have practiced architecture within the regional vocabularies of form for an expression that is relevant to their culture.

There are certain architects who remained indecisive as what style to follow. Despite their academic training, they were motivated to follow the contemporary expression which related to regional realities on one hand and to the meaning of their culture on the other. These architects have two disadvantages; the academic training has never provided them with the base by which they can analyze historical data, traditional design principles and building techniques and secondly they are not provided with the tools for independent scientific inquiry (Mumtaz, 1999).

According to Architect Kamil Kham Mumtaz the west has taken a stand on the bases of the historical experience that they had for the contemporary style of architecture and have followed the philosophy after understanding it. But many of the architects practicing in Pakistan have copied the work without giving serious thought to the native style, technology and methods of construction and planning. Here it should also be noticed that only architects are not responsible for what is going on in the field of architecture in cities like Lahore and Karachi. The client is equally responsible for the crisis. The client being wealthy enough can collect examples from around the world and then dictate the architect to incorporate those elements and style upon the liking of the client and not on merit. This combined practice of the architect and the client has also caused damage to the architecture and built environment of cities.

Urban life in Karachi or Lahore is perhaps more similar to life in London, Paris or New York than to the life in Mirpur Sakro or Chichawatni in Pakistan. As citizens of a metropolis, one is subject to similar tight schedule of work, shopping, entertainment and leisure, but do not face the infrastructure breakdowns of middle sized towns of Pakistan like power shut downs, water shortages and transport crises.

Looking at houses built during the last fifty years in Pakistan, one can see various evolutionary trends. These are not merely stylistic trends but more significantly technical and social trends in the way houses are planned and furnished. What they reflect of the client, his/her families, heritage and gradual assimilation into a global culture. They also reflect insensitivity to certain basic social and environmental concerns.

Life, particularly among the affluent, has changed noticeably over the last fifty years. Kitchens have become cleaner places, with modern appliances, storage cabinets and polished granite counters. Cooking on wooden fire or coal has become redundant. The shift from cooking on noisy kerosene oil stove to today's gas burners, from electronic toaster-ovens to the microwave is related to a long story in a short time of span. From the ice box to the fridge and onto chest freezers is yet another example. Bathrooms are no longer wet area but most elegantly tiled, mirrored and lighted room with sophisticated fixtures and other high-tech accessories.

The old multi-purpose courtyard has virtually disappeared from most city houses. In its place, the T.V. lounge has become the favourite haunt, as a family room and living area all in one, as well as a place for casual visitors. The rooms in our houses including the many bathrooms, are getting larger and larger. Meanwhile, the families are shrinking, and people are getting more heavily programmed for work, outdoor activity and foreign vacations.

As the daily routine and relationships have changed, so have the homes in Pakistan. Where once the occupants were happy with grey or red cemented floors in the hall, terrazzo slab counters in the kitchen, even a terrazzo tub or sink, brass taps, door handles and locks and a simple plastered exterior, the houses today usually support polished marble or granite, or at least ceramic or porcelain tile flooring. Counters have changed from cement slabs first to plastic-laminated tops, then to marble or granite. The fixtures have progressed from brass to chrome to stainless steel to synthetics, to other high-tech alloys and coatings. The exteriors are frequently clad in machine cut blocks or stone, or metal cladding and the windows are glazed in half inch

thick tinted-glass panels.

The houses today are different not just due to new planning concepts and new materials from across the world. The change in social setups is also responsible for the change in house typology with the advent of the nuclear family, fewer children and working women who are away from home each day as long as the men folk. Children are no longer growing up merely to join the family business. They pass high school and want to go to college at distant places. With this phenomenon comes the empty-nest syndrome, large houses recently completed, but the kids are gone and visit the family annually only. So, the houses often have fewer family members but a large number of servants required for the upkeep and running of the houses.

Today's Pakistani house is conceptually different, built with a different intent and purpose. It is not merely shelter, or a place to stay, it is as often a show room for the collection of art work, expensive souvenirs and bric-a-brac. It is a statement of the social arrival of the occupiers. Imported products are flooding the homes along with imported ideas, such as the open plan kitchen, the sky-lit atrium, and a variety of period furniture and ethnically inspired interior from Egyptian to Scandinavian to Chinese to Mughal. More recently, there is a trend to have home-based offices too.

In this process, there is a lack of concern for the waste of precious resources e.g. land, water, electricity, which could have been used more intelligently by building more compact, easily manageable houses. There is rarely a consideration for water recycling to minimize water consumption or properly sized and positioned windows to cut down the dependence on artificial lighting and mechanical means of ventilation, heating and cooling. Walls and roofs are properly insulated to reduce air conditioning costs. There is utter disregard of the abundance of solar energy available in Pakistan.

The houses reflect the social values and cultural scenario. These also reflect the growing sense of insecurity. A good house nevertheless stands out by its functionality, simplicity, judicious and creative use of limited palette of local materials and a degree of environmental consciousness.

According to the interview of Karachi based architect Mukhtar Hussain if the current trend of mindlessly copying the west and ignoring local realities continues then houses of the wealthy in Pakistan will soon be fully computerized, unwired, remote controlled, solar powered homes. The robots will be making the beds and cleaning up and the lights and



Figure 1: Houses in London

air conditioners will turn on and off in harmony with the usage pattern, time of the day and heat gains from the sun, eventually leading to an e-house in which space and energy may be at a premium but modern comforts of various kinds will be available in abundance.

Houses in the UK have pitched or sloping roofs for maximum heat gains as the surface area increases in pitched and sloping roofs (Figure 1). These houses have maximum openings i.e. windows towards the sun in order to attract maximum sun. This aesthetics works for the UK as the techniques used are responsive to the local climate.

The houses in Lahore try to emulate the houses of UK in terms of aesthetics and outlook and have a variety of new materials displayed on the front façade (Figures 2-4). South-west solar orientation is the most challenging orientation in Lahore as the sun is low but still very hot. This makes the solar penetration deep into the buildings through openings like windows and doors. Designing openings towards south-west side is a tricky job. As the job is not done by the designer thoughtfully or the design is dictated by the client, the result is permanently closed windows with drawn curtains. As the heat intake is severe reflective coating and extra protection to cut the glare has to be provided. It looks as if the windows are designed for maximum heat gains just like the houses in UK mentioned above, although the local climatic requirements are different.

Designing houses with pitched roofs also does not the sloping roof has a larger surface area and that means more heat gains through the roof. These roofs seems to have been an



Figure 2: House with South-West facing windows in Lahore



Figure 3: House with South-West facing windows in Lahore



Figure 4: House with South-West facing large windows in Lahore



Figure 5: House with large windows towards South-West



Figure 6: House with pitched roof

inspiration from the west without giving a serious thought to the functionality (Figures 5, 6).

Another house in Lahore uses a different design approach and is based on a climatically responsive design (Figure 7). This example clearly depicts that there are also other ways to design an elevation besides giving large windows illogically. Well designed various architectural elements that are picked from the history and culture of Lahore, along with a logically designed parapet wall enhances the aesthetic and logical value of the design of this house.

CONTEMPORARY URBAN DESIGN OF PAKISTAN

Till the 19th century, the Indo-Pak subcontinent had its own culture. The cities had their own tradition then. For example the walled city of Lahore had *bazaars* (market), *mohallas* (neighbourhood) and *guzrs* (street ways) e.g. Mohalla Kashmirian, Bazaar e Hakimian (Bajwa and Khan, 2013). There was a natural surveillance system by the local inhabitants of a certain area, as there was a mixed development with residence, shops, cottage industry, all located within the same neighbourhood and the people used to move in the streets till late at night. There was an ownership of the area as a clan living in an area did not allow any body to pollute their neighbourhood or to make a social evil. The people used to meet several times a day in the street, in houses, at shops or in the mosque. Everybody knew each other. Social bonding was strong and the kids of a *mohalla* were under supervision of all elders and were trained and educated by all of the elders of the *mohalla*.

This time period was followed by Colonial empowerment. The British came with their own culture and architectural style and as rulers they imposed their culture and style upon



Figure 7: Climatic responsive design of a house

the local context. They designed localities and constructed buildings in the way they knew. Large and open houses with pitched roofs and private lawns were built without giving a serious thought to the climate and culture of cities of Pakistan. Various buildings built by the British in Lahore, for instance, had pitched roofs. Punjab University, Tollinton Market, General Post Office, Lahore High Court and Mayo Hospital.

Town planning and urban design was also done in the colonial way. Sectors or blocks took charge of the *mohalla* system e.g. Model Town, Lahore. Mixed use of the area was changed and land use zoning with residential and commercial sectors was implemented. The residential sectors had residences only and all kind of commercial activity was shifted to the commercial sector e.g. The Mall Road and Liberty Market in Lahore.

The change in the urban design pattern of Lahore also changed the values of the society. The ownership of the area

was diminished to non-existent. Dependence on transport was increased as the houses, offices, shops and schools were located apart (Rahman, 2013). Larger infrastructure was built to support this new development and the city expanded tremendously along with the emergence of a new skyline for Lahore and other cities.

After independence of the sub-continent in 1947, the same urban design patterns were irrationally followed. Byelaws were prepared and the city was expanded on the same pattern as was done in the Colonial time. This became the contemporary urban design of not only Lahore but all of the mega cities of Pakistan.

Over the years Lahore and other big cities of Pakistan have experienced the deterioration of inner city areas and development of amenities and other facilities in the suburbs, resulting in daily commute of many of the inner city residents to the peripheries of the city causing traffic issues. The increasing population of the city, because of rural-urban migration, adds to the woes of commuting. The government relies of the construction of new wider roads to address this issue. The large nuclear houses further add to this trauma and areas like Johar Town, Model Town and Defense Housing Authority in Lahore, Defense Housing Authority and KDA Scheme 1 in Karachi, Sectors E-7, F-7, F-10 in Islamabad, with population density of 160 persons per hectare consume about 80 % of the land and resources (Bajwa, 2013). As the houses in these areas have private lawns, the dependence on public green spaces has reduced to a minimum. Because of this factor when there is a need to cut down trees and reduce the green road shoulders in order to widen the road so that the pressure of the traffic can be accommodated, people accept it whole heartedly without considering the fact that the green plot ratio of Pakistan is 4 % against that of Asia's 25 % and world's 29 %. The widening of Canal Road in front of Punjab University's new campus is a recent example.

Superstores have taken the place of *muhalla* markets or community market. This has also disturbed the sense of ownership and surveillance of the area by the locals. It has also contributed to the loss of the sense of ownership of the *muhalla*. With the loss of land and place ownership, the ownership of the neighbourhood children has also diminished which was once the beauty of the culture of the subcontinent. The natural surveillance by the locals of the passerby has also diminished, as there is no concept of mixed development in the newly designed urban areas of Pakistan. Due to this reason the individual house is bound to have its own security in the form of surveillance cameras and security guards. The

commercial and office areas become deserted after a certain time and become the hub of crime and social evils (Figures 8 - 9). As these areas are not owned by anybody so no one cares about what happens in these areas.

In developments with mixed use planning life initiates very early e.g. Anarkali Bazaar, Androon Lohari Gate Bazaar (Figures 10 - 11). The areas which are designed for a specific purpose like Liberty Market and M. M. Alam Road, remain deserted unless and until the specific activity commences. The commercial activity in Lahore commences in the afternoon and goes on till midnight so from midnight till afternoon, the next day, the purposefully designed commercial spaces are deserted.

The urban design of the Post Modern residential areas of big cities of Pakistan has led to a state of fear, uncertainty and distrust because the design does not promote interaction amongst neighbours. As a result people are unaware of who is living in their neighbourhood. Children are not allowed



Figure 8: Deserted liberty market at 11.00 hrs



Figure 9: Empty parking lot of liberty market at 11.00 hrs



Figure 10: Anarkali bazaar at 11.00 hrs

to play outside because of the lack of surveillance by the elders of the locality (Rahman, 2013). As a result the generations grow up without knowing each other and the cycle continues. This has another implication. As the children are not allowed to play physical games in play grounds (as there are no play grounds in the area or the children are not allowed to go to the play ground), they get attracted to watch television or surf the internet. Besides entertainment, children also learn violence and are becoming mature at an early stage (Figures 12 - 13).

CONCLUSION

As the research paper discusses the term ‘contemporary’, and unfolds the contemporary practice of architecture and urban design in Pakistan, the following conclusions are drawn in the light of the facts that the paper has tried to establish.



Figure 12: A beautiful scene of children playing together which is rarely seen in the contemporary developed areas



Figure 11: Androon Lahori gate at 11.00 hrs

The irrational and illogical following of the west as far as contemporary domestic architecture and urban design are concerned has the following effects on our built environment and urban context.

Larger and open sided houses instead of a compact house as in the Walled City of Lahore, has allowed the harsh sun of Lahore to penetrate into the building from all sides and the roof at maximum. A house built in Lahore’s harsh climate fails to act as a habitable space without the use of mechanical means of cooling. Same is the case with other cities like Karachi, Faisalabad, Islamabad and Peshawar.

In order to look different, many houses in cities like Lahore and Faisalabad have pitched roofs without giving a serious consideration to the fact that about 70 % of the heat gains in Lahore and Faisalabad are through the roof. Pitched roofs



Figure 13: Contemporary developed residential area with no designed space for pedestrians

have larger surface area than the flat roof and a larger surface area simply means more exposure to the sun that ultimately results in getting more heat gains.

Likewise, windows and openings in a house are approached very casually and are designed without giving much consideration to the solar orientation with respect to a particular site. Whereas, correct positioning and size of the window in a house can lessen the need of mechanical lighting, cooling or heating.

Courtyard houses are history now. Courtyard was an important element of the local culture, that was not only used as a device to tie the family in a strong bond but was also an efficient way of ventilation. Irrational following of Colonial houses with open designs and lawns at the front has snatched a cultural element of the traditional house, which was well suited to the local climate.

The contemporary houses have left behind comfort and have become show pieces of art work and expensive souvenirs. The introvert design of the houses has made people isolated from the neighbourhood. It seems that there is a rat race of using new and imported materials and applying new ideas on the façade. In this race, hardly any consideration is given to the local materials and culture. Open plan kitchen and sky lit atriums catch the eye without knowing the fact that these are good techniques for making a house warmer. This was the necessity of the west to trap the heat in order to make their houses warmer against the chilling cold. These

elements have been adopted locally for the sake of being contemporary.

Instead of following the west irrationally, one should have given serious thought to local problems. Conservation of land, water and electricity should be considered while designing a house. Recycling of water is another issue that should be considered seriously.

A global view makes evident that different geographical locations have similar behaviour and cultural patterns of the central plains with cultivable land have a tendency of openness, friendliness and hospitality, and so is the behavior of Lahorites. If one takes Lahore as an example of the mega cities of Pakistan and compares the traditional and contemporary urban design of Lahore, the traditional urban design with mixed use development having compact houses with *bazaars*, *muhallas* and *guzrs* allowed the people to come out, meet, play and relax. The contemporary urban design on the other hand, adopted as a continuity of what was offered by Colonial period, with extrovert house design having private lawns, separate residential and commercial areas, fails to provide the cities of Pakistan with a design that responds to the behavior of Lahorites. Yet, it shows its relevance with the people of cold climate where getting shelter in a warm house is the only option against cold. That is why, even today, though most of people live in the contemporary designed areas they get attracted by the life of the Walled City of Lahore.

REFERENCES

2006, *Oxford Thesaurus of English*. Oxford University Press, Oxford.

Bajwa, K. W. and Khan, A., 2013, 'The Walled City of Lahore: The modes of marginality and specificity of spatial structure and urban life', in Bajwa, K.W. (ed.), *Urban Pakistan: Frames for imaging and reading urbanism*, Oxford University Press, Lahore.

Hussain, M., 2006, *100+1 Pakistani architects and their own houses*, FMNH Architecture, Karachi.

Jencks, C., 2000, *Architecture 2000 and beyond*, Wiley Academy, London.

Mumtaz, K. K., 1999, *Modernity and tradition*, Lahore Oxford University Press, Lahore.

Pathak, R. C., 1938, *Bhargava's standard illustrated dictionary of the English language*, Bhargava Book Depot, India.

Rahman, A., 2013, 'Lahore: Then (1960 and 1980), now (2000) and its future prospects' in Bajwa, K.W. (ed.), *Urban Pakistan*, Oxford University Press, Lahore.